PROGRESS REPORT 2023

Vol.1

VARIETAL IMPROVEMENT

All India Coordinated Research Project on Rice

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PREFACE

ICAR-Indian Institute of Rice Research (IIRR) is a premier rice research institute in the country. ICAR-IIRR through "All India Coordinated Research Project on Rice (AICRPR)" coordinates the multi-disciplinary and multi-location testing of varietal improvement, crop protection and crop management technologies across diverse ecosystems for increasing and stabilizing rice production in India. ICAR-IIRR, ICAR-NRRI and ICAR-IARI being the nodal agencies facilitates collective planning, supply and exchange of improved germplasm and experimental material, for evaluation, trial monitoring, data collection, compilation, analysis and documentation. ICAR-IIRR, ICAR-NRRI and ICAR-IARI have monitored the conduct of trials at some of the funded and voluntary centres in their respective ecologies both in virtual and physically. More than 300 scientists at 45 funded cooperating research centres and about 73 voluntary centres affiliated to various State Agricultural Universities, State Departments of Agriculture, ICAR Institutions and private sector organizations carried out the planned activities of Breeding, Entomology, Pathology, Agronomy, Soil Science and Plant Physiology disciplines.

The results of 38 breeding and 4 hybrid trials conducted at various locations across the country during *Kharif,* 2023 are presented in this volume. Developing varieties/hybrids with biotic/abiotic stress tolerance and desirable quality that are suitable for the diverse ecologies is a challenging task for the rice breeder which is pursued with utmost perseverance. Determined efforts are being made to usher in green revolution to eastern India by testing and validating suitable varietal technologies for the prevalent fragile ecosystems like rainfed uplands, lowlands, semi-deep and deep water ecologies. Varieties for different soil stresses and cold tolerance for high altitude areas under upland and irrigated conditions is also being addressed. Conventional and molecular breeding approaches are being utilized to break the stagnated yield barrier in the irrigated ecology which contributes >60% of total rice production. Efforts are also underway towards developing rice hybrids with higher heterosis levels among various duration groups, and medium slender grain type hybrids to satisfy the needs of discerning south Indian farmers and consumers. Another priority area is the development of export quality basmati and indigenous short grain aromatic varieties with essential quality characters to meet the preference of both export and domestic markets. Further, Near Isogenic Lines (NILs) developed with resistance to biotic (blast, bacterial blight and gall midge) and abiotic (drought and submergence) stresses are under testing. While emphasis on boro rice improvement continues, efforts to identify material suitable for newly emerging challenges like limited water situation are also being addressed through aerobic trials. Additionally, on pilot basis, trials have been initiated on "New Plant Type (NPT)" and "Nutrient Use Efficiency (NUE) – Nitrogen and Phosphorous". Breeder seed production of 472 rice varieties was organized at 46 locations as per the DAC indents. Additionally, the strong partnership with IRRI, Philippines provides access to global elite rice germplasm with the exchange of breeding lines through "The International Network for Genetic Evaluation of Rice (INGER)". Delayed monsoon has been a regular phenomenon owing to climate change therefore; efforts are being made to identify suitable varieties for late sown conditions.

I greatly appreciate the efforts of the principal investigator, scientists, technical, administrative, project and field staff in the Plant Breeding team of this Institute and all the cooperating scientists from both funded and voluntary centres for bringing out this volume.

17/4/24

(R.M. Sundaram)
Director

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SUMMARY

ICAR-Indian Institute of Rice Research (ICAR-IIRR) conducts and coordinates multidisciplinary and multi-location evaluation of elite cultures, crop management and crop protection technologies in different agro-climatic zones of the country under All India Coordinated Rice Improvement Project (AICRPR) to enhance rice production. A total of 42 trials (38 varietal trials and 4 hybrid rice trials) were conducted in 1010 experiments (876 varietal and 134 hybrid rice) at 121 locations (42 funded, 79 voluntary centres) in 28 states and 2 union Territories across seven zones of the country during 2023 which is the 59th year of AICRPR testing. Hybrid rice experiments were also conducted by 10 private seed companies. The 38 trials were constituted with 1263 entries (1001 varietal and 75 hybrid rice) including 166 checks. The overall data receipt was 87.0% of which 91.1% and 81.0% data was received from funded and voluntary centres respectively.

The MAS products with introgressed genes/QTLs conferring tolerance/ resistance to drought, submergence, salinity, BLB and blast are verified and validated in trials on Near Isogenic Lines. Improvement in grain quality along with high yield potential was focussed in Basmati and Aromatic Grain Type trials. Alkaline and inland saline as well as coastal saline tolerant variety trials are evaluated to identify the stress tolerant elite cultures. In view of the growing water scarcity, Aerobic trials were constituted to identify appropriate genotypes for aerobic method of rice cultivation. Separate NPT trial was conducted to evaluate the yield performance of entries derived from *indica*/tropical *japonica* crosses with ideal plant type traits including strong culm, more grain number with low unproductive tillers. The genetic improvement of rice genotypes with tolerance to low phosphorus and nitrogen was addressed to minimize usage of nitrogenous and phosphatic fertilizers thereby reducing cost of rice production.

LIST OF COORDINATED TRIALS, KHARIF 2023

Varietal Trials				Hybrid Trials
Ecosystem	**AVT 2**	**AVT 1**	**IVT**	**IHRT**
Rainfed Upland- DS		AVT 1-E DS	IVT-E-DS	
Rainfed shallow lowland		AVT 1-RSL	IVT-RSL	
Semi-deep water			IVT-SDW	
Deep water			IVT-DW	
Early - TP	AVT 2-E TP	AVT 1-E TP	IVT-E TP	IHRT-E
Mid Early	AVT 2-IME	AVT 1-IME	IVT-IME	IHRT-ME
Medium	AVT2–IM	AVT1–IM	IVT-IM	IHRT-M
Late	AVT 2 & 1–Late		IVT–Late	
Boro		AVT 1 & IVT - Boro		
Basmati		AVT 1-BT	IVT-BT	
Aromatic grain type			IVT-AGT	
Saline alkaline	AVT 2-AL & ISTVT	AVT 1-AL & ISTVT	IVT-AL & ISTVT	
	AVT 2 & IVT-CSTVT			
Hills			IVT-E(H)	
		AVT1-M (H)	IVT-M(H)	
			IVT-U(H)	
Japonica			IVT-J	
Aerobic	AVT2-Aerobic	AVT1-Aerobic	IVT-Aerobic	
Medium Slender Grain	AVT 2-MS	AVT 1-MS	IVT-MS	IHRT-MS
Bio-fortification		AVT 1& IVT-Biofort		
Near Isogenic Lines (CS)		AVT 1-NIL (CS)		
Near Isogenic lines (Drt)		AVT 1-NIL (Drt)		
Near Isogenic lines (Sub)		AVT1-NIL (Sub)		
Near Isogenic Lines (Bl, BLB)		AVT 1-NIL (Bl & BLB)		
Near Isogenic lines (Herb)		AVT 1-NIL (Herb)		

Varietal Trials				Hybrid Trials
Ecosystem	**AVT 2**	**AVT 1**	**IVT**	**IHRT**
Low Phosphorus Tolerance	AVT 2-LPT	AVT 1-LPT	IVT-LPT	
Low Nitrogen Tolerance	AVT 2-LNT	AVT 1-LNT	IVT-LNT	
Colured Rice			IVT -CR	

Particulars of Zones, States and test Locations

Region / State	Locations	
	Funded	**Voluntary**
ZONE I – HILLY AREAS		
North Western Hills		
Jammu & Kashmir	Khudwani (1)	Rajouri, Wadura, Pombay (3)
Himachal Pradesh	Malan (1)	Palampur, Dhaulakhan, Sundernagar, Bajaura (4)
Uttarakhand		Almora, Bageshwar, (2)
North Eastern Hills		
Manipur	Wangbal (1)	Imphal-CAU (1)
Nagaland	Kohima (1)	
Sikkim		Gangtok (1)
Meghalaya	Upper Shillong (1)	ICAR-Umiam, CAU-Umiam (2)
West Bengal		Kalimpong (1)
Southern Hills		
Karnataka	Ponnampet (1)	Sirsi (1)
ZONE II – NORTHERN		
New Delhi		IARI- New Delhi (1)
Uttarakhand	Pantnagar (1)	
Punjab	Ludhiana (1)	Gurdaspur, Kapurthala, Rauni (3)
Haryana	Kaul (1)	Karnal (CSSRI), Palwal, Jind, Anjanitel,Kurukshetra, Panipat (6)
Uttar Pradesh	Nagina, Kanpur (2)	
Jammu & Kashmir	Chatha (R.S. Pura) (1)	
Rajasthan	Kota (1)	Banswara (1)
ZONE III – EASTERN		
Orissa	Jeypore, Chiplima (2)	Bhubaneswar, NRRI (Cuttack), Ranital (3)
Bihar	Bikramganj (Patna), Pusa (2)	Patna- ICAR, Sabour(2)
Jharkhand	Ranchi (1)	Hazaribagh (1)
West Bengal	Bankura, Chinsurah (2)	Canning, Pundibari, Chakdha, Hathwara (4)
Uttar Pradesh	Masodha ,Ghaghraghat, Varanasi (3)	Lucknow, BEDF-Modipuram, Gautam Budha Nagar, SVPUAT, Meerut (4)
ZONE IV – NORTH EASTERN		
Assam	Titabar (1)	Gerua, Karimganj, Shillongani (3)
Manipur	Wangbal (1)	Lamphalpat, (1)
Tripura	Arundhutinagar (1)	Lembucherra (1)
ZONE V – CENTRAL		
Madhya Pradesh	Rewa (1)	Waraseoni, Jabalpur (2)
Chhattisgarh	Raipur, Jagadalpur (2)	Bilaspur, Ambikapur (2)
Maharashtra	Sakoli (1)	Sindewahi (1)
ZONE VI - WESTERN		
Maharashtra	Karjat, Tuljapur (2)	Panvel, Radhanagari, Shirgaon, Phondaghat, Vadagaon, Parbhani, Palghar (7),
Gujarat	Nawagam, Navsari (2)	Derol, Vyra, Danti, Dabhoi, (4)
Goa		Goa (1)
ZONE VII - SOUTHERN		
Andaman & Nicobar		Port Blair (1)
Andhra Pradesh	Maruteru (1)	Ragolu, Bapatla, Machilipatnam, Nellore, (4)
Telangana	Rajendranagar, Warangal (2)	IIRR, Jagtial, Kunaram, Rudrur, Kampasagar (5)
Tamil Nadu	Aduthurai, Coimbatore (2)	Trichy, Annamalainagar, Tirur, (3)
Kerala	Moncompu, Pattambi (2)	Vyttila (1)
Karnataka	Mandya, Mugad, Ponnampet, Brahmavar, Gangavati (5)	Sirsi, Malagi, Kumta (3)
Puducherry	Kurumbapet (1)	Karaikal (1)
Total locations	**45**	**79**

IRRIGATED ECOSYSTEM

AVT 2- E TP

Advance Variety Trial-2 Early Transplanted (AVT 2- E TP) was constituted with fifteen test entries including 10 hybrid entries in 3rd year of testing along with four checks and evaluated at 49 locations. Based on three years performance of test entries, IET 29694 is found promising for Rajasthan, Haryana, Bihar, Chhattisgarh, Gujarat and Telangana. IET 29690 is considered promising for Uttar Pradesh, Bihar, Chhattisgarh, Maharashtra, Telangana and Haryana. IET 29691 is found promising for Bihar and Chhattisgarh. IET 29692 is considered promising for Bihar, Chhattisgarh, Maharashtra and Karnataka. IET 29692 is considered promising for Telangana, Bihar, Chhattisgarh, Madhya Pradesh and Uttar Pradesh. IET 29940 is considered promising for the states of Rajasthan, Bihar, West Bengal and Chhattisgarh. IET29947 is found promising only for the state of Bihar. IET 29696 is considered promising for Uttar Pradesh, Bihar, Odisha, Chhattisgarh and Telangana. IET 29939 is considered promising for the states of Haryana and Bihar. IET 29975 is considered promising for Bihar. IET 28956 is considered promising for the states of Odisha, Uttar Pradesh, Maharashtra and Chhattisgarh. IET 28965 is considered promising for the states of Maharashtra and Bihar. IET 28123 is considered promising for the states of Bihar, Uttar Pradesh and Odisha.

AVT 1- E TP

Advance Variety Trial-1 Early Transplanted (AVT 1- E TP) was constituted with fifty two test entries including hybrid entries in 2nd year of testing along with four checks and evaluated at 49 locations.

Based on the superior performance, the following entries are promoted zone wise to AVT2-E TP. The performance of the NIL entries (IET's 32036, 32037 and 32038) in the background of ADT-45 is discussed in CSTVT trial.

The following entries are promoted to AVT2-ETP

- IET 30641: Promoted in Z-II, III& V
- IET 30642: Promoted in Z-III, V& VI
- IET30651: Promoted in Z-II
- IET30636: Promoted in Z-II, III, IV, V, VI &VII
- IET30565: Promoted in Z-II& VII
- IET30555: Promoted in Z-II& VII
- IET30561: Promoted in Z-II& VI
- IET30656: Promoted in Z-III
- IET30657: Promoted in Z-II, III, V& VII
- IET30669: Promoted in Z-III, V& VII
- IET 30690: Promoted in Z-III&V

IVT-E-TP

Initial variety trial - Early Transplanted (IVT - E TP) was constituted with 61 test entries and 3 checks and evaluated at 49 locations.

Based on the superior performance, the following entries are promoted zone wise to AVT-1-E-TP.

List of the entries promoted to AVT1-ETP

Overall: IET 31519, IET 31509, IET 31557 and IET 31501
Zone II: None of the entries promoted
Zone III: IET 31509, IET 31510, IET 31512, IET 31515, IET 31553, IET 31557, IET 31552, IET 31550
Zone IV: None of the entries promoted
Zone V: IET 31557
Zone VI: IET 31512, IET 31515, IET 31540, IET 31533, IET 31519, IET 31577
Zone VII: None of the entries promoted

AVT 2 -IME

Advanced Variety Trial 2- Irrigated Mid Early (AVT-IME) was constituted with fifteen test entries including six varietal entries (including one repeat entry) and five hybrid entries in the third year of testing along with two NILs for submergence and two NILs for BPH along with two recurrent parents (RP) viz., ADT 39 and Naveen respectively, and tested in 52 locations

Based on three years' performance of the entries in AVT2-IME

- IET 29822 is found promising for West Bengal.
- IET 29808 is found promising for West Bengal and Kerala states.
- IET 29188 found to be promising for only West Bengal state.

AVT 1-IME

The AVT1-IME trial was constituted with 11 hybrid and 17 varietal in the second year of evaluation, 6 near isogenic lines (NIL) and 2 genome edited lines (GEL) are in the first year of evaluation.

The performance of the GEL entries are discussed separetly.

The following entries are promoted to AVT2-IME

- IET 30704: Promoted in Z-II
- IET 30575: Promoted in Z-III & VII
- IET 30577: Promoted in Z-III, V & VII
- IET 30574: Promoted in Z-II, III & VII
- IET 30587: Promoted in Z-III
- IET 30593: Promoted in Z-III, IV, V & VII
- IET 30573: Promoted in Z-III, IV & VI
- IET 30756: Promoted in Z-III
- IET 30578: Promoted in Z-III, IV & VII
- IET 30589: Promoted in Z-III
- IET 30579: Promoted in Z-III

- IET 30576: Promoted in Z-VII
- NILs promoted for second year of testing in AVT2-IME: IETs 32045 and 32046

IVT-IME

Initial variety trial –Irrigated Mid Early (IVT- IME) was constituted with 61 test entries and 3 checks

List of the entries promoted to AVT-1-IME

Overall: IET 31603, IET 30713, IET 30692, IET 31589
Zone II: None of the entries promoted
Zone III: IET 30649, IET 30713, IET 31572, IET 31603
Zone IV: IET 31608, IET 31561, IET 31594, IET 31587
Zone V: None of the entries promoted
Zone VI: IET 31603
Zone VII: IET 31603, IET 31589 and IET 31582

AVT 2-IM

AVT-2-IM trial constituted with 17 entries (11 test entries: 5 are hybrid entries and 6 are varietal entries), one NIL and checks included NDR359 as national check (NC), PR121 in northern, CR Dhan 300 in eastern and north eastern, Karma Mahsuri in central, Akshaydhan in western and Jaya in southern as zonal checks (ZC), HRI-174 as hybrid check (HC), local check (LC) and Gangavati Sona as Recurrent Parent (RP).

11 Entries are in the third year of testing in AVT 2-IM trial

- IET 29284, **a varietal entry is considered promising for the state of Karnataka only**
- **IET 29833, a varietal entry is considered promising for the states of Bihar and Telangana**

IET 30757 (RP 6697-P.N.24-14) is in second year of testing derived from the cross of Gangavati Sona*^{2}/Improved Samba Mahsuri possessing genes for Bacterial Leaf Blight resistance found promising for the state of Karnataka only.

AVT 1-IM

AVT-1-IM trial consisted of 31 entries which include 9 varietal test entries, 11 hybrid entries, 5 Near Isogenic lines, 2 recurrent parents and 4 checks included viz., NDR359 as national check (NC), PR121 in northern, CR Dhan 300 in eastern and north eastern, Karma Mahsuri in central, Akshaydhan in western and Jaya in southern as zonal checks (ZC), HRI-174 as hybrid check (HC) and a local check (LC).

Entries promoted to third year of testing in AVT 2-IM:

Zone		Promoted to AVT 2-IM
II (Northern)	:	IETs 30608 and IET 30603
III (Eastern)	:	IETs 30604, 30617, 30608, 30605, 30620, 30772 and 30819
IV (North Eastern)	:	None
V (Central)	:	None
VI (Western)	:	None
VII (Southern)	:	IETs 30604, 30603, 30620 and 30819

Eight entries viz., IET's 30603, 30604, 30605, 30608, 30617, 30620, 30772 and 30819,

Two Near Isogenic Lines namely IET 32047 (Recurrent Parent: WGL 14) and IET 32051 (Recurrent Parent: Jaya).

IVT-IM

The trial is constituted with 61 test entries and three checks tested across 48 locations in six zones (II, III, IV, V, VI, VII)

Promoted

Overall: IET 31638, IET 31641, IET 31643, IET 31633, IET 31618, IET 31659.

Zone II: IET 31630, IET 31673, IET 31629, IET 31644, IET 31672, and IET 31654

Zone III: IETs - IET 31618, IET 31619, IET 31623, IET 31630, IET 31633, IET 31637, IET 31638, IET 31639, IET 31640, IET 31643, IET 31655, and IET 31659

Z V: IET 31643, IET 31638

ZVII: IET 31618, ET 31638

Shifts:

Late:

Z II: IET 31637**,** IET 31659**,** IET 31633**,** IET 31649**,** IET 31625, IET 31626, IET 31646, IET 31668, and IET 31636

ZIII: IET 31616, IET 31632 and IET 31641

IME

ZII: IET 31635, IET31648, IET 31657, IET 31662, and IET 31660

AVT 2 & 1 LATE

None found promising

IVT (Late)

IVT-Late trial constituted with 64 entries was sent to 31 locations across the country. The 64 entries included 59 test entries, 4 checks and one observational check (MRP 5222). AVT-1-Lis as listed below.

List of entries promoted to AVT-1-Late
Overall mean: IET 31714 (Hybrid) & 31709 (Hybrid)
Zone-II: Nil
Zone III: IET Nos. IET 31715 & IET 31731
Zone IV: IET 31733, 31689, IET 31686 (H)
Shifts: IET 31714 (H) to IVT-IM
ZoneV: Nil
Zone VI: IET 31714 (H), IET 31709 (H), IET 31686 (H)
Shifts: IET 31700 (H) to IVT-IM
Zone VII: IET 31714 (H), IET 31709 (H), IET 31678, IET 31693, IET 31726, IET 31680

BORO

AVT & IVT – BORO

AVT &IVT – Boro Trial was constituted with 38 test entries and four checks, among these one entry IET 29624 was in III year of testing and 2 entries IET30467 &IET 30465 in the second year of testing and remaining 35 in the first year of testing.

List of entries promoted

Zone III : IET 30465, IET 31309 and IET 31338

Zone IV : IET31319

IVT – E TP Rabi

Zone III: IET 31346, IET 31368 promoted to 2nd year of testing in AVT-1-ETP Rabi (Zone III)

HYBRID RICE

During Kharif 2023, totally 71 hybrids were evaluated in four hybrid rice trials *viz.*, IHRT-E, IHRT-ME, IHRT-M, IHRT-MS, in different locations representing North, East, Northeast, Central, West and South zones of the country. Hybrids with significant yield advantage over the varietal check and the hybrid checks (CD @5%) are identified as promising. Details of the top three ranking hybrids in each of the trials are given below.

Promising hybrids identified in different hybrid rice trials (2023)

Name of the Hybrid	IET No.	DFF	Promising in
IHRT-E			
VNR- 234	31436	89	Overall
MEPH-174	31434	88	Overall
SHX-5977	31437	86	Overall
IHRT-ME			
RRX-3341	31452	97	Overall
RNC-0992	31461	97	Overall
VNR-235	31451	94	Overall
IHRT-M			
HRI-218	31480	105	Overall
PHI-23110	31484	97	Overall
RRX-3413	31479	101	Overall
IHRT-MS			
PHI-23103	31498	104	Overall
PHI-23101	31495	103	Overall
Shakthi-5455	31494	104	Overall

List of public sector institute nominated hybrids (2023)

S.No.	Public sector	Number of hybrids nominated
1	ICAR-IIRR, Hyderabad	5
2	TNAU, Coimbatore	4
3	ICAR-NRRI, Cuttack	3
4	ICAR-IARI, New Delhi	3
5	JNKV, Jabalpur	3
6	RARS, Karjat	3
7	ZARS, Mandya	1
8	BAU, Sabour	1
	Total	**23**

AEROBIC

AVT-2

The Advanced Variety Trial 2 - Aerobic (AVT -2- Aerobic) was constituted with 14 test entries among which 2 are repeat entries (IET Nos. 29410 & 29405) along with three checks (NC, ZC and LC).

IET 30008 and **IET 30020** found promising for the state of Haryana.

AVT-1

In AVT 1 -AEROB of 29 test entries and four checks (NC, ZC, HC and LC) were evaluated across 25 locations in the second year of testing. The following entries are promoted zone wise to AVT-2 for third year of testing.

List of entries promoted

- Zone VII – IET 30919

IVT-AEROB

In IVT-AEROB of 59 test entries and four checks (NC, ZC, HC and LC) were evaluated across 26 locations in the first year of testing.

List of entries promoted

Overall	IETs 31785**,** 31741, 31760, 31775, 31768, 31759, 31757, 31765
Zone-II	IETs 31757, 31790
Zone III	IETs 31741, 31760, 31775, 31768, 31759, 31757, 31778, 31747, 31740
Zone IV	IETs 31760, 31784, and 31785
Zone-V	IETs 31761, 31777, 31783, 31770, 31745
Zone- VI	IETs 31760 and 31779
Zone VII	IETs 31741 and 31787

MEDIUM SLENDER GRAIN TRIALS

AVT-2-MS

Based on consistent yield performance during 3 years of testing (2021 to 2023) the following two entries were identified as promising for different states and zones.

- IET 30107 is promising for Maharashtra State.

AVT- 1-MS

A set of 22 entries and 6 checks were evaluated in 39 locations. The following entries were promoted to AVT-2- MS.

List of entries promoted

Zone IV: IET 30957, IET 30989, IET 30961 and IET 31001
Zone VII: IET 30961, and IET 29019

IVT-MS:

A set of 59 test entries were evaluated in 39 locations and the following entries were promoted to 2nd year of testing (AVT-1 MS).

Overall basis	:	IET 31808 and IET 31835
Zone III	:	IETs 31816, 31820, 31835 and 31795
Zone V	:	IETs 31826, 31839, 31835, 31827, 31822 and 31806
Zone VII	:	IETs 31804, 31808, 31795, 31850, 31822 and 31802

Shifts to IVT-IM: IET 31810

BIOFORTIFICATION

AVT 1 & IVT Biofort

ATV 1-Biofort (3 entries) and IVT-Biofort (44) trial was conducted with a total 47 test entries and evaluated in 39 locations along with two yield checks (BPT 5204 and IR 64), Chittimuthyalu as micronutrient check and DRR Dhan 45, and DRR Dhan 48 as yield and micronutrient checks.

List of entries promoted to AVT 1 BIOFORT

Zone II: IET31927, IET 31938
Zone III: IET 31929, IET31948, IET 31950, and IET 31925
Zone IV: IET 31925, IET 31927, IET 31929, IET 31939, IET 31946 and IET 31961
Zone V: IET 31948
Zone VI: IET 31925, IET 31927, IET 31929, IET 31937, IET 31938, IET 31947, IET 31948, and IET 31950
Zone VII: IET 31925, IET 31927, IET 31929, IET 31937, IET 31938, IET 31939, IET 31946, IET 31947, IET 31950, IET 31951 and IET 31961

List of entries promoted to AVT 2 BIOFORT: None

HILLS

IVT – E (H)

- IVT-E (H) trial was constituted with 19 test entries of first year of testing and 3 checks (Vivekdhan 86 (National), Shalimar Rice-3 (Zonal) and local check) under low, medium and high elevations. Among the entries in first year of testing, three entries got promoted in Northern medium elevation and one entry got promoted in Southern medium elevation

- Northern medium elevation IETs 31382, 31381 and 31389
- Southern medium elevation IET 31386

AVT 2 & 1 – M (H)

- AVT 2&1–M(H) trial was constituted with 12 entries including 6 test entries, 3 checks – Vivekdhan 62 (NC), VL Dhan 68 (ZC for North and South) and RC Maniphou 11 (North East), a Local Check, one recurrent parent (K-343) and two donor parents (DHMAS and RML-22). Among 3 test entries in second year of testing, only one entry IET 30513 is promoted to AVT 2 M (H) for third year of testing under high altitude region. NIL (IET 30503) is found superior in yield when compared to recurrent parent K 343 at Lower Northern and Medium northern altitudes for grain yield. But NIL (IET 20503) has shown moderately susceptibility reaction and did not performance better than recurrent parent and hence discontinued. Among 2 test entries in 3rd year of testing, the entry IET 29654 is discontinued due to inconsistent performance and IET 28906 is found promising for High hill situation for the state of Jammu and Kashmir.

IVT – M (H)

- IVT-M (H) consisted of 21entries including 19 test entries and three checks evaluated at 20 locations spanning low northern, medium northern and southern and high northern elevations across the country. Of the 19 test entries, IET 31415 in low northern elevation and IET 31413 in medium northern elevations were promoted to second year of testing.

IVT – U (H)

- IVT-U (H) The trial comprised of 11 test entries and three checks and tested in 12 locations.
- **List of the entries promoted in IVT-U(H)**
- **Overall:** IET 31424, IET 31420
- **Low altitude Northern Hills:** IET 31424, IET 31420
- **Medium altitude Northern Hills:** None of the entries promoted

IVT – Japonica

- IVT-J trial was constituted with 3 test entries and 4 checks (Bhrigudhan, Varundhan, Shalimar Rice-5 and local check) evaluated at 8 centres. Among the test entries, based on three locations data, IET 31431 (Koshikari) recorded significant superiority over the best check in Zone-1 and hence IET 31431 promoted to second year of testing in AVT-1 Japonica in Zone 1 of Low Northern hills.

SALINE ALKALINE TRIALS

Alkaline and Inland Saline tolerant variety trials

AVT2-AL & ISTVT:

IET 30165 and **IET 29354 (R)** with desirable quality characteristics found promising in Haryana state under alkaline conditions.
IET 30176 found promising for yield in Haryana state under inland saline conditions.
IET 30178 with desirable quality characteristics be repeated in AVT 2- Al & ISVT for yield evaluation.

AVT 1- ALISTVT

AVT1 - AL & ISTVT was constituted with 14 entries and 5 checks namely CSR36 (Alkaline check), CSR 10 (Early Saline check), Pusa 44 (Sensitive check and Recurrent parent), Improved Sambha Mahsuri (Recurrent parent), and local check. The trial was sent to 19 locations. Among the 14 test entries, 10 entries were varieties and four are NILs with 2 recurrent parents.

Entries promoted

1. **Alkalinity**
    - Overall: IET 31055, 31053, 31050 and 31048; NILs IETs 32053 and 32052
    - Zone II: IETs 31055, 31053 and 31050; NILs IETs 32053 and 32052
    - Zone III: IETs 31055 and 31053; NILs IETs 32053 and 32052
    - Zone VII: IETs 31055, 31053, 31050, 30180, 31048; NILs IETs 32055 and 32056
2. **Inland Salinity**
    - Overall: IETs 31055 and 30180; NILs IETs 32053 and 32052
    - Zone II: IETs 31051, 31055, 31053 and 31050; NILs IETs 32053 and 32052
    - Zone VI: IETs 31045, 31044 and 31053;
    - Zone VI: IETs 31045 and 31044; NILs IETs 32053 and 32052
3. As the trait is verified for Saltol, IET 32053 (4 and 4) and IET 32052 (3 and 4) in comparison to Pusa44 (7 and 7). ET 32052 (3.8) & 32053 (4.0) reaction of BLB in comparison to Pusa 44 (5.3)

Therefore, the constitution for AVT2 (AL & ISTVT): IET Nos. 31055, 31053, 31050 and 31048, 30180, 31048, 31051, 31045 and 31044, NILs 32053 and 32052.

IVT-ALISTVT

IVT-AL&ISTVT was constituted with 21 entries including seven checks namely CSR 36 (Alkaline check), CSR 10 (Early duration saline check), FL 478 (Saline Tolerant check), CSR 23 (Inland Saline check), Pusa 44 (Sensitive check), DRR Dhan 58 (Observational check) and local check. The trial was sent to 19 locations.

The following entries were promoted to second year of testing in AL& ISTVT

Alkalinity:

- **Overall:** 31858, 31861 and 31862
- **Zone II IET Nos.** 31858, 31861 and 31862

Inland Salinity:

- **Overall Inland Salinity**: IET 31861
- **Zone II: IET nos.** 31858 and 31861
- **Zone II: IET nos** 31852, 31853, 31859 and 32294
- **Zone VII: IET nos.** 31855, 31857 and 31861

Therefore, the constitution for AVT1 (AL & ISTVT): IET Nos. 31858, 31861, 31862, 31852, 31853, 31859, 32294, 31855 and 31857

(3) Coastal Saline tolerant variety trial

AVT 2 & IVT-CSTVT

AVT 2 & IVT – CSTVT trial was constituted with 50 test entries of which one entry (IET 30201) is in the third year of testing and three NIL entries (IET Nos. 32036, 32037 and 32038) along with five checks and recurrent parent- ADT 45.

- **Overall:** NILs namely IET's 32036, 32037 and 32038
- **Zone- III:** IET nos. 31876, 31074, 31063, 31889, 31863, 31065, 31871, 31877, 31878, 31875 and 31060; NILs namely IET's 32036, 32037 and 32038
- **Zone-VI:** None
- **Zone-VII:** IET 31075, NILs namely IET's 32036, 32037 and 32038
- ***Based on three year of performance,* IET 30201 *found promising in Gujarat state.***

Low Phosphorus Trial:

AVT 2

AVT 2 Low Phosphorus Tolerance trial was constituted with 7 test entries which are in 3rd of testing; three positive checks Viz., Swarna, Rasi and Vandana (Early check) and one Sensitive check (Improved Samba Mahsuri). The trial was conducted at two levels of Phosphorus P 0 (No application of phosphorus), P 50 % (50% of recommended Phosphorus).

Zone VII: IET 29549, IET 30230, IET 30252, IET 30235, IET 30242, IET 30233

AVT-1

AVT 1 Low Phosphorus Tolerance trial was constituted with 25 test entries, three tolerant checks Viz., Swarna, Rasi and Varadhan (Early check) and one sensitive check (Improved Samba Mahsuri), two recurrent parents (Pusa 44 and Improved Samba Mahsuri). Among the test entries, 20 entries bred through classical breeding methods were in second year of testing, 3 NIL entries in the background of Improved Samba Mahsuri (IETs 32063, 32060, 32055) and two NILs in Pusa 44 back ground (IET 29558 and IET 29546) were in first year of testing.

List of Promoted entries:

Zone III - IET 31106

Zone VII: IETs 31110, 29546, 31097, 31102, 29558, 31105, 28070, 31103, 31098, 31106, 31108, 30241, 29560 and 31115

Overall: IETs 28070, 31110, 31106, 31097, 31096, 31103 and 31098

All the 3 NILs of Improved Samba Mahsuri (IETs 32063, 32060, 32055) and 2 NILs (IET 29558 and IET 29546) of Pusa 44 are promoted to AVT 2 LPT for second year of testing.

IVT

IVT Low Phosphorus Tolerance trial was constituted with 24 test entries, three tolerant checks Viz., Swarna, Rasi and Vandana (Early check) and one sensitive check (Improved Samba Mahsuri). All the test entries were in second year of testing. The trial was conducted at two levels of Phosphorus P 0 (No application of phosphorus), P 50 % (50% of recommended Phosphorus).

List of Entries promoted

IETs 31967, 31980, 31985, 31973, 31975, 31984, 31979, 31969, 31970, 31976, 31966, 31986, 31972, 31968, 31981, 31982, 31896 and 31107.

Low Nitrogen Trial:

AVT 2

AVT 2 Low Nitrogen Tolerance trial (AVT 2 LNT) was constituted with 6 test entries, three positive checks Viz., Swarna, Vandana and Rasi (early) and one Sensitive check (Improved Samba Mahsuri).

- IET 29578 found promising for Zone 2 and 7
- IET 29577 found promising for Zone 2, 3 and 7
- IET 29581 found promising for Zone 3 and 7
- IET 30261 found promising for Zone 7
- IET 30273 found promising for Zone 2 and 7
- IET 30261 found promising for Zone 2 and 7

AVT 1

AVT 1 Low Nitrogen Tolerance trial (AVT 1 LNT) was constituted with 16 test entries, three Tolerant checks Viz., Swarna, Vandana, Rasi (early) and one sensitive check (Improved Samba Mahsuri). All 16 test entries were in second year of testing.

Based on the performance of entries in different zones and overall basis under both N 0 and N 50%, a total of 14 entries viz., IETs 31132, 31134, 29579, 31126, 31135, 31120, 31119, 31120, 31118, 31131, 30269, 31128, 31124 and 31117 are promoted to third year of testing in AVT 2 LNT.

IVT

IVT Low Nitrogen Tolerance trial (IVT LNT) was constituted with 25 test entries, three Tolerant checks *Viz*., Swarna, Vandana, Rasi (early) and one sensitive check (Improved Samba Mahsuri). In addition, DRR Dhan 64 was introduced as observational check in this trial.

Based on the performance of entries in different zones and overall basis under both N 0 and N50%, a total of 12 entries viz., IETs 31994, 32005, 31995, 31990, 32003, 31998, 32010, 32009, 31993, 31989, 31999, and 31997 are promoted to second year of testing in AVT 1 LNT.

Aromatic Grain Type (Non-Basmati) :

AVT-1 :

Overall : IET 31909 and 31901

Zone VII : IET 31909

Genome Edited Lines:

IET 32072 is promoted to second year of testing in AVT 2-MS.
IET 32043 is promoted to second year of testing in AVT 2-IME.

Promotion of NILS:

Jaya: IET 32051 is promoted to second year of testing in AVT 2-IM.
WGL-14: IET 32047 is promoted to second year of testing in AVT 2-IM.
ISM: IET's 32054, 32055, 32056, 32058, 32059, 32060, 32061, 32062 and 32063 promoted to second year of testing I n AVT 2 -Late trial.
Krishna Hamsa: *IET 32045 is promoted.*
Samba Mahsuri: IET 32068 and 32069 promoted to second year of testing in AVT 2 Late trial.
Swarna: IET 32064 and 32065 promoted to second year of testing in AVT 2 Late trial.
Improved Samba Mahsuri *(IETs 32063, 32060, 32055) and 2 NILs (IET 29558 and IET 29546) of* ***Pusa 44*** *are promoted to AVT 2 LPT for second year of testing*.

IRRIGATED TRIALS

With the introduction of high yielding varieties there has been remarkable progress in production and productivity of rice in the irrigated areas which account for almost 60%of rice production in the country. However, the production and productivity gains achieved in this ecology need to be sustained under the scenario of decreasing land, labour and water and it is also required to be insulated against the biotic stresses, while simultaneously improving the grain quality. Since the demand for food especially rice is still expected to increase with the ever-escalating population in the years to come, it is necessary to break the yield barrier through conventional methods using diverse germplasm base, ideotype breeding and exploitation of hybrid vigour. In addition, with the advent of biotechnological tools, marker-assisted breeding for incorporating the target traits has become quite feasible in varietal improvement programmes. In view of the existing concerns and opportunities available, there is a need to identify high yielding genotypes suitable for the vast, highly productive and very important irrigated ecology.

ICAR-Indian Institute of Rice Research (ICAR-IIRR) conducts and coordinates multidisciplinary and multi-location evaluation of elite cultures, crop management and crop protection technologies in different agro-climatic zones of the country under All India Coordinated Rice Improvement Project (AICRPR) to enhance rice production. A total of 42 trials (38 varietal trials and 4 hybrid rice trials) were conducted in 1010 experiments (876 varietal and 134 hybrid rice) at 121 locations (42 funded, 79 voluntary centres) in 28 states and 2 union Territories across seven zones of the country during 2023 which is the 59th year of AICRPR testing. Hybrid rice experiments were also conducted by 10 private seed companies. The 38 trials were constituted with 1263 entries (1001 varietal and 75 hybrid rice) including 166 checks. The overall data receipt was 87.0% of which 91.1% and 81.0% data was received from funded and voluntary centres respectively. The chapter outlines the results obtained trial wise which are discussed below.

ADVANCE VARIETY TRIAL2-IRRIGATED EARLY TRANSPLANTED (AVT 2- E TP)

Locations: 49 **Test Entries: 15**

Checks: CO-51 (National); PR 124 (Northern), Narendra 97 (Eastern), Luit (North Eastern), Sahbhagidhan (Central & Western), MTU 1153 (Southern)- Zonal; US 314 (Hybrid) and local check **Table: 3a**

The AVT2-ETP trial was constituted with 10 hybrid and 5 varietal entries in the third year of evaluation along with National Check (NC)- CO 51 (NC); Zonal check (ZC)- Northern-PR 124, Eastern-Narendra 97, North Eastern-Luit, Central and Western-Shabagidhan, Southern-MTU 1153; Hybrid check-US 314 and a Local Check. The trial was sent to 49 locations and data was not received from five locations viz., Chinsurah, Titabar, Derol, Dabhoi and Puducherry. Data from five locations viz., Pantnagar, Chiplima, Ranchi, Raipur and Brahmavar due to low experimental mean and from four locations viz., Masodha, Arundatinagar, Aduturai and Pattambi due to low CV% was not considered in the analysis. Thus, data from 37 locations was included in the analysis and entries were assessed for their yield performance.

Days to fifty percent flowering varied from 80 (IET 29700) to 93 (IETs 28956 and 29947), plant height from 97 (NC, IETs 29700 and 29694) to 113 cm (IET 29939), panicles per square metre from 277 (IET 29689) to 326 (IET 29694). Experimental mean of the locations varied from 3262 kg/ha at Brahmavar to 8062 kg/ha at Mugad and overall mean of the trial ranged from 4169 kg/ha (NC) to 6340 kg/ha (IET 29694). On overall basis, local check with mean grain yield of 5471 kg/ha is the best check. One entry IET 29142 is a re-testing as per VIC 2023 recommendations and its data is presented in the report but not discussed. A total of 11 entries on overall basis and two varietal entries on zonal basis recorded significant yield superiority over the best check and hybrid and/or best varietal check and the details are furnished in the following table 3a. The performance of the top three entries is discussed below.

IET 29694 (UPLRH 181325), a hybrid entry ranked first on overall basis with a mean grain yield of 6340 kg/ha, 90 days to fifty percent flowering and long bold grain type. It also ranked first in northern and eastern zones with a mean grain yield of 7319 and 5817 kg/ha respectively, second in southern and western zones with a mean grain yield of 6767 and 5701 kg/ha respectively and third in central zone with a mean grain yield of 6230 kg/ha.

IET 29690 (UPLRH 180842), a hybrid entry ranked second on overall basis with a mean grain yield of 6182 kg/ha, 92 days to fifty percent flowering and long bold grain type. It also ranked first in central and western zones with a mean grain yield of 6342 and 5802 kg/ha respectively, second in northern zone with a mean grain yield of 7014 kg/ha and third in north eastern with a mean grain yield of 6444 kg/ha, third in southern zone with a mean grain yield of 6701 kg/ha and seventh in eastern zone with a mean grain yield of 5171 kg/ha.

IET 29691 (VNR 228), a hybrid entry ranked third on overall basis with a mean grain yield of 6009 kg/ha, 88 days to fifty percent flowering and short bold grain type. It also ranked first in southern zone with a mean grain yield of 7016 kg/ha, third in northern zone with a mean grain yield of 6948 kg/ha and fourth in eastern zone with a mean grain yield of 5440 kg/ha.

Zonal wise performance of the entries in AVT2-ETP, *kharif* 2023

IET No/ Designation/ Cross Combination	DFF/ GT	Mean grain yield (kg/ha)/Rank						
		Overall	II	III	IV	V	VI	VII
IET 29694 (UPLRH 181325) ***Hybrid***	90 LB	6340 (1)	7319 (1)	5817 (1)	--	6230 (3)	5701 (2)	6767 (2)
IET 29690 (UPLRH 180842) ***Hybrid***	92 LB	6182 (2)	7014 (2)	5171 (7)	6444 (3)	6342 (1)	5802 (1)	6701 (3)
IET 29691 (VNR 228) ***Hybrid***	88 SB	6009 (3)	6948 (3)	5440 (4)	--	--	--	7016 (1)
IET 28956 (JKRH 1601) ***Hybrid***	93 LB	5921 (4)	--	5622 (2)	--	--	--	6530 (6)
IET 29692 (UPLRH 162087) ***Hybrid***	88 LS	5867 (5)	--	5226 (6)	--	--	--	6578 (4)
IET 28123 (IIRRH 130) ***Hybrid***	90 MS	5843 (6)	--	5066 (9)	6588 (2)	6217 (5)	5559 (3)	--
IET 29689 (HRI 214) Hybrid	90 LS	5839 (7)	--	5328 (5)	--	--	--	6513 (7)
IET 29940 (CRU-BCKV-	92	5790	--	5116	4814	--	--	6469

IET No/ Designation/ Cross Combination	DFF/ GT	Mean grain yield (kg/ha)/Rank						
		Overall	**II**	**III**	**IV**	**V**	**VI**	**VII**
22-35) N22/IET 25701	SB	(8)		(8)				(9)
IET 29947 (NLR 3684) NL4 34449/NLR 33359	93 LB	5780 (9)	--	--	5662 (4)	6227 (4)	--	6476 (8)
IET 29696 (PAN 2150) ***Hybrid***	92 LS	5778 (10)	--	--	--	6326 (2)	--	6543 (5)
IET 28965 (Pusa RH 60) ***Hybrid***	91 LS	5735 (11)	--	5450	--	--	--	--
IET 29939 (CR 4060-1318-5-2-2-2-1-5-3-4) IET 22729/Brown gora	89 LS	--	--	--	6773 (1)	--	--	--
IET 29975 (KPS 6251) MTU 1010/Chittimutyalu	87 LS	--	--	--	5028 (6)	--	--	--
National check	84	4169	4973	3773	2446	4477	3804	4336
Zonal check	87	4767	5655	3282	2999	4497	3767	**6177**
Hybrid check	*85*	*4794*	*5577*	*4011*	*4264*	*4594*	*3694*	*5614*
Local check	89	**5471**	**6326**	**4781**	**3368**	**5693**	**5022**	5938
CD		152	411	284	1129	514	519	261

Three years performance of the entries in AVT 2-ETP

IET No/ Designation/ Cross Combination	Three years performance			Remarks
	2023	**2022**	**2021**	
IET 29694 (UPLRH 181325) ***Hybrid***	RA 7392 (1) UP 4861 (6) OD 5575 (3) BI 6775 (1) CH 7524 (3) GU 5966 (1) TS 7651 (2) KE 5467 (2)	HA 8456 (2) RA 6792 (1) BI 7486 (4) CH 7221 (7) GU 7030 (1) TS 6744 (2)	PU 10524 (1) HA 7367 (3) MA 7107(1) TN 9248(1)	Promising for RA, HA, BI, CH, GU and TS
IET 29690 (UPLRH 180842) ***Hybrid***	RA 6833 (7) UP 5292 (3) BI 6237 (7) TR 6444 (3) MP 6133 (4) CH 7314 (6) MA2 6655 (1) MA 6065 (1) TS 7651 (2)	HA 7938 (6) BI 7667 (3) JH 6889 (2) CH 7742 (3) MA2 5897 MA 5339 (2)	PU 9783(5) HA 7700(1) UP 6730(2) OD 7268(3) TS 7342(2) KA 12422(4)	Promising for UP, BI, CH, MA, TS and HA
IET 29691 (VNR 228) ***Hybrid***	RA 7297 (2) BI 6505 (5) PD 8427 (1)	HA 8783 (1) BI 7340 (6) CH 7480 (6)	UP 6662(4) CH 7421(2)	Promising for BI and CH
IET 29692 (UPLRH 162087) ***Hybrid***	KA 7720 (1) BI 6635 (2) RA 7065 (5) MA2. 5610 (2) CH 7475 (4)	HA 8265 (4) BI 6976 (8) CH 7546 (5) MA1 4988 (3) TS 6282 (4)	UP 6523(6) CH 7389(4) KA 11952(8) AP 7152 (3)	Promising for KA, BI, MA and CH

IET No/ Designation/ Cross Combination	Three years performance			Remarks
	2023	2022	2021	
IET 29689 (HRI 214) ***Hybrid***	BI 6605 (3) CH 7560 (2) RA 6901 (6) MP 6586 (2) UP1. 5117 (5) PD 8078 (2)	HA 7829 (7) BI 7793 (1) MP 9562 (1) CH 7830 (2) MA2. 6112 (1) TS 6462 (3)	AP 7033(4) TS 7649(1) KA 12863(3) UP 6383(9)	Promising for BI, CH, MP, UP and TS
IET 29940 (CRU-BCKV-22-35) N22/IET 25701	RA 6615 (8) CH 7338 (5) WB 5909 (1) BI 6278 (6) TR 4814 (8) UP1 4793 (7) PD 7300 (5)	RA 6083 (2) BI 7346 (5) JH 7111 (1) WB 7018 (4) CH 7703 (4) MA1 5456 (2)	BI 6701(2) CH 6185(2) TS 7637(2)	Promising for RA, CH, WB and BI
IET 29947 (NLR 3684) NL4 34449/ NLR 33359	RA 6601 (9) CH 7647 (1) TR 5662 (4) BI 5816 (9)	BI 7713 (2) WB 7632 (3)	BI 5819	Promising for BI
IET 29696 (PAN 2150) ***Hybrid***	MP 6385 (3) UP 5141 (3) BI 5374 OD 5639 (2) TS 8245 (1)	HA 8047 (5) RA 6069 (3) BI 7030 (7) JH 6667 (4) CH 7840 (1) MA 5364 (1) TS 6809 (1)	PU 9342 (6) UP 6442 (8) KA 12402 (5) TN 8968 (3) OD 6657 (7) CH 7334 (5)	Promising for TS, UP, BI, OD and CH
IET 29939 (CR 4060-1318-5-2-2-2-1-5-3-4) IET 22729/Brown gora	TR 6773 (1) RA 7160 (3)	HA 6929 OD 6226 (1) BI 6503 JH 6711 (3) WB 6930 (9) CH 7143 (9) MA1. 5679 (1)	HA 6255 (4) BI 6182 (10)	Promising for HA and BI
IET 29975 (KPS 6251) MTU 1010/Chittimutyalu	TR 5028 (6) UP1 5117 (4) BI 5301	BI 6120 WB 7047 (7) MP 9436 (2)	CH 6409 (1)	Promising for BI

Entries not tested in 2022

IET No/ Designation/ Cross Combination	Three years performance			Remarks
	2023	2021	2020	
IET 28956 (JKRH 1601) ***Hybrid***	OD 7674 (1) BI 6519 (4) RA 6547 (10) MA2. 5523 (3)	UP 7105(2) KE 5714(3) CH 6885(1) OD 5027 (6)	UP 6865 (29, 19) JH 5043 (17, 9) OD 5894 (11. 16) CH 7100 (28, 18) MA1. 6072 (13, 12) MA2 6485 (27, 15) GU 7207 (44, 32)	Promising for OD, MA, UP and CH

Entries not tested in 2021

IET No/ Designation/ Cross Combination	Three years performance			Remarks
	2023	2022	2020	
IET 28965 (Pusa RH 60) ***Hybrid***	OD 5431 (4) BI 5996 (8) RA 7079 (4) UP 5172 (2)	BI 6697 (10) CH 7123 (10) MA2 5798 (3)	MA2. 6290 (24, 11) GU 5863 (18, 7)	Promising for BI and MA

Entries tested in 2020 and 2019

IET No/ Designation/ Cross Combination	Three years performance				Remarks
	2023 (AVT2-ETP)	2022 (AVT1-ETP)	2021 (AVT1-ETP)	2019 (IHRT-E)	
IET 28123 (IIRRH 130) ***Hybrid***	KE 6294 (1) UP 5915 (1) TR 6588 (2) BI 5181 OD 5372 (5)	BI 6936 (9) CH 7214 (8) GU 6828 (2)	OD 5638 (1)	HA 6600 (28,8) UP 6585 (25, 7) JH 5660 (44, 36)	Promising for BI, UP and OD

Three years performance of the entries in AVT2-ETP

IET 29694 (UPLRH 181325), a hybrid entry evaluated in 2021, 2022 and 2023. In 2021, it performed with significant yield advantage over both the hybrid and best varietal checks in Punjab, Haryana, Maharashtra and Tamil Nadu in 2021. In 2022, it's significant yield performance was observed in states i.e., Rajasthan, Bihar, Chhattisgarh, Gujarat, Telangana in addition to Haryana. Further, in 2023, it's consistent performance was observed in Rajasthan, Bihar, Chhattisgarh, Gujarat and Telangana. It has long bold grains with HRR: 57.5%, AC: 22.96; GC:71 mm and ASV:4. Based on its consistent performance, **IET 29694 is found promising for Rajasthan, Haryana, Bihar, Chhattisgarh, Gujarat and Telangana**.

IET 29690 (UPLRH 180842), a hybrid entry recorded significant yield advantage over the HC and BC for two years in Uttar Pradesh (2021 and 2023), Bihar, Telangana and Chhattisgarh (2022 and 2023), Maharashtra and Haryana (2021 and 2022). It has long bold grains with HRR:59.3%, AC:23.7; GC:67 mm and ASV:4. It recorded inconsistent performance in states like Rajasthan, Tripura, Madhya Pradesh, Telangana, Punjab, Karnataka, Jharkhand and Odisha. Hence, **IET 29690 is considered promising for Uttar Pradesh, Bihar, Chhattisgarh, Maharashtra, Telangana and Haryana.**

IET 29691 (VNR 228), a hybrid entry recorded significant yield advantage over BC and HC for two years in 2023 and 2022 in Bihar; and in 2022 and 2021 in Chhattisgarh. In other states like Rajasthan, Puducherry, Haryana and Uttar Pradesh, its significant yield superiority was observed only in one of the three years of testing. It has short bold grains with HRR: 60.8%; AC: 20.47; GC:22 mm and ASV:7. Hence, **IET 29691 is found promising for Bihar and Chhattisgarh.**

IET 29692 (UPLRH 162087), a hybrid entry was observed with significant yield advantage over both the checks in Chhattisgarh in all the three years of testing, Karnataka in 2021 and 2023; Bihar and Maharashtra in 2022 and 2023. It has long slender grains with HRR: 56.5%; AC: 23.29; GC:37 mm and ASV:5. Hence, **IET 29692 is considered promising for Bihar, Chhattisgarh, Maharashtra and Karnataka**.

IET 29689 (HRI 214), a hybrid entry recorded significant yield advantage over the HC and BC in Telangana in 2021 and 2022; and Bihar, Chhattisgarh, Madhya Pradesh and Uttar Pradesh in 2022 and 2023. It has long slender grains with HRR: 58.9%; AC:22.96; GC:64 mm and ASV:4. Hence, **IET 29692 is considered promising for Telangana, Bihar, Chhattisgarh, Madhya Pradesh and Uttar Pradesh**.

IET 29940 (CRU-BCKV-22-35) derived from the cross of N22/IET 25701 showed consistent significant yield advantage over the BC in all the three years of testing in Chhattisgarh and Bihar; and in 2022 and 2023 in Rajasthan and West Bengal. It has short bold grains with HRR: 57.3%; AC: 26.86; GC: 43 mm and ASV:4. Hence, **IET 29940 is considered promising for the states of Rajasthan, Bihar, West Bengal and Chhattisgarh**.

IET 29947 (NLR 3684) derived from the cross of NLR 34449/NLR 33359 recorded significant yield superiority over the BC in all the three years of testing only in Bihar. It has long bold grains with HRR: 50.8%; AC: 28.16; GC: 60 mm and ASV: 7. Hence, **IET29947 is found promising only for the state of Bihar**.

IET 29696 (PAN 2150), a hybrid entry was found with significant yield advantage over both the checks in Uttar Pradesh and Odisha in 2021 and 2023; Chhattisgarh in 2021 and 2022; Bihar and Telangana in 2022 and 2023. It has long slender grains with HRR: 63.6%; AC: 26.84; GC:22 mm and ASV:7. Hence, **IET 29696 is considered promising for Uttar Pradesh, Bihar, Odisha, Chhattisgarh and Telangana**.

IET 29939 (CR 4060-1318-5-2-2-2-1-5-3-4) derived from the cross of IET 22729/Brown Gora recorded significant yield advantage over both the checks in Haryana and Bihar in 2021 and 2022. It has long slender grains with HRR: 55.5%; AC:24.4; GC:24 mm and ASV:4. Hence, **IET 29939 is considered promising for the states of Haryana and Bihar.**

IET 29975 (KPS 6251) derived from the cross of MTU 1010 and Chittimutyalu recorded significant yield advantage over the best varietal check only in Bihar during 2022 and 2023. It has long slender grains with HRR: 50.2%; AC: 21.67; GC: 55 mm and ASV:3. Hence, **IET 29975 is considered promising for Bihar**.

IET 28956 (JKRH 1601), a hybrid entry was found with significant yield advantage over both the checks in Odisha in all the three years of testing (2020, 2021 and 2023), Chhattisgarh in 2020 and 2021; and Maharashtra and Uttar Pradesh in 2021 and 2022. It has long bold grains with HRR: 60.6%; AC: 26.45; GC: 22 mm and ASV:4. Hence, **IET 28956 is considered promising for the states of Odisha, Uttar Pradesh, Maharashtra and Chhattisgarh**.

IET 28965 (Pusa RH 60), a hybrid entry recorded significant yield advantage over both the checks in Maharashtra in 2020 and 2022 and in Bihar in 2022 and 2023. It has long slender grains with HRR: 63.8%; AC: 19.88; GC: 64 mm and ASV: 4. **IET 28965 is considered promising for the states of Maharashtra and Bihar**.

IET 28123 (IIRH 130), a hybrid entry was found with significant yield advantage over both the checks in Uttar Pradesh in 2019 and 2023; Odisha in 2021 and 2023 and in Bihar in 2022 and 2023. It has medium slender grains with HRR: 58.7%; AC: 25.1; GC: 45 mm and ASV: 4. Hence, **IET 28123 is considered promising for the states of Bihar, Uttar Pradesh and Odisha**.

ADVANCED VARIETY TRIAL1- EARLY TRANSPLANTED (AVT1-ETP)

Locations: 49 **Test Entries: 52**

Checks: CO-51 (National); PR 124 (Northern), Narendra 97 (Eastern), Luit (North Eastern), Sahbhagidhan (Central & Western), MTU 1153 (Southern)- Zonal check; US 314 (Hybrid) and local check **Table: 3b**

The AVT1-ETP trial was constituted with 7 hybrid and 42 varietal entries in the second year of evaluation, 3 near isogenic lines (NILs) along with National Check (NC)-CO-51; Zonal check (ZC)- Northern-PR 124, Eastern(EC)-Narendra 97, North Eastern-Luit, Central and Western-Sahbhagidhan, Southern –MTU 1153; Hybrid check-US 314, One recurrent parents-ADT 45 and a Local Check. The NIL entries were in the background of ADT 45. The targeted trait introgression for NIL entries was salinity tolerance. The trial was sent to 49 locations and data was not received from 6 locations *viz.,* Chinsura, Titabar, Arundhutinagar, Derol, Dabhoi, and Puducherry. Data from 5 locations *viz.,* Pantnagar, Varanasi, Rewa, Radhanagiri and Brahmawar due to low experimental mean and from 2 locations *viz.*,Masoda and Adhuturai due to low CV% was not considered in the analysis. Thus, data from 36 locations was included in the analysis and entries were assessed for their yield performance.

Zonal wise variation in mean performance of the entries for yield, days to fifty percent flowering (DFF), plant height (PH) and panicles per square meter (Pan/m^2) and zonal wise variation in CV and experimental mean across the locations is discussed below:

In Northern zone (II), LC is the best check with 5568 kg/ha and experimental mean ranged from 3198 (Pantnagar) to 6870 kg/ha (Kaul), overall mean from 4796 (NC) to 6350 (IET 30561) and CV from 5.01 (Nagina) to 23.89 % (Pantnagar). DFF varied from 78 (NC, IET 30568) to 95 days (IET 30680), PH from 96 (IET 30680) to 114 cm (IET 30561) and Pan/m^2 from 227 (ZC) to 280 (IET 30669).

In Eastern zone (III), LC is the best check with 4721 kg/ha and experimental mean ranged from 704 (Varanasi) to 6044 kg/ha (Hazaribagh), overall mean from 3906 (ZC) to 5777 (US 314) and CV from 4.24 (Masodha) to 33.56 % (Varanasi). DFF varied from 84(ZC) to 97days (IET 30680), PH from 84 (ZC) to 122 cm (IET 30651) and Pan/m^2 from 235 (IET 30641) to 304 (IET 30570).

In North-Eastern zone (IV), the trial data is available only for single location, Lembucherra. However, the DFF varied from as low as 50 (LC) to 74 days (IET 30689, IET 30647) which is quite unacceptable for mid early duration. Considering the erroneous DFF and non-availability of data from other locations within this zone, **the trial is proposed for repeat in entirety in zone IV**.

In Central zone (V), LC is the best check with 5799 kg/ha and experimental mean ranged from 3534 (Rewa) to 8077 kg/ha (Jagadalpur), overall mean from 5223 (NC) to 6812 (IET 30570) and CV from 9.02 (Jagadalpur) to 14.7 % (Raipur). DFF varied from 84 (NC &IET 30568) to 99 days (IETs 30680), PH from 91 (IET 30680) to 121 cm (IET 30557) and Pan/m^2 from 223 (IET 30557) to 274 (IET 30642).

In Western zone (VI), LC is the best check with 5763 kg/ha and experimental mean ranged from 2673 (Radhanagiri) to 6749 kg/ha (Vyara), overall mean from 5030 (IET 30669) to 7197 (IET 30561) and CV from 8.63 (Nawagam) to 13.60 % (Vyara). DFF varied from 81(IET 30679, NC, IET 30557) to 92 days (IET 30680), PH from 104 (LC) to 124 cm (IET 30561) and Pan/m^2 from 242 (IET 30690) to 295 (IETs 30642).

In Southern zone (VII), NC is the best check with 5999 kg/ha and experimental mean ranged from 3452 (Brahmawar) to 7306 kg/ha (Warangal), overall mean from 5132 (IET 32038) to 6552 (IET 30669) and CV from 4.41 (Adhuturai) to 16.45 % (Mugad). DFF varied from 81 (IET 32038 & IET 32037) to 93 days (IET 32036, IET 30561 & IET 30680), PH from 92 (IET 32038) to 107 cm (US 314 & IET 30669) and Pan/m^2 from 308 (IET 30680) to 368 (IET 32038).

Zonal wise performance of the entries in AVT1-ETP, *kharif* 2023

IET 30641(RNR 35105) derived from a cross of JGL 24423/MTU 1156 recorded significant yield advantage over the BC in northern, eastern and central zones with a mean grain yield of 6033, 5245 and 6764kg/ha and DFF of 87, 90 and 88 respectively.

IET 30642(KNM 12509) derived from three-way cross of KNM 118/IR 72//MTU 1156 is showing significant yield superiority over the BC in eastern, central and western

zones with mean yield of 5205, 6487 and 6487 kg/ha and with a DFF of 89, 89 and 83 days respectively.

IET 30651(RCPR 94-IR97030-7-2-2-2) entry is showing significant yield superiority over the BC in eastern zone with mean yield of 5032 kg/ha and with 87 days to fifty percent flowering.

IET 30636(JGL 28639) derived from a cross of MTU 1010/NLR 34449 is showing significant yield superiority over the BC in northern, eastern, central, western and southern zones with mean yield of 5887, 5269, 6511, 6676 and 6427kg/ha respectively and with a DFF of 91, 94, 93, 86 and92 days respectively.

IET 30565 (*KAVERI-7374*)is a hybrid entry showing significant yield superiority over the BC and HC in northern and southern zones with mean yield of 6338 and 6453 kg/ha and with a DFF of 84 and 87 days respectively.

IET 30555 (*RRX-3276*)is a hybrid entry showing significant yield superiority over the BC and HC in northern and southern zones with mean yield of 5962 and 6350 kg/ha respectively and DFF of 83 and 88 days respectively

IET 30561 (*JKRH-1170*)is a hybrid entry showing significant yield superiority over the BC and HC in northern and western zones with mean yield of 6350 and 7197 kg/ha respectively and DFF of 86 and 87 days respectively.

IET 30656 (IIABR-9/IIAB-54/IR16A3098) derived from a three way cross of PR36921-B-6-1-3-4/IRRI154//IR09A228 recorded significant yield advantage over the BVC with a mean grain yield of 5416 kg/ha with 92 days to fifty percent flowering in eastern zone.

IET 30657(WGL-1720) derived from a cross of MTU1081/R1556-25-77 is showing significant yield superiority over the BC in northern, eastern, central and southern zones with mean yield of 6198, 5363, 6567 and 6442 kg/ha respectively and with a DFF of 87, 93, 89 and 88 days respectively.

IET 30669 (WGL 1719) derived from the cross of MTU 1081/R 1556-25-77 is showing significant yield superiority over the BC in eastern, central and southern zones with mean yield of 5046, 6348 and 6552 kg/ha and with a DFF of 90, 88 and 85 days respectively.

IET 30690 (RNR 35109) derived from a cross of JGL 24423/MTU 1156 is showing significant yield superiority over the BC in eastern and central zones with mean yield of 5002 and 6674 kg/ha and with a DFF of 91 and 87 days respectively.

Zonal wise performance of the entries in AVT1-ETP, *kharif* 2023

IET No/ Designation/ Cross Combination	Mean grain yield (kg/ha)/Rank					Grain quality	Remarks
	II	III	V	VI	VII		
IET 30641 (RNR 35105) JGL 24423/MTU 1156	6033 (4) 87	5245 (8) 90	6764 (2) 88	-	-		Promoted in Z-II, III, V
IET 30642 (KNM 12509) KNM 118/IR 72//MTU 1156	-	5205 (9) 89	6487 (7) 89	6487 (4) 83			Promoted in Z-III, V, VI
IET 30651 (RCPR 94-IR97030-7-2-2-2) IR09L337/IR10L178	-	5032 87	-	-	-		Promoted in Z-II
IET 30636 (JGL 28639) MTU 1010/NLR 34449	5887 (6) 91	5269 (7) 94	6511 (5) 93	6676 (2) 86	6427 (4) 92		Promoted in Z-II, III, IV, V, VI, VII
IET 30565 ***(Hybrid)*** *KAVERI-7374*	6338 (2) 84	-	-	-	6453 (2) 87		Promoted in Z-II, VII
IET 30555 ***(Hybrid)*** *RRX-3276*	5962 (5) 83	-	-	-	6350 (5) 88		Promoted in Z-II, VII
IET 30561***(Hybrid)*** *JKRH-1170*	6350 (1) 86	-	-	7197 (1) 87	-		Promoted in Z-II, VI
IET 30656 (IIABR-9/IIAB-54/IR16A3098) PR36921-B-6-1-3-4/IRRI154//IR09A228	-	5416 (5) 92	-	-	-		Promoted in Z-III
IET 30657 (WGL-1720) MTU1081/R1556-25-77	6198 (3) 87	5363 (6) 93	6567 (4) 89	-	6442 (3) 88		Promoted in Z-II, III, V, VII
IET 30669 (WGL 1719) MTU 1081/R 1556-25-77	-	5046 90	6348 (10) 88	-	6552 (1) 85		Promoted in Z-III, V, VII
IET 30690 (RNR 35109) JGL 24423/MTU 1156	-	5002 91	6674 (3) 87	-	-		Promoted in Z-III, V
National check	4796	4238	5223	5322	5349		
Zonal check	5304	3906	5059	5711	**5999**		
Hybrid check	*4953*	*5777*	*6353*	*6477*	*5871*		

IET No/ Designation/ Cross Combination	Mean grain yield (kg/ha)/Rank					Grain quality	Remarks
	II	III	V	VI	VII		
Local check	**5568**	**4721**	**5799**	**5763**	5631		
CD	316	241	504	567	301		

Best varietal check is in bold font and hybrid check is italicized.

The performance of the NIL entries (IET's 32036, 32037 and 32038) in the background of ADT-45 is discussed in CSTVT trial.

The following entries are promoted to AVT2-ETP

- **IET 30641: Promoted in Z-II, III& V**
- **IET 30642: Promoted in Z-III, V& VI**
- **IET30651: Promoted in Z-II**
- **IET30636: Promoted in Z-II, III, IV, V, VI &VII**
- **IET30565: Promoted in Z-II& VII**
- **IET30555: Promoted in Z-II& VII**
- **IET30561: Promoted in Z-II& VI**
- **IET30656: Promoted in Z-III**
- **IET30657: Promoted in Z-II, III, V& VII**
- **IET30669: Promoted in Z-III, V& VII**
- **IET 30690: Promoted in Z-III&V**

The following 45 entries are considered for repeat testing in AVT1-ETP in Zone-IV: IETs 30641, 30638, 30635, 30644, 30646, 30656, 30658, 30660, 30640, 30637, 30636, 30673, 30676, 30679, 30680, 30683, 30685, 30689, 30688, 30694, 30691, 30686, 30643, 30642, 30653, 30669, 30674, 30668, 30677, 30681, 30659, 30687, 30557, 30565, 30570, 30555, 30568, 30561, 30690, 30647, 30657, 30661, 30671, 30684 and 30645

INITIAL VARIETY TRIAL- IRRIGATED EARLY TRANSPLANTED (IVT-E TP)

Locations: 49 **Test Entries: 64**

Checks: CO-51 (National); PR 124 (Northern), Narendra 97 (Eastern), Luit (North Eastern), Sahbhagidhan (Central & Western), MTU 1153 (Southern)- Zonal and local check **Table: 3c**

Initial variety trial –Early Transplanted (IVT-ETP) was constituted with 61 test entries and 3 checks namelyCO51 (National check); Zonal -PR124 (Northern), Narendra 97 (Eastern), Luit (North Eastern), Sahbhagidhan (Central & Western), MTU1153 (Southern)and Local check.The trial was sent to 49 locations however data was not received from nine locations namely Chiplima, Hazaribagh, Chinsurah, Titabar, Arundathi Nagar, Bilaspur, Derol, Dahoi and Puducherry. Data from nine centers was excluded from analysis viz., Pantnagar, Sabour, Hathwara, Lembucherra, Rewa, Raipur, Rudrur, Pattambi and

Brahmawar due to either due to low (<5%) / high CV (20%) or low experimental yield (<4000Kg/ha) or based on significance of F value.

Among the centres from which data is included in analysis, location-wise mean grain yield ranged from 4030 kg/ha (Vyara) to 6121 kg/ha (Nawagam) while CV ranged from 5.04% (Aduthurai) to 19.42% (Moncompu). Overall mean grain yield of the entries ranged from 4024 kg/ha (IET31528) to 5805 kg/ha (IET31519); days to 50% flowering from 80 days (IET31528) to 101 days (IET315209); plant height ranged from 91cm (IET31516) to 144 cm (IET 31534); number of panicles per square ranged from 260 (IET31503) to 306 (31539).

Performance of the entries on overall mean basis

Among the varietal checks, zonal check was the highest yielder (5489 Kg/ha) followed by local check (5447 Kg/ha) and national check (4594 Kg/ha). The data pertaining to yield, days to 50% flowering, plant height, panicles/m^2 and quality are presented in tables 3c.2 and 3c.3 respectively. The Overall mean grain yield of the entries ranged from 4024 kg/ha (IET31528) to 5805 kg/ha (IET31519). Based on the overall performance entries namely IET 31519, IET 31509, IET 31557 and IET 31501recorded significant superiority over best check, hence these entries were promoted to AVT-1 ETP.

Performance of the entries on overall mean basis IVT- ETP, Zone III, Kharif 2023

Rank	IET No/ Designation/ Cross Combination	Grain Yield	50% DFF	Grain Type	Remarks
1	IET 31519/RCPR 101-IR107891-B-B-1432-2-1 // (IR 87707-446-B-B-B/ KALIAUS// IRRI 154/UPL RI 7 /// Dular (ACC 3561)/ IRRI 148)	5805	87	LS	Promoted for AVT 1-ETP in Zone III
2	IET 31509/ MTU 1409(MTU 2701-1-1-1-1)// (MTU 1121 / MTU 7029)	5763	101	MS	Promoted for AVT 1-ETP in Zone III
3	IET 31557 / CR 4469 - RGA – 9 // (CR 4384-RGA – 20/ CR 4389-RGA-12)	5747	94	MS	Promoted for AVT 1-ETP in Zone III
4	IET 31501 / JGL 41255 // (JGL 244423/ IR 09-251)	5727	90	LS	Promoted for AVT 1-ETP in Zone III
	CO 51(NC)	4594	83		
	Zonal check (ZC)	5489	87		
	Local check (LC)	5447	89		
	CD	225			
	BC+CD	5714			

Zonal performance of the entries

Northern Zone (Zone II)

The trial was evaluated at five locations viz., Pantnagar (Uttarkhand), Ludhiana (Punjab), Kaul (Haryana) and Kota (Rajasthan) and Nagina (Uttar Pradesh) covering fivestates of Northern Zone. The data received from Pantnagar was not included in analysis due to low experimental mean value. Experimental mean yield of the locations considered for analysis ranged from 4071 kg/ha (Ludhiana - Punjab) to 5516 kg/ha (Kota- Rajasthan) and CV% from 7.13% (Kaul) to 10.8.% (Ludhiana). Zonal mean yield of the entries varied from 3274 kg/ha (IET 31553) to 6016 kg/ha (Zonal Check); days to 50% flowering ranged from 76 days (IET 31528) to 104 days (IET 31554);plant height ranged from 86 cm (IET 31516) to 125cm (IET 31523) and panicles per square meter ranged from 223 (IET 31544) to 302(IET

31502).In Zone II, zonal check was the best check followed by local check and National Check which yielded 6016, 5458 and 4020 kg/ha respectively. In zone II, none of the entries recorded significant superiority over best check, therefore none of them were promoted to next year of testing.

Eastern Zone (Zone III)

The trial was evaluated at 13 locations viz., ICAR – NRRI (Cuttack), Jeypore and (Odisha), Chiplima, Bikramganj, Sabour, Patna (Bihar); Ranchi (Jharkhand), Chinsurah, Hatwara, Malda, Bankura (West Bengal), Masodha, Varanasi (UP) in Eastern Zone. Data from Hatwara and Sabour was not considered for analysis due to low experimental mean value. Experimental mean yield at the locations ranged from 4129 kg/ha (Ranchi) to 6073 kg/ha (Patna - ICAR) and CV% from 5.43 (Masodha) to 15.98 (Jeypore). Among the checks, local check was the best check followed by national check and zonal check which yielded 4918, 4508 and 4060 kg/ha respectively. Mean yield of the entries ranged from 3640 kg/ha (IET 31523) to 6203kg/ha (IET 31509); days to 50% flowering ranged from 80 days (ZC) to 98 days (IET 31509);plant height ranged from 84 cm (ZC) to 118 cm (IET 31535) and panicles per square meter ranged from 217 (IET 31556) to 302(IET 31516).

In zone III, entries viz., IET 31509, IET 31510, IET 31512, IET 31515, IET 31553, IET 31557, IET 31552 and IET 31550 recorded significant superiority over best check, hence these entries were promoted to AVT-1 ETP. (Zone III).

Performance of the entries IVT- ETP, Zone III, Kharif 2023

Rank	IET No/ Designation/ Cross Combination	Grain Yield	50% DFF	Grain Type	Remarks
1	IET 31509 / / MTU 1409(MTU 2701-1-1-1-1)// (MTU 1121 / MTU 7029)	6203	98	MS	Promoted
2	IET 31510 / NVSR-931 // (Gurjari/IR - 28)	6182	88	LB	Promoted
3	IET 31512/ RNR 37913 // (AAGP 9772 / NLR 34449)	5939	84	LS	Promoted
4	IET 31515 / NVSR – 908 // (IET 1121 / IET 24003)	5724	90	MS	Promoted
4	IET 31553 / CR 4379-4-1-1-1 //(CR Dhan 307/ MTU 1010)	5724	94	LB	Promoted
6	IET 31557 / CR 4469-RGA-9 // (CR 4384-RGA-20 / CR 4389-RGA-12)	5685	92	MS	Promoted
7	IET 31552/ Tilkormel Mutant – 12//(Sel. From Tilkormel landrace)	5365	86	-	Promoted
8	IET 31550 / CR 4418-4-1-2-1-2-1 //(CR 3553-9-2-1-1-1-1 / CR 3510-12-1-1-2-1-1)	5363	91	MS	Promoted
	CO 51(NC)	4508	81		
	Zonal check (ZC)Narendra 97	4060	80		
	Local check (LC)	4918	87		
	CD	376			
	BC+CD	5294			

North Eastern Zone (Zone IV)

The trial was sent for evaluation at 3 locations viz., Titabar, Arundtuhinagar and Lembucherra and the data from Titabar, Arundathinagar was not received thus these locations

not included for analysis. Data from Lembucherra was not considered for analysis due to low experimental mean value. So, no entries were promoted for 2nd year of testing (Zone IV).

Central Zone (Zone V)

The trial was sent to nine locations Viz., Rewa (MP), Raipur, Jagadalpur, Bilaspur, (Chhattisgarh), Sakoli and Sindewahi (Maharashtra) and data from Bilaspur was not received. The data obtained from Rewa and Raipur was not included in analysis due to low mean experimental yield. Experimental mean yield at the locations ranged from 4688 kg/ha (Sindewahi) to 5238 kg/ha (Jagadalpur) and CV% ranged from 12.40 (Jagadalpur) to 13.76 (Sindewahi). Mean yield of the entries ranged from 3095 kg/ha (IET 31537) to 6584 kg/ha (IET 31557); days to 50% flowering ranged from 81 days (IET 31537, IET 31523) to 109 days (IET 31509); plant height ranged from 86 cm (IET 31516) to 128 cm (IET 31553) and panicles per square meter ranged from 172 cm (IET 31561) to 304 cm (IET 31539). Among the checks, local check was the best check followed by zonal check and national check, which yielded 5839, 5181 and 4820 kg/ha respectively. In Zone V, IET 31557 recorded significant superiority over best check, hence these entry was promoted to AVT-1 ETP.

Performance of the entries IVT- ETP, Zone V, Kharif 2023

Rank	IET No/ Designation/ Cross Combination	Grain Yield	50% DFF	Grain Type	Remarks
1	IET 31557 / CR 4469-RGA-9 // (CR 4384-RGA-20 / CR 4389-RGA-12)	6584	97	MS	Promoted
	CO 51(NC)	4820	85		
	Zonal check (ZC)Sahbhagidhan	5181	88		
	Local check (LC)	5839	89		
	CD	743			
	BC+CD	6582			

Western Zone (Zone VI)

The trial was sent for evaluation at six locations viz., Karat, Radhanagari (Maharashtra), Nawagam, Derol, Dabhoi, Vyara (Gujarat), and data from Derol, Dabhoi were not received. Experimental mean yield at the locations ranged from 4030 kg/ha (Vyara) to 6121 Kg/ha (Nawagam) and CV% ranged from 10.01(Radhanagari) to 15.64 (Vyara). Mean yield of the entries ranged from 3492 kg/ha (IET31528) to 6006 kg/ha (IET 31512); days to 50% flowering ranged from 77 days (IET 31528) to 102 days (IET 31509); plant height ranged from 103 cm (IET 31537) to 148 cm (IET 31553) and panicles per square meter ranged from 229 (IET 31558) to 310(IET 31512). Among the checks, local check was the best check followed by national check and zonal check, which yielded 4940, 4083 and 4070 kg/ha respectively.

In zone VI, entries viz., IET 31512, IET 31515, IET 31540, IET 31533, IET 31533, IET 31519, IET 31577 recorded significant superiority over best check, hence these entries were promoted to AVT-1 ETP.

Performance of the entries IVT- ETP, Zone VI , Kharif 2023

Rank	IET No/ Designation/ Cross Combination	Grain Yield	50% DFF	Grain Type	Remarks
1	IET 31512/ RNR 37913 // (AAGP 9772 / NLR 34449)	6006	89	LS	Promoted
2	IET 31515 / NVSR – 908 // (IET 1121 / IET 24003)	5986	90	MS	Promoted
3	IET 31540/ TM 13327// (WGL 305/ Rasi)	5848	91	MS	Promoted
4	IET 31505 / KM 14376 // (KNM 118/ IR 04A216)	5777	95	LS	Promoted
4	IET 31553 / CR 4379-4-1-1-1 //(CR Dhan 307/ MTU 1010)	5777	100	LB	Promoted
6	IET 31519/RCPR 101-IR107891-B-B-1432-2-1 // (IR 87707-446-B-B-B/ KALIAUS// IRRI 154/UPL RI 7 /// Dular (ACC 3561)/ IRRI 148)	5755	92	LS	Promoted
7	IET 31557 / CR 4469-RGA-9 // (CR 4384-RGA-20 / CR 4389-RGA-12)	5632	95	MS	Promoted
	CO 51(NC)	4083	83		
	Zonal check (ZC) Sahbhagidhan	4070	88		
	Local check (LC)	4940	88		
	CD	590			
	BC+CD	5530			

Southern Zone (Zone VII)

The trial was sent to 16 locations viz., Maruteru, Rudrur, Kunaram, Warangal, Jagatyal, Aduthurai, Coimbatore, Tirur, Moncompu, Pattambi, Mandya, Mugad, Brahmavar, Kurumbapet and Karaikal. The experimental data was not obtained from Puducherry and data obtained from Rudrur, Pattambi, Bramhavar reported very high CV% or low mean experimental yield, hence these locations were not included in analysis. Experimental mean yield at the locations ranged from 4330 kg/ha (Moncompu) to 7246Kg/ha (Kunaram) and CV% ranged from 5.04 (Aduthurai) to 19.42 (Moncompu). Mean yield of the entries ranged from 4529 kg/ha (IET 31528) to 6816 kg/ha (ZC); days to 50% flowering 81 days (IET 31528) to 103 days (IET 31542); plant height ranged from 86 cm (IET 31537) to 170 cm (IET 31534) and panicles per square meter ranged from 293 (IET 31503) to 349(IET 315124 Among the checks, zonal check was the best check followed by local check and national check which yielded 6816, 5868 and 4957 kg/ha respectively. In Zone VII, none of the entries recorded significant superior yield performance over best check, hence, none promoted.

SUMMARY

INITIAL VARIETY TRIAL- Early Transplanted (IVT-ETP)- Kharif 2023

IVT-ETP The trial comprised of 64 test entries and three checks and tested in 40 locations.

Checks: CO 51 (National); PR 124 (Northern), Narendra 97 (Eastern), Luit (North Eastern), Sahbhagidhan (Central & Western), MTU 1153 (Southern)- Zonal and local check

List of the entries promoted in IVT-ETP
Overall: IET 31519, IET 31509, IET 31557 and IET 31501
Zone II: None of the entries promoted
Zone III: IET 31509, IET 31510, IET 31512, IET 31515, IET 31553, IET 31557, IET 31552, IET 31550
Zone IV: None of the entries promoted
Zone V: IET 31557
Zone VI: IET 31512, IET 31515, IET 31540, IET 31533, IET 31533, IET 31519, IET 31577
Zone VII: None of the entries promoted

Table No 3a.1: Composition of entries in Advance Variety Trial 2- Early Transplanted (AVT 2 – E TP), Kharif 2023.

Entry No.	IET No.	Designation	Cross Combination	GT
3rd year of testing				
3301	29940	CRU-BCKV-22-35 (14-N22 / 35-13-4-5-2)	N22 / IET 25701	SB
3302	29939	CR 4060-1318-5-2-2-2-1-5-3-4	IET 22729 / Browngora	LS
3303	29689	***HRI-214***	***Hybrid***	LS
3304	29694	***UPLRH-181325***	***Hybrid***	LB
3305	29691	***VNR-228***	***Hybrid***	SB
3306	**CO-51 (NC)**			
3307	29696	***PAN-2150***	***Hybrid***	LS
3308	28965	***Pusa RH-60***	***Hybrid***	LS
3309	29692	***UPLRH-162087***	***Hybrid***	LS
3310	**PR 124 (Northern), Narendra 97 (Eastern), Luit (North Eastern), Sahbhagidhan (Central & Western), MTU 1153 (Southern) (ZC)**			
3311	29700	***JKRH-1004***	***Hybrid***	LS
3312	29975	KPS 6251	MTU 1010 / Chittimuthyalu	LS
3313	28956	***JKRH-1601***	***Hybrid***	LB
3314	29690	***UPLRH-180842***	***Hybrid***	LB
3315	**US 314 (Hybrid Check)**			
3316	28123	***IIRRH-130***	***Hybrid***	MS
3317	29142 (R)	JGL 35085	(JGL 20171 / NLR 34449) / JGL 20171	LB
3318	29947	NLR 3684	NLR 34449 / NLR 33359	SB
3319	**Local Check (LC)**			

Table No. 3a.2: Grain Yield (kg/ha) in AVT 2 – ETP, Kharif 2023

Entry No	IET No	ZONE-II NORTHERN									
		Punjab (1)		Haryana (1)		Rajasthan (1)		Uttapradesh1 (1)		Zone 2 (4)	
		Ludhiana		Kaul		Kota		Nagina		Mean	
3301	29940	7237	#	8267	1 #	6615	8 * #	4793	7 * #	6728	4 #
3302	29939	5842		8089	2 #	7160	3 * #	4130	10	6305	#
3303	29689	6690		6511		6901	6 * #	5117	5 * #	6305	#
3304	29694	10132	1 #	6889		7392	1 * #	4861	6 * #	7319	1 * #
3305	29691	8412	5 #	8000	3 #	7297	2 * #	4081		6948	3 * #
3306	CO-51 (NC)	3608		7689	4	5510		3085		4973	
3307	29696	5538		7444	7	6097		5827	2 * #	6227	#
3308	28965	8111	7 #	7333	8	7079	4 * #	4013		6634	5 #
3309	29692	8602	4 #	6600		7065	5 * #	3224		6373	9 #
3310	PR 124 (ZC)	7465	#	5822		5060		4272	8	5655	
3311	29700	7749	10 #	6489		5933		4253	9	6106	#
3312	29975	7208	#	6933		5756		6037	1 * #	6484	7 #
3313	28956	8035	8 #	7667	5	6547	10 * #	3464		6428	8 #
3314	29690	8620	3 #	7311	9	6833	7 * #	5292	3 * #	7014	2 * #
3315	US 314 (Hybrid Check)	6181		7022		5306		3800		5577	
3316	28123	7053	#	7578	6	6438	#	5251	4 * #	6580	6 #
3317	29142 (R)	8132	6 #	6111		6247		3178		5917	
3318	29947	8003	9 #	6489		6601	9 * #	3734		6207	#
3319	Local Check (LC)	9327	2 #	7178	10	5046		3751		6326	10 #
Exp. Mean		**7471**		**7127**		**6362**		**4324**		**6321**	
F Value		**24.81(p<0.0001)S**		**6.27(p<0.0001)S**		**4.86(p<0.0001)S**		**25.68(p<0.0001)S**		**12.94(p<0.0001)S**	
CD		812		741		985		487		411	
CV%		**6.56**		**6.28**		**9.35**		**6.80**		**3.93**	
D/S		06-10-2023		07-01-2023		27-06-2023		26-06-2023			
D/P		07-10-2023		31-07-2023		24-07-2023		23-07-2023			
Local Check Name		PR 126		PR-126		Pratap -1		Narendra 97			

Table No. 3a.2 (Contd).: Grain Yield (kg/ha) in AVT 2 – ETP, Kharif 2023

Entry No	IET No	ZONE III - EASTERN									
		Odisha				Odisha (2)		Bihar			
		ICAR-NRRI (Cuttack)		Jeypore		Mean		Bikramganj		Sabour	
3301	29940	4930		2894		3912		5837	8	5690	3
3302	29939	4783		4644	7	4714	#	4803		4540	
3303	29689	5540	5	4127		4834	8 #	6296	5	5170	6
3304	29694	6473	3	4677	6	5575	3 * #	6688	2	5807	2
3305	29691	6023	4	3572		4798	9 #	7056	1	5520	4
3306	CO-51 (NC)	2963		3221		3092		4557		3847	
3307	29696	6817	1	4461		5639	2 * #	4400		4800	8
3308	28965	5283	6	5579	4	5431	4 * #	6131	6	4383	
3309	29692	3963		3109		3536		6582	3	5059	7
3310	PR 124 (ZC)	2943		1892		2418		2689		2953	
3311	29700	3223		2432		2828		4501		3455	
3312	29975	2780		3090		2935		5222		4593	
3313	28956	6623	2	8725	1	7674	1 * #	5378	10	6517	1
3314	29690	4383		6089	2	5236	7 #	6430	4	4657	9
3315	US 314 (Hybrid Check)	3040		4599	8	3820		3398		4477	
3316	28123	4993	9	5750	3	5372	5 * #	3571		5485	5
3317	29142 (R)	5120	7	5422	5	5271	6 #	5548	9	4440	
3318	29947	4967	10	4580	9	4774	#	5998	7	4613	10
3319	Local Check (LC)	5100	8	4487	10	4794	10 #	3672		4260	
Exp. Mean		**4734**		**4387**		**4561**		**5198**		**4751**	
F Value		**17.87(p<0.0001)S**		**59.26(p<0.0001)S**		**44.48(p<0.0001)S**		**41.23(p<0.0001)S**		**7.16(p<0.0001)S**	
CD		834		553		518		544		863	
CV%		**10.64**		**7.61**		**6.86**		**6.32**		**10.96**	
D/S		21-06-2023		07-07-2023				07-01-2023		07-01-2023	
D/P		28-07-2023		08-07-2023				30-07-2023		08-04-2023	
Local Check Name		CR Dhan 318		Mandakini				R. Bhagwati		Sabour Harshit Dhan	

Table No. 3a.2 (Contd).: Grain Yield (kg/ha) in AVT 2 – ETP, Kharif 2023

Entry No	IET No	ZONE III - EASTERN									
		Bihar		Bihar (3)		Jharkhand (1)		West Bengal			
		Patna-ICAR		Mean		Hazaribagh		Hathwara		Malda	
3301	29940	7308	7	6278	6 * #	3799		5196	9	6622	1
3302	29939	6013		5119	#	4624	7	4970		4139	10
3303	29689	8350	1	6605	3 * #	5018	5	5892	1	3667	
3304	29694	7829	3	6775	1 * #	5161	4	5733	3	4167	8
3305	29691	6938	9	6505	5 * #	5448	2	5559	5	4333	4
3306	CO-51 (NC)	4654		4353		3118		3580		3833	
3307	29696	6921	10	5374	* #	3477		5547	6	4389	3
3308	28965	7475	6	5996	8 * #	4050	10	5705	4	4111	
3309	29692	8263	2	6635	2 * #	5957	1	5399	8	3889	
3310	PR 124 (ZC)	3413		3018		3799		3775		3778	
3311	29700	6125		4694		3254		5171	10	4278	6
3312	29975	6088		5301	* #	3505		4129		4333	4
3313	28956	7663	4	6519	4 * #	4373	8	5463	7	4111	
3314	29690	7625	5	6237	7 * #	3011		5747	2	4167	8
3315	US 314 (Hybrid Check)	5346		4407		4014		3230		3944	
3316	28123	6488		5181	* #	4373	8	4940		3417	
3317	29142 (R)	7033	8	5674	10 * #	4875	6	4655		4244	7
3318	29947	6838		5816	9 * #	4014		4759		4111	
3319	Local Check (LC)	6204		4712		5269	3	4446		4611	2
Exp. Mean		**6662**		**5537**		**4271**		**4942**		**4218**	
F Value		**36.77(p<0.0001)S**		**44.43(p<0.0001)S**		**8.80(p<0.0001)S**		**5.14(p<0.0001)S**		**2.76(p<0.0040)S**	
CD		557		410		779		988		1064	
CV%		**5.05**		**4.47**		**11.01**		**12.08**		**15.24**	
D/S		07-09-2023				22-07-2023		07-06-2023		16-06-2023	
D/P		08-02-2023				17-08-2023		08-06-2023		24-07-2023	
Local Check Name		Sahbhagi Dhan				CR Dhan 320		Lalat		Ajit	

Table No. 3a.2 (Contd).: Grain Yield (kg/ha) in AVT 2 – ETP, Kharif 2023

Entry No	IET No	ZONE III - EASTERN								ZONE-IV NORTHER EASTERN	
		West Bengal (2)		Uttapradesh 2 (1)		Uttapradesh (2)		Zone 3 (9)		Tripura (1)	
		Mean		Varanasi		Maen		Maen		Lembucherra	
3301	29940	5909	1 * #	3769		4281		5116	8 * #	4814	8 *
3302	29939	4555	#	3317		3723.5		4648	#	6773	1 * #
3303	29689	4780	8 #	3894		4505.5	7	5328	5 * #	3556	
3304	29694	4950	4 #			4861	5 #	5817	1 * #	4611	9 *
3305	29691	4946	5 #	4508	6	4294.5	10	5440	4 * #	3265	
3306	CO-51 (NC)	3707		4181		3633		3773		2446	
3307	29696	4968	2 #	4455	7	5141	3 *#	5030	10 #	4202	
3308	28965	4908	6 #	6330	2 * #	5171.5	2 *#	5450	3 * #	3084	
3309	29692	4644	10 #	4812	4	4018		5226	6 * #	4829	7 *
3310	PR 124 (ZC)	3777		4298	10	4285		3282		2999	
3311	29700	4725	9 #	4709	5	4481	8	4128		3903	
3312	29975	4231		4197		5117	4 *#	4215		5028	6 *
3313	28956	4787	7 #	1747		2605.5		5622	2 * #	4146	
3314	29690	4957	3 #	4428	8	4860	6 #	5171	7 * #	6444	3 * #
3315	US 314 (Hybrid Check)	3587		4053		3926.5		4011		4264	10
3316	28123	4179		6579	1 * #	5915	1 *#	5066	9 * #	6588	2 * #
3317	29142 (R)	4450	#	3897		3537.5		5026	#	5294	5 *
3318	29947	4435	#	4393	9	4063.5		4919	#	5662	4 * #
3319	Local Check (LC)	4529	# 26%	4977	3	4364	9	4781	#	3368	
Exp. Mean		**4580**		**4364**		**4357**		**4845**		**4488**	
F Value		**4.37(p<0.0001)S**		**5.85(p<0.0001)S**		**8.95(p<0.0001)S**		**41.79(p<0.0001)S**		**9.43(p<0.0001)S**	
CD		719		1178		679		284		1129	
CV%		**9.48**		**16.27**		**9.41**		**3.54**		**15.20**	
D/S				08-06-2023						07-10-2023	
D/P				05-07-2023						08-01-2023	
Local Check Name				HUR-3022						HAKUCHUK-2	

Table No. 3a.2 (Contd).: Grain Yield (kg/ha) in AVT 2 – ETP, Kharif 2023

Entry No	IET No	ZONE-IV NORTHER EASTERN		ZONE V- CENTRAL							
		Zone 4 (1)		Madhya Pradesh (1)		Chhattisgarh				Chhattisgarh (2)	
		Mean		Rewa		Jagadalpur		Bilaspur		Mean	
3301	29940	4814	8 *	4136		7381		7295	1	7338	5 * #
3302	29939	6773	1 * #	5482	8 #	6998		6164	8	6581	
3303	29689	3556		6586	2 * #	7898	6	7222	2	7560	2 * #
3304	29694	4611	9 *	5650	6 #	8372	2	6675	6	7524	3 * #
3305	29691	3265		5270	9 #	7087		6585	7	6836	10
3306	CO-51 (NC)	2446		3335		7455	10	4687		6071	
3307	29696	4202		6385	3 * #	8076	4	6161	9	7119	8 *
3308	28965	3084		5585	7 #	7131		5658		6395	
3309	29692	4829	7 *	3647		8239	3	6711	5	7475	4 * #
3310	PR 124 (ZC)	2999		3773		6012		4822		5417	
3311	29700	3903		3251		6541		4523		5532	
3312	29975	5028	6 *	5066	#	7059		5263		6161	
3313	28956	4146		5110	#	7364		6918	3	7141	7 *
3314	29690	6444	3 * #	6133	4 * #	7902	5	6725	4	7314	6 * #
3315	US 314 (Hybrid Check)	4264	10	3287		7659	8	4921		6290	
3316	28123	6588	2 * #	5865	5 #	7636	9	6082		6859	9
3317	29142 (R)	5294	5 *	6615	1 * #	7819	7	5708		6764	
3318	29947	5662	4 * #	4819	#	9151	1	6143	10	7647	1 * #
3319	Local Check (LC)	3368		5133	10 #	6891		5132		6012	
Exp. Mean		**4488**		**5007**		**7509**		**5968**		**6739**	
F Value		**9.43(p<0.0001)S**		**9.70(p<0.0001)S**		**2.68(p<0.00481)S**		**7.32(p<0.0001)S**		**4.99(p<0.0001)S**	
CD		1129		991		1256		894		862	
CV%		**15.20**		**11.95**		**10.10**		**9.04**		**7.73**	
D/S				07-04-2023		07-09-2023		14-06-2023			
D/P				08-09-2023		08-03-2023		13-07-2023			
Local Check Name				JR206		Samleshwari		Chandr			

Table No. 3a.2 (Contd).: Grain Yield (kg/ha) in AVT 2 – ETP, Kharif 2023

Entry No	IET No	ZONE V- CENTRAL								ZONE VI -WESTERN	
		Maharashtra 1				Maharashtra 1 (2)		Zone 5 (5)		Maharashtra 2	
		Sakoli		Sindhewahi		Mean		Mean		Karjat	
3301	29940	6356	3	4247		5302	6 #	5883	8 #	5393	7
3302	29939	5511	9	4201		4856	9 #	5671	10 #	6147	4
3303	29689	4856		4373		4615	#	6187	6 #	6153	3
3304	29694	4993		5461	2	5227	7 #	6230	3 * #	5133	10
3305	29691	4311		4905	5	4608	#	5632	#	4535	
3306	CO-51 (NC)	3889		3020		3455		4477		4704	
3307	29696	5656	7	5352	3	5504	4 #	6326	2 * #	3886	
3308	28965	6244	4	3442		4843	10 #	5612	#	5361	8
3309	29692	5156	10	4400	10	4778	#	5631	#	5127	
3310	PR 124 (ZC)	4267		3612		3940		4497		4880	
3311	29700	3511		4869	6	4190		4539		3281	
3312	29975	4856		4231		4544	#	5295	#	5133	10
3313	28956	4067		3652		3860		5422	#	6270	2
3314	29690	5700	6	5248	4	5474	5 #	6342	1 * #	6563	1
3315	US 314 (Hybrid Check)	3867		3235		3551		4594		4087	
3316	28123	6900	1	4602	7	5751	1 #	6217	5 * #	4224	
3317	29142 (R)	5522	8	4577	8	5050	8 #	6048	7 #	5543	6
3318	29947	6556	2	4468	9	5512	3 #	6227	4 * #	5660	5
3319	Local Check (LC)	5822	5	5488	1	5655	2 #	5693	9 #	5328	9
Exp. Mean		**5160**		**4389**		**4774**		**5606**		**5127**	
F Value		**7.94(p<0.0001)S**		**5.04(p<0.0001)S**		**7.68(p<0.0001)S**		**11.98(p<0.0001)S**		**7.72(p<0.0001)S**	
CD		974		913		698		514		851	
CV%		**11.40**		**12.57**		**8.83**		**5.54**		**10.02**	
D/S		23.06.2023		29-06-2023						17-06-2023	
D/P		21.07.2023		25-07-2023						07-12-2023	
Local Check Name		PDKV SADHANA		PDKV-SADHANA						Karjat - 7	

Table No. 3a.2 (Contd).: Grain Yield (kg/ha) in AVT 2 – ETP, Kharif 2023

Entry No	IET No	ZONE VI -WESTERN									
		Maharashtra 2		Maharashtra 2 (2)		Maharashtra (4)		Gujarat			
		Radhanagari		Mean		Mean		Nawagam		Vyara	
3301	29940	3330		4362	#	4831.5	10 #	4456	7	4671	
3302	29939	3181		4664	#	4760	#	2859		5159	8
3303	29689	3318		4736	#	4675	#	4722	5	4346	
3304	29694	5739	4	5436	4 #	5331.5	3 #	5590	1	6342	2
3305	29691	3881		4208	#	4408	#	4097	9	5428	6
3306	CO-51 (NC)	2807		3756		3605		3154		4549	
3307	29696	5171	5	4529	#	5016.25	8 #	3924		4720	
3308	28965	4360	9	4861	8 #	4851.75	9 #	3646		7066	1
3309	29692	6092	3	5610	2 * #	5193.75	6 #	3814		5889	5
3310	PR 124 (ZC)	3527		4204	# 23%	4071.5		2153		4507	
3311	29700	4072		3677		3933.25		3171		4699	
3312	29975	4507	8	4820	10 #	4681.75	#	4468	6	3950	
3313	28956	4775	6	5523	3 * #	4691	#	4965	4	5298	7
3314	29690	6747	1	6655	1 * #	6064.5	1 * #	3953	10	5946	4
3315	US 314 (Hybrid Check)	2749		3418		3484.5		3727		4211	
3316	28123	6455	2	5340	5 #	5545.25	2 #	5370	3	6188	3
3317	29142 (R)	4611	7	5077	6 #	5063.25	7 #	4236	8	4968	9
3318	29947	4150		4905	7 #	5208.5	5 #	3953	10	4934	10
3319	Local Check (LC)	4351	10	4840	9 #	5247.25	4	5515	2	4893	
Exp. Mean		**4412**		**4769**		**4772**		**4093**		**5145**	
F Value		**15.91(p<0.0001)S**		**10.96(p<0.0001)S**		**14.63(p<0.0001)S**		**13.33(p<0.0001)S**		**3.25(p<0.0010)S**	
CD		811		632		465		696		1238	
CV%		**11.11**		**8.01**		**5.89**		**10.26**		**14.53**	
D/S		15-06-2023						16-06-2023		20-06-2023	
D/P		20-07-2023						26-07-2023		21-07-2023	
Local Check Name		Phule Radha						Mahisagar		GR 17 (Sardar)	

Table No. 3a.2 (Contd).: Grain Yield (kg/ha) in AVT 2 – ETP, Kharif 2023

Entry No	IET No	ZONE VI -WESTERN				ZONE VII - SOUTHERN					
		Gujarat (2)		Zone 6 (4)		Andhra Pradesh (1)		Telangana			
		Mean		Mean		Maruteru		Rudrur		Kampasagar	
3301	29940	4564	10	4463	#	5183	8	4083		6562	
3302	29939	4009		4337	#	4626		6358	3	6086	
3303	29689	4534		4635	10 #	5970	3	2966		7900	3
3304	29694	5966	1 * #	5701	2 * #	5649	5	4062		5818	
3305	29691	4763	8 #	4485	#	6319	1 *	4287	10	7652	5
3306	CO-51 (NC)	3852		3804		2824		2683		4751	
3307	29696	4322		4425	#	4790		8691	1	7930	2
3308	28965	5356	3 #	5108	6 #	4885		4579	8	6792	10
3309	29692	4852	7 #	5231	5 #	5260	6	4380	9	7037	8
3310	PR 124 (ZC)	3330		3767		5098	9	6328	4	5885	
3311	29700	3935		3806		3987		2770		4687	
3312	29975	4209		4515	#	4423		8367	2	8029	1
3313	28956	5132	5 #	5327	4 #	6092	2	2622		7809	4
3314	29690	4950	6 #	5802	1 * #	5224	7	3558		7422	6
3315	US 314 (Hybrid Check)	3969		3694		5868	4	3237		5142	
3316	28123	5779	2 #	5559	3 * #	4228		3701		7362	7
3317	29142 (R)	4602	9	4840	8 #	4968		5891	6	5895	
3318	29947	4444		4674	9 #	5081	10	5833	7	6891	9
3319	Local Check (LC)	5204	4 #	5022	7 #	5038		6247	5	6123	
Exp. Mean		**4619**		**4694**		**5027**		**4771**		**6620**	
F Value		**6.42(p<0.0001)S**		**11.93(p<0.0001)S**		**4.89(p<0.0001)S**		**59.57(p<0.0001)S**		**6.85(p<0.0001)S**	
CD		743		519		1067		647		1127	
CV%		**9.71**		**6.68**		**12.81**		**8.19**		**10.28**	
D/S						13-07-2023		17-06-2023		07-04-2023	
D/P						08-10-2023		15-07-2023		28-07-2023	
Local Check Name						MTU1156		MTU-1010		KNM-118	

Table No. 3a.2 (Contd).: Grain Yield (kg/ha) in AVT 2 – ETP, Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN									
		Telangana						Telangana (5)		Tamilnadu	
		Kunaram		Warangal		Jagtial		Mean		Coimbatore	
3301	29940	7276	7	8711	8	10013	3	7329	5 #	6566	3
3302	29939	7370	6	8578	9	5640		6806	#	5983	10
3303	29689	7070	8	5319		9450	5	6541	#	5500	
3304	29694	7932	3	10374	1	10069	2	7651	2 * #	6735	2
3305	29691	8293	2	9115	6	8771	6	7624	3 #	5651	
3306	CO-51 (NC)	6146		3227		5052		4372		4396	
3307	29696	7399	5	9138	5	8065		8245	1 * #	5272	
3308	28965	4958		6891		8342	8	6312	#	6521	6
3309	29692	8564	1	7049		8107	10	7027	9 #	5550	
3310	PR 124 (ZC)	6617		8754	7	8623	7	7241	7 #	6836	1
3311	29700	7061	9	5782		4286		4917		3895	
3312	29975	5216		6590		7907		7222	8 #	6565	4
3313	28956	5874		9249	4	8322	9	6775	#	5498	
3314	29690	7901	4	9279	3	9859	4	7604	4 #	6137	8
3315	US 314 (Hybrid Check)	6300		6355		6366		5480		5147	
3316	28123	6860	10	9400	2	5909		6646	#	6185	7
3317	29142 (R)	6085		8318	10	8047		6847	10 #	6549	5
3318	29947	5986		7533		10257	1	7300	6 #	5593	
3319	Local Check (LC)	6328		6804		6602		6421	#	6094	9
Exp. Mean		**6802**		**7709**		**7878**		**6756**		**5825**	
F Value		**8.67(p<0.0001)S**		**22.80(p<0.0001)S**		**32.75(p<0.0001)S**		**45.80(p<0.0001)S**		**8.27(p<0.0001)S**	
CD		923		1014		852		388		746	
CV%		**8.20**		**7.94**		**6.53**		**3.46**		**7.73**	
D/S		27-06-2023		30-06-2023		17-06-2023				24-06-2023	
D/P		26-07-2023		08-03-2023		07-11-2023				18-07-2023	
Local Check Name		KNM 118		WGL 962		JGL 18047				CO 54	

Table No. 3a.2 (Contd).: Grain Yield (kg/ha) in AVT 2 – ETP, Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN									
		Tamilnadu		Tamilnadu (2)		Kerala (1)		Karnataka			
		Tirur		Mean		Moncompu		Mandya		Mugad	
3301	29940	5051		5809		2484		5305	8	9090	2
3302	29939	5243		5613		4226	8	5405	5	7847	
3303	29689	6781	4	6141	7	3998		6353	1	8766	8
3304	29694	5953	8	6344	3	5467	2 * #	4526		7957	
3305	29691	7631	2	6641	1	4019		5049	10	8976	3
3306	CO-51 (NC)	5624	10	5010		3877		2598		7365	
3307	29696	5297		5285		4625	5 #	5328	6	6879	
3308	28965	5125		5823		4521	6	5220	9	8968	4
3309	29692	6350	7	5950		4113		6069	2	9370	1
3310	PR 124 (ZC)	5637	9	6237	5	2897		5326	7	7936	
3311	29700	5044		4470		3531		3088		6234	
3312	29975	5400		5983	9	3650		3011		6585	
3313	28956	7691	1	6595	2	4125	9	5453	4	7976	10
3314	29690	5621		5879		5024	3 #	5704	3	8886	6
3315	US 314 (Hybrid Check)	7439	3	6293	4	3691		3051		8225	9
3316	28123	5139		5662		6294	1 * #	4137		7116	
3317	29142 (R)	5356		5953	10	4734	4 #	4142		8818	7
3318	29947	6533	5	6063	8	4119	10	4750		8968	4
3319	Local Check (LC)	6366	6	6230	6	4507	7	3989		7221	
Exp. Mean		**5962**		**5894**		**4205**		**4658**		**8062**	
F Value		**8.76(p<0.0001)S**		**7.11(p<0.0001)S**		**6.68(p<0.0001)S**		**56.33(p<0.0001)S**		**1.97(p<0.0375)S**	
CD		822		544		922		400		1851	
CV%		**8.32**		**5.57**		**13.24**		**5.19**		**13.87**	
D/S		09-08-2023				16-06-2023		08-01-2023		18-07-2023	
D/P		10-03-2023				07-01-2023		25-08-2023		19-08-2023	
Local Check Name		CO 54				MO 21 Prathyasa		Raksha		MGD-101	

Table No. 3a.2 (Contd).: Grain Yield (kg/ha) in AVT 2 – ETP, Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN						Overall Mean (35)	
		Karnataka (2)		Puducherry (1)		Zone 7 (12)			
		Mean		Kurumbapet		Mean			
3301	29940	7198	4 #	7300	5 *	6469	9 * #	5790	8 * #
3302	29939	6626	10 #	6629	10	6166	#	5529	#
3303	29689	7560	2 #	8078	2 * #	6513	7 * #	5839	7 * #
3304	29694	6242		6656	9	6767	2 * #	6340	1 * #
3305	29691	7013	6 #	8427	1 * #	7016	1 * #	6009	3 * #
3306	CO-51 (NC)	4982		3489		4336		4169	
3307	29696	6104		5099		6543	5 * #	5778	10 * #
3308	28965	7094	5 #	6763	8	6130	#	5735	* #
3309	29692	7720	1 * #	7085	7	6578	4 * #	5867	5 * #
3310	PR 124 (ZC)	6631	9 #	4187		6177	#	4767	
3311	29700	4661		7139	6	4792		4597	
3312	29975	4798		5421		5930	#	5274	#
3313	28956	6715	8 #	7649	4 *	6530	6 * #	5921	4 * #
3314	29690	7295	3 #	5797		6701	3 * #	6182	2 * #
3315	US 314 (Hybrid Check)	5638		6549		5614		4794	
3316	28123	5627		6334		6055	#	5843	6 * #
3317	29142 (R)	6480		7783	3 *	6382	10 #	5725	* #
3318	29947	6859	7 #	6173		6476	8 * #	5780	9 * #
3319	Local Check (LC)	5605		5931		5938	#	5471	#
Exp. Mean		**6360**		**6447**		**6164**		**5548**	
F Value		**7.29(p<0.0001)S**		**6.66(p<0.0001)S**		**47.51(p<0.0001)S**		**106.86(p<0.0001)S**	
CD		932		1359		261		152	
CV%		**8.85**		**12.73**		**2.56**		**1.65**	
D/S				13-07-2023					
D/P				08-12-2023					
Local Check Name				ADT-53					

Table No. 3a.2 (Contd).: Grain Yield (kg/ha) in AVT 2 – ETP, (Trials Not Considered), Kharif 2023

Entry No	IET No	Trial not considered									
		Uttarakhand		Odisha		Jharkhand		Uttar Pradesh		Tripura	
		@Pantnagar		@Chiplima		@Ranchi		@Masodha		@Arundhutinagar	
3301	29940	5318	1	3040		4558	5	5736	4	4722	10
3302	29939	2463		2330		3125		5346		4286	
3303	29689	4345	7	2736		4037	7	5881	2	4941	6
3304	29694	4663	4	5724	1	3842	9	4956		4941	6
3305	29691	3773		3587	8	5144	3	5352		5013	4
3306	CO-51 (NC)	3127		4858	2	3321	10	4419		4674	
3307	29696	4405	6	2913		5600	1	6050	1	4310	
3308	28965	4096	10	3171	10	3321	10	5387		4335	
3309	29692	4257	9	2335		4558	5	5510	9	4432	
3310	PR 124 (ZC)	3189		4564	3	2930		4662		4504	
3311	29700	3482		2153		2279		4970		4504	
3312	29975	3661		2021		3125		5619	7	4868	8
3313	28956	4272	8	4321	5	2539		4918		5038	3
3314	29690	4623	5	2133		4688	4	5728	5	5086	2
3315	US 314 (Hybrid Check)	3204		4422	4	2149		5633	6	4965	5
3316	28123	4684	2	4169	7	2735		5505	10	4528	
3317	29142 (R)	4669	3	2715		3907	8	5813	3	5135	1
3318	29947	3934		3293	9	5209	2	5529	8	4335	
3319	Local Check (LC)	2498		4255	6	2539		4629		4844	9
Exp. Mean		**3930**		**3407**		**3663**		**5350**		**4708**	
F Value		**2.13(p<0.0001)S**		**37.12(p<0.0001)S**		**2.60(p<0.0001)S**		**9.31(p<0.0001)S**		**34.26(p<0.0001)S**	
CD		1466		482		639		415		166	
CV%		**22.53**		**8.54**		**10.54**		**4.69**		**2.12**	
D/S		06-07-2023		20-07-2023		07-01-2023		24-06-2023		17-07-2023	
D/P		07-07-2023		09-02-2023		18/8/2023		24-07-2023		08-11-2023	
Local Check Name		Govind		MTU-1156		BVD-110		Shushak Smart		i Dhan (3319) & Kalikha	

Table No. 3a.2 (Contd).: Grain Yield (kg/ha) in AVT 2 – ETP, (Trials Not Considered), Kharif 2023

Entry No	IET No	Trial not considered							
		Chattisgarh		Tamilnadu		Kerala		Karnataka	
		@Raipur		@Aduthirai		@Pattambi		@Brahmawar	
3301	29940	3833	7	6916	2	5047		4088	5
3302	29939	3920	5	6225		5422		4900	1
3303	29689	3766	9	6183		7658	3	3949	7
3304	29694	4257	2	6826	4	6336	8	4066	6
3305	29691	3528		6796	5	5927		4179	4
3306	CO-51 (NC)	3316		6045		5533		4198	3
3307	29696	4157	3	6135		7540	5	4274	2
3308	28965	3708	10	6405	10	6584	7	2573	
3309	29692	3801	8	6465	9	5566		3324	9
3310	PR 124 (ZC)	3611		5925		5601		2562	
3311	29700	3360		5565		7901	2	2557	
3312	29975	3094		5805		8195	1	3087	10
3313	28956	4634	1	6871	3	5987	10	2203	
3314	29690	3859	6	6706	7	5834		2415	
3315	US 314 (Hybrid Check)	3158		5535		6706	6	2576	
3316	28123	4037	4	6495	8	5204		2405	
3317	29142 (R)	3138		6766	6	7584	4	2565	
3318	29947	3252		7426	1	6104	9	2405	
3319	Local Check (LC)	3537		6255		5474		3649	8
Exp. Mean		**3682**		**6387**		**6327**		**3262**	
F Value		**1.58(p<0.1149)NS**		**8.03(p<0.0001)S**		**40.79(p<0.0001)S**		**46.99(p<0.0001)S**	
CD		938		489		424		341	
CV%		**15.38**		**4.62**		**4.04**		**6.31**	
D/S		07-05-2023		22-06-2023		07-11-2023		06-06-2023	
D/P		08-06-2023		31-07-2023		08-05-2023		07-11-2023	
Local Check Name		Indira Aerobic-1		ADT 56		Kanchana		MO 21	

Table No. 3a.3 : Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 – ETP, Kharif 2023

Entry No	IET No	ZONE II - NORTHERN														
		Punjab (1)			Haryana (1)			Rajasthan (1)			Uttapradesh1 (1)			Zone 2(4)		
		Ludhiana			Kaul			Kota			Nagina			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3301	29940	96	102	273	88	103	317	84	108	271	91	84	291	90	99	288
3302	29939	101	131	264	89	113	291	81	118	317	94	102	305	91	116	294
3303	29689	94	117	222	84	111	276	83	118	292	91	102	302	88	112	273
3304	29694	97	115	282	92	102	321	84	113	331	93	94	334	92	106	317
3305	29691	92	123	295	82	112	314	80	111	327	90	103	241	86	112	294
3306	CO-51 (NC)	85	106	265	89	99	287	77	105	244	80	90	262	83	100	264
3307	29696	96	126	297	87	103	309	87	119	273	94	109	258	91	114	284
3308	28965	98	118	257	86	107	288	81	118	323	96	100	240	90	110	277
3309	29692	93	114	282	82	107	273	80	115	326	88	96	266	86	108	287
3310	PR 124 (ZC)	97	100	229	91	85	284	79	103	230	94	88	282	90	94	256
3311	29700	89	113	268	77	107	273	74	115	251	78	106	243	80	110	259
3312	29975	96	115	251	86	102	298	80	113	250	90	114	299	88	111	275
3313	28956	98	119	279	87	104	319	84	121	267	95	96	335	91	110	300
3314	29690	98	113	277	89	107	324	87	117	303	100	81	263	93	105	292
3315	US 314 (Hybrid Check)	95	122	264	91	105	299	84	118	238	83	106	332	88	113	283
3316	28123	105	126	291	94	102	320	86	117	276	96	102	263	95	112	287
3317	29142 (R)	97	115	262	89	102	271	78	116	260	93	89	256	89	106	262
3318	29947	100	114	284	94	98	284	81	107	296	98	92	223	93	103	272
3319	Local Check (LC)	92	105	271	88	94	277	98	120	242	95	113	323	94	108	278
Exp. Mean		**96**	**115**	**269**	**88**	**103**	**296**	**83**	**114**	**280**	**91**	**98**	**280**	**89**	**108**	**281**

Table No. 3a. (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 – ETP, Kharif 2023

Entry No	IET No	ZONE III - EASTERN											
		Odisha						Odisha (2)			Bihar		
		ICAR-NRRI (Cuttack)			Jeypore			Mean			Bikramganj		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3301	29940	97	113	9	104	66	324	101	89	324	82	112	293
3302	29939	92	117	8	96	87	337	94	102	337	82	112	275
3303	29689	91	115	7	96	86	293	94	101	293	81	114	275
3304	29694	98	107	11	103	75	380	101	91	380	80	106	340
3305	29691	93	101	8	95	84	336	94	93	336	78	114	297
3306	CO-51 (NC)	91	96	13	95	74	447	93	85	447	77	113	252
3307	29696	94	108	8	97	85	261	96	97	261	83	114	233
3308	28965	92	118	7	97	86	257	95	102	257	83	115	324
3309	29692	92	108	9	97	65	279	95	86	279	77	107	311
3310	PR 124 (ZC)	77	83	11	88	67	301	82	75	301	77	86	230
3311	29700	78	94	9	91	77	351	85	85	351	77	113	217
3312	29975	91	110	7	98	75	257	94	93	257	78	124	264
3313	28956	97	115	12	103	85	394	100	100	394	82	130	359
3314	29690	94	112	6	90	86	264	92	99	264	80	105	317
3315	US 314 (Hybrid Check)	94	109	10	96	82	317	95	96	317	79	119	254
3316	28123	99	120	8	95	87	309	97	104	309	82	124	294
3317	29142 (R)	98	109	7	99	82	348	99	96	348	78	111	287
3318	29947	101	115	12	105	69	410	103	92	410	87	117	368
3319	Local Check (LC)	100	121	9	94	90	262	97	105	262	84	115	288
Exp. Mean		**93**	**109**	**9**	**97**	**79**	**322**	**95**	**94**	**322**	**80**	**113**	**288**

Table No. 3a.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 – ETP, Kharif 2023

Entry No	IET No	ZONE III - EASTERN														
		Bihar						Bihar (3)			Jharkhand (1)			West Bengal		
		Sabour			Patna-ICAR			Mean			Hazaribagh			Hathwara		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3301	29940	101	92	337	89	115	373	91	106	334	102	76	230	97	95	277
3302	29939	92	108	282	84	122	315	86	114	291	91	96	230	86	104	267
3303	29689	104	105	291	85	129	210	90	116	259	95	82	222	94	98	310
3304	29694	101	97	412	87	99	387	90	101	380	95	75	274	92	95	257
3305	29691	101	105	331	81	109	253	87	109	293	95	79	255	94	99	262
3306	CO-51 (NC)	90	93	382	77	97	373	82	101	336	91	83	247	85	98	332
3307	29696	103	101	343	90	118	250	92	111	275	102	82	235	100	102	265
3308	28965	101	112	291	83	119	220	89	115	278	102	85	202	92	101	305
3309	29692	101	101	363	82	113	321	87	107	332	94	87	283	92	98	239
3310	PR 124 (ZC)	90	82	427	73	96	442	80	88	366	79	74	192	83	86	331
3311	29700	88	97	392	74	102	285	80	104	298	80	88	184	80	95	305
3312	29975	100	100	335	82	108	241	87	111	280	94	86	211	88	98	234
3313	28956	105	108	394	85	115	336	90	117	363	99	83	254	97	101	270
3314	29690	71	103	322	88	100	434	80	103	358	102	81	241	99	98	305
3315	US 314 (Hybrid Check)	89	102	312	78	108	195	82	110	254	88	86	204	85	95	245
3316	28123	101	108	375	85	106	215	89	113	295	89	98	214	91	100	315
3317	29142 (R)	94	92	279	82	98	274	85	100	280	93	83	252	87	96	216
3318	29947	102	100	345	91	116	210	93	111	308	99	81	237	98	93	252
3319	Local Check (LC)	92	111	331	83	114	289	86	113	302	91	79	240	90	98	278
Exp. Mean		**96**	**101**	**344**	**83**	**110**	**296**	**87**	**108**	**310**	**94**	**83**	**232**	**91**	**97**	**277**

Table No. 3a.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 – ETP, Kharif 2023

Entry No	IET No	ZONE III - EASTERN														
		West Bengal			West Bengal (2)			Uttapradesh 2 (1)			Uttapradesh (2)			Zone 3 (9)		
		Malda			Mean			Varanasi			Mean			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3301	29940	83	107	8	90	101	277	94	79	173	93	82	173	94	95	287
3302	29939	86	103	7	86	104	267	90	96	132	92	99	132	89	105	263
3303	29689	82	104	8	88	101	310	87	91	141	89	96	141	91	103	249
3304	29694	82	101	7	87	98	257				93	94	142	92	94	342
3305	29691	80	98	8	87	99	262	88	80	144	89	91	144	89	97	268
3306	CO-51 (NC)	77	102	7	81	100	332	84	82	171	82	86	171	85	93	315
3307	29696	82	102	5	91	102	265	92	88	159	93	99	159	94	100	249
3308	28965	81	98	8	87	100	305	90	94	176	93	97	176	91	103	253
3309	29692	81	95	7	87	97	239	92	77	153	90	87	153	90	95	278
3310	PR 124 (ZC)	78	102	8	81	94	331	83	69	163	88	79	163	81	83	298
3311	29700	78	103	7	79	99	305	87	80	158	83	93	158	82	94	270
3312	29975	80	97	5	84	97	234	90	82	179	90	98	179	89	98	246
3313	28956	82	103	8	90	102	270	105	75	182	100	86	182	95	102	313
3314	29690	81	98	8	90	98	305	96	79	168	98	80	168	89	96	293
3315	US 314 (Hybrid Check)	78	104	7	82	100	245	84	83	167	83	95	167	86	99	242
3316	28123	81	104	6	86	102	315	95	97	186	96	100	186	91	105	273
3317	29142 (R)	85	107	8	86	102	216	90	74	183	92	82	183	90	95	263
3318	29947	82	103	7	90	98	252	96	94	160	97	93	160	96	99	283
3319	Local Check (LC)	84	105	7	87	102	278	86	84	166	91	98	166	89	102	265
Exp. Mean		**81**	**102**	**7**	**86**	**100**	**277**	**91**	**84**	**165**	**91**	**91**	**165**	**90**	**98**	**276**

Table No. 3a.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 – ETP, Kharif 2023

Entry No	IET No	ZONE-IV NORTH EASTERN						ZONE V- CENTRAL								
		Tripura (1)			Zone 4 (1)			Madhya Pradesh (1)			Chhattisgarh (2)					
		Lembucherra			Mean			Rewa			Jagadalpur			Bilaspur		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3301	29940	63	95	283	63	95	283	96	90	294	94	96	286	98	109	
3302	29939	65	104	258	65	104	258	90	104	296	87	96	232	97	130	
3303	29689	65	98	183	65	98	183	93	107	256	93	101	305	97	117	
3304	29694	65	85	492	65	85	492	94	91	302	93	96	282	97	107	
3305	29691	63	94	233	63	94	233	86	93	320	93	98	374	96	118	
3306	CO-51 (NC)	61	94	317	61	94	317	85	94	324	82	97	295	91	109	
3307	29696	65	104	250	65	104	250	95	101	297	96	101	329	102	120	
3308	28965	67	103	258	67	103	258	92	100	327	93	100	280	98	112	
3309	29692	63	104	258	63	104	258	91	81	265	93	95	277	97	114	
3310	PR 124 (ZC)	66	104	325	66	104	325	86	91	245	88	106	302	95	107	
3311	29700	61	80	308	61	80	308	76	87	233	80	101	269	85	109	
3312	29975	63	109	267	63	109	267	90	92	296	86	107	302	94	112	
3313	28956	64	103	400	64	103	400	95	87	275	94	111	283	98	113	
3314	29690	72	103	200	72	103	200	96	93	314	95	111	270	103	110	
3315	US 314 (Hybrid Check)	63	89	342	63	89	342	87	84	269	85	96	334	97	117	
3316	28123	63	99	350	63	99	350	93	107	276	88	102	275	98	114	
3317	29142 (R)	62	97	333	62	97	333	91	93	317	87	100	302	97	110	
3318	29947	66	100	342	66	100	342	97	90	303	96	96	346	103	102	
3319	Local Check (LC)	74	98	342	74	98	342	95	97	209	89	92	232	97	118	
Exp. Mean		**65**	**98**	**302**	**65**	**98**	**302**	**91**	**94**	**285**	**90**	**100**	**293**	**97**	**113**	

Table No. 3a.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 – ETP, Kharif 2023

Entry No	IET No	ZONE V- CENTRAL														
		Chhattisgarh (2)			Maharashtra 1						Maharashtra 1 (2)			Zone 5 (5)		
		Mean			Sakoli			Sindhewahi			Mean			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3301	29940	96	103	286	94	108	258	94	108	215	94	108	236	95	102	263
3302	29939	92	113	232	90	118	230	89	129	201	89	124	216	91	115	240
3303	29689	95	109	305	86	105	204	91	109	181	89	107	192	92	108	236
3304	29694	95	101	282	87	95	231	90	107	284	88	101	258	92	99	275
3305	29691	95	108	374	89	110	265	91	114	202	90	112	234	91	107	290
3306	CO-51 (NC)	87	103	295	80	105	219	86	116	268	83	111	244	85	104	277
3307	29696	99	111	329	92	119	269	95	124	323	94	122	296	96	113	305
3308	28965	96	106	280	94	108	272	93	118	189	94	113	231	94	108	267
3309	29692	95	105	277	90	117	251	90	118	203	90	118	227	92	105	249
3310	PR 124 (ZC)	92	106	302	88	114	258	89	110	263	88	112	261	89	106	267
3311	29700	83	105	269	76	108	220	79	105	283	78	107	251	79	102	251
3312	29975	90	110	302	88	115	273	91	98	197	90	106	235	90	105	267
3313	28956	96	112	283	93	114	280	94	106	279	94	110	280	95	106	279
3314	29690	99	110	270	91	116	304	96	116	303	93	116	304	96	109	298
3315	US 314 (Hybrid Check)	91	107	334	86	121	193	83	104	301	85	113	247	88	104	274
3316	28123	93	108	275	93	124	320	94	118	322	93	121	321	93	113	298
3317	29142 (R)	92	105	302	85	118	281	89	113	212	87	116	247	90	107	278
3318	29947	100	99	346	91	116	300	96	108	228	94	112	264	97	102	294
3319	Local Check (LC)	93	105	232	90	95	282	91	108	289	90	102	286	92	102	253
Exp. Mean		**93**	**107**	**293**	**88**	**112**	**258**	**91**	**112**	**250**	**90**	**112**	**254**	**91**	**106**	**272**

Table No. 3a.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 – ETP, Kharif 2023

Entry No	IET No	ZONE VI -WESTERN														
		Maharashtra 2						Maharashtra 2 (2)			Maharashtra (4)			Gujarat		
		Karjat			Radhanagari			Mean			Mean			Nawagam		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3301	29940	88	119	240	98	87	225	93	103	232	93	106	234	92	106	289
3302	29939	87	130	309	91	93	195	89	112	252	89	118	234	96	124	275
3303	29689	89	128	320	93	97	236	91	112	278	90	110	235	96	113	290
3304	29694	88	112	258	94	85	231	91	99	244	90	100	251	100	111	297
3305	29691	86	109	258	89	78	228	88	93	243	89	103	238	99	108	286
3306	CO-51 (NC)	86	106	252	86	87	221	86	96	236	85	103	240	99	104	277
3307	29696	87	129	225	87	102	226	87	115	226	90	118	261	92	117	284
3308	28965	87	127	259	97	99	226	92	113	243	93	113	237	99	116	281
3309	29692	100	100	276	92	82	227	96	91	251	93	104	239	88	105	284
3310	PR 124 (ZC)	85	116	248	87	91	224	86	103	236	87	108	248	90	110	272
3311	29700	86	90	263	85	103	236	86	97	249	82	102	250	81	105	276
3312	29975	89	120	249	90	90	220	90	105	235	90	106	235	93	112	289
3313	28956	88	118	277	97	101	256	93	109	266	93	110	273	95	114	294
3314	29690	89	111	243	97	80	231	93	95	237	93	106	270	91	109	285
3315	US 314 (Hybrid Check)	84	117	275	97	108	232	91	112	254	88	112	250	88	119	282
3316	28123	87	129	226	89	94	235	88	111	231	91	116	276	95	130	297
3317	29142 (R)	86	126	256	91	85	249	89	105	252	88	110	249	94	113	285
3318	29947	87	111	253	97	79	218	92	95	236	93	103	250	97	113	285
3319	Local Check (LC)	87	103	260	87	102	233	87	103	247	89	102	266	86	106	296
Exp. Mean		**88**	**116**	**260**	**92**	**92**	**229**	**90**	**104**	**245**	**90**	**108**	**249**	**93**	**112**	**285**

Table No. 3a.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 – ETP, Kharif 2023

Entry No	IET No	ZONE VI -WESTERN									ZONE VII - SOUTHERN					
		Gujarat			Gujarat (2)			Zone 6 (4)			Andhra Pradesh (1)			Telangana		
		Vyara			Mean			Mean			Maruteru			Rudrur		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3301	29940	89	119	238	90	113	263	92	108	248	81	112	334	92	118	294
3302	29939	89	134	200	93	129	238	91	120	245	81	131	345	89	132	387
3303	29689	87	127	208	92	120	249	91	116	263	83	114	306	89	118	251
3304	29694	89	111	237	94	111	267	93	105	256	85	109	363	91	109	344
3305	29691	86	123	217	92	115	252	90	104	247	80	112	326	83	114	352
3306	CO-51 (NC)	79	114	250	89	109	263	88	103	250	74	107	367	81	114	239
3307	29696	88	131	248	90	124	266	88	120	246	83	118	352	90	127	422
3308	28965	87	123	208	93	119	245	92	116	244	82	115	323	90	124	322
3309	29692	88	126	235	88	116	260	92	103	255	75	113	308	84	120	325
3310	PR 124 (ZC)	88	119	247	89	115	260	87	109	248	79	116	323	94	122	353
3311	29700	79	121	291	80	113	284	83	105	266	73	101	319	80	103	298
3312	29975	88	119	262	90	116	275	90	110	255	76	115	299	91	115	400
3313	28956	90	132	265	92	123	279	92	116	273	83	124	372	96	125	285
3314	29690	88	120	233	89	114	259	91	105	248	85	117	345	95	117	343
3315	US 314 (Hybrid Check)	81	124	198	84	121	240	87	117	247	81	117	345	85	119	322
3316	28123	93	129	245	94	130	271	91	120	251	84	124	370	92	129	345
3317	29142 (R)	89	119	258	91	116	271	90	111	262	80	113	334	89	121	379
3318	29947	93	116	260	95	114	272	93	105	254	85	122	372	93	121	373
3319	Local Check (LC)	87	118	244	86	112	270	87	107	258	85	112	328	89	123	393
Exp. Mean		**87**	**122**	**239**	**90**	**117**	**262**	**90**	**111**	**253**	**81**	**115**	**339**	**89**	**120**	**338**

Table No. 3a.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 – ETP, Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN														
		Telangana												Telangana (5)		
		Kampasagar			Kunaram			Warangal			Jagtial			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3301	29940	90	102	289	90	**118**	348	94	108	396	93	109	388	92	111	343
3302	29939	85	120	311	92	**140**	365	95	128	406	91	120	381	90	128	370
3303	29689	86	110	393	88	**120**	297	93	119	411	90	116	370	89	117	345
3304	29694	86	102	253	87	**110**	378	96	109	393	91	101	402	90	106	354
3305	29691	87	106	322	86	**121**	341	92	113	424	88	116	376	87	114	363
3306	CO-51 (NC)	79	97	269	80	**110**	400	82	99	387	83	100	383	81	104	336
3307	29696	90	118	324	90	**122**	348	93	119	367	94	120	389	91	121	370
3308	28965	88	113	302	93	**122**	321	95	118	395	94	111	365	92	118	341
3309	29692	83	108	327	84	**121**	356	89	113	386	89	109	386	86	114	356
3310	PR 124 (ZC)	87	110	276	93	**119**	356	96	123	398	92	109	369	93	117	350
3311	29700	75	92	304	80	**136**	372	83	97	378	78	95	405	79	105	351
3312	29975	82	73	420	91	**118**	389	88	118	382	90	104	391	88	106	396
3313	28956	90	116	338	94	**121**	352	97	123	406	95	118	394	94	121	355
3314	29690	91	106	320	91	**119**	350	94	107	375	95	116	369	93	113	351
3315	US 314 (Hybrid Check)	82	102	293	83	**122**	332	87	109	382	86	110	361	85	112	338
3316	28123	86	111	329	91	**128**	372	96	121	396	95	110	366	92	120	361
3317	29142 (R)	84	108	309	90	**122**	323	96	128	384	87	113	364	89	118	352
3318	29947	92	109	304	93	**123**	374	95	116	389	92	116	346	93	117	357
3319	Local Check (LC)	80	103	289	85	**115**	385	97	108	389	88	100	384	88	110	368
Exp. Mean		**85**	**105**	**314**	**88**	**121**	**356**	**93**	**115**	**392**	**90**	**110**	**378**	**89**	**114**	**356**

Table No. 3a.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 – ETP, Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN														
		Tamilnadu						Tamilnadu (2)			Kerala (1)			Karnataka		
		Coimbatore			Tirur			Mean			Moncompu			Mandya		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3301	29940	95	96	390	78	83	286	86	90	338	108	96	342	99	92	351
3302	29939	89	114	387	79	94	286	84	104	337	103	104	333	86	92	340
3303	29689	92	97	350	77	101	275	85	99	312	104	103	244	91	91	283
3304	29694	91	92	337	74	70	276	83	81	307	106	93	367	85	70	374
3305	29691	92	96	388	74	93	273	83	95	331	99	90	320	93	75	329
3306	CO-51 (NC)	82	83	348	72	87	277	77	85	313	100	87	516	84	81	306
3307	29696	102	106	348	70	92	231	86	99	290	111	105	407	98	81	329
3308	28965	95	107	352	75	90	235	85	98	294	103	113	394	96	90	306
3309	29692	92	94	345	70	69	364	81	81	354	103	95	338	97	79	340
3310	PR 124 (ZC)	92	105	353	71	83	350	82	94	352	106	93	380	88	83	317
3311	29700	78	74	318	70	69	214	74	72	266	95	81	389	80	82	329
3312	29975	80	96	307	71	70	327	76	83	317	104	102	324	83	84	317
3313	28956	101	113	373	82	99	292	92	106	333	108	101	480	97	90	317
3314	29690	100	93	338	80	91	304	90	92	321	111	97	298	101	91	329
3315	US 314 (Hybrid Check)	82	86	370	70	90	307	76	88	339	100	97	362	84	81	340
3316	28123	86	85	368	71	89	295	78	87	332	109	103	443	83	82	340
3317	29142 (R)	87	94	365	80	89	285	84	91	325	102	99	369	87	84	340
3318	29947	91	104	403	83	84	266	87	94	335	109	93	336	96	81	351
3319	Local Check (LC)	89	94	442	76	89	284	82	91	363	111	94	351	82	80	295
Exp. Mean		**90**	**96**	**362**	**75**	**86**	**286**	**83**	**91**	**324**	**105**	**97**	**368**	**90**	**84**	**328**

Table No. 3a.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 – ETP, Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN												Overall Mean (35)		
		Karnataka			Karnataka (2)			Puducherry (1)			Zone 7 (12)					
		Mugad			Mean			Kurumbapet			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3301	29940	115	67	317	107	79	334	79	105	330	93	100	339	92	100	298
3302	29939	108	79	260	97	86	300	74	120	330	89	114	344	89	113	292
3303	29689	111	76	351	101	83	317	76	115	307	90	107	320	90	107	277
3304	29694	106	63	338	96	66	356	75	102	363	89	94	349	90	97	326
3305	29691	109	77	292	101	76	311	73	105	307	88	102	337	88	102	296
3306	CO-51 (NC)	106	69	255	95	75	281	68	103	407	83	95	346	84	97	307
3307	29696	115	72	305	107	77	317	75	120	333	92	108	346	92	109	297
3308	28965	109	77	321	103	83	314	73	110	373	91	107	334	91	108	287
3309	29692	111	65	330	104	72	335	71	107	387	87	99	349	88	100	299
3310	PR 124 (ZC)	107	70	286	97	77	302	73	105	253	90	103	335	87	98	297
3311	29700	100	58	289	90	70	309	70	90	373	80	90	332	80	97	290
3312	29975	107	68	275	95	76	296	71	98	373	86	97	350	87	102	293
3313	28956	112	68	219	105	79	268	83	113	377	95	109	350	93	108	319
3314	29690	113	79	293	107	85	311	77	115	330	94	104	333	92	103	300
3315	US 314 (Hybrid Check)	100	62	312	92	72	326	72	108	443	84	100	347	85	103	294
3316	28123	104	59	253	93	70	297	73	107	493	89	104	364	90	108	312
3317	29142 (R)	109	68	301	98	76	321	75	108	463	89	104	351	89	103	300
3318	29947	110	68	344	103	75	348	76	110	417	93	104	356	93	102	309
3319	Local Check (LC)	112	79	259	97	79	277	74	107	427	89	100	352	89	103	299
Exp. Mean		**109**	**70**	**295**	**99**	**77**	**311**	**74**	**108**	**373**	**89**	**102**	**344**	**89**	**103**	**300**

Table No. 3a.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 – ETP, (Trial Not Considered) Kharif 2023

Entry No	IET No	Trials Not Considered														
		Uttarakhand			Odisha			Jharkhand			Uttapradesh 2			Tripura		
		@Pantnagar			@Chiplima			@Ranchi			@Masodha			@Arundhutinagar		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3301	29940	94	104	191	117	68	192	101	69	84	86	92	257	88	110	375
3302	29939	97	110	170	92	88	138	96	85	83	91	103	245	80	115	331
3303	29689	90	116	154	99	79	190	98	90	111	83	108	285	82	105	331
3304	29694	95	102	219	109	88	218	100	72	114	84	111	232	83	110	298
3305	29691	87	105	207	100	77	187	98	78	80	83	103	237	81	115	384
3306	CO-51 (NC)	88	109	207	100	90	242	100	87	103	91	86	231	75	110	415
3307	29696	94	115	212	117	88	190	107	86	116	82	115	284	84	115	339
3308	28965	95	107	231	99	94	227	102	77	111	80	106	243	77	118	415
3309	29692	90	110	198	92	71	190	96	87	113	87	92	245	80	114	351
3310	PR 124 (ZC)	98	104	206	89	67	246	96	69	132	79	75	230	77	119	379
3311	29700	83	102	256	90	76	165	92	75	72	81	85	245	69	116	410
3312	29975	94	115	218	92	71	163	96	80	102	89	104	254	84	109	329
3313	28956	95	114	236	101	84	191	107	80	112	78	110	256	79	119	423
3314	29690	92	117	154	116	61	121	96	80	112	85	96	267	85	120	328
3315	US 314 (Hybrid Check)	90	111	239	103	81	179	95	82	68	75	96	260	76	118	355
3316	28123	103	114	219	102	81	226	98	82	110	86	106	229	82	117	329
3317	29142 (R)	94	107	144	100	75	201	96	79	97	85	103	254	79	111	382
3318	29947	100	113	206	91	69	134	107	75	91	86	98	251	88	115	298
3319	Local Check (LC)	80	87	199	111	88	203	95	75	37	73	76	218	86	113	258
Exp. Mean		**93**	**109**	**203**	**101**	**79**	**190**	**99**	**79**	**97**	**83**	**98**	**249**	**81**	**114**	**354**

Table No. 3a.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 – ETP, (Trial Not Considered) Kharif 2023

Entry No	IET No	Trials Not Considered											
		Chhattisgarh			Tamilnadu			Kerala			Karnataka		
		@Raipur			@Aduthirai			@Pattambi			@Brahmawar		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3301	29940	92	115	248	93	98	380	91	79	204	121	92	358
3302	29939	89	118	221	89	112	409	94	95	493	103	99	384
3303	29689	91	123	210	90	96	368	91	97	649	121	101	333
3304	29694	93	105	254	89	98	429	88	91	493	119	93	377
3305	29691	88	119	272	86	101	350	92	85	316	119	77	315
3306	CO-51 (NC)	84	120	231	89	82	336	89	92	276	106	77	322
3307	29696	93	106	204	94	96	362	92	90	420	118	89	329
3308	28965	92	123	239	91	108	473	94	85	380	122	63	379
3309	29692	85	113	209	85	99	400	93	82	253	115	79	356
3310	PR 124 (ZC)	86	196	253	86	102	401	89	81	262	115	78	319
3311	29700	81	117	222	89	90	400	91	89	580	99	63	379
3312	29975	88	114	218	85	91	389	97	97	689	116	79	375
3313	28956	91	126	221	89	107	451	90	85	324	119	73	365
3314	29690	94	114	219	91	108	413	95	84	416	122	73	358
3315	US 314 (Hybrid Check)	86	120	202	91	81	362	93	91	287	107	81	324
3316	28123	89	125	225	90	91	382	95	88	276	117	83	378
3317	29142 (R)	90	116	213	85	100	400	93	89	484	114	77	323
3318	29947	94	116	254	90	93	417	90	90	484	120	85	356
3319	Local Check (LC)	91	112	253	84	95	366	90	75	338	89	91	294
Exp. Mean		**89**	**121**	**230**	**89**	**97**	**394**	**92**	**88**	**401**	**114**	**81**	**349**

Table No. 3a.4 : Grain quality characteristics of entries in AVT 2-ETP, kharif 2023

Entry No.	Designation/IET No.	Hull	Mill	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
3301	29940	81.8	70.0	57.3	5.31	2.19	2.42	SB	VOC	4.0	26.86	43
3302	29939	81.8	66.4	55.5	6.74	2.05	3.28	LS	VOC	4.0	24.4	24
3303	29689	82.5	70.5	58.9	6.81	1.97	3.45	LS	VOC	4.0	22.96	64
3304	29694	80.3	69.0	57.5	6.59	1.95	3.37	LS	A	4.0	22.96	71
3305	29691	81.6	72.3	60.8	6.03	2.33	2.58	LB	VOC	7.0	20.47	22
3306	CO 51 (NC)	79.3	65.5	57.0	5.44	1.82	2.98	MS	VOC	4.0	25.78	63
3307	29696	82.2	71.6	63.6	6.94	2.10	3.30	LS	VOC	7.0	26.84	22
3308	28965	80.6	70.7	63.8	8.18	1.83	4.46	LS	VOC	4.0	19.88	64
3309	29692	81.5	73.0	56.5	7.14	2.14	3.33	LS	OC	5.0	23.29	37
3310	MTU 1153 (ZC)	79.5	68.2	56.0	6.59	1.96	3.36	LS	VOC	3.0	19.06	50
3311	29700	81.7	68.3	55.0	7.17	2.05	3.49	LS	VOC	4.0	21.29	54
3312	29975	79.6	64.8	50.2	7.06	2.02	3.49	LS	VOC	3.0	21.67	55
3313	28956	80.4	70.7	60.6	5.67	2.40	2.36	SB	VOC	4.0	26.45	22
3314	29690	81.2	68.8	59.3	6.13	2.29	2.67	LB	VOC	4.0	23.70	67
3315	US 314 (HC)	81.5	68.4	56.3	5.58	1.97	2.83	MS	VOC	4.0	21.94	50
3316	28123	80.6	69.8	58.7	6.06	1.99	3.04	LS	VOC	4.0	25.1	45
3317	29142	79.2	67.0	54.5	6.30	2.06	3.05	LS	VOC	3.0	26.81	65
3318	29947	80.3	73.9	50.8	6.49	2.42	2.68	LB	OC	7.0	28.16	60
3319	Local	80.6	69.8	59.8	7.08	1.99	3.55	LS	VOC	7.0	22.17	22

HULL: Hulling (%); MILL: Milling (%); HRR: Head Rice Recovery (%); KL: Kernel Length (mm); KB: Kernel Breadth (mm); L/B: Length and breadth ratio; Grain Chalk: Grain Chalkiness; VOC: Very occasionally present; A: Absent ASV: Alkali Spreading Value; AC: Amylose Content (%); GC: Gel Consistency; LB: Long Bold; SB: Short Bold; LS: Long Slender; MS: Medium Slender; SS: Short Slender

Table No. 3b.1 : Composition of entries in Advance Variety Trial 1- Early Transplanted (AVT 1 – E TP), Kharif 2023.

Entry No.	IET No.	Designation	Cross Combination	GT	Zones	Trait
2nd year of testing:						
3401	30641	RNR 35105	JGL 24423 / MTU 1156	LS		
3402	30638	CR 4401-1-7-IR 117834-10-1-RGA-1 RGA-1-RGA-1	IR 84984-83-15-18-B-B-93 / 3* Anjali // IR 81896-B-B-195-2 / 3* Anjali	LS		
3403	30635	Pusa 2091-26	CMH 310 / CMH 482	MS		
3404	30644	CB 18611	CB 08504 / CB 10554	MS		
3405	30646	NVSR 3211	GR 7 / Gurjari	LB		
3406	30651	RCPR 94-IR97030-7-2-2-2	IR09L337 / IR10L178	LS		
3407	30656	IIABR-9 / IIAB-54 / IR 16A3098	PR 36921-B-6-1-3-4 / IRR I 154 // IR09A228	LS		
3408	30658	AD (Bio) 13060	ADT 47 / IRBB 60	Ms		
3409	30660	KNM 13557	MTU 1156 / WGL 1097 // MUT NS1	LS		
3410	30662	BRR 0156	MTU 1010 / IRMT 4344	LS		
3411	30640	CSR M1-4	IR 71730-51-2 / NSIC Rc106	LS		
3412	30637	CR 4075-1341-3-3-2-2-1-4-3	Jaya / PKV HMT	MS		
3413	30636	JGL 28639	MTU 1010 / NLR 34449	LS		
3414	30673	HKR 18-32	HKR 48 / HKR 47	LS		
3415	30676	RP 5599-240-B-7-3 (PSV-56)	MTU 1010 / KMR 3	MS		
3416	30679	HURS 19-9-IR 128773-4-3-1-4-B	IR 69428-6-1-1-3-3 / Rajendra Mahsuri 1	LS		
3417	**CO-51 (NC)**					
3418	30680	UPR 4304-12-1-1-1	UPR4202 / UPR4192	LS		
3419	30683	MTU 1390 (IR17M1172)	IR 95097:1-B-19-7-13-GBS / Madirat 66	LS		
3420	30685	NWGR-16034	Gurjari / IET 19850 / 37-2-1-1-1-	LB		

Entry No.	IET No.	Designation	Cross Combination	GT	Zones	Trait
			1-1			
3421	30689	NVSR 750	NVSR 303-06 / GNR-3	LB		
3422	30688	RP 6680- RMS-1703-55-89-66	MTU 1010*2 // ST12	LS		
3423	30694	CRR 778-B-B-2-2	Naveen / WITA 2	LS		
3424	30691	RP 6420-C10-269-12	MTU 1010 / Tualsi	MS		
3425	30686	IIABR-10 / IIAB-309/IR 13T144	AT 401 / 3*IR04A285	LS		
3426	30652	RP 6166-47-1-23	MTU 1010 / O.rufipogon	MS		
3427	30643	CR 3745-3-2-1-2-1-1	Pooja / Lalat	MS		
3428	30642	KNM 12509	KNM 118 / IR 72 // MTU 1156	LS		
3429	30653	CSR M1-5	IR 71730-51-2 / NSIC Rc106	LS		
3430	30669	WGL 1719	MTU 1081 / R 1556-25-77	LS		
3431	30674	RCPR 95-IR 97046-39-2-1-2	IR09L272 / IR10L165	LS		
3432	30668	R 1902-97-1-77-1	Danteshwari / JGL 1118	MS		
3433	30677	CR 4386-RGA-134	CR Dhan 202 / SR-36-2-1	MS		
3434	**PR 124 (Northern), Narendra 97 (Eastern), Luit (North Eastern), Sahbhagidhan (Central & Western), MTU 1153 (Southern) (ZC)**					
3435	30681	RP 6529-1780-28-7-16	MTU 1010*2 / Improved Samba Mahsuri	LS		
3436	30659	ORJ 1345 (TP 30531)	IURON 43 Ent.02	MS		
3437	30687	CRR - DH64	Savitri / Pokkali	MB		
3438	30557	***VNR-231***	***Hybrid***	LS		
3439	30567	***MEPH-167***	***Hybrid***	LS		
3440	30565	***KAVERI-7374***	***Hybrid***	SB		
3441	**Local Check (LC)**					
3442	30570	***LG-90204***	***Hybrid***	LS		
3443	**US 314 (Hybrid Check)**					
3444	30555	***RRX-3276***	***Hybrid***	LB		
3445	30568	***Bio-271***	***Hybrid***	LS		
3446	30561	***JKRH-1170***	***Hybrid***	LB		
3447	30690	RNR 35109	JGL 24423 / MTU 1156	LS		
3448	30647	NWGR-16032	Gurjari / NWGR-3015 /35-2-1-1-1-1-1	MB		
3449	30657	WGL 1720	MTU 1081 / R 1556-25-77	LS		
3450	30661	CR 3843-22-2	Gontra Bidhan / CR Dhan202	LS		
3451	30671	KPS-10321	Akshaydhan / RNR 15048	MS		
3452	30684	CR 3842-62-5-1-1-1	Gontra Bidhan / CR Dhan203	MS		
3453	30645	RP 6468-JB 396-9-7-2-1-1-1	Krishna Hamsa / IRBB60 // Krishna Hamsa / IR96321-1447-561-B-1 /// Krishna Hamsa / IR 81896-96-B-B-195 // Krishna Hamsa / Tetep	LS		
1st year of testing (NILs):						
3454	32036	KR 21002	ADT 45*4/ FL 478// CSR 27	MS	VII	CSTVT
3455	32037	KR 21001	ADT 45*4/ FL 478	MS	VII	CSTVT
3456	32038	KR 21003	ADT 45*4/ FL 478//CSR 27	MS	VII	CSTVT
3457	**ADT 45 (Recurrent Parent)**			MS	VII	CSTVT

Table No. 3b.2 : Grain Yield (kg/ha) in AVT 1 – ETP, Zone 2, Kharif 2023

Entry No	IET No	ZONE II NORTHERN									
		Punjab (1)		Haryana (1)		Jammu Kashmir (1)		Uttar Pradesh (1)		Zone II (4)	
		Ludhiana		Kaul		Kota		Nagina		Mean	
3401	30641	5410	6 #	7978	2 * #	6028	7 *	4716		6033	4 * #
3402	30638	5300	8 #	6711		4924		4405		5335	#
3407	30656	5119	10 #	7333	7 #	5687		3887		5507	#
3413	30636	5868	5 #	6733		5816		5131	6	5887	6 * #
3416	30679	3726		6289		5142		5052	10	5052	
3417	CO-51 (NC)	3959		5356		4965		4902		4796	
3418	30680	5032	#	5711		5346		5638	1	5432	#
3421	30689	5012	#	7111	10	5687		5063	9	5718	9 #
3428	30642	5284	9 #	6867		5884	9 *	4823		5715	10 #
3430	30669	4999	#	7489	5 #	6410	2 * #	3587		5621	#
3434	North (ZC)	5366	7	5511		4855		5483	3	5304	
3438	30557	4497	#	6178		5524		5385	4	5396	#
3439	30567	4154		7689	4 #	5865	10 *	5595	2	5826	7 #
3440	30565	5015	#	7822	3 #	6178	6 *	6338.333333		6338	2 * #
3441	Local Check (LC)	5944	3	7289	8	4733		4307		5568	
3442	30570	5929	4 #	6156		5742		5027		5714	#
3443	US 314 (Hybrid Check)	3846		6578		5415		3972		4953	
3444	30555	4337		8111	1 * #	6410	2 * #	4989		5962	5 * #
3445	30568	4826	#	6844		5974	8 *	5240	5	5721	8 #
3446	30561	6645	1 * #	7489	5 #	6328	4 * #	4937		6350	1 * #
3447	30690	4453	#	6711		6219	5 *	5106	7	5622	#
3449	30657	5981	2 #	7178	9	6541	1 * #	5090	8	6198	3 * #
Exp. Mean		**5032**		**6870**		**5712**		**4873**		**5638**	
F Value		**17.79(p<0.0001)S**		**9.53(p<0.0001)S**		**4.34(p<0.0001)S**		**14.85(p<0.0001)S**		**12.96(p<0.0001)S**	
CD		499		689		860		400		316	
CV%		**6.02**		**6.08**		**9.14**		**5.01**		**3.40**	
D/S		07-01-2023		07-01-2023		29-06-2023		30-06-2023			
D/P		08-01-2023		27-07-2023		26-07-2023		28-07-2023			
Local Check Name		PR 126		PR-126		Pratap -1		NDR 97			

Table No. 3b.2 (Contd).: Grain Yield (kg/ha) in AVT 1 – ETP, (Trial Not Considered)-Zone 2, Kharif 2023

Entry No	IET No	Trial not considered	
		Uttarakhand	
		@Pantnagar	
3401	30641	4038	3
3402	30638	1633	
3407	30656	4181	2
3413	30636	2390	
3416	30679	2476	
3417	CO-51 (NC)	3866	4
3418	30680	2638	
3421	30689	3624	6
3428	30642	2427	
3430	30669	3459	9
3434	North (ZC)	3008	
3438	30557	3583	8
3439	30567	3447	10
3440	30565	2959	
3441	Local Check (LC)	2611	
3442	30570	3133	
3443	US 314 (Hybrid Check)	3707	5
3444	30555	4213	1
3445	30568	3144	
3446	30561	3033	
3447	30690		
3449	30657	3597	7
Exp. Mean		**3198**	
F Value		**2.34(p<0.0097)S**	
CD		1261	
CV%		**23.89**	
D/S		07-03-2023	
D/P		26-07-2023	
Local Check Name		Govind	

Table No. 3b.2 : Grain Yield (kg/ha) in AVT 1 – ETP, Zone 3, Kharif 2023

Entry No	IET No	ZONE III - EASTERN									
		Odisha						Odisha (3)		Bihar	
		ICAR-NRRI (Cuttack)		Jeypore		Chiplima		Mean		Bikramganj	
3401	30641	4707		5024	7	4976	4	4902	9 *	5602	
3402	30638	4647		3063		4835	8	4182		3847	
3406	30651	5607	5	6558	1	4242		5469	2 *	5289	
3407	30656	4600		6205	3	4733	9	5179	6 *	6193	
3409	30660	4827		3385		2998		3737		5592	
3410	30662	4050		3663		4660		4124		6527	7
3413	30636	5073		3328		5078	2	4493		6650	4
3414	30673	5080		3142		3946		4056		5642	
3416	30679	4577		2825		4529		3977		5973	
3417	CO-51 (NC)	3280		3448		4733	9	3820		4401	
3418	30680	5610	4	3141		4524		4425		4031	
3421	30689	5080		3778		4563		4474		6713	2
3426	30652	4063		4716		3625		4135		5682	
3428	30642	5073		3733		4908	6	4571	*	6243	10
3430	30669	5490	7	5378	4	4553		5140	7 *	6631	5
3431	30674	5167		4759	10	4947	5	4958	8 *	5125	
3434	Northern (ZC)	4550		3050		3882		3827		4388	
3438	30557	5307	9	3335		4616		4419		5022	
3440	30567	5487	8	5039	6	5267	1	5264	4 *	6446	8
3441	Local Check (LC)	3893		4608		3975		4159		4264	
3442	30570	4563		4607		4908	6	4693	*	4097	
3443	US 314 (Hybrid Check)	6110	3	5363	5	5068	3	5514	1	6376	9
3444	30555	5563	6	6396	2	4325		5428	3 *	6787	1
3445	30568	5213	10	4850	9	4344		4802	*	5025	
3446	30561	6453	2	5006	8	4252		5237	5 *	6210	
3447	30690	4303		3372		3474		3716		6697	3
3449	30657	6467	1	4254		3950		4890	10 *	6603	6
Exp. Mean		**4994**		**4297**		**4441**		**4577**		**5632**	
F Value		**4.79(p<0.0001)S**		**16.77(p<0.0001)S**		**4.08(p<0.0001)S**		**14.76(p<0.0001)S**		**12.80(p<0.0001)S**	
CD		944		733		805		411		744	
CV%		**11.54**		**10.41**		**11.06**		**5.48**		**8.06**	
D/S		21-06-2023		07-07-2023		20-07-2023				07-05-2023	
D/P		19-07-2023		08-06-2023		09-02-2023				08-04-2023	
Local Check Name		CR Dhan 318		Mandakini		MTU-1156				R. Bhagwati	

Table No. 3b.2 (Contd).: Grain Yield (kg/ha) in AVT 1 – ETP, Zone 3, Kharif 2023

Entry No	IET No	ZONE III - EASTERN									
		Bihar				Bihar (3)		Jharkhand			
		Sabour		Patna-ICAR		Mean		Ranchi		Hazaribagh	
3401	30641	4420		6957	4	5660	8 *	3899		8065	4
3402	30638	4160		6267		4758		3411		4435	
3406	30651	3903		6010		5067		4415	8	5869	
3407	30656	4489		6730	5	5804	7 *	3927		8289	2
3409	30660	4527		6270		5463	*	3641		5869	
3410	30662	3706		4960		5064		4099		3987	
3413	30636	4768	7	5333		5584	10 *	4099		6407	
3414	30673	4159		5857		5219		3985		3808	
3416	30679	3383		5790		5049		4386	9	5511	
3417	CO-51 (NC)	3533		5457		4464		3125		7303	9
3418	30680	3393		6630	7	4685		3698		5332	
3421	30689	4643	10	4717		5358	*	3669		5556	
3426	30652	4190		5310		5061		3841		7751	6
3428	30642	4457		6237		5646	9 *	4386	9	7841	5
3430	30669	4965	6	6423	10	6006	5 *	4501	5	3002	
3431	30674	4435		4790		4783		4185		5556	
3434	Northern (ZC)	3173		3913		3825		3555		4480	
3438	30557	4674	9	6567	9	5421	*	3813		3584	
3440	30567	6414	1	6143		6334	1 *	5189	2	6631	
3441	Local Check (LC)	4627		5737		4876		4443	6	7321	8
3442	30570	4987	4	6703	6	5262	*	3784		9722	1
3443	US 314 (Hybrid Check)	5255	3	7357	1	6329	2	4214		5556	
3444	30555	4755	8	7103	2	6215	3 *	4443	6	6765	10
3445	30568	4380		6350		5252	*	3354		3629	
3446	30561	5393	2	4197		5267	*	5475	1	8154	3
3447	30690	4223		6970	3	5963	6 *	4873	3	7392	7
3449	30657	4973	5	6613	8	6063	4 *	4873	3	5376	
Exp. Mean		**4444**		**5977**		**5351**		**4122**		**6044**	
F Value		**7.37(p<0.0001)S**		**15.34(p<0.0001)S**		**20.28(p<0.0001)S**		**4.88(p<0.0001)S**		**30.53(p<0.0001)S**	
CD		705		625		364		730		856	
CV%		**9.69**		**6.38**		**4.15**		**10.81**		**8.64**	
D/S		07-05-2023		07-09-2023				07-01-2023		22-07-2023	
D/P		08-03-2023		08-03-2023				31-07-2023		16/8/2023	
Local Check Name		Sabour Harshit Dhan		Sahbhagi Dhan				LALAT		CR Dhan 320	

Table No. 3b.2 (Contd).: Grain Yield (kg/ha) in AVT 1 – ETP, Zone 3, Kharif 2023

Entry No	IET No	ZONE III - EASTERN									
		Jharkhand (2)		West Bengal				West Bengal (2)		Zone III (10)	
		Mean		Hatwara		Malda		Mean		Mean	
3401	30641	5982	6 #	4633		4167	7	4400		5245	8 *
3402	30638	3923		4089		4211	5	4150		4297	
3406	30651	5142		4721		3706		4214		5032	*
3407	30656	6108	5 #	5164	10	3833		4499		5416	5 *
3409	30660	4755		4999		4083	8	4541		4619	
3410	30662	4043		5237	9	6694	2	5966	3 *	4758	
3413	30636	5253		4784		7167	1	5976	2 *	5269	7 *
3414	30673	3897		5244	7	3861		4553		4472	
3416	30679	4949		4826		4083	8	4455		4588	
3417	CO-51 (NC)	5214		3456		3639		3548		4238	
3418	30680	4515		4903		3989		4446		4525	
3421	30689	4613		4846		4000		4423		4757	
3426	30652	5796	9 #	5244	7	4000		4622	10	4842	
3428	30642	6114	4 #	4993		4183	6	4588		5205	9 *
3430	30669	3752		5776	3	3744		4760	7	5046	*
3431	30674	4871		5309	6	4067		4688	9	4834	
3434	Northern (ZC)	4018		3565		4506	4	4036		3906	
3438	30557	3699		5369	5			5369	5 *	4699	
3440	30567	5910	7 #	5392	4	4072	10	4732	8	5608	4 *
3441	Local Check (LC)	5882	8	4495		3844		4170		4721	
3442	30570	6753	2 * #	4697		3633		4165		5170	10 *
3443	US 314 (Hybrid Check)	4885		6698	1			6698	1	5777	1
3444	30555	5604	10 #	4487				4487		5625	3 *
3445	30568	3492		3591		4544	3	4068		4528	
3446	30561	6815	1 * #	5885	2			5885	4 *	5669	2 *
3447	30690	6133	3 #	3716				3716		5002	*
3449	30657	5125		5155				5155	6	5363	6 *
Exp. Mean		**5083**		**4862**		**4287**		**4678**		**4934**	
F Value		**29.50(p<0.0001)S**		**3.16(p<0.0002)S**		**15.76(p<0.0001)S**		**4.10(p<0.0001)S**		**29.44(p<0.0001)S**	
CD		483		1216		637		1029		241	
CV%		**5.8**		**15.27**		**9**		**13.43**		**2.98**	
D/S				07-06-2023		21-07-2023					
D/P				08-07-2023		18-08-2023					
Local Check Name				Lalat		Ajit					

Table No. 3b.2 (Contd).: Grain Yield (kg/ha) in AVT 1 – E TP, Zone 3,(Trials Not Considered), Kharif 2023

Entry No	IET No	Trial not considered			
		Uttar Pradesh			
		@Masodha		@Varanasi	
3401	30641	5033		717	9
3402	30638	5188	10	773	7
3406	30651	4217		668	10
3407	30656	4362		495	
3409	30660	6017	7	559	
3410	30662	4992		439	
3413	30636	4569		312	
3414	30673	4004		372	
3416	30679	4217		533	
3417	CO-51 (NC)	4386		124	
3418	30680	4386		1419	4
3421	30689	3642		604	
3426	30652	4523		1122	5
3428	30642	4651		661	
3430	30669	4583		552	
3431	30674	4869		758	8
3434	Northern (ZC)	5221	9	176	
3438	30557	6552	2	424	
3440	30567	6222	6	1550	3
3441	Local Check (LC)	4321		454	
3442	30570	5071		867	6
3443	US 314 (Hybrid Check)	6375	5	2601	1
3444	30555	4809		1562	2
3445	30568	6598	1	424	
3446	30561	6465	3	120	
3447	30690	5420	8	345	
3449	30657	6424	4	368	
Exp. Mean		**5078**		**704**	
F Value		**46.55(p<0.0001)S**		**15.08(p<0.0001)S**	
CD		352		387	
CV%		**4.24**		**33.56**	
D/S		07-01-2023		28-06-2023	
D/P		08-05-2023		28-07-2023	
Local Check Name		Shushak Smart		HUR-3022	

Table No. 3b.2: Grain Yield (kg/ha) in AVT 1 – ETP, Zone 4, Kharif 2023

Entry No	IET No	ZONE IV - NORTH EASTERN	
		TRIPURA (1)	
		Lembucherra	
3401	30641	8727	
3402	30638	6148	
3403	30635	2981	
3404	30644	8585	
3405	30646	8962	8
3407	30656	9098	6
3408	30658	11529	2 * #
3409	30660	7268	
3411	30640	6216	
3412	30637	6785	
3413	30636	10311	4 *
3414	30673	7738	
3415	30676	5363	
3416	30679	6674	
3417	CO-51 (NC)	8684	
3418	30680	8399	
3419	30683	8727	
3420	30685	9049	7
3421	30689	6989	
3422	30688	8424	
3423	30694	6866	
3424	30691	6680	
3425	30686	6927	
3427	30643	8746	
3428	30642	8876	10
3429	30653	7175	
3430	30669	6810	
3431	30674	6148	
3432	30668	6927	
3433	30677	5276	
3434	Northern (ZC)	6482	
3435	30681	5703	
3436	30659	10515	3 *
3437	30687	5103	
3438	30557	8140	
3440	30565	8925	9
3441	Local Check (LC)	5035	
3442	30570	6791	
3443	US 314 (Hybrid Check)	10224	5 *
3444	30555	7527	
3445	30568	6816	
3446	30561	6402	
3447	30690	6822	
3448	30647	12401	1 * #
3449	30657	7682	
3450	30661	6297	
3451	30671	6878	
3452	30684	6043	
3453	30645	8158	
Exp. Mean		**7531**	
F Value		**43.61(p<0.0001)S**	
CD		735	
CV%		**6.02**	
D/S		24-07-2023	
D/P		15-08-2023	
Local Check Name		Hakuchuk-2	

Table No. 3b.2: Grain Yield (kg/ha) in AVT 1 – ETP, Zone 5, Kharif 2023

Entry No	IET No	ZONE V - CENTRAL							
		Chattisgarh						Chattisgarh (3)	
		Raipur		Jagadalpur		Bilaspur		Mean	
3401	30641	6646	7	8888	2	5250		6928	5 *
3402	30638	6098		7469		4257		5941	
3407	30656	5458		8086		5423	9	6322	
3413	30636	5675		8536	6	5167		6459	
3416	30679	4366		8383	8	4120		5623	
3417	CO-51 (NC)	5365		7658		4123		5715	
3418	30680	7215	2	8104		5200		6840	7
3421	30689	5193		8512	7	5283		6329	
3428	30642	6352	9	8677	4	5383	10	6804	10
3430	30669	6811	4	7966		5583	8	6787	
3434	(ZC)	5452		6281		4317		5350	
3438	30557	6773	5	7547		6833	2	7051	4 *
3440	30565	5752		8113	10	6650	3	6838	8
3441	Local Check (LC)	5767		7706		5383	10	6285	
3442	30570	6484	8	8814	3	5917	6	7072	3 *
3443	US 314 (Hybrid Check)	5859		8304	9	6467	4	6877	6
3444	30555	7344	1	7417		5717	7	6826	9
3445	30568	6198	10	8034		4317		6183	
3446	30561	6095		7556		7910	1	7187	2 *
3447	30690	6699	6	8988	1	4640		6776	
3449	30657	7128	3	8571	5	6150	5	7283	1 *
Exp. Mean		**6130**		**8077**		**5433**		**6547**	
F Value		**3.64(p<0.0002)S**		**2.18(p<0.0158)S**		**7.36(p<0.0001)S**		**7.08(p<0.0001)S**	
CD		1487		1202		1000		611	
CV%		**14.7**		**9.02**		**11.16**		**5.66**	
D/S		07-05-2023		26-06-2023		27-06-2023			
D/P		08-05-2023		16-07-2023		22-07-2023			
Local Check Name		Indira Aerobic-1		Samleshwari		MTU 1010			

Table No. 3b.2 (Contd).: Grain Yield (kg/ha) in AVT 1 – ETP, Zone 5, Kharif 2023

Entry No	IET No	ZONE V - CENTRAL							
		Maharashtra				Maharashtra (2)		Zone V(5)	
		Sakoli		Sindewahi		Mean		Mean	
3401	30641	6356	3	6680	6	6518	4 * #	6764	2 *
3402	30638	4222		7390	1	5806	9	5887	
3407	30656	5200		4650		4925		5763	
3413	30636	6289	4	6887	3	6588	1 * #	6511	5 *
3416	30679	5044		6837	4	5941	8 *	5750	
3417	CO-51 (NC)	4089		4880		4485		5223	
3418	30680	4933		5600		5267		6210	
3421	30689	6067	7	5923		5995	7 *	6196	
3428	30642	6089	6	5933		6011	6 *	6487	7 *
3430	30669	4689		6693	5	5691	10	6348	10 *
3434	(ZC)	3978		5267		4623		5059	
3438	30557	4400		6387	9	5394		6388	8 *
3440	30565	6167	5	4897		5532		6316	*
3441	Local Check (LC)	5044		5097		5071		5799	
3442	30570	5744	10	7103	2	6424	5 *	6812	1 *
3443	US 314 (Hybrid Check)	5933	9	5200		5567		6353	9 *
3444	30555	5511		5253		5382		6248	
3445	30568	6589	2	6540	7	6565	2 * #	6336	*
3446	30561	6033	8	4957		5495		6510	6 *
3447	30690	6644	1	6400	8	6522	3 * #	6674	3 *
3449	30657	4667		6317	10	5492		6567	4 *
Exp. Mean		**5414**		**5947**		**5680**		**6200**	
F Value		**4.79(p<0.0001)S**		**3.09(p<0.0010)S**		**3.98(p<0.0001)S**		**7.45(p<0.0001)S**	
CD		1084		1322		870		504	
CV%		**12.13**		**13.47**		**9.28**		**4.93**	
D/S		29-06-2023		29-06-2023					
D/P		24-07-2023		25-07-2023					
Local Check Name		PDKV SADHANA		PDKV-SADHANA					

Table No. 3b.2 (Contd).: Grain Yield (kg/ha) in AVT 1 – ETP, (Trial Not Considered) Zone 5, Kharif 2023

Entry No	IET No	Trial not considered Madhya Pradesh @Rewa	
3401	30641	2861	
3402	30638	1101	
3407	30656	2974	
3413	30636	4084	7
3416	30679	1788	
3417	CO-51 (NC)	4932	3
3418	30680	3909	10
3421	30689	2629	
3428	30642	4917	4
3430	30669	2841	
3434	(ZC)	4041	8
3438	30557	3899	
3440	30565	5209	1
3441	Local Check (LC)	3996	9
3442	30570	3646	
3443	US 314 (Hybrid Check)	1835	
3444	30555	4975	2
3445	30568	2117	
3446	30561	3430	
3447	30690	4617	5
3449	30657	4423	6
Exp. Mean		**3534**	
F Value		**20.24(p<0.0001)S**	
CD		716	
CV%		**12.27**	
D/S		06-05-2023	
D/P		08-11-2023	
Local Check Name		MTU 1010	

Table No. 3b.2: Grain Yield (kg/ha) in AVT 1 – ETP, Zone 6, Kharif 2023

Entry No	IET No	ZONE VI - WESTERN									
		Maharashtra (1)		Gujarat				Gujarat (2)		Zone VI (3)	
		Karjat		Nawagam		Vyara		Mean		Mean	
3401	30641	5588	4	7131	5	6114		6623	9	6278	6
3402	30638	4263		5590		6964	10	6277		5606	
3407	30656	3184		7724	2 * #	7212	7	7468	3 *	6040	10
3413	30636	4386		8438	1 * #	7204	8	7821	1 *	6676	2 *
3416	30679	4282		6032		6044		6038		5453	
3417	CO-51 (NC)	3580		6565	9	5820		6193		5322	
3418	30680	4399		6250		5928		6089		5526	
3421	30689	4334		6787	8	5438		6113		5520	
3428	30642	5491	5	7152	4	6818		6985	5	6487	4 *
3430	30669	4594		4398		6097		5248		5030	
3434	Zonal Check (ZC)	4763		6116		6255		6186		5711	
3438	30557	5686	3 *	6481		7322	5	6902	7	6496	3 *
3440	30565	5789	2 *	7253	3	5728		6491		6257	7
3441	Local Check (LC)	4919	9	5941		6429		6185		5763	
3442	30570	4925	8	5093		7863	3	6478		5960	
3443	US 314 (Hybrid Check)	5426	6	6790	7	7215	6	7003	4	6477	5
3444	30555	4808		6520	10	7393	4	6957	6	6240	8
3445	30568	4932	7	5914		7177	9	6546	10	6008	
3446	30561	6563	1 * #	6908	6	8119	2 *	7514	2 *	7197	1 * #
3447	30690	3489		5505		6305		5905		5100	
3449	30657	4899	10	4995		8280	1 *	6638	8	6058	9
Exp. Mean		**4776**		**6361**		**6749**		**6555**		**5962**	
F Value		**9.02(p<0.0001)S**		**8.20(p<0.0001)S**		**2.28(p<0.0114)S**		**3.35(p<0.0004)S**		**6.99(p<0.0001)S**	
CD		753		906		1514		916		567	
CV%		**9.56**		**8.63**		**13.60**		**8.47**		**5.76**	
D/S		24-06-2023		07-04-2023		07-04-2023					
D/P		18-07-2023		08-07-2023		08-03-2023					
Local Check Name		Karjat - 7		Mahisagar		GR 17 (Sardar)					

Table No. 3b.2: Grain Yield (kg/ha) in AVT 1 – ETP, (Trial Not Considered) Zone 6, Kharif 2023

Entry No	IET No	Trial not considered Maharashtra @Radhanagari	
3401	30641	2590	10
3402	30638	2342	
3407	30656	2265	
3413	30636	1658	
3416	30679	1906	
3417	CO-51 (NC)	1992	
3418	30680	2245	
3421	30689	2073	
3428	30642	3298	5 *
3430	30669	4051	1 *
3434	Zonal Check (ZC)	2513	
3438	30557	2631	9
3440	30565	2467	
3441	Local Check (LC)	2462	
3442	30570	3034	6
3443	US 314 (Hybrid Check)	3523	4
3444	30555	3906	2 *
3445	30568	1935	
3446	30561	2745	8
3447	30690	3578	3 *
3449	30657	2914	7
Exp. Mean		**2673**	
F Value		**11.64(p<0.0001)S**	
CD		541	
CV%		**12.28**	
D/S		26-06-2023	
D/P		23-07-2023	
Local Check Name		Phule Radha	

Table No. 3b.2: Grain Yield (kg/ha) in AVT 1 – ETP, Zone 7, Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN											
		Andhra Pradesh (1)		Telangana									
		Maruteru		Rudrur		Kampasagar		Kunaram		Warangal		Jagtial	
3401	30641	5625	6	4783		5135		7545	4	9319	4	7452	10
3402	30638	4897		2975		6769	2	8344	1	5687		7065	
3407	30656	6068	4 *	4987		5724		5093		7667		7314	
3413	30636	6101	2 *	7145	4	5909	7	7394	5	7603		7738	8
3416	30679	5133		5074	10	4037		6981	8	7468		9301	1
3417	CO-51 (NC)	4832		4112		5767		4600		5884		7239	
3418	30680	4802		3908		5899	8	5395		7012		5668	
3421	30689	6222	1 * #	3237		4930		6340		8432	7	7961	7
3428	30642	4918		7291	3	5889	9	7958	2	7332		6772	
3430	30669	5434	8	7116	5	5472		7735	3	9789	3	8596	4
3434	(ZC)	5053		6445	6	5802		4664		7877	10	7318	
3438	30557	4345		3908		5046		6736	9	8018	9	7154	
3439	30567	4576		2858		6089	5	6713	10	9208	5	8252	6
3440	30565	3750		4987		5560		7314	7	9901	2	8729	3
3441	Local Check (LC)	5149	10	5599	9	6539	3	6129		6610		7520	9
3442	30570	4711		3482		5733		6237		7399		7096	
3443	US 314 (Hybrid Check)	5428	9	3791		6778	1	5374		6146		5166	
3444	30555	3830		4287		6216	4	7386	6	9945	1	8586	5
3445	30568	4454		4170		5889	9	6373		8201	8	7422	
3446	30561	4047		3295		4512		6413		5211		7243	
3447	30690	5484	7	4958		5966	6	4798		5045		7274	
3449	30657	6095	3 *	8311	1	5275		5543		9084	6	8789	2
3454	32036	4320		7378	2	5046		5999		6871		7113	
3455	32037	5928	5	5687	8	5112		5292		5404		5855	
3456	32038	4125		6387	7	4642		5062		4742		4461	
3457	ADT 45 (RP)	4088		4987		4977		5512		4092		5363	
Exp. Mean		**4977**		**5045**		**5566**		**6267**		**7306**		**7248**	
F Value		**7.73(p<0.0001)S**		**66.75(p<0.0001)S**		**7.46(p<0.0001)S**		**17.55(p<0.0001)S**		**12.86(p<0.0001)S**		**10.08(p<0.0001)S**	
CD		783		512		682		711		1302		1046	
CV%		**9.59**		**6.19**		**7.47**		**6.92**		**10.87**		**8.8**	
D/S		13-07-2023		17-06-2023		07-03-2023		27-06-2023		30-06-2023		24-06-2023	
D/P		08-11-2023		15-07-2023		08-03-2023		08-01-2023		08-03-2023		25-07-2023	
Local Check Name		MTU1156		MTU-1010		KNM-118		KNM 118		WGL 962		JGL 18047	

Table No. 3b.2 (Contd).: Grain Yield (kg/ha) in AVT 1 – ETP, Zone 7, Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN											
		Telangana (5)						Tamil Nadu (2)		Kerala			
		Mean		Coimbatore		Tirur		Mean		Moncompu		Pattambi	
3401	30641	6847	7 #	6417	10	5503		5960		4040	10	6578	10
3402	30638	6168	#	5435		5510		5473		3060		5640	
3407	30656	6157	#	5562		6367		5965		4251	6	7102	7
3413	30636	7158	5 * #	6343		6942	3	6643	5	3853		6897	8
3416	30679	6572	9 #	6245		6880	4	6563	8	3596		6205	
3417	CO-51 (NC)	5520		6886	5	5217		6052		4920	4	5142	
3418	30680	5576		5749		5200		5475		3184		5533	
3421	30689	6180	#	5444		6820	5	6132		3386		7640	4
3428	30642	7048	6 * #	5707		5790		5749		3176		6449	
3430	30669	7742	1 * #	6835	6	6400	9	6618	6	5818	2	5849	
3434	(ZC)	6421	#	5592		5130		5361		3444		5480	
3438	30557	6172	#	7090	1	6250		6670	4	6978	1	7115	6
3439	30567	6624	8 #	5372		6350		5861		4590	5	6458	
3440	30565	7298	3 * #	6772	7	6970	2	6871	2 *	5196	3	5698	
3441	Local Check (LC)	6479		6088		6496	8	6292		3461		5431	
3442	30570	5989	#	5172		6350		5761		4000		8102	3
3443	US 314 (Hybrid Check)	5451		7078	2	6770	6	6924	1	3786		8240	2
3444	30555	7284	4 * #	6476	9	6735	7	6606	7	4093	9	5927	
3445	30568	6411	#	5988		6132		6060		3180		5916	
3446	30561	5335		5428		7370	1	6399	9	3935		6653	9
3447	30690	5608		6992	4	5642		6317	10	3343		5133	
3449	30657	7400	2 * #	6999	3	6400	9	6700	3	3708		7284	5
3454	32036	6481	10 #	5604		5621		5613		3377		6114	
3455	32037	5470		5292		5410		5351		4121	8	5489	
3456	32038	5059		5421		5446		5434		4220	7	6518	
3457	ADT 45 (RP)	4986		6489	8	5270		5880		3743		8400	1
Exp. Mean		**6286**		**6095**		**6114**		**6105**		**4018**		**6423**	
F Value		**23.98(p<0.0001)S**		**5.49(p<0.0001)S**		**6.03(p<0.0001)S**		**8.20(p<0.0001)S**		**7.65(p<0.0001)S**		**12.12(p<0.0001)S**	
CD		429		779		739		483		885		747	
CV%		**4.16**		**7.8**		**7.37**		**4.82**		**13.43**		**7.09**	
D/S				26-06-2023		09-08-2023				07-05-2023		17-07-2023	
D/P				24-07-2023		10-03-2023				08-01-2023		08-10-2023	
Local Check Name				CO 54		CO 54				MO 21 Prathyasa		Kanchana	

Table No. 3b.2 (Contd).: Grain Yield (kg/ha) in AVT 1 – ETP, Zone 7, Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN											
		Kerala (2)		Karnataka				Karnataka (2)		Pudhuchery (1)		Zone VII (13)	
		Mean		Mandya		Mugad		Mean		Kurumbapet		Mean	
3401	30641	5309		6499	1	6116	5	6308	1 * #	5419		6187	6 #
3402	30638	4350		4545		4329		4437		7190		5496	
3407	30656	5677	6	5505	4	5081		5293	8	5501		5863	
3413	30636	5375		4910		4983		4947		7734	8	6427	4 * #
3416	30679	4901		4829		3697		4263		9096	3 #	6042	
3417	CO-51 (NC)	5031		4433		4922		4678		5583		5349	
3418	30680	4359		3959		3661		3810		8796	5 #	5290	
3421	30689	5513	8	4370		4221		4296		9613	2 #	6047	9
3428	30642	4813		5261	8	7141	1	6201	2	5120		6062	8
3430	30669	5834	5 *	5214	9	4763		4989		6155		6552	1 * #
3434	(ZC)	4462		4678		6322	4	5500	6	10185	1 #	5999	
3438	30557	7047	1 * #	5886	2	6491	3	6189	3	4766		6137	7
3439	30567	5524	7	5561	3	4465		5013		8061	7 #	6043	10
3440	30565	5447	10	5382	5	5109	10	5246	9	8524	6 #	6453	2 * #
3441	Local Check (LC)	4446		3823		4773		4298		5583		5631	
3442	30570	6051	3 *	5077	10	5569	8	5323	7	4139		5621	
3443	US 314 (Hybrid Check)	6013	4	5289	7	5783	7	5536	5	6699		5871	
3444	30555	5010		4900		6839	2	5870	4	7326	10	6350	5 * #
3445	30568	4548		4151		5129	9	4640		6944		5688	
3446	30561	5294		5382	5	4033		4708		5310		5295	
3447	30690	4238		4357		3998		4178		6127		5317	
3449	30657	5496	9	4305		5908	6	5107	10	6046		6442	3 * #
3454	32036	4746		4274		4508		4391		8851	4 #	5775	
3455	32037	4805		3777		4198		3988		7298		5297	
3456	32038	5369		4147		4138		4143		7407	9	5132	
3457	ADT 45 (RP)	6072	2 *	4280		4052		4166		7135		5261	
Exp. Mean		**5220**		**4800**		**5009**		**4904**		**6947**		**5832**	
F Value		**7.48(p<0.0001)S**		**17.01(p<0.0001)S**		**4.28(p<0.0001)S**		**7.09(p<0.0001)S**		**13.01(p<0.0001)S**		**15.94(p<0.0001)S**	
CD		670		451		1351		751		1207		301	
CV%		**7.83**		**5.73**		**16.45**		**9.33**		**10.59**		**3.15**	
D/S				28-07-2023		24-07-2023				13-07-2023			
D/P				23-08-2023		21-08-2023				08-12-2023			
Local Check Name				Raksha		MGD-101				ADT-53			

Table No. 3b.2 (Contd).: Grain Yield (kg/ha) in AVT 1 – ETP, (Trial Not Considered) Zone 7, Kharif 2023

Entry No	IET No	Trial not considered			
		Tamil Nadu		Karnataka	
		@Adhuturai		@Brahmawar	
3401	30641	5054		3428	
3402	30638	5457		4010	6
3407	30656	5591	7	4124	4
3413	30636	5027		4099	5
3416	30679	4973		3335	
3417	CO-51 (NC)	4981		3247	
3418	30680	6116	2	3871	8
3421	30689	5968	3	2923	
3428	30642	6331	1	2766	
3430	30669	5941	5	3117	
3434	(ZC)	5941	5	3713	10
3438	30557	5484	10	3801	9
3439	30567	4973		3523	
3440	30565	5457		3241	
3441	Local Check (LC)	5538	8	2612	
3442	30570	5457		2858	
3443	US 314 (Hybrid Check)	5161		3109	
3444	30555	5430		2938	
3445	30568	5296		2650	
3446	30561	4898		2968	
3447	30690	5329		2814	
3449	30657	4973		3934	7
3454	32036	5962	4	4183	3
3455	32037	5511	9	4292	2
3456	32038	5430		4563	1
3457	ADT 45 (RP)	5242		3628	
Exp. Mean		**5443**		**3452**	
F Value		**7.72(p<0.0001)S**		**14.70(p<0.0001)S**	
CD		394		408	
CV%		**4.41**		**7.21**	
D/S		07-05-2023		28-06-2023	
D/P		08-02-2023		26-07-2023	
Local Check Name		ADT 56		MO 21	

Table No. 3b.3 : Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – ETP, Zone -2, Kharif 2023

Entry No	IET No	ZONE II NORTHERN														
		Punjab (1)			Haryana (1)			Jammu Kashmir (1)			Uttar Pradesh (1)			Zone II (4)		
		Ludhiana			Kaul			Kota			Nagina			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3401	30641	91	98	194	87	114	300	81	107	264	91	96	209	87	104	242
3402	30638	88	111	231	85	110	279	79	109	240	91	106	241	86	109	248
3407	30656	90	106	225	88	114	303	80	113	251	91	104	236	87	109	254
3413	30636	94	106	203	94	103	274	84	113	274	93	101	268	91	106	255
3416	30679	91	101	224	87	110	296	80	114	227	90	104	286	87	107	259
3417	CO-51 (NC)	81	104	255	77	110	284	75	110	223	80	88	311	78	103	269
3418	30680	100	95	262	96	93	289	86	95	247	95	100	243	95	96	260
3421	30689	92	104	218	87	110	278	84	121	253	90	102	243	88	109	248
3428	30642	87	106	196	86	113	326	81	117	268	88	100	327	85	109	279
3430	30669	88	106	226	87	121	304	78	119	275	87	103	316	85	112	280
3434	North (ZC)	92	90	185	91	97	249	82	102	206	90	99	268	89	97	227
3438	30557	88	103	192	80	115	319	78	119	243	90	105	197	84	110	238
3439	30567	81	108	207	79	115	310	73	111	271	85	101	258	80	109	261
3440	30565	86	106	235	85	104	270	80	112	279		.		84	107	261
3441	Local Check (LC)	87	94	211	87	102	321	99	123	207	92	104	326	91	106	266
3442	30570	87	98	229	82	95	277	79	109	267	89	97	335	84	100	277
3443	US 314 (Hybrid Check)	93	97	229	89	113	287	82	120	257	92	102	266	89	108	260
3444	30555	87	106	209	82	116	307	78	117	283	87	103	287	83	111	271
3445	30568	79	106	220	79	113	296	73	117	278	81	106	246	78	111	260
3446	30561	90	115	249	84	114	301	79	123	282	92	104	178	86	114	253
3447	30690	92	102	203	88	109	274	80	115	269	92	96	320	88	106	267
3449	30657	89	109	198	86	111	294	81	112	293	91	97	332	87	107	279
Exp. Mean		**89**	**103**	**218**	**86**	**109**	**293**	**81**	**114**	**257**	**89**	**101**	**271**	**86**	**107**	**260**

Table No. 3b.3: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – ETP, (Trial Not Considered), Zone -2, Kharif 2023

Entry No	IET No	Trial not considered Uttarakhand @Pantnagar		
		DFF	PH	PAN
3401	30641	86	113	248
3402	30638	87	124	233
3407	30656	94	123	293
3413	30636	87	114	252
3416	30679	93	122	239
3417	CO-51 (NC)	80	102	247
3418	30680	97	102	238
3421	30689	84	104	282
3428	30642	86	110	236
3430	30669	85	116	277
3434	North (ZC)	91	99	252
3438	30557	81	112	268
3439	30567	80	95	243
3440	30565	82	101	284
3441	Local Check (LC)	76	92	269
3442	30570	82	88	266
3443	US 314 (Hybrid Check)	90	113	258
3444	30555	82	100	278
3445	30568	78	114	275
3446	30561	81	125	270
3447	30690			
3449	30657	85	124	276
Exp. Mean		**85**	**109**	**261**

Table No. 3b.3 : Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – ETP, Zone -3, Kharif 2023

Entry No	IET No	ZONE III - EASTERN														
		Odisha									Odisha (3) Mean			Bihar Bikramganj		
		ICAR-NRRI (Cuttack)			Jeypore			Chiplima								
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3401	30641	97	107	8	89	78	270	98	89	168	95	92	219	88	96	297
3402	30638	101	105	10	95	79	291	99	90	186	98	91	238	95	105	325
3406	30651	91	130	9	94	94	311	86	89	176	90	105	243	90	159	377
3407	30656	98	112	10	95	82	275	88	88	185	94	94	230	95	102	336
3409	30660	89	115	8	93	81	301	99	80	196	94	92	248	88	113	349
3410	30662	96	112	9	98	83	364	67	79	176	87	91	270	93	116	353
3413	30636	103	108	10	93	76	270	96	89	174	97	91	222	99	109	371
3414	30673	92	111	9	89	76	296	85	89	192	89	92	244	90	109	364
3416	30679	99	107	10	95	74	299	85	77	168	93	86	234	90	114	348
3417	CO-51 (NC)	91	101	11	93	79	337	97	88	190	94	89	264	89	99	420
3418	30680	92	107	8	105	82	306	97	91	167	98	93	237	100	97	347
3421	30689	103	109	10	89	82	293	97	89	178	97	93	235	95	109	391
3426	30652	102	105	7	94	87	295	83	98	184	93	97	240	100	109	393
3428	30642	92	100	9	103	73	277	86	87	181	94	87	229	88	114	358
3430	30669	95	110	10	94	85	248	98	81	170	96	92	209	90	104	367
3431	30674	93	133	9	94	96	295	100	89	189	96	106	242	91	110	328
3434	Northern (ZC)	91	87	13	88	72	291	80	71	159	86	77	225	88	90	388
3438	30557	102	114	6	91	80	318	86	97	179	93	97	249	89	110	328
3440	30567	100	104	12	93	80	258	98	88	200	97	90	229	90	111	413
3441	Local Check (LC)	100	116	12	97	92	357	108	92	184	102	100	271	95	108	406
3442	30570	100	94	10	103	73	344	100	89	186	101	85	265	90	92	369
3443	US 314 (Hybrid Check)	102	112	9	103	82	353	85	90	200	97	95	276	91	111	349
3444	30555	102	111	8	88	76	259	90	89	200	93	92	229	91	113	387
3445	30568	89	113	10	89	75	290	91	87	183	90	92	236	88	111	424
3446	30561	100	111	8	97	81	303	97	89	176	98	93	240	90	111	349
3447	30690	92	95	10	93	84	299	83	86	171	90	88	235	90	106	367
3449	30657	103	110	10	92	84	271	100	79	196	98	91	234	90	113	430
Exp. Mean		**97**	**109**	**9**	**94**	**81**	**299**	**92**	**87**	**182**	**94**	**92**	**240**	**92**	**109**	**368**

Table No. 3b.3 (Contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – ETP, Zone -3, Kharif 2023

Entry No	IET No	ZONE III - EASTERN														
		Bihar						Bihar (3)			Jharkhand					
		Sabour			Patna-ICAR			Mean			Ranchi			Hazaribagh		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3401	30641	96	103	304	85	97	174	90	99	258	93	89	139	94	94	253
3402	30638	96	104	307	89	95	271	93	101	301	98	85	142	94	107	216
3406	30651	89	484	320	82	117	188	87	253	295	91	97	215	89	122	241
3407	30656	101	104	345	90	96	312	95	101	331	91	95	183	96	98	247
3409	30660	91	104	356	83	115	281	88	111	329	92	88	129	95	93	247
3410	30662	88	104	340	89	92	223	90	104	305	97	89	194	94	90	235
3413	30636	104	107	350	91	106	221	98	107	314	97	88	180	97	97	250
3414	30673	86	106	332	90	95	230	89	103	309	98	91	178	96	86	219
3416	30679	93	102	332	88	106	312	90	108	331	99	92	188	94	106	241
3417	CO-51 (NC)	85	97	404	81	114	286	85	103	370	92	90	187	90	87	264
3418	30680	104	105	320	94	113	232	99	105	300	113	80	178	104	89	215
3421	30689	76	106	334	90	90	191	87	102	305	98	87	160	92	89	235
3426	30652	98	115	337	90	113	198	96	112	309	98	92	180	95	103	244
3428	30642	88	106	329	84	113	248	87	111	312	96	91	153	94	94	239
3430	30669	90	108	282	84	117	272	88	110	307	93	94	197	90	106	243
3431	30674	93	120	361	89	97	215	91	109	301	99	94	156	92	126	228
3434	Northern (ZC)	84	85	328	76	91	319	83	89	345	90	74	241	85	87	211
3438	30557	96	109	318	89	98	309	91	106	319	96	98	147	80	84	233
3440	30567	89	107	362	88	95	201	89	104	325	96	93	132	90	99	232
3441	Local Check (LC)	88	117	336	83	116	229	89	113	324	96	94	200	90	92	265
3442	30570	93	96	413	88	95	351	90	94	378	98	85	186	95	83	267
3443	US 314 (Hybrid Check)	96	114	405	91	109	311	93	111	355	100	91	187	94	85	254
3444	30555	88	102	352	85	97	229	88	104	323	96	93	135	91	96	231
3445	30568	85	109	327	75	106	333	83	109	361	87	88	129	83	98	242
3446	30561	96	111	326	90	93	160	92	105	278	100	95	186	95	107	252
3447	30690	91	103	315	89	100	231	90	103	304	92	91	163	93	96	265
3449	30657	89	112	343	88	106	240	89	110	338	92	90	180	91	96	268
Exp. Mean		**91**	**120**	**340**	**87**	**103**	**251**	**90**	**111**	**320**	**96**	**90**	**172**	**92**	**97**	**242**

Table No. 3b.3 (Contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – ETP, Zone -3, Kharif 2023

Entry No	IET No	ZONE III - EASTERN														
		Jharkhand (2)			West Bengal						West Bengal (2)			Zone III(10)		
		Mean			Hatwara			Malda			Mean			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3401	30641	94	92	196	92	107	273	68	106	9	80	106	273	90	97	235
3402	30638	96	96	179	92	113	258	73	105	9	82	109	258	93	99	249
3406	30651	90	109	228	88	126	323	66	112	6	77	119	323	87	153	269
3407	30656	94	97	215	92	110	234	71	105	8	82	108	234	92	99	265
3409	30660	94	90	188	91	108	260	74	98	7	82	103	260	90	99	265
3410	30662	95	89	215	92	114	302	75	112	9	84	113	302	89	99	273
3413	30636	97	93	215	89	109	336	71	94	7	80	102	336	94	98	269
3414	30673	97	88	198	99	106	298	73	106	8	86	106	298	90	98	264
3416	30679	97	99	215	92	111	241	70	107	7	81	109	241	90	100	266
3417	CO-51 (NC)	91	89	225	88	108	254	67	88	8	77	98	254	87	95	293
3418	30680	109	85	197	98	103	250	67	96	8	82	100	250	97	96	252
3421	30689	95	88	198	91	113	279	73	106	8	82	109	279	91	98	258
3426	30652	97	97	212	97	115	257	73	101	5	85	108	257	93	104	261
3428	30642	95	92	196	92	111	225	70	104	8	81	107	225	89	99	251
3430	30669	92	100	220	92	112	275	72	104	8	82	108	275	90	102	257
3431	30674	95	110	192	90	120	211	68	102	9	79	111	211	91	109	248
3434	Northern (ZC)	88	81	226	85	94	225	69	88	8	77	91	225	84	84	270
3438	30557	88	91	190	92	114	207				92	114	207	91	100	255
3440	30567	93	96	182	92	110	281	67	96	8	80	103	281	90	98	260
3441	Local Check (LC)	93	93	233	96	103	282	74	105	6	85	104	282	93	103	283
3442	30570	96	84	227	90	102	314	72	102	8	81	102	314	93	91	304
3443	US 314 (Hybrid Check)	97	88	221	94	119	282				94	119	282	95	101	293
3444	30555	94	95	183	92	106	237				92	106	237	92	98	254
3445	30568	85	93	186	88	110	274	72	100	9	80	105	274	85	100	275
3446	30561	97	101	219	93	113	226				93	113	226	95	101	247
3447	30690	92	93	214	98	103	236				98	103	236	91	96	256
3449	30657	92	93	224	93	106	238				93	106	238	93	100	271
Exp. Mean		**94**	**93**	**207**	**92**	**110**	**262**	**71**	**102**	**8**	**84**	**107**	**262**	**91**	**101**	**264**

Table No. 3b.3 (Contd.): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – E TP, (Trial Not Considered), Zone -3, Kharif 2023

Entry No	IET No	Trial not considered					
		Uttar Pradesh					
		@Masodha			@Varanasi		
		DFF	PH	PAN	DFF	PH	PAN
3401	30641	101	92	253	88	88	119
3402	30638	90	103	242	92	86	113
3406	30651	88	118	231	88	95	117
3407	30656	102	103	234	94	80	102
3409	30660	93	105	275	93	91	83
3410	30662	94	96	241	91	89	116
3413	30636	96	101	256	96	86	107
3414	30673	97	106	252	91	90	94
3416	30679	102	104	207	95	82	118
3417	CO-51 (NC)	91	99	222	87	84	97
3418	30680	93	96	237	100	85	107
3421	30689	101	103	210	99	95	124
3426	30652	98	101	256	99	82	119
3428	30642	89	92	254	86	80	100
3430	30669	101	102	244	89	89	116
3431	30674	88	101	250	92	94	123
3434	Northern (ZC)	86	83	257	80	70	152
3438	30557	93	103	254	98	92	106
3440	30567	102	85	274	95	86	126
3441	Local Check (LC)	73	78	256	89	77	129
3442	30570	93	103	256	99	77	105
3443	US 314 (Hybrid Check)	82	105	275	92	86	127
3444	30555	94	96	235	89	90	135
3445	30568	86	94	287	85	92	131
3446	30561	97	289	281	101	92	112
3447	30690	101	107	286	90	90	94
3449	30657	86	102	298	94	82	104
Exp. Mean		**93**	**106**	**253**	**92**	**86**	**114**

Table No. 3b.3 : Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – E TP, Zone -4, Kharif 2023

Entry No	IET No	ZONE IV - NORTH EASTERN		
		TRIPURA (1)		
		Lembucherra		
		DFF	PH	PAN
3401	30641	53	110	225
3402	30638	54	111	288
3403	30635	50	103	200
3404	30644	60	109	225
3405	30646	65	112	263
3407	30656	58	105	300
3408	30658	65	99	288
3409	30660	55	109	313
3411	30640	52	96	213
3412	30637	56	101	300
3413	30636	53	104	213
3414	30673	68	103	250
3415	30676	50	104	275
3416	30679	56	99	300
3417	CO-51 (NC)	56	104	288
3418	30680	72	98	213
3419	30683	59	109	250
3420	30685	70	95	275
3421	30689	74	111	250
3422	30688	57	102	300
3423	30694	64	105	250
3424	30691	55	110	300
3425	30686	55	94	263
3427	30643	61	109	275
3428	30642	59	95	213
3429	30653	54	101	225
3430	30669	57	115	250
3431	30674	54	125	250
3432	30668	59	108	213
3433	30677	54	90	263
3434	Northern (ZC)	52	106	300
3435	30681	57	116	238
3436	30659	61	101	238
3437	30687	51	110	275
3438	30557	56	107	225
3440	30565	57	112	238
3441	Local Check (LC)	50	111	250
3442	30570	51	87	250
3443	US 314 (Hybrid Check)	60	108	313
3444	30555	57	99	188
3445	30568	70	107	238
3446	30561	56	104	250
3447	30690	69	108	275
3448	30647	74	109	238
3449	30657	58	104	213
3450	30661	57	104	225
3451	30671	56	124	350
3452	30684	68	113	263
3453	30645	62	92	300
Exp. Mean		**59**	**105**	**257**

Table No. 3b.3 : Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – ETP, Zone -5, Kharif 2023

Entry No	IET No	ZONE V - CENTRAL											
		Chattisgarh									Chattisgarh (3)		
		Raipur			Jagadalpur			Bilaspur			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3401	30641	88	123	222	93	75	234	84	112		88	104	228
3402	30638	85	113	261	94	74	215	86	102		88	96	238
3407	30656	90	118	225	97	70	224	88	106		92	98	224
3413	30636	94	121	220	99	74	208	93	104		95	100	214
3416	30679	91	118	238	96	80	197	90	105		92	101	218
3417	CO-51 (NC)	81	114	287	92	76	222	80	100		84	97	255
3418	30680	98	93	294	108	82	213	100	80		102	85	254
3421	30689	93	125	283	98	72	217	94	104		95	100	250
3428	30642	85	123	312	98	89	206	85	97		89	103	259
3430	30669	87	129	222	94	89	231	86	111		89	110	227
3434	(ZC)	87	116	263	95	83	181	83	105		88	101	222
3438	30557	87	132	221	93	73	176	85	129		88	111	199
3440	30565	88	126	272	96	88	183	85	104		90	106	228
3441	Local Check (LC)	90	113	234	88	71	192	90	114		89	100	213
3442	30570	89	109	276	94	92	207	87	100		90	100	241
3443	US 314 (Hybrid Check)	92	126	235	103	93	184	91	110		95	110	210
3444	30555	88	107	237	95	96	182	88	108		90	104	210
3445	30568	82	120	225	92	95	185	78	104		84	106	205
3446	30561	89	135	220	94	99	184	91	116		91	117	202
3447	30690	78	115	245	92	99	202	87	97		86	104	224
3449	30657	88	121	242	94	98	243	87	106		90	108	243
Exp. Mean		**88**	**119**	**249**	**95**	**84**	**204**	**88**	**105**		**90**	**103**	**227**

Table No. __(Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – E TP, Zone -5, Kharif 2023

Entry No	IET No	ZONE V - CENTRAL											
		Maharashtra						Maharashtra (2)			Zone V (5)		
		Sakoli			Sindewahi			Mean			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3401	30641	89	127	274	88	124	251	89	125	263	88	112	245
3402	30638	83	127	232	88	127	258	86	127	245	87	109	241
3407	30656	86	127	247	91	126	281	89	127	264	90	110	244
3413	30636	89	133	276	91	127	276	90	130	276	93	112	245
3416	30679	89	129	265	90	130	337	90	130	301	91	112	259
3417	CO-51 (NC)	80	117	222	86	125	285	83	121	253	84	106	254
3418	30680	92	82	257	98	119	274	95	101	265	99	91	259
3421	30689	89	129	305	96	120	235	93	124	270	94	110	260
3428	30642	88	134	300	90	127	279	89	131	290	89	114	274
3430	30669	85	127	275	89	141	307	87	134	291	88	119	259
3434	(ZC)	86	126	280	86	125	286	86	126	283	87	111	253
3438	30557	90	135	216	89	136	278	90	136	247	89	121	223
3440	30565	84	126	303	90	119	281	87	123	292	89	113	260
3441	Local Check (LC)	87	117	266	91	112	305	89	114	285	89	105	249
3442	30570	90	125	291	86	118	278	88	122	285	89	109	263
3443	US 314 (Hybrid Check)	86	117	293	92	130	254	89	124	274	93	115	242
3444	30555	77	118	274	87	126	265	82	122	269	87	111	239
3445	30568	89	124	287	80	128	355	85	126	321	84	114	263
3446	30561	83	119	278	92	130	278	87	124	278	90	120	240
3447	30690	88	125	312	89	129	255	88	127	283	87	113	254
3449	30657	90	98	265	89	128	332	89	113	298	89	110	270
Exp. Mean		**87**	**122**	**272**	**90**	**126**	**283**	**88**	**124**	**278**	**89**	**111**	**252**

Table No. 3b.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – E TP, (Trial Not Considered), Zone -5, Kharif 2023

Entry No	IET No	Trial not considered		
		Madhya Pradesh		
		@Rewa		
		DFF	PH	PAN
3401	30641	96	90	187
3402	30638	95	90	348
3407	30656	96	97	288
3413	30636	101	99	307
3416	30679	96	88	292
3417	CO-51 (NC)	92	84	322
3418	30680	104	94	270
3421	30689	99	97	312
3428	30642	95	96	333
3430	30669	95	101	340
3434	(ZC)	93	95	229
3438	30557	96	98	206
3440	30565	98	90	310
3441	Local Check (LC)	92	99	300
3442	30570	97	90	392
3443	US 314 (Hybrid Check)	98	94	305
3444	30555	94	93	327
3445	30568	91	99	292
3446	30561	99	98	321
3447	30690	97	88	314
3449	30657	96	98	266
Exp. Mean		**96**	**94**	**298**

Table No. 3b.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – ETP, Zone -6, Kharif 2023

Entry No	IET No	ZONE VI - WESTERN														
		Maharashtra (1)			Gujarat						Gujarat (2)			Zone VI (3)		
		Karjat			Nawagam			Vyara			Mean			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3401	30641	87	129	296	76	114	345	87	119	220	81	117	283	83	121	287
3402	30638	86	113	258	80	114	337	83	118	227	82	116	282	83	115	274
3407	30656	89	120	204	81	114	301	85	114	252	83	114	277	85	116	252
3413	30636	89	124	238	82	115	303	87	122	261	84	118	282	86	120	267
3416	30679	86	121	214	75	107	339	83	119	260	79	113	299	81	116	271
3417	CO-51 (NC)	87	110	197	77	108	343	81	113	242	79	111	292	81	110	260
3418	30680	91	120	245	90	111	341	94	118	259	92	114	300	92	116	281
3421	30689	86	113	238	75	105	343	88	120	232	81	113	288	83	113	271
3428	30642	86	123	282	79	108	346	84	118	258	81	113	302	83	116	295
3430	30669	87	135	249	76	110	280	86	126	310	81	118	295	83	123	280
3434	(ZC)	86	122	279	77	109	290	84	117	236	80	113	263	82	116	268
3438	30557	86	126	286	75	114	292	81	122	206	78	118	249	81	121	261
3440	30565	86	100	279	89	101	297	85	122	218	87	112	257	87	108	265
3441	Local Check (LC)	86	101	289	85	99	289	84	113	241	84	106	265	85	104	273
3442	30570	85	119	242	91	100	284	85	111	250	88	105	267	87	110	259
3443	US 314 (Hybrid Check)	88	129	262	93	109	294	92	127	240	92	118	267	91	122	265
3444	30555	86	129	272	91	109	291	84	122	236	87	115	264	87	120	266
3445	30568	88	113	256	83	97	289	77	115	242	80	106	265	82	108	262
3446	30561	86	137	329	93	110	292	81	126	233	87	118	263	87	124	285
3447	30690	86	129	202	89	107	287	88	117	238	88	112	262	88	118	242
3449	30657	86	115	247	90	107	284	83	120	225	87	113	254	87	114	252
Exp. Mean		**87**	**120**	**255**	**83**	**108**	**308**	**85**	**119**	**242**	**84**	**113**	**275**	**85**	**116**	**268**

Table No. 3b.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – ETP, (Trial Not Considered), Zone -6, Kharif 2023

Entry No	IET No	Trial not considered		
		Maharashtra		
		@Radhanagari		
		DFF	PH	PAN
3401	30641	87	91	179
3402	30638	89	89	215
3407	30656	88	100	166
3413	30636	93	95	167
3416	30679	92	97	180
3417	CO-51 (NC)	86	91	185
3418	30680	96	75	242
3421	30689	93	96	204
3428	30642	90	91	185
3430	30669	87	91	172
3434	(ZC)	81	101	167
3438	30557	94	110	188
3440	30565	92	90	174
3441	Local Check (LC)	94	95	172
3442	30570	87	86	270
3443	US 314 (Hybrid Check)	95	91	255
3444	30555	94	92	228
3445	30568	84	101	195
3446	30561	96	89	233
3447	30690	91	93	195
3449	30657	87	93	187
Exp. Mean		**90**	**93**	**198**

Table No. 3b.3 (Contd) : Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – ETP, Zone -7, Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN																	
		Andhra Pradesh (1)			Telangana														
		Maruteru			Rudrur			Kampasagar			Kunaram			Warangal			Jagityal		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3401	30641	81	114	332	87	121	323	83	104	324	95	115	354	96	123	378	95	118	355
3402	30638	80	116	347	87	120	246	82	96	391	94	113	407	93	118	400	91	114	368
3407	30656	82	116	334	89	119	336	87	108	373	99	113	394	101	129	394	97	113	339
3413	30636	85	119	288	96	126	377	91	104	307	94	112	416	95	123	392	100	120	374
3416	30679	82	114	306	87	120	347	86	99	278	93	112	429	94	119	399	95	126	367
3417	CO-51 (NC)	73	112	326	79	111	302	80	101	264	86	110	431	91	108	404	83	105	380
3418	30680	91	111	297	100	120	196	94	104	289	105	104	361	101	111	393	104	108	361
3421	30689	85	122	297	88	126	190	88	113	396	92	116	396	91	118	400	97	115	375
3428	30642	80	111	290	89	126	394	83	98	280	94	118	392	93	123	400	91	119	374
3430	30669	78	120	332	85	134	367	84	112	320	80	123	400	94	128	413	93	121	378
3434	(ZC)	79	110	277	91	120	350	87	103	300	95	112	367	96	118	384	95	113	376
3438	30557	80	117	273	86	123	242	87	112	320	89	124	337	86	119	393	91	117	356
3439	30567	79	105	352	85	122	239	84	97	262	93	109	376	88	114	406	98	113	386
3440	30565	79	111	282	86	119	332	87	99	313	90	106	389	90	117	409	93	115	337
3441	Local Check (LC)	86	114	284	85	122	350	81	100	331	85	111	436	102	108	392	97	99	408
3442	30570	81	107	290	87	108	339	86	98	338	91	109	378	90	109	385	99	118	368
3443	US 314 (Hybrid Check)	85	122	310	92	123	286	91	115	369	100	114	343	95	124	406	93	114	381
3444	30555	84	102	301	86	118	321	87	106	416	92	113	332	93	119	392	96	108	343
3445	30568	76	110	290	76	119	321	79	105	316	88	112	422	89	119	394	83	119	370
3446	30561	79	117	306	91	126	245	94	120	322	94	113	372	86	123	393	101	119	363
3447	30690	80	113	317	87	122	323	83	109	284	96	108	367	93	118	393	94	121	355
3449	30657	81	116	315	91	119	412	86	107	311	95	118	361	95	121	394	95	119	533
3454	32036	86	108	359	91	127	258	88	103	293	113	115	420	94	123	396	101	111	379
3455	32037	74	105	359	78	106	353	79	99	267	82	95	400	82	114	386	84	103	384
3456	32038	74	107	321	76	114	373	78	101	287	80	103	471	83	101	392	82	95	404
3457	ADT 45 (RP)	75	102	367	77	112	325	79	95	271	87	104	486	86	107	396	84	101	398
Exp. Mean		**81**	**112**	**314**	**87**	**120**	**313**	**85**	**104**	**316**	**92**	**112**	**394**	**92**	**117**	**395**	**94**	**113**	**377**

Table No. 3b.3 (Contd)).: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – ETP, Zone -7, Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN																	
		Telangana (5)			Tamilnadu						Tamil Nadu (2)			Kerala					
		Mean			Coimbatore			Tirur			Mean			Moncompu			Pattambi		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3401	30641	91	116	347	85	97	287	73	92	343	79	94	315	89	95	151	92	85	462
3402	30638	90	112	362	90	100	307	72	95	304	81	97	305	90	102	189	91	96	471
3407	30656	95	116	367	85	93	375	75	94	357	80	94	366	100	103	173	91	97	418
3413	30636	95	117	373	90	97	318	75	91	338	82	94	328	100	95	173	91	97	453
3416	30679	91	115	364	91	98	353	72	89	314	81	94	334	87	96	162	86	96	520
3417	CO-51 (NC)	84	107	356	86	92	384	70	81	268	78	87	326	84	102	218	91	79	204
3418	30680	101	109	320	85	95	303	75	86	288	80	90	296	100	102	131	94	95	493
3421	30689	91	118	351	86	100	305	74	97	318	80	98	312	100	98	171	91	97	649
3428	30642	90	117	368	92	99	297	70	98	279	81	98	288	89	102	171	88	91	493
3430	30669	87	124	376	88	100	333	70	99	293	79	100	313	90	99	191	92	85	316
3434	(ZC)	93	113	355	93	100	340	73	88	320	83	94	330	90	99	169	89	92	276
3438	30557	88	119	330	90	104	307	75	103	276	83	103	291	89	100	153	92	90	420
3439	30567	90	111	334	85	95	278	70	87	365	77	91	322	89	92	171	94	85	380
3440	30565	89	111	356	86	102	308	70	94	277	78	98	293	89	102	191	93	82	253
3441	Local Check (LC)	90	108	383	86	103	385	74	86	273	80	94	329	89	103	238	89	81	262
3442	30570	91	108	362	95	95	347	70	82	315	82	89	331	106	91	182	91	89	580
3443	US 314 (Hybrid Check)	94	118	357	92	107	312	78	101	312	85	104	312	100	106	213	97	97	689
3444	30555	91	113	361	87	95	342	71	96	337	79	96	340	100	94	164	90	85	324
3445	30568	83	115	364	85	100	328	70	92	253	78	96	291	112	96	158	95	84	416
3446	30561	93	120	339	95	99	290	77	102	344	86	101	317	107	101	155	93	91	287
3447	30690	91	116	344	84	98	315	71	69	205	78	83	260	89	97	180	95	88	276
3449	30657	92	117	402	90	100	335	70	90	284	80	95	310	89	97	171	93	89	484
3454	32036	98	116	349	90	102	313	79	98	245	85	100	279	100	93	182	90	90	484
3455	32037	81	103	358	82	91	303	71	83	344	76	87	324	85	92	167	90	75	338
3456	32038	80	103	385	82	89	330	70	90	379	76	89	354	83	80	133	93	81	602
3457	ADT 45 (RP)	83	104	375	82	96	373	70	94	264	76	95	319	86	84	167	90	83	589
Exp. Mean		**90**	**113**	**359**	**88**	**98**	**326**	**72**	**91**	**304**	**80**	**95**	**315**	**94**	**97**	**174**	**92**	**88**	**428**

Table No. 3b.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – ETP, Zone -7, Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN																	
		Kerala (2)			Karnataka						Karnataka (2)			Pudhuchery (1)			Zone VII(13)		
		Mean			Mandya			Mugad			Mean			Kurumbapet			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3401	30641	90	90	307	88	91	283	91	61	217	90	76	250	72	98	320	87	101	318
3402	30638	91	99	330	89	94	340	94	57	220	92	76	280	73	105	350	87	102	334
3407	30656	96	100	295	89	101	363	92	63	243	91	82	303	78	107	410	90	104	347
3413	30636	95	96	313	95	102	283	104	60	240	100	81	262	74	102	340	92	104	331
3416	30679	86	96	341	91	100	329	101	58	232	96	79	281	72	95	427	87	102	343
3417	CO-51 (NC)	87	90	211	80	92	306	97	61	269	89	76	288	70	100	527	82	96	330
3418	30680	97	98	312	89	90	306	95	53	251	92	71	279	78	97	330	93	98	308
3421	30689	95	98	410	92	93	283	97	59	271	94	76	277	75	90	420	89	103	344
3428	30642	89	96	332	90	93	272	97	61	244	94	77	258	73	100	373	87	103	328
3430	30669	91	92	253	88	100	272	92	60	218	90	80	245	73	105	327	85	107	320
3434	(ZC)	89	96	222	89	96	363	98	65	240	94	80	301	74	88	393	88	100	320
3438	30557	91	95	287	96	98	408	102	69	257	99	84	333	73	100	307	88	106	311
3439	30567	91	89	275	88	89	340	93	54	244	91	71	292	73	97	500	86	97	331
3440	30565	91	92	222	95	92	351	98	64	244	97	78	298	76	110	420	87	101	316
3441	Local Check (LC)	89	92	250	79	85	363	92	78	269	86	82	316	72	98	453	86	99	342
3442	30570	99	90	381	88	88	363	95	56	312	91	72	338	75	97	360	89	96	351
3443	US 314 (Hybrid Check)	99	101	451	95	96	374	105	67	255	100	81	315	74	107	497	92	107	365
3444	30555	95	89	244	92	99	351	93	68	250	93	83	301	73	100	310	88	100	322
3445	30568	104	90	287	84	101	317	88	57	298	86	79	308	71	102	453	84	101	333
3446	30561	100	96	221	99	88	295	104	57	224	101	73	259	83	120	453	93	106	311
3447	30690	92	92	228	89	91	340	91	59	181	90	75	260	74	95	483	87	99	309
3449	30657	91	93	328	87	96	317	94	56	231	91	76	274	75	95	387	88	102	349
3454	32036	95	92	333	96	100	306	106	61	246	101	80	276	74	105	427	93	103	331
3455	32037	87	83	252	83	87	351	90	64	212	86	75	282	72	92	340	81	93	323
3456	32038	88	80	368	83	87	340	99	56	223	91	71	282	72	92	527	81	92	368
3457	ADT 45 (RP)	88	84	378	87	87	329	95	56	220	91	72	274	71	98	440	82	94	356
Exp. Mean		**93**	**93**	**301**	**89**	**94**	**329**	**96**	**61**	**243**	**93**	**77**	**286**	**74**	**100**	**407**	**87**	**101**	**332**

Table No. 3b.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – ETP, (Trial Not Considered), Zone -7, Kharif 2023

Entry No	IET No	Trial not considered					
		Tamil Nadu			Karnataka		
		@Adhuturai			@Brahmawar		
		DFF	PH	PAN	DFF	PH	PAN
3401	30641	91	98	373	100	56	385
3402	30638	91	82	428	105	59	353
3407	30656	93	108	437	104	74	372
3413	30636	90	92	459	108	70	371
3416	30679	90	95	350	107	61	397
3417	CO-51 (NC)	90	93	394	105	68	393
3418	30680	86	102	507	111	69	380
3421	30689	91	108	302	95	71	366
3428	30642	95	95	442	104	57	345
3430	30669	90	97	447	104	64	386
3434	(ZC)	100	93	404	108	66	391
3438	30557	92	100	448	97	74	383
3439	30567	90	95	448	94	76	388
3440	30565	93	102	402	105	69	380
3441	Local Check (LC)	90	95	463	120	73	365
3442	30570	93	95	467	107	55	371
3443	US 314 (Hybrid Check)	95	106	424	107	92	388
3444	30555	89	103	475	106	77	377
3445	30568	89	82	412	97	72	395
3446	30561	92	122	407	102	70	388
3447	30690	91	95	405	99	77	386
3449	30657	91	96	455	110	75	377
3454	32036	93	101	413	105	73	399
3455	32037	92	101	417	96	74	349
3456	32038	92	83	390	103	69	380
3457	ADT 45 (RP)	87	89	425	94	69	384
Exp. Mean		**91**	**97**	**423**	**104**	**69**	**379**

Table No. 3b.4 (Contd)___: Grain quality characteristics of entries in AVT 1-E TP, kharif 2023

Entry No.	Designation /IET No.	HULL	MILL	HRR	KL	KB	L/B	Grain Type	Grain Chalk
3401	30641	76.5	63.5	28.5	5.74	2.19	2.62	MS	VOC
3402	30638	80.6	71.6	64.2	6.64	1.99	3.33	LS	VOC
3403	30635	79.4	68.9	63.3	6.71	2.14	3.13	LS	OC
3404	30644	78.2	68.3	65.8	5.13	1.87	2.74	MS	VOC
3405	30646	78.6	66.2	54.1	6.48	2.43	2.66	LB	OC
3406	30651	81.8	70.7	59.3	6.85	1.98	3.44	LS	VOC
3407	30656	79.8	67.7	54.8	6.10	1.94	3.40	LS	VOC
3408	30658	77.8	71.4	67.7	6.66	2.27	2.93	LB	VOC
3409	30660	79.3	69.0	62.1	6.88	1.93	3.56	LS	A
3410	30662	80.0	71.0	64.3	6.98	2.14	3.26	LS	VOC
3411	30640	75.7	65.1	58.8	8.33	1.94	4.29	LS	A
3412	30637	81.7	70.7	66.4	5.25	2.02	2.59	MS	VOC
3413	30636	78.4	68.1	53.5	6.68	2.28	2.92	LB	VOC
3414	30673	78.8	68.3	62.5	6.92	1.74	3.97	LS	A
3415	30676	80.9	70.0	66.4	4.56	2.02	2.25	SB	VOC
3416	30679	77.3	57.9	62.1	6.63	1.93	3.43	LS	VOC
3417	**CO - 51(NC)**	77.2	67.3	56.9	5.42	1.83	2.96	MS	VOC
3418	30680	78.8	69.7	62.6	6.93	2.15	3.22	LS	OC
3419	30683	78.9	69.9	65.4	6.61	2.26	2.92	LB	VOC
3420	30685	77.3	69.2	54.4	6.51	2.57	2.53	LB	OC
3421	30689	79.6	68.2	58.4	6.30	2.49	2.53	LB	VOC
3422	30688	79.5	70.1	68.0	6.53	1.95	3.34	LS	A
3423	30694	78.0	70.4	69.0	5.33	2.27	2.34	SB	VOC
3424	30691	77.5	68.0	64.5	5.60	2.39	2.34	SB	VOC
3425	30686	-	-	-	-	-	-	-	-
3426	30652	80.9	68.9	61.9	6.22	2.10	2.96	LB	VOC
3427	30643	78.2	69.5	66.9	5.39	2.19	2.46	SB	VOC
3428	30642	79.6	69.6	65.7	6.54	2.07	3.15	LS	VOC
3429	30653	77.8	70.5	67.4	7.87	1.92	4.09	LS	A
3430	30669	79.3	65.2	33.4	6.20	2.03	3.05	LS	VOC
3431	30674	78.6	71.9	70.2	6.84	2.17	3.15	LS	VOC
3432	30668	77.8	70.4	67.8	5.92	2.21	2.67	MS	VOC
3433	30677	77.3	67.3	65.9	5.43	2.20	2.46	SB	A
3434	**MTU -1153(ZC)**	77.8	63.8	65.5	6.37	2.03	3.13	LS	VOC
3435	30681	79.4	72.2	70.4	6.24	2.39	2.61	LB	VOC
3436	30659	79.0	67.5	59.1	6.29	2.17	2.80	LB	VOC
3437	30687	77.9	68.2	63.7	6.17	2.35	2.62	LB	VOC
3438	30557	78.2	65.3	43.2	6.97	2.07	3.36	LS	VOC
3439	30567	77.0	65.0	52.5	7.11	2.09	3.40	LS	A
3440	30565	79.4	67.3	36.3	5.39	2.26	2.38	SB	VOC
3441	**LOCAL CHECK**	78.1	66.8	56.5	7.12	1.96	3.63	LS	VOC
3442	30570	82.1	70.8	48.9	6.52	2.04	3.19	LS	VOC
3443	**US - 314 (HC)**	81.3	68.3	56.9	5.51	1.96	2.81	MS	VOC
3444	30555	80.1	67.0	37.3	6.39	2.25	2.84	LB	VOC
3445	30568	79.0	67.9	56.9	6.89	2.02	3.36	LS	VOC
3446	30561	79.4	67.5	58.1	6.29	2.46	2.55	LB	VOC
3447	30690	79.1	67.9	26.7	6.50	2.12	3.06	LS	VOC
3448	30647	-	-	-	-	-	-	-	-
3449	30657	80.7	68.9	60.5	5.62	1.97	2.85	MS	VOC
3450	30661	76.4	67.8	65.3	6.04	2.04	2.96	LB	VOC
3451	30671	78.2	71.9	69.2	7.28	2.14	3.40	LS	VOC
3452	30684	78.6	68.9	59.5	6.78	2.13	3.18	LS	VOC
3453	30645	79.3	71.9	69.2	7.20	2.08	3.46	LS	VOC
3454	32036	77.3	67.9	63.5	5.53	2.07	2.67	MS	VOC
3455	32037	78.2	71.4	69.6	5.94	2.04	2.91	MS	VOC
3456	32038	77.8	67.0	63.2	5.40	2.04	2.64	MS	A
3457	**ADT - 45 (RP)**	76.1	67.2	64.7	5.49	1.97	2.78	MS	A

HULL: Hulling (%); MILL: Milling (%); HRR: Head Rice Recovery (%); KL: Kernel Length (mm); KB: Kernel Breadth (mm); L/B: Length and breadth ratio; Grain Chalk: Grain Chalkiness; VOC: Very occasionally present; A: Absent ASV: Alkali Spreading Value; AC: Amylose Content (%); GC: Gel Consistency; LB: Long Bold; SB: Short Bold; LS: Long Slender; MS: Medium Slender; SS: Short Slender

Table No 3c.1: Composition of entries in Initial Variety Trial - Early Transplanted (IVT– ETP), Kharif 2023.

Entry No.	IET No.	Designation	Cross Combination	GT
1st year of testing:				
3501	31501	JGL 41255	JGL 244423 / IR 09-251	LS
3502	31502	RP 6744-19023-1-1	Krishna Hamsa / IRBB60 // Krishna Hamsa / Tetep /// Krishna Hamsa / IR 96321-1447-561-B-1 // Krishna Hamsa / IR 81896-96-B-B-195 //// Krishna Hamsa / IR 74371-46-1-1-13 // Krishna Hamsa / DSB 2	LS
3503	31503	Pusa 5567-21-1	Pusa 5551-6-1-1-1 / PRR 801	MB
3504	31504	Jhilli Dhan Mutant 19	Jhilli Dhan (Local landrace)	MS
3505	31505	KNM 14376	KNM 118 / IR 04A216	LS
3506	31506	HKR 18-63	HKR 46 / OM5240 / HKR 47	LS
3507	31507	RP 6720-LVS2-CN-2094-16-7-1	Gautham / IC 373165	
3508	31508	PAU 10093-IR 129477-1629-14-1-4-1	IR09N538 / IR 93312-30-101-20-3-66-6 // IR09N538 / IR11L101 /// IR09N538 / Tadukan // IR09N538 / Rathu Heenati / 4 IR09N538 / Abhaya // IR09N538 / IR BB 60 (IR72920-1-44-4) /// IR09N538 / IR 94225-B-82-B // IR09N538 / IR 94226-B-177-B / 5 IR 09N538 / WHD IS-75-1-127 // IR 09N538 / IR 96322-34-223-B /// IR09N538 / IR 91648-B-32-B	LS
3509	31509	MTU 1409 (MTU 2701-1-1-1-1)	MTU 1121 / MTU7029	MS
3510	31510	NVSR-931	Gurjari / IR-28	LB
3511	31511	NLR 4020	NLR 33055 / NLR 145	SB
3512	31512	RNR 37913	AAGP 9772 / NLR 34449	LS
3513	31513	RR 24-25	SVR-39 / PR-126	
3514	31514	WGL -1537	WGL 32100 / MTU 1936-12-1-2-1 // JGL 3844 / Radha Krishna	LS
3515	31515	NVSR-908	IET 22121 / IET 24003	MS
3516	31516	PAU 7682-1-3-1-1 (RYT 4135)		
3517	31517	KNM 15360	KNM 118 / IRTON 117 // KNM 118	LS
3518	31518	Pusa 2096-26	PRR 344 / PRR 332	MS
3519	31519	RCPR 101-IR107891-B-B-1432-2-1	IR 87707-446-B-B-B / KALI AUS // IRRI 154 / UPL RI 7 /// Dular (ACC 32561) /IRRI 148	LS
3520	**CO 51 (NC)**			
3521	31520	AD 21208	MTU 1010 / Jambali:: IRGC731D1D-1	LS
3522	31521	ODR-1-2-18-1	Zhu 11-26 / Geetanjali	MS
3523	31522	BRR-2107	HHZ 14-SAL-10-DT-1-DT-1-Sel. (Huang-Hua-Zhan*2 / IR64)	MS
3524	31523	CB 17502	CO 51 / Luanaedea	MB
3525	31524	RP 6420-C10-183	MTU1010 /Tualsi	MS
3526	31525	KJT-23-MG-13	Selection from MG-13 Population	LS
3527	31526	CSR 2021-E-294-153	IR 29 / PR 114	
3528	31527	TRC 2023-41/ TRC H2TC H2TN 5723-B-B-9-21	Hakuchuk 2 / Tripura Nirog	MB
3529	31528	KMP-244	KMP-149- / IC-10-44	MB
3530	31529	TRC 295-1-3-2	Gomati / Tripura Nirog	LB
3531	31530	NWGR-19200	Jaya / IIRON-M-204 / 2-3-1-1-2-4	MB
3532	31531	CR 4400-1-5-IR18L1130	IR09F437 / IR13T101	LS
3533	31532	UPR 4592-3-1-1-1	Pant Dhan12 / MRP 5401	LS
3534	31533	CR 4469-RGA-126-27	CR 4384-RGA-20 / CR 4389-RGA-12	MS
3535	31534	ORR 1813	OR 2573-4-1 / (Pratikshya / Parijat)	LS

Entry No.	IET No.	Designation	Cross Combination	GT
3536	31535	CR 4406-14155-1-3-7-6-2-1	1368 /NLR 34449	MS
3537	31536	TRC 124-2-2-3	Hokuchuk 2 / Naveen	MS
3538	31537	Shuats Dhan 11-IR18A1076	IR10N305 / BRRI Dhan 55	LS
3539	31538	CR 4452 (IR 143520-67-2-2-726-17-13)	MTU1010 / Barik Kudi::IRGC 52807-1	LS
3540	31539	NWGR-18202	GR-11 / Mahisagar /3-3-1-1-1-2-4	MS
3541	31540	TM 13327	WGL 305/Rasi	MS
3542	**PR 124 (Northern), Narendra 97 (Eastern), Luit (North Eastern), Sahbhagidhan (Central & Western), MTU 1153 (Southern)-ZC**			
3543	31541	HURS-23-16-IR 143511-78-2-2-963-50-18	MTU1010 / C1016-1::IRGC 50368-1	LS
3544	31542	CR 2906-353-11-13	IR 20 / Dandi	MS
3545	31543	RNR 35989	HHZ-Y3-T10 / IR 64	LS
3546	31544	BRR 0288 (IR 18A1809)	IR 99054-B-B-29 / IR09A224	LS
3547	31545	CR 4396-97-2-4	Lalat MAS*2 / CR Dhan 801	MB
3548	31546	HURS-23-12-IR18A2005	IR 110611-B-B-B-25-1 / IR10A134 (AGGRi Alliance)	LS
3549	31547	R 1672-126-1-24-1	R 1027-2282-2-1 / Danteshwari	LS
3550	31548	CR 4472-1-1-2-1-1-1	Dular / Satabdi	MS
3551	31549	BKR 421	BPT 5204 / Karahni	SB
3552	31550	CR 4418 -4-1-2-1-2-1	CR 3553-9-2-1-1-1-1 / CR 3510 -12-1-1-2-1-1	MS
3553	31551	Sanchuriya Mutant 12	Sanchuriya (Local Landrace)	MB
3554	31552	Tilkormel Mutant-12	Sel. from Til Kormel landrace	
3555	31553	CR 4379-4-1-1-1	CR Dhan 307 / MTU 1010	LB
3556	31554	TRC 2023-22 / TRC TNTJ 5370-B-B-1-5	Tripura Nirog / Tripura Jala	LS
3557	31555	RP 6680-RMS-3-5-9-16	MTU 1010*2 // ST 12	LS
3558	31556	KPS-10631	JGL 11727 / HMT Sona	SS
3559	31557	CR 4469-RGA-9	CR 4384-RGA-20 / CR 4389-RGA-12	MS
3560	31558	KJT 23-MG-32	Selection from MG-32	LS
3561	31559	CB 18577	CO 51 / CB 12599	MS
3562	31560	Pusa 2095-23	PRR461 / PRR472	MS
3563	31561	AD 21209	DRR Dhan 44 / Jambali::IRGC731D	LS
3564	**Local Check (LC)**			

Table No. 3c.2 : Grain Yield (kg/ha) in IVT – ETP, Kharif 2023

Entry No	IET No	ZONE II - NORTHERN										ZONE III - EASTERN	
		Punjab (1)		Haryana (1)		Rajasthan (1)		Uttapradesh1 (1)		Zone II (4)		Odisha	
		Ludhiana		Kaul		Kota		Nagina		Mean		ICAR-NRRI (Cuttack)	
3501	31501	4883		5500		7048	3 *	5798		5807	7	3545	
3502	31502	4121		6050		7214	1 *	5359		5686		4905	
3503	31503	3132		4250		5219		7161	1 *	4941		4775	
3504	31504	3672		5950		5352		3378		4588		4030	
3505	31505	4668		3700		6981	4 *	3816		4791		2690	
3506	31506	4238		3700		7114	2 *	6011	10	5266		3820	
3507	31507	4824		5350		5851		4096		5030		5100	8
3508	31508	5039		7050	6	6582	7	4714		5846	6	3295	
3509	31509			2950		6882	5 *	2214		4015			
3510	31510	4264		6350		6051		5027		5423		5225	3
3511	31511	2474		5750		5652		3198		4269		5165	4
3512	31512	3177		4800		5219		4907		4526		5090	9
3513	31513	3457		4950		6316		6649	6 *	5343		3635	
3514	31514	3952		4300		5785		4548		4646		4285	
3515	31515	5547	5	5250		6582	7	4076		5364		4775	
3516	31516	5234	10	5200		6184		5831		5612		4160	
3517	31517	3145		4150		4920		4574		4197		3685	
3518	31518	4805		6200		5253		5931		5547		3195	
3519	31519	5547	5	5100		5306		6616	7	5642		5115	7
3520	CO 51 (NC)	3633		3850		4787		3810		4020		3250	
3521	31520	3854		5000		5053		5040		4737		3260	
3522	31521	4844		5500		5851		5678		5468		4220	
3523	31522	5436	8	6450	10	5652		5652		5798	8	3480	
3524	31523	2324		4350		5519		4488		4170		2285	
3525	31524	3522		4250		5485		3165		4106		3490	
3526	31525			5150		6449	9	4754		5451		5485	1
3527	31526	4948		6250		5785		6848	4 *	5958	3	4590	
3528	31527	2786		4400		5452		5964		4651		3485	
3529	31528	2884		4200		5319		3265		3917		5085	10
3530	31529	4583		4050		4521		5672		4707		4385	
3531	31530	4616		5750		5386		4887		5160		3075	
3532	31531	5547	5	6450	10	6449	9	5472		5980	2	5080	
3533	31532	4798		7400	5	5585		5951		5934	5	4010	
3534	31533	3053		3750		5771		3730		4076		3745	
3535	31534	3848		6450	10	5386		5166		5213		4340	
3536	31535	3757		6200		5020		2586		4391		3875	
3537	31536	3516		5050		5751		6543	8	5215		3525	
3538	31537	2552		4900		4255		5632		4335		4135	
3539	31538	4577		5100		5153		5805		5159		4135	
3540	31539	2083		4750		5519		4455		4202		3845	
3541	31540	4043		5450		5253		6769	5 *	5379		3855	
3542	Zonal Check	5033		7600	3	5585		5844		6016	1	4155	
3543	31541	3717		6300		5685		5765		5367		3565	
3544	31542	2363		5350		5419		2380		3878		5375	2
3545	31543	5482	7	5100		5718		4907		5302		4975	
3546	31544	4063		5800		4056		6144	9	5016		5160	5
3547	31545	3861		5200		5120		5838		5005		4845	
3548	31546	4948		6800	8	5519		5605		5718	10	3220	
3549	31547	3431		6400		5785		5951		5392		3325	
3550	31548	3372		7950	2	5918		5778		5755	9	4110	
3551	31549	3132		5050		4987		6908	2 *	5019		3230	
3552	31550	4824		4550		4322		5771		4867		4595	
3553	31551	3822		3950		4854		2513		3785		4545	
3554	31552	5553	3	5400		4322		6902	3 *	5544		4120	
3555	31553	1660		3900		4987		2547		3274		5000	
3556	31554	6061	1	6850	7	5519		5346		5944	4	3475	
3557	31555	3359		6250		6383		3797		4947		4215	
3558	31556			4650		6649	6	2653		4651		2865	
3559	31557	4733		7450	4	4787		3910		5220		4830	
3560	31558	5391	9	6150		4122		5273		5234		4800	
3561	31559	2891		4350		4255		4156		3913		3475	
3562	31560	3268		5700		4189		5705		4716		4245	
3563	31561	3945		8200	1	8 4521		4827		5373		3970	
3564	Local Check	6009	2	6050		5386		4388		5458		5160	5
Exp. Mean		**4071**		**5410**		**5516**		**4971**		**4999**		**4133**	
F Value		**11.11(p<0.0001)S**		**17.23(p<0.0001)S**		**3.39(p<0.0001)S**		**20.25(p<0.0001)S**		**14.72(p<0.0001)S**		**7.94(p<0.0001)S**	
CD		880		771		1176		795		485		754	
CV%		**10.80**		**7.13**		**10.67**		**8.00**		**4.85**		**9.13**	
D/S		16-06-2023		02-07-2023		27-06-2023		23-06-2023				21-06-2023	
D/P		16-07-2023		03-08-2023		28-07-2023		19-07-2023				31-07-2023	
Local Check Name		PR 126		HKR 48		Pratap -1		Narendra 97				CR Dhan 318	

Table No. 3c.2 (Contd).: Grain Yield (kg/ha) in IVT – ETP, Kharif 2023

Entry No	IET No	ZONE III - EASTERN											
		Odisha		Odisha (2)		Bihar				Bihar (2)		Jharkhand (1)	
		Jeypore		Mean		Bikramganj		Patna-ICAR		Mean		Ranchi	
3501	31501	6049		4797		4754		7436	8	6095	9 *	4350	
3502	31502	2344		3625		3867		6414		5141		3700	
3503	31503	2864		3820		3409		6729		5069		3150	
3504	31504	4432		4231		4585		7007	10	5796	*	3950	
3505	31505	4321		3506		5200		6757		5979	*	5050	
3506	31506	4825		4323		3942				3942		5150	10 *
3507	31507	2490		3795		5055		6507		5781	*	2750	
3508	31508	6872	8	5084		3476		6243		4860		4100	
3509	31509	9809	1 *	9809	1 *	5091		6271		5681	*	4950	
3510	31510	7212	4	6219	4 *	6327	3	6500		6414	4 *	5400	4 *
3511	31511	2428		3797		3915		6700		5308		4950	
3512	31512	5082		5086		7682	1	8193	1	7938	1 *	4550	
3513	31513	5724		4680		5073		6979		6026	*	4150	
3514	31514	5447		4866		5578		5757		5668	*	5100	
3515	31515	8926	3 *	6851	3 *	5524		6643		6084	10 *	5200	8 *
3516	31516	3465		3813		5755	6	6736		6246	7 *	3650	
3517	31517	4496		4091		4591		5400		4996		5550	2 *
3518	31518	2025		2610		3710		4543		4127		5600	1 *
3519	31519	2315		3715		3599		7450	7	5525		5250	6 *
3520	CO 51 (NC)	6848	9	5049		2923		4171		3547		4000	
3521	31520	1912		2586		3854		4714		4284		4900	
3522	31521	5422		4821		3510		6550		5030		3250	
3523	31522	4294		3887		3763		7607	5	5685	*	5050	
3524	31523	1770		2028		2280		4557		3419		4550	
3525	31524	5082		4286		4954		6721		5838	*	5550	2 *
3526	31525	5840		5663	6	2860		5043		3952		4850	
3527	31526	9212	2 *	6901	2 *	2766		6029		4398		5100	
3528	31527	4366		3926		2742		4500		3621		2750	
3529	31528	2156		3621		2087		4336		3212		2350	
3530	31529	5442		4914		3517		7071	9	5294		4250	
3531	31530	4099		3587		2837		6379		4608		3650	
3532	31531	5615		5348	9	3574		6450		5012		3200	
3533	31532	2103		3057		5692	9	6579		6136	8 *	4150	
3534	31533	2237		2991		5592	10	6393		5993	*	1650	
3535	31534	7115	5	5728	5	3380		4829		4105		3300	
3536	31535	5782		4829		4822		4436		4629		2950	
3537	31536	5924		4725		3794		6043		4919		4700	
3538	31537	4757		4446		3746		5186		4466		4400	
3539	31538	6156		5146		4636		6307		5472		3700	
3540	31539	6893	6	5369	8	3044		6407		4726		4950	
3541	31540	2681		3268		4634		6400		5517		3000	
3542	Zonal Check	2484		3320		2955		4479		3717		3450	
3543	31541	5267		4416		4096		6357		5227		1550	
3544	31542	4504		4940		4805		4371		4588		4100	
3545	31543	3045		4010		6017	5	7664	4	6841	2 *	5250	6 *
3546	31544	2519		3840		3607		6929		5268		3950	
3547	31545	5819		5332	10	3352		4993		4173		5200	8*
3548	31546	3679		3450		6146	4	6464		6305	6 *	5000	
3549	31547	4753		4039		3074		6221		4648		3450	
3550	31548	5537		4824		2913		4871		3892		2950	
3551	31549	4288		3759		3240		5021		4131		5400	4 *
3552	31550	4259		4427		5220		5300		5260		4600	
3553	31551	2200		3373		4506		4200		4353		5000	
3554	31552	6224		5172		6540	2	6500		6520	3 *	3000	
3555	31553	5288		5144		5751	7	6171		5961	*	5100	
3556	31554	2774		3125		5731	8	5407		5569		2950	
3557	31555	2615		3415		4089		7579	6	5834	*	3400	
3558	31556	3023		2944		3635		6371		5003		4400	
3559	31557	5261		5046		4923		7764	3	6344	5 *	4050	
3560	31558	4977		4889		4034		7936	2	5985	*	4400	
3561	31559	2879		3177		3361		5421		4391		3550	
3562	31560	6883	7	5564	7	3607		5321		4464		4500	
3563	31561	6403	10	5187		3465		6429		4947		3350	
3564	Local Check	4012		4586		4022		5879		4951		2850	
Exp. Mean		**4618**		**4420**		**4238**		**6073**		**5139**		**4129**	
F Value		**12.89(p<0.0001)S**		**17.56(p<0.0001)S**		**7.97(p<0.0001)S**		**18.06(p<0.0001)S**		**16.48(p<0.0001)S**		**5.92(p<0.0001)S**	
CD		1475		804		1145		686		645		1129	
CV%		**15.98**		**9.11**		**13.52**		**5.65**		**6.28**		**13.69**	
D/S		13.07-2023				28-06-2023		09-07-2023				29-06-2023	
D/P		12-08-2023				29-07-2023		02-08-2023				21-08-2023	
Local Check Name		Mandakini				R. Bhagwati		Sahbhagi Dhan				BVD-110	

Table No. 3c.2 (Contd).: Grain Yield (kg/ha) in IVT – ETP, Kharif 2023

Entry No	IET No	ZONE III - EASTERN											
		West Bengal (1)		Uttapradesh 2				Uttapradesh 2 (2)		Uttapradesh (3)		Zone III (8)	
		Malda		Masodha		Varanasi		Maen		Maen		Maen	
3501	31501	5000		4082		4489		4286		4790		4963	
3502	31502	6500	8	4056		8155	2	6106	2	5857	6	4993	
3503	31503	5250		3391		5254		4323		5269		4353	
3504	31504	6413	10	4335		6014		5175		4576		5096	
3505	31505	5375		5306		6721		6014	5	5281		5178	10
3506	31506	6063		5452	9	6293		5873		5919	3 *	5078	
3507	31507	6625	5	4122		7891	3	6007	6	5370		5068	
3508	31508	6625	5	4016		7050	10	5533		5260		5210	9
3509	31509	6750	3	2713		7836	4	5275		4254		6203	1 *
3510	31510	6875	2	4322		7597	6	5960	9	5649		6182	2 *
3511	31511	5875		4162		6542		5352		4634		4967	
3512	31512	6125		5718	2	5074		5396		5233		5939	3 *
3513	31513	5125		5652	5	4861		5257		5721	10	5150	
3514	31514	4875		5140		4046		4593		4578		5029	
3515	31515	5500		3923		5297		4610		4432		5724	4 *
3516	31516	5250		5386	10	6502		5944	10	5906	4 *	5113	
3517	31517	5625		4688		4534		4611		4599		4821	
3518	31518	5188		4634		4885		4760		5150		4223	
3519	31519	4750		4614		5456		5035		5562		4819	
3520	CO 51 (NC)	6375		4023		4474		4249		4102		4508	
3521	31520	5625		4255		5166		4711		4820		4211	
3522	31521	6188		5319		6273		5796		5757	9	5092	
3523	31522	5625		3976		5063		4520		4897		4857	
3524	31523	5100		4056		4522		4289		4355		3640	
3525	31524	5250		4461		4945		4703		4190		5057	
3526	31525	4875		4395		4905		4650		4685		4782	
3527	31526	5750		3670		3893		3782		4804		5126	
3528	31527	5375		4688		5064		4876		5239		4121	
3529	31528	6500	8	3524		3531		3528		3440		3696	
3530	31529	4875		4322		4765		4544		4920		4828	
3531	31530	6375		4382		4950		4666		4740		4468	
3532	31531	4438		4362		7647	5	6005	7	5827	7	5046	
3533	31532	4875		5984	1	5110		5547		5682		4813	
3534	31533	6625	5	4688		5994		5341		4804		4616	
3535	31534	5500		4355		5437		4896		4986		4782	
3536	31535	6063		3916		6950		5433		4484		4849	
3537	31536	4875		3890		4586		4238		5006		4667	
3538	31537	5375		4056		4667		4362		4785		4540	
3539	31538	5750		5465	8	4753		5109		5341		5113	
3540	31539	5250		5499	7	5087		5293		5014		5122	
3541	31540	5000		4987		6024		5506		5927	2 *	4573	
3542	Zonal Check	5875		4521		4560		4541		4975		4060	
3543	31541	5250		4714		5696		5205		5392		4562	
3544	31542	5750		4654		7408	9	6031	4	4814		5121	
3545	31543	5875		3557		4929		4243		4464		5164	
3546	31544	4813		4029		3047		3538		4407		4257	
3547	31545	5500		4016		5223		4620		5026		4869	
3548	31546	5125		5552	6	6164		5858		5774	8	5169	
3549	31547	5000		4701		5606		5154		5419		4516	
3550	31548	6000		5319		5586		5453		5561		4661	
3551	31549	5250		5691	4	4304		4998		5634		4553	
3552	31550	7125	1	4388		7418	8	5903		5859	5	5363	8 *
3553	31551	5000		4235		5168		4702		3972		4357	
3554	31552	5625		5386	10	5528		5457		5939	1 *	5365	7 *
3555	31553	4500		4235		9748	1	6992	1 *	5510		5724	4 *
3556	31554	5875		3258		6920		5089		5175		4549	
3557	31555	5625		5253		6741		5997	8	5264		4940	
3558	31556	5125		3324		5964		4644		3980		4338	
3559	31557	6563	7	4654		7438	7	6046	3	5334		5685	6 *
3560	31558	5000		5086		4718		4902		5026		5119	
3561	31559	6125		3790		4812		4301		4253		4177	
3562	31560	5625		4289		4486		4388		4827		4870	
3563	31561	5875		5718	2	5046		5382		5197		5032	
3564	Local Check	5813		4568		7040		5804		5332		4918	
Exp. Mean		**5621**		**4514**		**5654**		**5084**		**5046**		**4875**	
F Value		**3.46(p<0.0001)S**		**16.30(p<0.0001)S**		**7.77(p<0.0001)S**		**6.97(p<0.0001)S**		**8.76(p<0.0001)S**		**14.29(p<0.0001)S**	
CD		952		490		1273		744		540		376	
CV%		**8.47**		**5.43**		**11.26**		**7.32**		**5.35**		**3.86**	
D/S		25-07-2023		03-07-2023		14-06-2023							
D/P		14-08-2023		03-08-2023		11-07-2023							
Local Check Name		Ajit		Shushak Samrat		HUR-3022							

Table No. 3c.2 (Contd).: Grain Yield (kg/ha) in IVT – ETP, Kharif 2023

Entry No	IET No	ZONE V - CENTRAL										ZONE VI -WESTERN	
		Chhattisgarh (1)		Maharashtra 1				Maharashtra 1 (2)		Zone V(3)		Maharashtra 2	
		Jagadalpur		Sakoli		Sindhewahi		Mean		Mean		Karjat	
3501	31501	6208		6250	9	6328	9	6289	4	6262	3	7038	2
3502	31502	4063		4350		4609		4480		4341		5639	
3503	31503	5615		4700		4957		4829		5091		3771	
3504	31504	4186		3950		4737		4344		4291		5685	
3505	31505	3971		4500		4631		4566		4367		6978	3
3506	31506	5684		6300	8	4375		5338		5453		5557	
3507	31507	5124		4250		3857		4054		4410		5943	10
3508	31508	6289		6250	9	4169		5210		5569		6604	7
3509	31509	4512		6500	2	5589		6045	7	5534		6599	8
3510	31510	5052		6150		4055		5103		5086		3689	
3511	31511	3555		4850		3991		4421		4132		4870	
3512	31512	4535		4150		3999		4075		4228		6651	6
3513	31513	4935		4350		6357	8	5354		5214		4419	
3514	31514	6751	2	4675		5788		5232		5738	7	5360	
3515	31515	3730		3600		4730		4165		4020		3594	
3516	31516	3695		4250		4574		4412		4173		3689	
3517	31517	5472		4000		3452		3726		4308		5174	
3518	31518	6569	6	5000		5071		5036		5547		4354	
3519	31519	4479		5250		7408	3	6329	3	5712	8	5159	
3520	CO 51 (NC)	6208		4750		3501		4126		4820		4211	
3521	31520	6341	9	4400		3587		3994		4776		4536	
3522	31521	6296		5600		3480		4540		5125		3967	
3523	31522	5684		5575		5206		5391		5488		5512	
3524	31523	5251		2850		2827		2839		3643		6688	5
3525	31524	4150		5500		3580		4540		4410		5060	
3526	31525	6826	1	4525		3217		3871		4856		5497	
3527	31526	6217		6500	2	4240		5370		5652	10	4607	
3528	31527	6696	4	3800		4844		4322		5113		4536	
3529	31528	5697		2975		2521		2748		3731		3172	
3530	31529	6514	8	4900		4396		4648		5270		4428	
3531	31530	4977		4700		4403		4552		4693		3749	
3532	31531	6338	10	5450		5064		5257		5617		4611	
3533	31532	3757		4400		4148		4274		4102		5784	
3534	31533	5296		4200		7038	5	5619	10	5511		5825	
3535	31534	5592		3750		2876		3313		4073		4355	
3536	31535	3624		6400	5	3587		4994		4537		4992	
3537	31536	3942		4550		4027		4289		4173		4291	
3538	31537	3828		2900		2557		2729		3095		3918	
3539	31538	4401		5950		4453		5202		4935		5229	
3540	31539	6077		6400	5	4482		5441		5653	9	3837	
3541	31540	5485		4100		9205	1	6653	2	6263	2	6773	4
3542	Zonal Check	5381		5750		4411		5081		5181		2741	
3543	31541	6071		5400		4347		4874		5273		5271	
3544	31542	4873		6700	1	4212		5456		5262		6035	9
3545	31543	6003		6375	7	5945		6160	5	6108	4	2708	
3546	31544	6182		4800		3068		3934		4683		3951	
3547	31545	4115		4900		3920		4410		4312		2912	
3548	31546	5576		4425		4304		4365		4768		5735	
3549	31547	5547		3900		3956		3928		4468		7383	1
3550	31548	5843		3475		3714		3595		4344		3666	
3551	31549	6654	5	2300		4084		3192		4346		3691	
3552	31550	4935		3525		6918	6	5222		5126		5178	
3553	31551	6751	2	3975		5739		4857		5488		4099	
3554	31552	3730		5350		6271	10	5811	9	5117		4450	
3555	31553	3695		3975		5540		4758		4403		4401	
3556	31554	5472		4800		7358	4	6079	6	5877	5	3264	
3557	31555	6569	6	6400	5	3672		5036		5547		4904	
3558	31556	4479		4100		4787		4444		4455		5781	
3559	31557	6208		5200		8345	2	6773	1 *	6584	1 *	5225	
3560	31558	4063		4525		6371	7	5448		4986		4507	
3561	31559	5615		4050		3544		3797		4403		4414	
3562	31560	4186		4600		4318		4459		4368		2296	
3563	31561	3971		2950		3366		3158		3429		3547	
3564	Local Check	5684		5925		5909		5917	8	5839	6	5029	
Exp. Mean		**5238**		**4764**		**4688**		**4726**		**4897**		**4805**	
F Value		**4.76(p<0.0001)S**		**6.07(p<0.0001)S**		**8.78(p<0.0001)S**		**11.16(p<0.0001)S**		**7.58(p<0.0001)S**		**9.32(p<0.0001)S**	
CD		1298		1196		1289		777		743		1063	
CV%		**12.40**		**12.56**		**13.76**		**8.22**		**7.59**		**11.07**	
D/S		01-07-2023		29-06-2023		29-06-2023						18-06-2023	
D/P		20-07-2023		24-07-2023		22-07-2023						13-07-2023	
Local Check Name		Samleshwari		PDKV SADHANA		PDKV-SADHANA						Karjat-7	

Table No. 3c.2 (Contd).: Grain Yield (kg/ha) in IVT – ETP, Kharif 2023

Entry No	IET No	ZONE VI -WESTERN											
		Maharashtra 2		Maharashtra 2 (2)		Maharashtra (4)		Gujarat				Gujarat (2)	
		Radhanagari		Mean		Mean		Nawagam		Vyara		Mean	
3501	31501	2906		4972		5631	6	5617		3022		4320	
3502	31502	3923		4781		4630		5321		3949		4635	
3503	31503	4151		3961		4395		4944		4124		4534	
3504	31504	3623		4654		4499		7080		2294		4687	
3505	31505	5216		6097	4 *	5331		7809	3	3106		5458	
3506	31506	4823		5190		5264		6833		4272		5553	
3507	31507	3476		4710		4382		6382		2442		4412	
3508	31508	3598		5101		5155		6031		4408		5220	
3509	31509	4284		5442	*	5743	5	3086		5960	2	4523	
3510	31510	4252		3971		4537		7654	5	4284		5969	5
3511	31511	5082		4976		4698		6506		4268		5387	
3512	31512	4642		5647	7 *	4861		6276		6456	1	6366	2 *
3513	31513	6486	5	5453	10 *	5403	9	5586		4306		4946	
3514	31514	4806		5083		5157		7512	8	3707		5610	
3515	31515	6113	7	4854		4509		8432	1	5805	3	7119	1 *
3516	31516	3658		3674		4043		5988		3276		4632	
3517	31517	4256		4715		4221		6643		3098		4871	
3518	31518	3980		4167		4601		5525		4286		4906	
3519	31519	6544	2	5852	5 *	6090	3 *	6833		4485		5659	
3520	CO 51 (NC)	3429		3820		3973		4562		4131		4347	
3521	31520	5099		4818		4406		7951	2	2964		5458	
3522	31521	5160		4564		4552		6420		3859		5140	
3523	31522	3562		4537		4964		7586	6	4288		5937	6
3524	31523	4209		5449	*	4144		4988		2753		3871	
3525	31524	4224		4642		4591		5475		3669		4572	
3526	31525	4266		4882		4376		4833		3464		4149	
3527	31526	4308		4458		4914		6900		4964	8	5932	7
3528	31527	4151		4344		4333		4673		2902		3788	
3529	31528	2563		2868		2808		4099		4134		4117	
3530	31529	4706		4567		4608		5599		5735	4	5667	
3531	31530	3647		3698		4125		7247		4204		5726	10
3532	31531	6939	1	5775	6 *	5516	7	6106		3996		5051	
3533	31532	4125		4955		4614		4222		2875		3549	
3534	31533	6535	3	6180	3 *	5900	4 *	6765		3982		5374	
3535	31534	4326		4341		3827		5457		4574		5016	
3536	31535	2976		3984		4489		6352		5069	7	5711	
3537	31536			4291		4289		5969		4511		5240	
3538	31537	4279		4099		3414		3494		4183		3839	
3539	31538	4544		4887		5044		7531	7	4221		5876	8
3540	31539	4502		4170		4805		6494		3343		4919	
3541	31540	5621		6197	2 *	6425	1 *	7438	9	3561		5500	
3542	Zonal Check	3386		3064		4072		6111		4041		5076	
3543	31541	5662	10	5467	9 *	5170		6512		3563		5038	
3544	31542	4642		5339		5397		6278		4102		5190	
3545	31543			2708		5009		7241		4718	10	5980	4
3546	31544			3951		3940		5660		5418	5	5539	
3547	31545	4987		3950		4180		5926		3157		4542	
3548	31546	4504		5120		4742		7309	10	3199		5254	
3549	31547	5173		6278	1 *	5103		4772		4609		4691	
3550	31548	4650		4158		3876		6506		3102		4804	
3551	31549	4675		4183		3688		5957		3476		4717	
3552	31550	5895	8	5537	8 *	5379		5981		4040		5011	
3553	31551	4009		4054		4456		6049		3537		4793	
3554	31552	4706		4578		5194		5556		4258		4907	
3555	31553	4322		4362		4560		7673	4	4897	9	6285	3 *
3556	31554	6489	4	4877		5478	8	5790		5085	6	5438	
3557	31555	5537		5221		5128		6778		3166		4972	
3558	31556	4332		5057		4750		6395		3783		5089	
3559	31557	5661		5443	*	6108	2 *	7198		4442		5820	9
3560	31558	4760		4634		5041		4463		4325		4394	
3561	31559	5817	9	5116		4456		6840		3901		5371	
3562	31560	6252	6	4274		4367		4475		3925		4200	
3563	31561	3529		3538		3348		6198		3863		5031	
3564	Local Check	4469		4749		5333		5852		4411		5132	
Exp. Mean		**4630**		**4695**		**4719**		**6121**		**4030**		**5076**	
F Value		**8.71(p<0.0001)S**		**9.84(p<0.0001)S**		**11.96(p<0.0001)S**		**5.59(p<0.0001)S**		**3.42(p<0.0001)S**		**4.59(p<0.0001)S**	
CD		927		690		555		1318		1260		881	
CV%		**10.01**		**7.35**		**5.88**		**10.78**		**15.64**		**8.69**	
D/S		16-06-2023						16-06-2023		20-06-2023			
D/P		12-07-2023						27-07-2023		19-07-2023			
Local Check Name		Phule Radha						Mahisagar		GR-17 (Sardar)			

Table No. 3c.2 (Contd).: Grain Yield (kg/ha) in IVT – ETP, Kharif 2023

Entry No	IET No	Zone VI(4)		ZONE VII - SOUTHERN										Telangana (4)	
		Mean		Andhra Pradesh (1) Maruteru		Kampasagar		Kunaram		Warangal		Jagityal		Mean	
3501	31501	4646		5697	9	5574		7653		9132	6	7729		7522	
3502	31502	4708		4172		5302		5886		4841		7478		5877	
3503	31503	4248		4356		5097		7939		3683		6933		5913	
3504	31504	4671		5405		5366		9079		7340		7831		7404	
3505	31505	5777	4 *	4562		5666		9174	9	7991		6718		7387	
3506	31506	5371		4348		5798		7884		7839		7429		7238	
3507	31507	4561		3931		5304		7306		8852	10	6966		7107	
3508	31508	5160		4658		6727		9221	8	7953		7398		7825	7
3509	31509	4982		5459		4484		7643		7943		7019		6772	
3510	31510	4970		5212		4738		6620		7745		9134	4	7059	
3511	31511	5182		5782	8	7339	8	7626		7764		8173		7726	8
3512	31512	6006	1 *	4183		7840	2	10143	2	8958	8	9400	3	9085	1
3513	31513	5199		4149		6233		7409		6721		6995		6840	
3514	31514	5346		4136		6211		9342	5	6656		7509		7430	
3515	31515	5986	2 *	6076	2	6722		6110		9127	7	6677		7159	
3516	31516	4153		3072		6863		7446		6113		6951		6843	
3517	31517	4793		3406		3813		7264		5682		7070		5957	
3518	31518	4536		3906		7753	3	8784		6008		5019		6891	
3519	31519	5755	6 *	5783	7	5900		7380		7510		8641	7	7358	
3520	CO 51 (NC)	4083		3556		4708		6640		3935		4538		4955	
3521	31520	5138		4694		5370		6310		6876		6939		6374	
3522	31521	4852		4595		6673		6672		8869	9	7549		7441	
3523	31522	5237		4433		7714	4	8534		7650		7897		7949	6
3524	31523	4660		3708		4270		3861		4148		5033		4328	
3525	31524	4607		4195		6785		6530		8252		6860		7107	
3526	31525	4515		4302		5405		6297		7495		6532		6432	
3527	31526	5195		4028		7641	5	7130		7579		2933		6321	
3528	31527	4066		4291		4475		5529		6080		5659		5436	
3529	31528	3492		3424		4411		6387		3576		3006		4345	
3530	31529	5117		4340		6177		6589		7998		7690		7114	
3531	31530	4712		3347		6620		9125	10	6915		9553	1	8053	5
3532	31531	5413	9	5917	6	5238		9270	7	8238		6663		7352	
3533	31532	4252		4778		6590		7553		7207		7066		7104	
3534	31533	5777	4 *	5951	5	5253		6726		6936		7113		6507	
3535	31534	4678		4028		5720		5611		6584		6794		6177	
3536	31535	4847		3933		4373		5900		6847		8225	10	6336	
3537	31536	4924		4035		7432	6	6437		5598		6039		6377	
3538	31537	3969		4474		4849		6460		3536		3130		4494	
3539	31538	5381	10	5161		5944		8972		9841	4	9474	2	8558	3
3540	31539	4544		3481		4596		5826		7588		6566		6144	
3541	31540	5848	3 *	5542	10	5428		7401		7164		8653	6	7162	
3542	Zonal Check	4070		4472		8647	1	8422		9497	5	8881	5	8862	2
3543	31541	5252		4510		5321		6989		5572		7688		6393	
3544	31542	5264		4152		4285		5652		7928		2740		5151	
3545	31543	4889		5019		7077	9	10323	1	5863		6496		7440	
3546	31544	5010		4287		4217		6101		6385		7241		5986	
3547	31545	4246		4247		5997		4127		10610	2	5079		6453	
3548	31546	5187		4456		6649		7389		8714		7217		7492	
3549	31547	5484	8	3544		6449		6620		5768		4503		5835	
3550	31548	4481		4583		5508		5671		7130		7928		6559	
3551	31549	4450		5957	4	4869		7467		7709		5995		6510	
3552	31550	5274		5496		6181		5803		8343		7372		6925	
3553	31551	4424		3938		4254		5756		6258		5204		5368	
3554	31552	4743		5962	3	6182		9451	4	6653		8601	8	7722	9
3555	31553	5323		6139	1	5841		6814		10619	1	7545		7705	10
3556	31554	5157		5347		3662		6923		8091		5548		6056	
3557	31555	5096		3269		5306		9328	6	8302		7321		7564	
3558	31556	5073		5125		4261		7547		10081	3	7592		7370	
3559	31557	5632	7 *	4455		6541		5989		7899		7739		7042	
3560	31558	4514		4435		6245		7346		8663		7004		7315	
3561	31559	5243		4328		6162		6647		5150		6165		6031	
3562	31560	4237		3836		4805		6248		5231		2669		4738	
3563	31561	4284		4630		7403	7	9880	3	8617		8265	9	8541	4
3564	Local Check	4940		5382		6999	10	7584		7393		7084		7265	
Exp. Mean		**4900**		**4564**		**5801**		**7246**		**7238**		**6826**		**6778**	
F Value		**6.49(p<0.0001)S**		**2.99(p<0.0001)S**		**10.91(p<0.0001)S**		**14.75(p<0.0001)S**		**14.68(p<0.0001)S**		**6.23(p<0.0001)S**		**22.52(p<0.0001)S**	
CD		590		1280		957		1020		1196		1826		612	
CV%		**6.03**		**14.04**		**8.26**		**7.04**		**8.27**		**13.38**		**4.52**	
D/S				13-07-2023		04-07-2023		03-07-2023		30-06-2023		17-06-2023			
D/P				11-08-2023		02-08-2023		23-07-2023		05-08-2023		15-07-2023			

Table No. 3c.2 (Contd).: Grain Yield (kg/ha) in IVT – ETP, Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN											
		Tamilnadu						Tamilnadu (3)		Kerala		Kerala (1)	
		Aduthirai		Coimbatore		Tirur		Mean		Moncompu		Mean	
3501	31501	5190		6931	2	6405	8	6175	3	4601		4601	
3502	31502	5506		5323		5355		5395		2599		2599	
3503	31503	6646		4606		6394	9	5882		2137		2137	
3504	31504	4684		4911		5715		5103		7055	5	7055	5
3505	31505	6013		4554		6350	10	5639		5807		5807	
3506	31506	6899	7	4717		6240		5952		7178	4	7178	4
3507	31507	5506		5052		5075		5211		4355		4355	
3508	31508	5506		5220		5325		5350		4370		4370	
3509	31509	7152	5	5120		5625		5966		7451	2	7451	2
3510	31510	6013		4673		4350		5012		5050		5050	
3511	31511	5854		6419	6	5775		6016	8	2502		2502	
3512	31512	5190		5273		6813	4	5759		2173		2173	
3513	31513	6772	9	4468		5550		5597		2296		2296	
3514	31514	6456		6834	3	6475	7	6588	1 *	5413		5413	
3515	31515	5823		4402		7140	2	5788		4790		4790	
3516	31516	7278	4	4871		5235		5795		4674		4674	
3517	31517	6329		6220	7	5653		6067	5	3981		3981	
3518	31518	5506		5174		5850		5510		3618		3618	
3519	31519	5886		4720		4888		5165		7185	3	7185	3
3520	CO 51 (NC)	5506		6047		4606		5386		3130		3130	
3521	31520	4778		6068		5235		5360		2158		2158	
3522	31521	7911	1	6194	8	4800		6302	2	2939		2939	
3523	31522	6646		4728		5013		5462		5231		5231	
3524	31523	5380		4640		5766		5262		2493		2493	
3525	31524	5190		4585		6270		5348		4244		4244	
3526	31525	6329		5092		5556		5659		6085		6085	
3527	31526	6013		6948	1	4650		5870		5581		5581	
3528	31527	4747		4816		4770		4778		5434		5434	
3529	31528	5190		4446		4800		4812		5056		5056	
3530	31529	5823		5937		4605		5455		2508		2508	
3531	31530	5823		4456		5289		5189		6702	6	6702	6
3532	31531	7405	3	4403		5950		5919		4345		4345	
3533	31532	6646		4440		5055		5380		4608		4608	
3534	31533	6392		4249		5575		5405		2739		2739	
3535	31534	5380		4852		4080		4771		3664		3664	
3536	31535	4937		5873		6300		5703		4618		4618	
3537	31536	6772	9	4587		4193		5184		3459		3459	
3538	31537	4810		4988		4380		4726		3998		3998	
3539	31538	5823		6765	5	5344		5977	10	2861		2861	
3540	31539	6139		4746		6904	3	5930		3905		3905	
3541	31540	5759		6818	4	5730		6102	4	3941		3941	
3542	Zonal Check	6456		5785		5250		5830		6618	7	6618	7
3543	31541	5823		4653		5085		5187		4078		4078	
3544	31542	6203		4618		5625		5482		6261	10	6261	10
3545	31543	5190		6129	10	5310		5543		5581		5581	
3546	31544	5190		4516		5895		5200		5812		5812	
3547	31545	5823		4884		5331		5346		4099		4099	
3548	31546	5696		5797		5055		5516		3254		3254	
3549	31547	5190		4514		4215		4640		4133		4133	
3550	31548	6456		5938		5805		6066	6	4454		4454	
3551	31549	5696		5782		4455		5311		1788		1788	
3552	31550	7089	6	4474		5444		5669		4040		4040	
3553	31551	5506		4867		5738		5370		2055		2055	
3554	31552	5633		4470		5505		5203		4258		4258	
3555	31553	6013		4898		6615	6	5842		7563	1	7563	1
3556	31554	7595	2	4327		5250		5724		6366	8	6366	8
3557	31555	5633		6167	9	4670		5490		2256		2256	
3558	31556	5506		4735		7185	1 *	5809		3221		3221	
3559	31557	5823		4963		6090		5625		4086		4086	
3560	31558	6139		5129		6056		5775		2389		2389	
3561	31559	5380		5643		5044		5356		6331	9	6331	9
3562	31560	5190		6084		6765	5	6013	9	6218		6218	
3563	31561	6772	9	5688		4470		5643		2254		2254	
3564	Local Check	6203		6039		5910		6051	7	3078		3078	
Exp. Mean		**5935**		**5239**		**5498**		**5557**		**4330**		**4330**	
F Value		**11.62(p<0.0001)S**		**4.59(p<0.0001)S**		**3.80(p<0.0001)S**		**4.99(p<0.0001)S**		**6.93(p<0.0001)S**		**6.93(p<0.0001)S**	
CD		597		1003		1084		508		1681		1681	
CV%		**5.04**		**9.58**		**9.86**		**4.58**		**19.42**		**19.42**	
D/S		22-06-2023		20-06-2023		02-09-2023				05-07-2023			
D/P		29-07-2023		13-07-2023		30-09-2023				26-07-2023			
Local Check Name		ADT 56		CO 54		CO 54				MO 21 Prathyasa			

Table No. 3c.2 (Contd).: Grain Yield (kg/ha) in IVT – ETP, Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN										Overall Mean (31)	
		Karnataka				Karnataka (2)		Puducherry (1)		Zone 7 (12)			
		Mandya		Mugad		Mean		kurubapet		Mean			
3501	31501	5395	4	6152		5774		6778		6436	4	5727	4 *
3502	31502	4813		8185	3	6499	4	4167		5302		5102	
3503	31503	4777		5761		5269		4333		5222		4823	
3504	31504	3908		5797		4853		5000		6008		5250	
3505	31505	4153		6281		5217		6778		6171		5511	
3506	31506	5043		5242		5143		5000		6135		5602	
3507	31507	4282		6520		5401		4333		5624		5149	
3508	31508	5525	3	5845		5685		5000		6062		5650	9
3509	31509	5072		6488		5780		5667		6260	9	5763	2 *
3510	31510	4979		4580		4780		6889		5832		5686	6
3511	31511	5287	6	8030	4	6659	2	5222		6314	6	5345	
3512	31512	4483		4737		4610		3667		6072		5651	8
3513	31513	4325		4547		4436		8889	2 *	5696		5399	
3514	31514	4562		4413		4488		3167		5931		5438	
3515	31515	4203		4282		4243		7778	8 *	6094		5690	5
3516	31516	3700		6042		4871		7000		5770		5217	
3517	31517	4282		4820		4551		8722	3 *	5604		4990	
3518	31518	5251	8	4932		5092		6722		5710		5138	
3519	31519	4382		7806	9	6094		8611	5 *	6558	3	5805	1 *
3520	CO 51 (NC)	4756		7067		5912		5000		4957		4594	
3521	31520	5144		7179		6162	7	4444		5433		4926	
3522	31521	4985		7269		6127	8			6223		5528	
3523	31522	4059		7350		5705		6500		6313	7	5652	7
3524	31523	3635		7715		5675		5000		4637		4226	
3525	31524	4167		5754		4961		6111		5745		5080	
3526	31525	4238		6353		5296		5000		5724		5197	
3527	31526	4318		5756		5037		6500		5756		5537	
3528	31527	2910		5729		4320		4889		4944		4597	
3529	31528	4226		5266		4746		4556		4529		4024	
3530	31529	4210		5733		4972		7333	10	5745		5248	
3531	31530	5000		4355		4678		7722	9 *	6242	10	5297	
3532	31531	5769	2	4594		5182		4167		5997		5637	
3533	31532	4059		4574		4317		4000		5548		5101	
3534	31533	3937		5118		4528		4556		5379		5078	
3535	31534	5065		4809		4937		6333		5243		4934	
3536	31535	3923		5444		4684				5488		4991	
3537	31536	3908		7482		5695		5111		5421		5018	
3538	31537	4490		5275		4883		4444		4570		4311	
3539	31538	5065		6434		5750		4389		6339	5	5611	
3540	31539	5299	5	4445		4872		7167		5555		5148	
3541	31540	3743		7005		5374		3389		5881		5511	
3542	Zonal Check	4979		6561		5770		6222		6816	1	5489	
3543	31541	5079		6690		5885		5222		5559		5210	
3544	31542	4985		6402		5694		2833		5140		5000	
3545	31543	4878		6102		5490		4444		6034		5597	
3546	31544	3240		7345		5293		4000		5352		4914	
3547	31545	5266	7	6475		5871		7944	7 *	5824		5121	
3548	31546	4217		8016	6	6117	10	3056		5793		5445	
3549	31547	4842		6913		5878		8667	4 *	5447		5110	
3550	31548	5230	9	7018		6124	9			5975		5233	
3551	31549	6078	1	9116	1	7597	1 *	3444		5696		5022	
3552	31550	4785		8221	2	6503	3	4778		6002		5512	
3553	31551	3915		7933	7	5924		9222	1 *	5387		4800	
3554	31552	4497		8026	5	6262	6	6167		6284	8	5640	10
3555	31553	4354		7738	10	6046		4611		6563	2	5553	
3556	31554	3082		7818	8	5450		3889		5658		5365	
3557	31555	5180		7441		6311	5	5222		5841		5369	
3558	31556	4145		6661		5403		5056		5926		5114	
3559	31557	4238		5206		4722		6500		5794		5747	3 *
3560	31558	5015		4928		4972		4167		5626		5239	
3561	31559	5194	10	5421		5308		5278		5562		4838	
3562	31560	5079		5396		5238		8111	6 *	5469		4952	
3563	31561	4569		5036		4803		4778		6030		5211	
3564	Local Check	3980		5371		4676		5389		5868		5447	
Exp. Mean		**4565**		**6203**		**5384**		**5563**		**5752**		**5236**	
F Value		**6.50(p<0.0001)S**		**5.07(p<0.0001)S**		**5.32(p<0.0001)S**		**11.59(p<0.0001)S**		**4.74(p<0.0001)S**		**22.29(p<0.0001)S**	
CD		699		1523		823		1331		381		225	
CV%		**7.66**		**12.29**		**7.65**		**11.96**		**3.32**		**2.15**	
D/S		28-07-2023		26-07-2023				13-07-2023					
D/P		23-08-2023		26-08-2023				07-08-2023					
Local Check Name		Raksha		MGD-101				ADT - 53					

Table No. 3c.2 (Contd).: Grain Yield (kg/ha) in IVT – ETP, (Trials Not Considered), Kharif 2023

Entry No	IET No	Trial not considered									
		Uttarakhand (0)		Bihar		West Bengal		Tripura (0)		Madhya Pradhesh	
		@Pantnagar		@Sabour		@Hathwara		@Lembucherra		@Rewa	
3501	31501	3044		4737	5	4403		4279		3328	
3502	31502	2968		4621		3836		2914		3288	
3503	31503	2994		2723		2875		4035		4659	8
3504	31504	1788		3485		3841		3064		5580	2
3505	31505	2723		4461		4603	7	5904	2	4407	
3506	31506	2768		4555		3985		4046		2245	
3507	31507	2691		4156		4700	3	3874		4525	
3508	31508	2193		3521		4092		3477		3650	
3509	31509	1930		5554	2	3893		4895	10	4838	7
3510	31510	2972		4297		3543		4912	9	3349	
3511	31511	2923		4729	6	3759		5372	6	3342	
3512	31512	3515		3655		5011	2	3896		3516	
3513	31513	3448		2969		3428		3641		4591	10
3514	31514	2716		3724		3620		2997		3582	
3515	31515	4458	1	4134		4009		3275		2749	
3516	31516	2795		5399	3	3425		3474		3446	
3517	31517	2554		3141		2957		3025		1965	
3518	31518	2465		3213		4333		4129		4408	
3519	31519	3786	8	4027		3496		2392		5199	3
3520	CO 51 (NC)	3141		2319		3682		3352		1344	
3521	31520	2736		3026		3853		2908		3793	
3522	31521	3864	7	3480		3645		2908		3221	
3523	31522	3141		4630	10	4145		5955	1	5080	5
3524	31523	1632		2169		3480		2387		2941	
3525	31524	2696		3814		3971		2986		4147	
3526	31525	2452		2490		2765		2742		2260	
3527	31526	3717	10	3860		3748		2786		3486	
3528	31527	1729		2919		3779		4146		3649	
3529	31528	1776		2567		3083		1793		2563	
3530	31529	4060	3	3794		4609	6	3885		3618	
3531	31530	1971		3248		3833		2864		2463	
3532	31531	4257	2	3788		3541		3469		3469	
3533	31532	2226		3163		3768		3996		3399	
3534	31533	3487		4525		3680		5411	5	5195	4
3535	31534	1778		3170		4032		5472	3	4026	
3536	31535	3488		3795		3696		2697		3981	
3537	31536	3626		2998		2962		3419		3007	
3538	31537	1544		2261		3074		1848		2090	
3539	31538	3993	4	4313		4595	8	5356	7	3304	
3540	31539	2691		4692	8	3758		4878		4593	9
3541	31540	3581		4198		4543	10	3752		4358	
3542	Zonal Check	3406		1975		2837		1532		7171	1
3543	31541	3328		2953		3745		3913		3067	
3544	31542	3937	5	4326		3769		4224		1714	
3545	31543	3898	6	5597	1	4684	4	5001	8	2712	
3546	31544	3121		2573		3420		3724		2894	
3547	31545	2050		3112		4030		3830		2725	
3548	31546	2838		3063		2960		4124		5051	6
3549	31547	2393		3518		3548		2986		4083	
3550	31548	3228		2700		4094		2814		2349	
3551	31549	2114		2292		3505		2853		3631	
3552	31550	2908		4635	9	4033		3569		4404	
3553	31551	2334		4481		3438		3696		3683	
3554	31552	3750	9	5149	4	3666		3410		2087	
3555	31553	1452		4489		5628	1	4840		2665	
3556	31554	2978		4312		4591	9	4029		3594	
3557	31555	2425		4706	7	4611	5	5439	4	3447	
3558	31556	783		4444		3697		3463		2759	
3559	31557	3569		4598		3965		3530		2300	
3560	31558	3172		3402		4008		2942		3564	
3561	31559	1816		3191		2420		2930		3656	
3562	31560	2680		2817		3295		3114		3081	
3563	31561	3064		2822		3911		2509		3450	
3564	Local Check	941		3916		3491		4779		4379	
Exp. Mean		**2820**		**3709**		**3803**		**3685**		**3549**	
F Value		**1.29(p<0.1599)NS**		**14.93(p<0.0001)S**		**1.40(p<0.0937)NS**		**43.43(p<0.0001)S**		**8.70(p<0.0001)S**	
CD		**NS**		647		1373		425		992	
CV%		**35.66**		**8.72**		**18.07**		**5.77**		**13.99**	
D/S		15-06-2023		01-07-2023		14-07-2023		10-07-2023		04-07-2023	
D/P		14-07-2023		28-07-2023		12-08-2023		30-07-2023		10-08-2023	
Local Check Name		Govind		Sabour Harshit Dhan		Lalat		HAKUCHUK 2		JR206	

Table No. 3c.2 (Contd): Grain Yield (kg/ha) in IVT – ETP, (Trials Not Considered), Kharif 2023

Entry No	IET No	Trial not considered							
		Chattisgarh		Telangana		Kerala		Karnataka	
		@Raipur		@Rudrur		@Pattambi		@Brahmawar	
3501	31501	3706		5580		5666		4047	9
3502	31502	3894		3045		6566		3434	
3503	31503	3287		3705		6899		4186	3
3504	31504	2809		4580		5800		3314	
3505	31505	4382		5845		6266		3605	
3506	31506	4391		6775	4	6066		3324	
3507	31507	3698		3655		5699		4117	7
3508	31508	3974		5260		6027		3422	
3509	31509	6198	1	5805		9032	6	3419	
3510	31510	4576		6255		5116		3737	
3511	31511	5187	4	6630	5	5397		3775	
3512	31512	3889		6590	9	10466	1	4407	1
3513	31513	3517		4300		9466	4	2904	
3514	31514	4353		4445		7466		3182	
3515	31515	3801		5805		5600		3327	
3516	31516	3498		2965		5500		3605	
3517	31517	2540		4690		7033		3674	
3518	31518	3733		5160		8166		4044	10
3519	31519	3396		6405	10	6266		4122	5
3520	CO 51 (NC)	3795		4510		6066		3595	
3521	31520	2942		6215		5366		3362	
3522	31521	3376		5350		4382		4122	5
3523	31522	3589		6195		5700		3201	
3524	31523	1901		2920		8166		3371	
3525	31524	3368		3150		7899		3415	
3526	31525	3126		5000		5833		3207	
3527	31526	2826		5140		6233		3264	
3528	31527	2941		4345		5566		3617	
3529	31528	1853		3390		9932	2	3984	
3530	31529	4391		4500		6633		4217	2
3531	31530	4695	8	6595	7	5966		3390	
3532	31531	3640		5545		5933		2607	
3533	31532	2945		4520		5633		2986	
3534	31533	3719		5355		7499		3617	
3535	31534	4306		3550		8049		4009	
3536	31535	3700		4795		5882		3996	
3537	31536	3677		3645		7633		4129	4
3538	31537	1859		7340	2	8416	9	2431	
3539	31538	3932		2750		8999	7	3283	
3540	31539	2903		4260		6033		3598	
3541	31540	2858		6930	3	7433		2519	
3542	Zonal Check	3422		6030		6117		2557	
3543	31541	3662		6080		7133		3580	
3544	31542	5020	5	5750		6332		3602	
3545	31543	3732		6595	7	8266		3744	
3546	31544	2640		7405	1	8217		3573	
3547	31545	4589	10	3965		7433		2923	
3548	31546	3540		4160		5699		3343	
3549	31547	3619		6100		6899		2519	
3550	31548	4150		4140		8404	10	4075	8
3551	31549	2399		3645		5833		3089	
3552	31550	4419		4390		8466	8	3365	
3553	31551	3409		4225		3566		2866	
3554	31552	4867	6	4405		6333		3759	
3555	31553	5588	2	4045		3533		3510	
3556	31554	4698	7	4601		3633		3412	
3557	31555	3759		3785		8066		3217	
3558	31556	4663	9	4250		9799	3	3024	
3559	31557	2877		4495		7866		3605	
3560	31558	4254		4575		5766		3693	
3561	31559	3720		4330		6366		3047	
3562	31560	3008		4335		5266		3759	
3563	31561	3416		6600	6	7666		3627	
3564	Local Check	5309	3	4150		9132	5	3794	
Exp. Mean		**3718**		**4930**		**6774**		**3488**	
F Value		**3.85(p<0.0001)S**		**58.25(p<0.0001)S**		**2.40(p<0.0003)S**		**5.31(p<0.0001)S**	
CD		1248		441		2765		557	
CV%		**16.80**		**4.48**		**20.43**		**7.99**	
D/S		05-07-2023		14-06-2023		24-06-2023		13-06-2023	
D/P		11-08-2023		12-07-2023		14-07-2023		14-07-2023	
Local Check Name		Indira Aerobic 1		MTU-1010		Kanchana		MO 21	

Table No. 3c.3 : Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – ETP, Kharif 2023

Entry No	IET No	ZONE II-NORTHERN														
		Punjab (1)			Haryana (1)			Rajasthan (1)			Uttarpradesh1 (1)			Zone II (4)		
		Ludhiana			Kaul			Kota			Nagina			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3501	31501	103	97	284	91	97	303	87	109	311	93	108	296	93	103	298
3502	31502	97	96	297	89	77	289	81	99	319	92	96	305	90	92	302
3503	31503	94	95	248	83	94	266	85	95	234	87	105	263	87	97	253
3504	31504	99	113	208	90	105	286	87	106	239	99	106	269	93	108	250
3505	31505	97	114	248	95	83	263	94	114	273	98	109	270	96	105	263
3506	31506	96	104	278	89	96	271	87	106	306	93	107	291	91	103	286
3507	31507	101	102	228	95	89	304	95	120	238	99	113	198	97	106	242
3508	31508	99	106	241	88	104	300	95	126	272	94	119	313	94	114	281
3509	31509		.		93	78	255	107	112	286	88	99	248	96	96	263
3510	31510	97	120	314	90	100	298	81	114	253	94	111	234	90	111	275
3511	31511	112	110	208	96	97	284	87	101	280	99	104	249	98	103	255
3512	31512	93	97	228	89	94	287	81	81	237	90	120	295	88	98	261
3513	31513	90	92	218	90	85	261	82	81	274	87	105	258	87	91	253
3514	31514	94	109	241	88	94	280	81	97	247	90	113	250	88	103	254
3515	31515	99	119	258	89	113	271	89	111	279	97	121	330	93	116	284
3516	31516	97	98	264	95	70	313	99	82	253	97	94	307	97	86	284
3517	31517	91	95	241	84	82	267	81	91	180	87	101	269	86	92	239
3518	31518	90	105	228	82	94	284	85	121	220	88	102	249	86	105	245
3519	31519	94	96	258	87	86	287	84	105	241	90	106	242	88	98	257
3520	CO 51 (NC)	91	104	297	80	92	261	80	104	169	81	99	309	83	100	259
3521	31520	93	107	254	84	100	284	81	114	223	89	99	264	86	105	256
3522	31521	95	117	235	92	87	304	85	123	259	95	119	327	92	111	281
3523	31522	90	98	264	90	94	326	86	107	262	93	102	322	90	100	293
3524	31523	85	126	202	85	127	270	80	128	253	83	119	305	83	125	257
3525	31524	95	100	244	91	85	271	82	101	252	94	94	290	90	95	264
3526	31525		.		90	109	254	80	129	277	93	123	301	87	120	277
3527	31526	92	109	254	85	86	296	78	108	266	87	102	241	85	101	264
3528	31527	103	125	307	96	105	261	98	109	266	107	141	318	101	120	288
3529	31528	81	90	284	71	100	279	74	121	229	78	92	313	76	101	276
3530	31529	96	110	235	86	90	263	84	82	160	92	114	316	89	99	243
3531	31530	94	110	251	87	95	295	80	114	228	89	102	283	87	105	264
3532	31531	97	109	234	93	93	312	98	120	266	98	111	279	96	108	273
3533	31532	92	109	284	89	85	303	81	116	234	93	103	289	88	103	277
3534	31533	100	110	238	92	86	277	85	98	259	95	119	259	93	103	258
3535	31534	99	131	258	88	122	262	89	115	226	97	124	252	93	123	249
3536	31535	107	120	202	102	106	276	92	138	174	104	119	260	101	121	228
3537	31536	94	108	258	85	98	274	79	129	245	89	102	238	87	109	254
3538	31537	84	87	281	76	88	314	81	102	135	77	101	263	79	94	248
3539	31538	95	113	291	90	96	265	86	94	179	93	106	272	91	102	251
3540	31539	94	99	307	89	86	281	86	107	236	92	106	306	90	99	282
3541	31540	96	110	290	91	91	290	85	109	226	92	113	317	91	106	281
3542	Zonal Check	100	103	261	93	79	304	81	102	257	94	100	244	92	96	266
3543	31541	98	114	264	91	96	290	82	88	262	91	119	256	90	104	268
3544	31542	122	116	261	91	95	288	104	107	248	90	109	312	102	107	277
3545	31543	98	108	320	90	85	305	88	114	266	91	109	285	92	104	294
3546	31544	91	99	231	82	107	268	86	99	144	90	111	249	87	104	223
3547	31545	98	130	281	90	98	302	89	101	178	92	134	250	92	116	252
3548	31546	94	107	297	90	98	284	86	111	258	90	112	275	90	107	278
3549	31547	91	112	281	85	95	307	78	110	275	92	107	257	86	106	280
3550	31548	93	116	228	89	101	298	86	125	280	93	123	294	90	116	275
3551	31549	95	121	274	88	110	297	85	120	204	88	121	295	89	118	267
3552	31550	94	101	284	95	92	275	95	106	159	99	121	225	96	105	236
3553	31551	84	110	254	75	101	275	93	107	165	81	94	236	83	103	232
3554	31552	91	110	274	90	79	284	89	107	147	88	112	256	89	102	240
3555	31553	118	127	284	81	94	266	95	124	169	116	117	254	102	115	243
3556	31554	108	111	261	99	95	298	102	108	253	108	117	257	104	107	267
3557	31555	104	112	215	96	96	281	88	115	276	98	110	258	97	108	257
3558	31556		.		99	84	256	96	104	286	112	109	256	102	99	266
3559	31557	98	103	238	90	96	306	94	108	191	95	120	211	94	107	236
3560	31558	96	112	248	89	108	288	84	115	135	92	123	240	90	115	228
3561	31559	85	108	324	82	86	287	83	101	144	82	84	300	83	95	263
3562	31560	85	96	258	78	92	279	85	99	137	81	101	303	82	97	244
3563	31561	94	120	241	87	124	317	84	120	165	91	122	243	89	121	241
3564	Local Check	88	94	264	91	96	300	98	121	211	92	113	293	92	106	267
Exp. Mean		**96**	**108**	**259**	**88**	**95**	**285**	**87**	**108**	**231**	**92**	**110**	**273**	**91**	**105**	**262**

Table No. 3c.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – ETP, Kharif 2023

Entry No	IET No	ZONE III - EASTERN											
		Odisha						Odisha (2)			Bihar		
		ICAR-NRRI (Cuttack)			Jeypore			Mean			Bikramganj		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3501	31501	97	108	9	93	73	288	95	91	288	84	112	267
3502	31502	98	104	8	98	53	355	98	78	355	82	101	238
3503	31503	96	105	10	93	64	198	94	85	198	86	106	340
3504	31504	94	107	7	92	83	312	93	95	312	86	113	338
3505	31505	98	96	12	96	83	312	97	89	312	85	128	334
3506	31506	91	107	13	91	74	335	91	91	335	83	114	238
3507	31507	100	95	10	103	72	305	101	84	305	92	126	470
3508	31508	98	113	8	93	95	368	95	104	368	81	121	301
3509	31509		.		99	89	352	99	89	352	80	111	226
3510	31510	97	114	9	88	81	332	93	97	332	87	126	338
3511	31511	98	124	9	94	72	318	96	98	318	101	124	318
3512	31512	92	99	10	88	75	415	90	87	415	85	97	279
3513	31513	95	84	8	95	77	358	95	81	358	82	106	313
3514	31514	93	116	8	92	82	405	92	99	405	81	120	299
3515	31515	96	109	9	92	91	352	94	100	352	85	131	368
3516	31516	87	116	10	94	62	355	90	89	355	85	111	380
3517	31517	98	110	8	89	77	346	93	94	346	85	111	397
3518	31518	79	91	9	92	62	308	86	77	308	88	113	370
3519	31519	96	94	12	88	68	298	92	81	298	86	108	333
3520	CO 51 (NC)	93	96	8	86	73	346	90	85	346	86	108	285
3521	31520	94	95	9	90	74	310	92	85	310	84	109	365
3522	31521	96	112	11	96	93	432	96	103	432	90	130	374
3523	31522	93	97	10	93	94	358	93	95	358	88	93	197
3524	31523	81	126	7	92	100	241	86	113	241	85	149	268
3525	31524	91	97	8	95	75	412	93	86	412	92	116	392
3526	31525	93	107	11	93	82	342	93	94	342	86	150	185
3527	31526	92	97	9	91	69	325	91	83	325	86	108	248
3528	31527	100	107	10	103	101	362	102	104	362	101	149	281
3529	31528	81	90	10	85	64	379	83	77	379	102	88	298
3530	31529	96	109	9	90	77	305	93	93	305	85	117	280
3531	31530	91	104	8	89	81	348	90	92	348	85	114	242
3532	31531	97	108	9	95	89	345	96	98	345	84	117	348
3533	31532	97	98	8	93	67	322	95	83	322	85	121	443
3534	31533	91	96	12	86	67	298	88	81	298	89	116	353
3535	31534	98	137	10	93	104	321	95	120	321	89	137	189
3536	31535	97	108	10	105	107	345	101	107	345	89	147	338
3537	31536	94	109	9	90	82	275	92	96	275	84	120	290
3538	31537	99	136	12	86	71	288	92	104	288	84	81	178
3539	31538	95	109	9	96	79	362	96	94	362	77	110	346
3540	31539	101	108	9	97	71	359	99	90	359	90	112	210
3541	31540	100	109	7	98	71	305	99	90	305	83	117	345
3542	Zonal Check	84	87	10	87	63	255	85	75	255	82	99	408
3543	31541	99	109	8	95	89	338	97	99	338	85	126	311
3544	31542	100	124	9	107	94	248	104	109	248	87	124	243
3545	31543	91	112	9	88	71	375	89	91	375	88	117	338
3546	31544	90	98	8	91	69	302	90	84	302	81	119	350
3547	31545	99	138	10	95	98	338	97	118	338	83	134	273
3548	31546	86	117	9	93	76	328	90	96	328	85	112	263
3549	31547	82	93	11	89	67	253	86	80	253	85	112	363
3550	31548	95	123	9	96	85	335	95	104	335	81	130	365
3551	31549	90	107	9	90	83	362	90	95	362	85	121	237
3552	31550	99	109	10	103	84	362	101	96	362	96	115	285
3553	31551	92	93	9	93	84	322	92	89	322	100	132	292
3554	31552	90	99	10	94	79	302	92	89	302	81	112	317
3555	31553	95	131	10	104	104	302	100	118	302	81	105	324
3556	31554	102	105	9	94	83	349	98	94	349	105	129	340
3557	31555	96	97	10	96	75	201	96	86	201	83	108	274
3558	31556	94	104	9	104	79	345	99	91	345	82	112	221
3559	31557	100	125	7	103	81	308	102	103	308	93	113	344
3560	31558	98	119	8	93	84	295	95	101	295	83	115	332
3561	31559	91	111	10	93	75	385	92	93	385	81	112	335
3562	31560	99	97	11	88	69	325	93	83	325	83	104	270
3563	31561	85	108	8	88	93	358	87	100	358	81	127	393
3564	Local Check	102	98	9	93	96	362	97	97	362	86	108	233
Exp. Mean		**94**	**107**	**9**	**93**	**80**	**329**	**94**	**93**	**329**	**86**	**117**	**308**

Table No. 3c.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – ETP, Kharif 2023

Entry No	IET No	ZONE III - EASTERN														
		Bihar			Bihar (2)			Jharkhand (1)						West Bengal (1)		
		Patna-ICAR			Mean			Ranchi			Malda			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3501	31501	89	96	313	86	104	290	110	97	231	76	88	10	76	88	10
3502	31502	88	98	246	85	100	242	114	98	190	71	97	9	71	97	9
3503	31503	84	99	205	85	103	272	95	97	201	77	91	12	77	91	12
3504	31504	87	101	249	86	107	293	114	88	172	75	100	10	75	100	10
3505	31505	91	108	223	88	118	278	118	102	236	76	110	11	76	110	11
3506	31506		.		83	114	238	110	84	233	76	103	10	76	103	10
3507	31507	91	110	283	91	118	376	121	89	152	68	106	9	68	106	9
3508	31508	86	118	258	83	119	279	114	85	129	70	110	9	70	110	9
3509	31509	103	107	278	91	109	252	123	97	190	73	105	12	73	105	12
3510	31510	90	98	344	88	112	341	101	99	289	71	109	11	71	109	11
3511	31511	91	104	253	96	114	285	111	86	266	78	100	7	78	100	7
3512	31512	81	105	243	83	101	261	109	91	298	71	85	11	71	85	11
3513	31513	82	122	255	82	114	284	95	92	217	70	100	9	70	100	9
3514	31514	80	102	308	80	111	303	115	92	233	76	130	11	76	130	11
3515	31515	90	114	289	87	123	328	111	99	142	77	110	11	77	110	11
3516	31516	92	103	377	88	107	379	93	77	233	73	88	11	73	88	11
3517	31517	80	101	307	82	106	352	110	93	257	70	100	12	70	100	12
3518	31518	82	107	256	85	110	313	91	92	282	71	103	9	71	103	9
3519	31519	84	108	483	85	108	408	93	99	177	68	91	11	68	91	11
3520	CO 51 (NC)	77	111	241	81	110	263	94	98	176	65	100	7	65	100	7
3521	31520	77	88	251	80	98	308	94	90	195	70	97	9	70	97	9
3522	31521	98	123	324	94	127	349	111	102	199	70	105	14	70	105	14
3523	31522	89	111	258	88	102	228	96	96	241	69	91	12	69	91	12
3524	31523	73	122	260	79	136	264	102	89	204	71	140	8	71	140	8
3525	31524	82	89	208	87	102	300	111	99	170	71	100	11	71	100	11
3526	31525	83	127	249	84	139	217	113	78	291	71	103	12	71	103	12
3527	31526	78	105	256	82	106	252	110	100	238	71	95	9	71	95	9
3528	31527	96	128	372	98	138	326	120	93	178	75	110	10	75	110	10
3529	31528	69	101	398	85	94	348	93	94	233	71	81	11	71	81	11
3530	31529	88	114	309	86	116	294	110	94	270	73	95	10	73	95	10
3531	31530	81	111	308	83	112	275	102	94	216	71	92	11	71	92	11
3532	31531	85	113	330	84	115	339	113	93	153	68	108	11	68	108	11
3533	31532	81	113	348	83	117	395	94	82	281	69	99	12	69	99	12
3534	31533	89	113	289	89	114	321	102	81	150	73	102	10	73	102	10
3535	31534	89	132	226	89	135	208	111	88	290	75	120	10	75	120	10
3536	31535	93	131	249	91	139	293	120	100	168	72	120	11	72	120	11
3537	31536	82	116	207	83	118	249	96	101	220	71	100	9	71	100	9
3538	31537	73	104	263	78	92	220	93	93	190	68	95	12	68	95	12
3539	31538	84	102	287	80	106	316	116	89	274	79	102	9	79	102	9
3540	31539	89	115	405	89	113	308	115	100	194	75	95	11	75	95	11
3541	31540	84	112	346	83	114	346	113	85	146	75	105	7	75	105	7
3542	Zonal Check	76	88	371	79	93	389	100	92	168	77	96	11	77	96	11
3543	31541	82	125	304	83	126	307	113	78	128	68	103	11	68	103	11
3544	31542	93	105	264	90	115	253	117	96	183	71	113	9	71	113	9
3545	31543	87	105	259	87	111	298	102	97	235	68	100	11	68	100	11
3546	31544	78	97	305	79	108	327	114	91	198	71	97	12	71	97	12
3547	31545	82	124	370	82	129	321	112	103	262	71	104	10	71	104	10
3548	31546	82	121	266	83	116	264	114	94	221	77	129	11	77	129	11
3549	31547	84	103	207	84	107	285	111	96	236	76	107	10	76	107	10
3550	31548	83	126	350	82	128	357	112	91	175	69	118	10	69	118	10
3551	31549	79	127	339	82	124	288	93	99	222	70	115	8	70	115	8
3552	31550	91	120	306	93	117	295	115	91	252	71	105	10	71	105	10
3553	31551	76	86	311	88	109	301	97	101	168	69	105	9	69	105	9
3554	31552	82	107	246	81	109	282	117	94	242	72	97	11	72	97	11
3555	31553	105	121	228	93	113	276	118	95	291	76	134	12	76	134	12
3556	31554	94	99	237	99	114	289	117	93	178	66	156	11	66	156	11
3557	31555	88	106	311	85	107	292	113	98	215	77	115	9	77	115	9
3558	31556	92	126	169	87	119	195	120	90	205	74	118	8	74	118	8
3559	31557	89	99	203	91	106	273	122	92	188	70	100	7	70	100	7
3560	31558	82	115	337	82	115	334	114	97	223	71	100	10	71	100	10
3561	31559	79	101	359	80	106	347	111	85	213	71	88	9	71	88	9
3562	31560	77	106	248	80	105	259	95	102	218	72	88	8	72	88	8
3563	31561	82	112	277	81	119	335	95	97	195	72	119	9	72	119	9
3564	Local Check	83	120	362	84	114	297	94	90	201	75	98	11	75	98	11
Exp. Mean		**85**	**110**	**288**	**85**	**113**	**298**	**107**	**93**	**213**	**72**	**104**	**10**	**72**	**104**	**10**

Table No. 3c.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – ETP, Kharif 2023

Entry No	IET No	ZONE III - EASTERN														
		Uttarpradesh 2						Uttarpradesh 2 (2)			Uttarpradesh (3)			Zone III (8)		
		Masodha			Varanasi			Maen			Maen			Maen		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3501	31501	71	70	230	93	90	194	82	80	212	80	83	144	89	92	254
3502	31502	74	93	228	97	94	220	85	94	224	80	95	152	90	92	246
3503	31503	65	85	210	88	96	174	77	90	192	77	91	132	85	93	221
3504	31504	71	96	239	96	100	171	83	98	205	81	99	140	89	98	246
3505	31505	76	110	266	98	110	226	87	110	246	83	110	168	92	106	266
3506	31506	71	86	255	88	93	204	79	90	229	78	94	156	87	95	253
3507	31507	75	105	243	98	112	192	86	108	217	80	108	148	93	102	274
3508	31508	79	92	224	96	107	192	87	99	208	81	103	142	89	105	245
3509	31509	87	74	213	122	104	157	104	89	185	94	94	127	98	98	236
3510	31510	76	96	249	97	107	179	86	101	214	81	104	146	88	104	288
3511	31511	63	96	236	96	98	164	79	97	200	79	98	136	91	100	259
3512	31512	63	89	268	89	82	166	76	85	217	74	85	148	84	90	278
3513	31513	61	82	263	92	94	189	76	88	226	74	92	153	84	95	265
3514	31514	68	99	263	89	95	160	78	97	212	77	108	145	86	104	278
3515	31515	74	96	239	95	102	200	84	99	219	82	103	150	90	107	265
3516	31516	73	96	277	98	95	188	85	95	232	81	93	158	87	93	302
3517	31517	64	112	241	84	86	189	74	99	215	72	99	147	85	99	289
3518	31518	65	88	260	86	98	195	75	93	227	74	96	154	82	94	278
3519	31519	62	89	229	87	86	181	74	87	205	72	89	140	83	93	283
3520	CO 51 (NC)	68	75	220	80	86	157	74	81	189	71	87	128	81	93	237
3521	31520	66	90	229	82	87	192	74	88	210	72	91	143	82	91	257
3522	31521	68	107	249	95	108	180	81	108	215	77	107	148	90	110	293
3523	31522	67	90	230	81	91	167	74	90	199	72	91	136	84	95	242
3524	31523	60	96	212	82	107	159	71	102	186	71	114	126	81	116	224
3525	31524	66	89	229	87	83	178	76	86	203	75	91	139	87	94	264
3526	31525	74	112	252	85	111	187	79	111	219	76	109	150	87	109	251
3527	31526	71	85	221	86	83	181	78	84	201	76	88	137	85	93	245
3528	31527	65	100	223	105	122	223	85	111	223	81	111	152	95	114	273
3529	31528	80	83	207	76	81	168	78	82	187	76	82	128	82	85	280
3530	31529	75	96	239	92	101	180	83	99	209	80	97	143	88	100	264
3531	31530	60	91	221	83	97	200	71	94	210	71	93	144	83	98	256
3532	31531	65	89	231	94	97	214	79	93	222	76	98	152	87	102	270
3533	31532	67	100	261	95	88	191	81	94	226	77	96	154	85	96	307
3534	31533	74	99	219	93	102	128	83	101	174	80	101	119	87	97	239
3535	31534	69	101	226	91	117	172	80	109	199	78	113	136	89	117	237
3536	31535	76	106	221	99	127	174	87	117	197	82	118	135	94	118	249
3537	31536	67	86	217	93	98	158	80	92	187	77	95	128	84	101	228
3538	31537	65	96	214	80	81	180	72	88	197	71	91	135	81	95	219
3539	31538	64	88	277	91	95	183	77	91	230	78	95	156	88	97	288
3540	31539	67	92	261	94	97	236	80	95	248	79	95	169	91	99	277
3541	31540	66	90	229	92	103	175	79	96	202	78	99	137	89	99	257
3542	Zonal Check	61	80	228	78	67	188	69	73	208	72	81	142	80	84	269
3543	31541	67	99	244	93	101	200	80	100	222	76	101	152	87	104	254
3544	31542	75	75	238	121	110	145	98	92	191	89	99	131	96	105	220
3545	31543	67	93	220	90	94	204	78	93	212	75	96	145	85	99	272
3546	31544	64	81	235	84	78	189	74	80	212	73	85	145	84	91	263
3547	31545	69	106	221	86	107	196	77	106	208	75	106	142	87	114	277
3548	31546	67	89	257	86	98	182	76	93	219	77	105	150	86	104	253
3549	31547	67	93	219	83	96	190	75	94	204	75	99	140	84	96	244
3550	31548	73	110	262	91	109	178	82	110	220	77	112	150	87	111	277
3551	31549	79	77	280	83	102	194	81	90	237	77	98	161	83	104	272
3552	31550	60	105	218	92	108	178	76	106	198	74	106	135	91	104	266
3553	31551	75	86	237	80	104	156	77	95	196	75	98	134	85	99	247
3554	31552	70	96	253	87	101	154	78	99	203	76	98	139	86	98	252
3555	31553	65	109	220	108	126	197	86	117	208	83	123	143	94	116	260
3556	31554	70	90	200	111	109	205	90	100	202	82	118	138	95	108	251
3557	31555	71	86	270	87	96	161	79	91	215	78	99	146	89	97	238
3558	31556	68	85	199	118	103	167	93	94	183	87	102	124	94	102	217
3559	31557	70	112	226	89	101	124	79	107	175	76	104	119	92	103	232
3560	31558	67	109	251	86	103	164	76	106	207	74	104	141	86	105	267
3561	31559	61	81	223	81	84	203	71	82	213	71	84	145	83	92	286
3562	31560	61	71	226	76	82	140	68	76	183	69	80	125	81	90	238
3563	31561	67	108	290	87	97	212	77	102	251	75	108	170	82	107	287
3564	Local Check	68	78	237	99	89	203	83	84	220	80	88	150	87	97	266
Exp. Mean		**68**	**93**	**237**	**91**	**98**	**182**	**80**	**95**	**209**	**77**	**98**	**143**	**87**	**100**	**259**

Table No. 3c.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – ETP, Kharif 2023

Entry No	IET No	ZONE V- CENTRAL														
		Chhattisgarh (1)			Maharashtra 1						Maharashtra 1 (2)			Zone V(3)		
		Jagadalpur			Sakoli			Sindhewahi			Mean			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3501	31501	100	84	252	94	111	294	90	111	339	92	118	339	95	107	295
3502	31502	106	71	218	89	110	255	89	110	282	89	110	282	95	97	252
3503	31503	102	71	155	81	114	283	86	114	242	83	112	242	90	98	226
3504	31504	103	81	256	90	125	154	89	125	229	89	122	229	94	108	213
3505	31505	107	89	197	88	133	261	92	133	308	90	118	308	95	108	255
3506	31506	101	76	287	81	106	317	87	106	301	84	104	301	89	95	302
3507	31507	113	78	279	90	123	279	96	123	200	93	117	200	100	104	252
3508	31508	105	83	180	83	127	283	89	127	219	86	126	219	92	112	227
3509	31509	114	84	327	101	125	270	113	125	273	107	128	273	109	113	290
3510	31510	106	84	237	90	118	279	91	118	276	90	122	276	95	109	264
3511	31511	106	85	244	94	105	226	95	105	206	94	105	206	98	98	225
3512	31512	99	71	290	82	111	285	87	111	327	84	112	327	89	98	300
3513	31513	100	69	190	83	97	243	91	97	272	87	99	272	91	89	235
3514	31514	102	87	216	82	117	261	89	117	273	85	116	273	91	106	250
3515	31515	99	92	268	80	128	253	88	128	306	84	131	306	89	118	275
3516	31516	106	71	238	92	96	280	98	96	174	95	94	174	98	86	230
3517	31517	99	75	276	82	118	258	88	118	260	85	113	260	89	101	265
3518	31518	105	88	196	80	126	268	82	126	232	81	124	232	89	112	232
3519	31519	98	70	193	80	114	268	89	114	239	85	114	239	89	99	233
3520	CO 51 (NC)	94	87	166	77	117	244	83	117	292	80	118	292	84	108	234
3521	31520	95	79	234	79	124	222	82	124	309	80	122	309	85	107	255
3522	31521	99	89	299	82	125	275	122	125	196	102	126	196	101	114	257
3523	31522	117	79	250	85	126	267	89	126	284	87	121	284	97	107	267
3524	31523	91	83	186	74	107	221	80	107	220	77	123	220	81	110	209
3525	31524	102	80	229	81	133	232	87	133	299	84	121	299	90	107	253
3526	31525	93	94	247	80	116	242	87	116	272	83	119	272	86	110	254
3527	31526	94	82	257	77	127	278	84	127	290	80	122	290	85	108	275
3528	31527	110	105	242	90	117	254	96	117	272	93	125	272	98	118	256
3529	31528	91	76	195	72	145	256	76	145	318	74	132	318	79	113	256
3530	31529	100	75	181	81	124	251	88	124	255	84	122	255	89	106	229
3531	31530	93	82	226	80	118	222	86	118	340	83	120	340	86	107	262
3532	31531	104	78	234	93	115	255	94	115	266	93	113	266	97	101	252
3533	31532	99	72	249	84	126	215	90	126	220	87	108	220	91	96	228
3534	31533	107	79	273	90	117	257	94	117	275	92	115	275	97	103	268
3535	31534	105	107	252	86	146	271	88	146	290	87	156	290	93	140	271
3536	31535	107	93	251	91	143	283	95	143	200	93	129	200	97	117	244
3537	31536	97	83	180	80	124	275	87	124	201	83	124	201	88	110	218
3538	31537	92	74	235	74	110	187	77	110	310	75	113	310	81	100	244
3539	31538	103	84	222	84	118	294	88	118	271	86	112	271	91	103	262
3540	31539	107	77	258	91	118	287	91	118	367	91	120	367	96	105	304
3541	31540	101	82	218	82	116	248	90	116	264	86	119	264	91	106	243
3542	Zonal Check	98	70	190	81	118	275	87	118	222	84	116	222	88	101	229
3543	31541	99	78	218	83	125	296	90	125	246	86	127	246	90	111	253
3544	31542	114	93	232	101	150	324	77	150	243	89	138	243	97	123	266
3545	31543	98	74	195	97	117	316	90	117	297	93	113	297	95	100	269
3546	31544	94	77	249	79	109	239	86	109	236	82	102	236	86	94	241
3547	31545	101	92	303	81	139	283	88	139	256	84	145	256	90	127	280
3548	31546	97	87	204	80	118	258	87	118	310	83	115	310	88	105	257
3549	31547	99	85	254	82	130	216	87	130	234	84	121	234	89	109	235
3550	31548	103	76	209	80	135	262	91	135	172	86	126	172	91	109	214
3551	31549	93	103	228	78	127	218	88	127	376	83	131	376	86	122	274
3552	31550	106	76	252	91	123	216	97	123	252	94	118	252	98	104	240
3553	31551	99	85	156	76	118	245	103	118	297	89	121	297	93	109	233
3554	31552	103	86	223	84	126	311	89	126	276	86	122	276	92	110	270
3555	31553	116	98	260	89	151	271	104	151	272	96	143	272	103	128	268
3556	31554	112	77	232	101	123	258	103	123	289	102	118	289	105	104	259
3557	31555	102	82	258	94	125	293	94	125	227	94	120	227	96	107	259
3558	31556	110	81	268	88	124	273	93	124	233	90	118	233	97	106	258
3559	31557	106	80	191	91	116	267	95	116	118	93	115	118	97	103	192
3560	31558	99	80	229	79	137	287	88	137	237	83	130	237	89	113	251
3561	31559	102	79	263	79	118	263	87	118	315	83	119	315	89	105	280
3562	31560	93	75	171	78	111	268	81	111	286	79	108	286	84	97	241
3563	31561	99	77	168	84	127	155	89	127	194	86	124	194	90	108	172
3564	Local Check	90	74	209	90	112	293	87	112	277	88	112	277	89	99	259
Exp. Mean		**102**	**82**	**230**	**84**	**122**	**260**	**90**	**122**	**263**	**87**	**120**	**263**	**92**	**107**	**251**

Table No. 3c.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – ETP, Kharif 2023

Entry No	IET No	ZONE VI -WESTERN														
		Maharashtra 2						Maharashtra 2 (2)			Maharashtra (4)			Gujarat		
		Karjat			Radhanagari			Mean			Mean			Nawagam		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3501	31501	88	124	235	96	109	260	92	116	247	92	117	282	93	118	287
3502	31502	90	108	276	98	89	320	94	98	298	91	104	283	91	108	283
3503	31503	89	104	215	98	132	265	93	118	240	88	115	251	91	106	284
3504	31504	88	120	282	96	111	322	92	115	302	90	118	247	101	123	298
3505	31505	91	137	312	94	113	285	92	125	299	91	122	291	101	134	309
3506	31506	89	121	234	90	112	318	90	116	276	87	110	292	95	120	295
3507	31507	91	133	289	99	111	214	95	122	251	94	119	245	101	129	292
3508	31508	93	140	301	92	110	275	92	125	288	89	125	269	99	140	288
3509	31509	89	136	328	93	117	295	91	126	312	99	127	291	119	125	276
3510	31510	90	126	236	99	110	265	94	118	251	92	120	264	86	124	301
3511	31511	91	127	250	93	111	335	92	119	292	93	112	254	93	125	292
3512	31512	89	117	377	95	102	298	92	109	337	88	110	321	92	117	292
3513	31513	89	101	255	91	113	243	90	107	249	88	103	253	87	105	285
3514	31514	86	128	245	92	102	290	89	115	268	87	115	267	92	129	303
3515	31515	86	133	225	91	133	331	88	133	278	86	132	279	96	148	311
3516	31516	92	102	194	100	104	218	96	103	206	95	98	216	92	106	289
3517	31517	89	119	271	97	93	235	93	106	253	89	110	256	89	121	295
3518	31518	86	132	244	91	109	255	88	120	249	85	122	249	89	121	286
3519	31519	94	119	252	93	115	324	94	117	288	89	115	270	95	118	296
3520	CO 51 (NC)	85	111	250	87	108	195	86	109	222	83	114	245	88	117	280
3521	31520	87	128	262	111	123	305	99	125	284	89	123	274	86	125	307
3522	31521	88	136	230	96	104	195	92	120	212	97	123	224	93	147	291
3523	31522	86	105	284	97	108	248	91	106	266	89	113	271	89	109	301
3524	31523	88	138	372	90	118	230	89	128	301	83	125	261	86	145	286
3525	31524	89	122	261	105	101	235	97	112	248	90	116	257	92	114	286
3526	31525	89	136	251	95	121	312	92	128	281	87	123	269	91	142	286
3527	31526	89	114	235	90	122	285	89	118	260	85	120	272	89	123	296
3528	31527	88	155	251	91	111	220	89	133	235	91	129	249	100	152	275
3529	31528	68	95	186	87	114	255	77	104	221	75	118	254	85	105	277
3530	31529	91	126	235	99	120	285	95	123	260	89	122	257	89	127	285
3531	31530	91	117	238	88	103	245	89	110	241	86	115	261	97	122	299
3532	31531	90	129	236	98	104	321	94	116	279	93	114	270	99	121	290
3533	31532	86	123	238	90	101	188	88	112	213	87	110	215	89	115	278
3534	31533	86	132	304	94	105	208	90	119	256	91	117	261	94	124	294
3535	31534	87	155	231	91	112	273	89	133	252	88	145	266	90	158	285
3536	31535	89	138	245	101	136	278	95	137	261	94	133	251	98	155	292
3537	31536	90	129	230		.		90	129	230	85	125	235	87	129	290
3538	31537	86	101	228	87	104	228	87	102	228	81	107	238	82	101	275
3539	31538	86	124	252	109	128	315	98	126	284	92	119	283	94	125	300
3540	31539	89	122	219	92	111	310	90	116	264	91	118	296	94	131	292
3541	31540	87	135	337	94	111	333	90	123	335	88	121	295	101	127	302
3542	Zonal Check	89	121	193	90	110	255	89	115	224	86	116	236	86	123	290
3543	31541	88	141	257	92	105	285	90	123	271	88	125	271	99	136	293
3544	31542	90	158	331	93	108	278	91	133	304	90	136	294	88	147	291
3545	31543	89	119	177		.		89	119	177	92	115	263	85	118	298
3546	31544	86	126	235		.		86	126	235	84	110	236	86	119	286
3547	31545	90	147	178	89	114	269	89	130	223	87	138	246	99	162	289
3548	31546	89	121	286	96	104	235	92	112	261	88	113	272	97	130	298
3549	31547	88	113	368	91	104	280	89	108	324	87	115	274	89	120	280
3550	31548	94	132	173	93	113	238	93	122	205	89	124	211	93	146	291
3551	31549	89	141	205	91	123	221	90	132	213	86	131	255	89	160	288
3552	31550	90	134	288	95	109	314	92	121	301	93	120	267	102	140	289
3553	31551	90	136	257	88	113	251	89	124	254	89	122	262	110	128	288
3554	31552	91	111	234	93	98	239	92	105	236	89	113	265	86	116	284
3555	31553	91	161	239	98	108	309	95	135	274	95	139	273	107	174	301
3556	31554	87	136	239	100	105	233	93	120	236	98	119	254	105	135	287
3557	31555	87	127	247	96	115	250	91	121	249	92	120	254	96	120	295
3558	31556	90	133	333	102	107	262	96	120	297	93	119	275	105	124	291
3559	31557	91	125	249	98	107	235	94	116	242	93	115	217	100	125	299
3560	31558	89	132	241	92	97	218	90	114	229	87	122	245	97	138	280
3561	31559	86	109	238	92	108	295	89	108	266	86	113	277	89	114	295
3562	31560	90	112	183	92	120	275	91	116	229	85	112	253	87	110	278
3563	31561	95	141	185	90	111	255	92	126	220	89	125	197	96	153	290
3564	Local Check	86	101	254	95	105	285	90	103	269	89	108	277	87	123	288
Exp. Mean		**88**	**126**	**253**	**94**	**110**	**267**	**91**	**119**	**259**	**89**	**119**	**260**	**93**	**128**	**290**

Table No. 3c.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – ETP, Kharif 2023

Entry No	IET No	ZONE VI -WESTERN									ZONE VII - SOUTHERN					
		Gujarat			Gujarat (2)			Zone VI(4)			Andhra Pradesh (1)			Telangana		
		Vyara			Mean			Mean			Maruteru			Kampasagar		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3501	31501	87	128	227	90	123	257	91	120	252	87	103	347	91	110	300
3502	31502	83	111	266	87	110	275	90	104	286	86	91	347	89	97	350
3503	31503	85	115	233	88	110	258	90	114	249	84	98	281	89	122	283
3504	31504	88	123	252	94	123	275	93	119	288	86	113	314	89	105	307
3505	31505	94	129	263	97	132	286	95	128	292	87	128	297	93	117	310
3506	31506	87	115	237	91	118	266	90	117	271	82	108	330	89	99	317
3507	31507	98	124	219	99	127	255	97	124	253	90	116	314	97	118	320
3508	31508	89	135	249	94	137	269	93	131	278	86	127	330	90	115	270
3509	31509	108	124	266	113	125	271	102	126	291	100	116	297	100	113	243
3510	31510	84	126	257	85	125	279	89	121	265	86	120	297	91	110	320
3511	31511	91	131	206	92	128	249	92	123	271	88	110	264	95	108	307
3512	31512	81	107	275	86	112	283	89	111	310	81	94	297	86	97	363
3513	31513	84	120	207	85	113	246	88	110	247	80	95	281	87	97	280
3514	31514	84	124	216	88	127	260	88	121	264	77	113	297	88	111	307
3515	31515	89	137	186	92	142	248	90	138	263	87	135	314	91	110	263
3516	31516	90	113	221	91	109	255	93	106	230	91	90	281	98	99	313
3517	31517	83	107	260	86	114	277	89	110	265	78	106	363	83	102	243
3518	31518	81	143	212	85	132	249	86	126	249	80	112	347	87	108	343
3519	31519	87	114	210	91	116	253	92	116	270	82	102	330	89	98	380
3520	CO 51 (NC)	74	107	212	81	112	246	83	111	234	76	108	330	83	93	293
3521	31520	78	126	200	82	126	253	90	126	268	79	115	297	85	108	360
3522	31521	85	134	261	89	140	276	90	130	244	84	127	297	90	128	417
3523	31522	86	121	279	87	115	290	89	111	278	84	99	330	90	106	313
3524	31523	74	136	212	80	141	249	84	134	275	76	139	248	79	137	270
3525	31524	82	117	236	87	116	261	92	114	254	83	105	297	89	101	317
3526	31525	81	131	243	86	136	264	89	132	273	82	126	330	86	123	270
3527	31526	82	117	266	85	120	281	87	119	270	79	108	347	85	102	330
3528	31527	95	150	267	97	151	271	93	142	253	84	142	264	91	141	270
3529	31528	69	109	222	77	107	249	77	106	235	78	94	281	76	96	303
3530	31529	87	127	278	88	127	281	91	125	271	84	118	297	90	111	260
3531	31530	81	127	188	89	125	243	89	117	242	79	106	314	84	109	287
3532	31531	90	121	206	94	121	248	94	118	263	87	114	347	90	102	250
3533	31532	86	112	203	87	114	240	87	113	226	80	104	297	85	102	327
3534	31533	90	108	236	92	116	265	91	117	260	88	115	314	94	110	247
3535	31534	92	149	248	91	153	266	90	143	259	85	146	281	91	147	320
3536	31535	91	153	230	94	154	261	95	145	261	89	151	281	96	139	277
3537	31536	82	119	201	84	124	246	86	126	240	78	112	297	87	108	310
3538	31537	71	105	225	77	103	250	82	103	239	75	102	314	76	93	368
3539	31538	86	125	276	90	125	288	94	126	286	81	110	248	88	105	293
3540	31539	90	125	279	92	128	285	91	122	275	86	109	264	96	114	327
3541	31540	84	124	237	92	126	270	91	124	302	82	114	330	87	110	300
3542	Zonal Check	86	134	215	86	128	252	88	122	238	83	114	314	87	106	473
3543	31541	87	126	254	93	131	273	91	127	272	79	121	281	87	119	327
3544	31542	106	151	254	97	149	273	94	141	288	99	139	363	106	121	253
3545	31543	80	114	273	82	116	286	84	117	249	81	109	314	89	101	327
3546	31544	78	125	266	82	122	276	83	123	262	77	105	314	84	104	253
3547	31545	85	144	278	92	153	283	91	142	253	81	140	281	90	137	322
3548	31546	82	121	222	89	126	260	91	119	260	80	107	297	87	104	333
3549	31547	81	120	248	85	120	264	87	114	294	80	59	314	87	106	327
3550	31548	89	132	245	91	139	268	92	131	236	79	126	281	88	121	343
3551	31549	84	129	230	86	145	259	88	138	236	78	135	330	85	164	280
3552	31550	94	125	267	98	133	278	95	127	289	91	121	281	94	125	333
3553	31551	73	126	221	91	127	254	90	126	254	78	128	281	82	115	223
3554	31552	83	119	215	84	118	249	88	111	243	83	106	314	90	110	270
3555	31553	104	148	267	105	161	284	100	148	279	95	128	347	102	135	267
3556	31554	99	126	234	102	131	261	98	125	248	92	128	314	103	113	270
3557	31555	91	133	260	93	126	277	92	123	263	86	100	281	90	115	293
3558	31556	93	129	243	99	127	267	97	123	282	92	111	330	97	115	233
3559	31557	93	127	222	96	126	261	95	121	251	85	59	314	93	109	237
3560	31558	82	131	177	89	134	228	90	124	229	81	114	297	88	115	267
3561	31559	78	111	252	83	112	274	86	110	270	80	108	314	84	96	357
3562	31560	76	113	201	81	111	240	86	114	234	80	97	281	74	98	267
3563	31561	86	128	288	91	141	289	92	133	255	80	124	281	87	118	363
3564	Local Check	87	118	224	87	121	256	88	112	262	87	113	297	84	104	367
Exp. Mean		**86**	**125**	**238**	**90**	**126**	**264**	**90**	**122**	**262**	**83**	**113**	**305**	**89**	**112**	**305**

Table No. 3c.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – ETP, Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN														
		Telangana									Telangana (4)			Tamilnadu		
		Kunaram			Warangal			Jagtial			Mean			Aduthurai		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3501	31501	82	113	370	98	111	396	98	111	381	92	109	362	91	96	347
3502	31502	84	104	320	92	99	401	98	99	392	91	101	366	83	85	338
3503	31503	84	101	297	94	99	393	95	99	328	90	105	325	85	92	325
3504	31504	87	115	363	96	109	403	98	109	367	92	112	360	90	92	387
3505	31505	87	132	376	100	123	389	104	123	381	96	126	364	93	114	405
3506	31506	83	119	370	97	114	393	96	114	367	91	109	362	99	82	445
3507	31507	91	122	317	104	118	404	111	118	396	100	121	359	94	104	434
3508	31508	83	138	307	97	132	394	97	132	400	92	127	343	87	104	434
3509	31509	102	119	337	113	113	398	106	113	343	105	117	330	98	110	440
3510	31510	79	125	343	93	115	393	93	115	414	89	119	367	92	94	380
3511	31511	86	124	360	99	116	419	102	116	352	95	118	359	95	108	399
3512	31512	81	106	343	94	102	408	94	102	427	88	102	385	90	85	330
3513	31513	80	109	333	92	99	403	93	99	348	88	100	341	92	91	419
3514	31514	79	119	373	95	113	398	95	113	361	89	113	359	92	88	368
3515	31515	83	140	343	95	139	411	97	139	354	91	126	343	95	93	405
3516	31516	88	110	290	97	93	422	102	93	372	96	99	349	85	87	457
3517	31517	77	118	350	92	102	414	93	102	385	86	108	348	94	113	404
3518	31518	79	119	330	92	119	396	90	119	323	87	117	348	87	85	364
3519	31519	79	114	376	97	103	421	98	103	396	91	106	393	91	84	364
3520	CO 51 (NC)	75	108	347	88	109	452	86	109	363	83	103	364	96	77	340
3521	31520	77	119	356	93	112	417	88	112	323	85	114	364	90	95	310
3522	31521	80	131	373	98	133	411	100	133	422	92	131	406	87	106	376
3523	31522	79	98	317	93	102	389	96	102	345	89	101	341	96	101	408
3524	31523	74	149	343	88	134	393	88	134	352	82	133	339	90	104	372
3525	31524	85	110	380	97	109	398	96	109	378	91	107	368	94	85	347
3526	31525	78	134	356	93	129	389	96	129	365	88	131	345	84	114	439
3527	31526	78	113	363	92	109	394	92	109	356	87	102	361	96	92	318
3528	31527	90	149	350	106	158	394	106	158	374	98	149	347	88	132	441
3529	31528	73	113	314	85	119	386	82	119	341	79	111	336	89	82	325
3530	31529	88	130	373	93	119	399	92	119	383	91	121	354	91	105	385
3531	31530	74	122	317	91	110	393	91	110	337	85	114	333	93	82	408
3532	31531	85	120	366	99	109	394	104	109	370	94	112	345	85	94	419
3533	31532	78	119	314	97	102	404	95	102	403	88	105	362	97	97	430
3534	31533	81	123	297	98	124	391	98	124	407	92	119	335	84	93	382
3535	31534	87	153	310	97	149	391	99	149	422	93	148	361	96	126	367
3536	31535	82	154	317	102	143	394	99	143	343	94	145	333	94	122	376
3537	31536	82	124	314	94	123	383	94	123	343	89	120	337	82	86	373
3538	31537	71	101	337	85	98	376	86	98	442	79	93	381	93	84	366
3539	31538	76	122	363	97	111	391	96	111	409	89	113	364	90	94	362
3540	31539	88	113	370	99	109	391	103	109	343	96	114	358	97	98	426
3541	31540	79	121	290	94	118	378	96	118	356	89	117	331	97	88	380
3542	Zonal Check	84	117	343	95	114	401	101	114	392	92	113	402	94	94	383
3543	31541	78	136	320	95	120	378	94	120	378	88	124	351	82	104	394
3544	31542	100	132	330	113	129	384	116	129	396	109	133	341	91	122	376
3545	31543	82	122	353	94	108	394	93	108	394	89	111	367	84	74	364
3546	31544	80	117	343	92	103	383	91	103	403	86	109	345	99	95	441
3547	31545	85	142	356	95	133	380	98	133	398	92	136	364	90	115	370
3548	31546	76	112	347	94	108	386	94	108	427	88	109	373	96	88	325
3549	31547	81	119	380	91	109	383	92	109	420	87	113	377	95	92	331
3550	31548	81	132	343	96	139	388	101	139	385	91	131	365	82	111	445
3551	31549	80	125	323	95	124	388	96	124	370	89	137	340	99	115	405
3552	31550	87	125	300	103	123	386	106	123	370	97	120	347	91	112	426
3553	31551	71	125	337	90	120	384	88	120	352	83	120	324	95	104	450
3554	31552	80	111	300	95	110	380	95	110	354	90	112	326	92	82	394
3555	31553	101	134	363	109	139	378	111	139	365	105	137	343	95	102	333
3556	31554	97	132	350	107	119	384	99	119	418	101	122	356	93	112	449
3557	31555	87	107	343	96	119	380	103	119	367	94	114	346	99	122	263
3558	31556	86	120	320	99	113	366	106	113	326	97	118	311	97	92	373
3559	31557	86	121	287	99	102	375	102	102	350	95	112	312	100	102	317
3560	31558	82	130	323	95	123	383	96	123	363	90	122	334	96	100	355
3561	31559	77	118	347	96	102	371	88	102	431	86	104	376	84	94	445
3562	31560	75	101	343	92	99	381	87	99	315	82	98	326	88	80	379
3563	31561	80	128	290	97	123	393	96	123	359	90	124	351	93	114	371
3564	Local Check	80	115	366	102	104	378	96	104	414	90	108	381	95	75	323
Exp. Mean		**82**	**122**	**339**	**96**	**116**	**393**	**96**	**116**	**375**	**91**	**117**	**353**	**92**	**98**	**383**

Table No. 3c.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – ETP, Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN														
		Tamilnadu						Tamilnadu (3)			Kerala (1)			Karnataka		
		Coimbatore			Tirur			Mean			Moncompu			Mandya		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3501	31501	88	94	360	84	95	301	87	95	336	87	86	140	91	97	357
3502	31502	94	75	350	79	84	253	85	81	314	90	79	133	94	79	408
3503	31503	94	94	350	81	94	237	87	93	304	87	87	137	93	100	306
3504	31504	94	94	368	79	90	231	87	92	328	87	96	137	89	89	340
3505	31505	112	102	430	84	106	239	96	107	358	95	89	163	91	100	374
3506	31506	93	89	395	80	87	268	91	86	369	87	82	150	85	88	323
3507	31507	106	95	310	85	100	210	95	100	318	100	101	150	97	100	323
3508	31508	98	110	318	81	93	204	89	102	319	88	99	160	89	99	340
3509	31509	113	113	320	83	103	220	98	109	327	109	105	167	101	184	306
3510	31510	93	100	320	70	92	220	85	95	307	95	100	140	93	100	340
3511	31511	93	108	325	80	93	204	89	103	309	100	90	167	96	102	306
3512	31512	88	79	305	78	79	214	85	81	283	88	87	150	88	86	289
3513	31513	95	86	290	76	85	243	87	87	317	90	83	140	91	93	306
3514	31514	90	89	343	73	93	218	85	90	309	88	94	180	89	102	357
3515	31515	92	114	303	76	99	235	87	102	314	89	108	170	89	111	340
3516	31516	102	82	290	81	82	208	89	84	318	106	87	140	102	83	289
3517	31517	87	91	330	70	64	203	83	89	312	84	86	190	90	98	391
3518	31518	93	109	325	84	101	265	88	98	318	87	97	140	93	109	306
3519	31519	89	99	343	75	76	218	85	86	308	90	83	130	93	89	357
3520	CO 51 (NC)	95	91	345	75	86	191	88	85	292	84	90	147	88	99	272
3521	31520	96	85	365	79	94	219	88	91	298	85	84	157	90	100	357
3522	31521	90	108	350	77	91	231	84	102	319	86	99	176	90	102	374
3523	31522	95	89	330	82	96	194	91	96	311	88	92	186	95	91	272
3524	31523	85	108	310	77	101	202	84	104	295	81	106	160	82	109	289
3525	31524	93	91	380	81	94	228	89	90	318	87	86	137	93	108	340
3526	31525	92	105	398	75	113	204	83	111	347	85	104	140	87	103	323
3527	31526	88	85	373	80	88	327	88	88	339	84	88	133	87	92	357
3528	31527	104	134	325	89	122	232	93	129	333	100	109	190	96	119	340
3529	31528	82	86	330	69	79	251	80	82	302	76	89	130	81	103	306
3530	31529	95	96	323	76	88	206	87	96	305	87	98	133	89	100	323
3531	31530	86	89	373	70	90	219	83	87	333	86	90	137	83	99	289
3532	31531	94	98	383	80	87	216	86	93	339	89	98	163	96	106	374
3533	31532	85	89	300	71	83	241	84	89	324	90	89	143	89	91	357
3534	31533	94	103	310	81	95	253	86	97	315	100	99	140	97	99	272
3535	31534	93	140	330	80	114	223	90	127	307	88	619	133	92	123	340
3536	31535	111	136	305	82	120	278	95	126	319	100	125	180	98	133	323
3537	31536	89	140	298	72	83	225	81	103	299	87	97	133	87	94	306
3538	31537	79	77	363	81	74	220	84	78	316	77	82	153	84	94	357
3539	31538	91	94	400	82	95	236	87	95	332	87	89	127	93	103	374
3540	31539	100	100	358	84	97	244	93	99	342	106	100	196	98	100	391
3541	31540	92	98	395	77	86	206	88	91	327	90	91	127	90	96	306
3542	Zonal Check	90	92	310	79	94	222	87	93	305	87	96	140	89	99	340
3543	31541	87	92	305	75	87	231	81	95	310	86	91	120	89	91	306
3544	31542	113	128	298	86	114	210	97	121	294	119	101	157	96	121	306
3545	31543	90	87	398	77	83	235	83	81	332	88	100	160	91	98	306
3546	31544	88	83	335	71	91	284	86	89	353	84	85	117	82	91	340
3547	31545	87	119	300	82	115	231	86	116	300	85	108	163	90	112	374
3548	31546	85	88	373	75	87	238	85	88	312	87	90	130	84	97	391
3549	31547	90	96	348	81	96	192	88	95	290	84	96	150	90	103	391
3550	31548	92	104	335	81	91	232	85	102	337	88	103	130	90	110	391
3551	31549	86	104	358	79	99	223	88	106	328	88	114	133	85	103	357
3552	31550	97	94	353	81	89	239	90	98	339	89	97	167	89	97	340
3553	31551	116	115	345	76	94	198	95	104	331	85	105	150	87	102	306
3554	31552	97	85	325	79	93	264	89	87	328	89	94	170	97	109	289
3555	31553	115	129	340	85	111	234	98	114	302	101	111	216	100	109	340
3556	31554	110	103	355	84	93	262	95	103	355	109	106	157	90	95	357
3557	31555	94	96	325	81	90	218	91	103	269	90	93	147	92	85	340
3558	31556	96	97	408	82	98	270	91	96	350	100	93	127	101	92	289
3559	31557	96	101	313	88	112	232	94	105	287	100	93	163	96	93	255
3560	31558	88	105	315	78	91	239	87	98	303	88	102	133	88	99	255
3561	31559	87	78	348	82	93	252	84	88	348	86	88	133	89	95	272
3562	31560	81	70	300	81	86	202	83	79	294	82	87	160	86	100	289
3563	31561	86	105	333	79	103	251	86	107	318	85	101	153	89	100	374
3564	Local Check	85	95	390	76	90	259	85	87	324	90	92	157	89	92	374
Exp. Mean		**93**	**99**	**341**	**79**	**94**	**232**	**88**	**97**	**319**	**90**	**103**	**150**	**91**	**101**	**331**

Table No. 3c.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – ETP, Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN												Overall Mean (31)		
		Karnataka			Karnataka (2)			Puducherry (1)			Zone 7 (12)					
		Mugad			Mean			Kurumbapet			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3501	31501	100	74	231	95	85	294	80	105	495	89	99	335	90	101	298
3502	31502	100	59	274	97	69	341	79	100	560	89	88	344	90	93	300
3503	31503	103	46	201	98	73	254	81	102	380	89	94	293	88	97	260
3504	31504	102	70	241	96	80	291	82	115	510	90	101	330	91	104	284
3505	31505	103	77	244	97	88	309	93	115	510	95	111	343	94	111	300
3506	31506	103	60	194	94	74	258	83	94	545	90	94	341	89	98	303
3507	31507	113	54	233	105	77	278	92	118	430	98	106	320	97	107	283
3508	31508	104	79	248	96	89	294	80	117	410	90	111	318	91	113	283
3509	31509	105	60	254	103	122	280	88	120	510	101	115	319	101	110	288
3510	31510	109	57	230	101	79	285	79	113	530	89	104	327	90	108	297
3511	31511	104	67	252	100	84	279	83	105	470	93	104	319	94	105	281
3512	31512	107	51	222	98	68	255	79	98	410	88	89	313	87	94	297
3513	31513	104	55	214	97	74	260	79	98	615	88	91	323	87	94	282
3514	31514	103	50	248	96	76	302	79	82	325	87	97	314	88	104	285
3515	31515	103	79	187	96	95	263	81	118	480	90	113	317	90	116	290
3516	31516	115	51	290	109	67	290	80	103	480	95	88	319	93	91	289
3517	31517	118	48	238	104	73	315	70	98	560	86	95	339	86	98	297
3518	31518	102	48	225	97	79	266	79	110	515	87	103	323	86	105	283
3519	31519	102	88	297	97	89	327	79	107	490	88	96	342	87	98	297
3520	CO 51 (NC)	102	61	286	95	80	279	75	107	420	85	94	315	83	98	272
3521	31520	99	54	292	94	77	325	78	98	460	86	99	326	85	102	287
3522	31521	105	99	304	97	100	339		.		89	114	339	91	115	299
3523	31522	105	88	283	100	90	277	84	107	515	90	97	324	89	100	290
3524	31523	99	60	300	90	84	294	70	95	445	82	113	307	82	118	268
3525	31524	103	59	279	98	83	309	80	98	710	90	96	349	89	99	297
3526	31525	104	55	258	95	79	290	76	107	380	86	113	321	87	115	287
3527	31526	102	63	226	94	77	291	73	100	430	86	94	329	86	99	289
3528	31527	102	76	245	99	98	292	81	138	610	95	131	336	96	125	297
3529	31528	105	72	258	93	88	282	75	95	430	81	95	304	80	96	281
3530	31529	97	51	249	93	75	286	80	115	710	88	104	337	89	105	288
3531	31530	103	51	252	93	75	270	76	93	565	84	96	324	85	102	284
3532	31531	115	66	198	106	86	286	79	108	440	92	101	327	92	105	291
3533	31532	103	56	208	96	74	282	74	86	530	87	93	329	87	98	293
3534	31533	106	67	179	101	83	226	79	112	630	91	105	318	91	104	281
3535	31534	106	52	202	99	88	271	84	130	430	91	170	312	91	144	276
3536	31535	106	70	253	102	101	288		.		96	130	302	96	127	268
3537	31536	105	69	298	96	81	302	74	92	480	86	104	313	86	107	268
3538	31537	98	52	274	91	73	315	69	93	460	81	86	336	81	93	277
3539	31538	99	74	284	96	89	329	88	108	480	89	102	330	90	104	298
3540	31539	112	54	193	105	77	292	80	105	560	96	101	338	93	104	306
3541	31540	89	65	334	89	80	320	80	113	455	87	102	321	89	105	292
3542	Zonal Check	102	64	270	95	81	305	79	100	490	89	100	340	87	98	290
3543	31541	100	63	248	94	77	277	77	110	430	85	105	310	88	108	281
3544	31542	105	62	274	100	91	290	96	132	530	103	121	323	99	118	285
3545	31543	104	80	274	97	89	290	79	100	445	87	98	330	88	101	297
3546	31544	95	68	267	88	79	303	79	100	560	85	96	336	85	98	286
3547	31545	100	51	262	95	82	318	81	117	630	88	118	339	89	121	296
3548	31546	102	70	314	93	83	353	80	107	395	86	97	330	87	104	289
3549	31547	99	61	233	94	82	312	79	113	510	87	97	331	86	101	291
3550	31548	100	83	299	95	97	345		.		89	114	325	89	115	283
3551	31549	95	72	323	90	88	340	80	117	475	87	117	330	86	117	291
3552	31550	100	59	252	94	78	296	87	113	495	93	105	328	93	108	288
3553	31551	99	69	329	93	85	318	78	102	490	87	108	320	87	107	275
3554	31552	103	63	275	100	86	282	80	102	450	90	98	315	89	102	277
3555	31553	113	65	250	106	87	295	86	118	435	101	119	322	99	122	287
3556	31554	117	73	250	103	84	304	80	130	390	98	111	330	99	111	286
3557	31555	103	65	271	98	75	306	80	113	390	91	102	301	92	105	273
3558	31556	103	64	264	102	78	276	93	110	480	96	102	315	96	105	278
3559	31557	107	56	266	101	75	260	81	115	605	94	98	309	94	104	263
3560	31558	107	58	257	97	78	256	79	100	410	89	105	300	88	109	268
3561	31559	102	60	229	95	78	250	78	95	470	86	94	331	85	97	299
3562	31560	100	63	270	93	82	279	80	93	530	84	89	310	83	94	268
3563	31561	103	63	253	96	82	314	78	120	495	88	110	326	87	114	281
3564	Local Check	101	78	233	95	85	303	81	100	490	89	97	337	89	100	294
Exp. Mean		**103**	**64**	**255**	**97**	**82**	**293**	**80**	**107**	**491**	**90**	**104**	**324**	**89**	**106**	**286**

Table No. 3c.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – ETP, (Trials Not Considered), Kharif 2023

Entry No	IET No	Trial not considered											
		Uttarakhand (0) @Pantnagar			Bihar @Sabour			West Bengal @Hathwara			Tripura (0) @Lembucherra		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3501	31501	97	108	266	96	98	225	88	109	248	71	105	213
3502	31502	94	99	297	95	101	228	88	96	240	80	87	263
3503	31503	89	105	266	94	94	275	82	93	224	72	92	200
3504	31504	102	102	306	96	104	264	85	99	248	77	93	275
3505	31505	101	117	294	96	111	253	89	111	288	78	111	300
3506	31506	94	105	330	95	95	253	85	96	280	71	95	288
3507	31507	100	103	254	103	110	226	94	97	256	86	100	313
3508	31508	97	114	293	95	112	201	90	101	240	83	127	213
3509	31509	125	99	300	115	104	332	105	100	224	92	100	325
3510	31510	93	125	247	121	106	264	88	104	272	75	103	325
3511	31511	100	118	233	101	106	194	95	101	200	87	99	238
3512	31512	93	106	253	95	94	265	84	98	248	63	95	275
3513	31513	86	99	285	92	93	243	85	91	272	71	90	313
3514	31514	90	112	252	91	104	190	84	100	216	74	115	238
3515	31515	97	120	306	98	109	265	83	116	336	70	119	263
3516	31516	93	99	242	103	97	249	95	87	232	77	95	200
3517	31517	87	108	336	89	94	251	79	91	296	96	93	288
3518	31518	85	107	309	91	109	224	81	113	240	67	99	313
3519	31519	93	104	308	92	99	223	84	88	256	63	99	250
3520	CO 51 (NC)	81	95	342	88	98	237	84	97	256	65	101	313
3521	31520	88	101	315	88	98	255	80	101	312	72	103	225
3522	31521	93	130	329	91	121	219	84	103	304	68	127	263
3523	31522	90	96	237	95	98	243	86	85	256	71	88	288
3524	31523	85	135	235	81	117	225	76	109	280	67	132	275
3525	31524	94	101	297	90	97	291	83	92	264	66	120	275
3526	31525	92	123	296	93	126	227	84	109	208	69	100	300
3527	31526	92	111	300	91	111	248	87	96	216	64	112	263
3528	31527	105	139	320	110	123	240	95	117	232	62	132	313
3529	31528	73	86	337	81	94	183	75	105	272	60	82	300
3530	31529	93	106	284	91	99	258	87	109	256	63	105	200
3531	31530	90	111	246	88	103	228	80	100	264	64	102	313
3532	31531	97	108	232	94	100	237	87	94	328	74	102	288
3533	31532	90	109	270	91	102	235	82	91	280	85	95	300
3534	31533	99	117	241	96	114	237	88	94	216	87	107	250
3535	31534	97	129	299	97	121	197	88	116	224	71	118	275
3536	31535	103	135	291	101	136	207	95	124	368	73	117	250
3537	31536	91	105	246	91	100	228	82	99	224	57	120	300
3538	31537	74	89	262	82	82	228	75	89	248	63	99	200
3539	31538	94	115	295	90	107	206	88	107	272	71	112	238
3540	31539	96	109	334	95	96	233	90	98	256	94	98	313
3541	31540	93	109	255	94	103	234	83	97	264	77	102	288
3542	Zonal Check	95	98	321	83	86	242	79	85	256	61	88	263
3543	31541	92	115	301	91	107	228	81	95	248	69	106	300
3544	31542	112	104	290	114	115	268	104	111	256	91	112	238
3545	31543	96	116	275	95	108	258	86	96	216	72	98	275
3546	31544	88	109	323	87	104	228	79	95	256	69	95	288
3547	31545	94	144	303	91	124	191	81	106	232	72	123	338
3548	31546	91	106	280	90	100	193	87	93	280	69	102	288
3549	31547	91	120	236	90	105	244	81	105	272	63	95	275
3550	31548	90	111	265	89	111	229	88	103	264	68	112	275
3551	31549	91	137	308	90	125	190	82	108	216	71	112	275
3552	31550	104	128	307	93	125	235	89	103	240	74	113	275
3553	31551	83	114	276	88	110	310	77	110	216	91	102	238
3554	31552	89	104	294	95	112	210	88	93	208	71	92	200
3555	31553	120	140	252	114	131	245	103	121	296	99	105	275
3556	31554	108	144	262	110	110	229	102	93	288	83	112	275
3557	31555	101	124	323	97	101	311	90	103	264	68	94	263
3558	31556	111	95	307	107	104	335	96	100	336	91	103	200
3559	31557	100	109	295	96	105	199	89	98	192	52	102	275
3560	31558	94	116	293	90	110	192	86	99	208	70	117	288
3561	31559	86	99	332	89	100	233	80	102	216	67	92	288
3562	31560	85	92	252	84	97	253	82	107	184	65	88	263
3563	31561	88	116	315	91	118	240	83	105	216	66	100	300
3564	Local Check	80	79	272	89	117	201	89	98	296	71	107	225
Exp. Mean		**94**	**111**	**286**	**94**	**106**	**237**	**86**	**101**	**254**	**73**	**104**	**270**

Table No. 3c.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – ETP, (Trials Not Considered), Kharif 2023

Entry No	IET No	Trial not considered														
		Madhya Pradesh (0)			Chhattisgarh			Telangana			Kerala			Karnataka		
		@Rewa			@Raipur			@Rudrur			@Pattambi			@Brahmawar		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3501	31501	97	94	267	99	93	153	94	109	328	86	105	290	103	81	364
3502	31502	94	88	345	98	95	214	91	103	204	89	91	333	99	79	373
3503	31503	105	103	165	94	93	162	90	100	205	89	99	316	100	87	380
3504	31504	92	100	317	100	102	171	90	110	256	89	99	236	105	92	348
3505	31505	102	104	312	102	116	187	95	125	346	89	110	213	111	95	400
3506	31506	95	76	302	98	97	211	90	109	380	92	97	330	101	84	388
3507	31507	103	104	340	106	115	114	100	115	234	91	103	213	110	87	376
3508	31508	104	106	247	98	118	165	92	130	348	86	104	240	108	97	383
3509	31509	111	103	367	112	104	215	102	121	356	90	104	263	122	101	359
3510	31510	91	98	270	97	105	191	93	119	361	91	99	210	106	94	368
3511	31511	103	102	233	104	107	197	98	119	374	91	100	260	113	87	340
3512	31512	91	88	296	93	87	212	86	109	363	89	92	246	102	84	358
3513	31513	94	82	239	93	97	185	90	99	292	90	83	193	113	81	350
3514	31514	92	99	194	96	106	193	92	119	306	91	96	263	101	88	356
3515	31515	92	100	261	94	124	181	93	127	338	88	112	340	604	95	364
3516	31516	97	95	217	105	95	178	99	94	166	90	82	270	101	85	377
3517	31517	91	88	257	94	96	194	89	110	256	92	94	340	101	83	370
3518	31518	91	99	289	93	97	113	87	122	328	89	99	236	99	99	378
3519	31519	94	89	330	97	96	188	93	108	379	93	95	413	100	86	369
3520	CO 51 (NC)	91	96	213	87	106	191	81	109	288	83	91	333	101	89	365
3521	31520	90	99	261	92	102	194	88	121	380	86	98	263	103	91	378
3522	31521	103	97	264	97	124	191	93	132	345	92	103	103	103	97	377
3523	31522	93	96	297	99	96	171	95	106	374	87	88	193	103	85	394
3524	31523	89	113	203	88	122	142	84	164	177	78	122	330	99	99	370
3525	31524	91	94	256	94	95	155	92	108	234	94	99	330	107	92	376
3526	31525	91	105	288	95	118	210	89	135	303	89	109	330	104	94	353
3527	31526	91	111	272	88	86	175	86	111	314	86	92	393	99	62	355
3528	31527	105	122	290	106	115	160	98	147	278	92	108	256	115	99	378
3529	31528	94	95	255	84	104	129	79	110	257	70	88	476	97	88	377
3530	31529	91	99	192	94	106	170	96	119	311	87	98	286	104	87	396
3531	31530	91	92	244	91	104	169	88	111	354	80	97	360	105	71	379
3532	31531	103	107	328	100	113	191	96	115	309	87	89	383	103	83	359
3533	31532	94	98	241	94	106	168	89	110	236	89	82	273	101	93	382
3534	31533	103	124	219	101	114	173	94	125	309	92	101	313	116	92	366
3535	31534	91	131	303	97	134	123	97	161	228	89	128	290	100	113	387
3536	31535	101	126	226	103	134	148	98	156	264	90	114	233	115	91	375
3537	31536	90	99	225	89	106	196	92	126	157	87	101	310	96	65	356
3538	31537	77	87	235	82	87	108	80	110	387	84	84	410	99	75	367
3539	31538	94	97	292	95	96	184	93	122	155	89	94	380	104	72	386
3540	31539	94	97	372	99	108	145	93	117	238	91	91	216	114	64	378
3541	31540	101	100	213	97	107	182	92	116	362	90	98	310	103	64	358
3542	Zonal Check	102	98	178	91	104	216	94	120	371	92	96	233	100	65	350
3543	31541	93	108	262	95	114	189	92	124	356	90	98	226	99	80	400
3544	31542	120	111		114	112	214	91	135	354	87	107	213	111	63	381
3545	31543	93	94	246	95	94	179	89	157	379	87	90	380	99	66	383
3546	31544	89	94	258	94	97	180	87	122	396	87	80	609	100	82	380
3547	31545	93	111	239	95	128	188	97	123	231	89	100	300	101	62	373
3548	31546	93	103	288	97	104	165	90	123	303	88	91	266	104	78	359
3549	31547	89	105	297	94	104	200	88	113	340	86	93	310	99	73	381
3550	31548	96	106	280	96	125	206	96	120	273	89	100	223	103	76	367
3551	31549	90	110	256	87	116	113	91	126	237	87	102	310	104	82	384
3552	31550	103	110	307	103	114	165	102	127	275	89	96	316	117	76	393
3553	31551	89	115	231	95	107	140	82	123	254	91	70	220	110	83	379
3554	31552	99	98	316	98	100	191	93	130	280	90	89	220	119	76	394
3555	31553	114	112		115	130	197	109	111	239	91	105	147	111	86	388
3556	31554	105	114	262	108	115	229	93	151	253	91	89	200	113	76	349
3557	31555	101	101	189	98	104	160	94	120	188	90	101	233	111	72	384
3558	31556	107	103	244	111	100	151	106	119	301	93	100	333	112	72	372
3559	31557	102	111	176	102	115	167	94	114	309	93	95	183	109	71	366
3560	31558	100	110	246	95	114	184	94	124	320	92	91	210	100	77	369
3561	31559	90	98	271	92	98	230	87	107	287	87	90	273	103	85	398
3562	31560	86	96	308	92	93	156	86	103	285	90	83	290	100	63	368
3563	31561	101	96	261	94	125	147	87	111	366	88	110	296	102	78	375
3564	Local Check	93	102	204	98	96	192	89	111	325	87	86	403	98	83	380
Exp. Mean		**96**	**102**	**262**	**97**	**107**	**176**	**92**	**120**	**297**	**88**	**97**	**287**	**113**	**82**	**373**

ADVANCE VARIETY TRIAL 2-IRRIGATED MIDEARLY (AVT 2- IME)

Locations: 52 **Test Entries: 15**

Checks: **Gontra Bidhan-3 (National); PR 113-(Northern), Lalat (Eastern and North Eastern), Karjat 7 (Western), MTU 1010 (Central and Southern)-Zonal; US 312-Hybrid and Local Check NIL Trials – ADT39 (RP) and Naveen (RP)** **Table: 5a**

Advanced Variety Trial 2- Irrigated Mid Early (AVT-IME) was constituted with fifteen test entries including six varietal entries (including one repeat entry) and five hybrid entries in the third year of testing along with two NILs for submergence and two NILs for BPH along with two recurrent parents (RP) viz., ADT 39 and Naveen respectively, along with Gontra Bidhan-3 as national, PR-113 in northern, Lalat in eastern and north eastern, MTU 1010 in central and southern, Karjat 7 in western as zonal checks, US 312 as hybrid check and local checks. The trial was sent to 52 locations across II, III, IV, V, VI and VII zones, but the data was received only from 47 locations (Data from Kota, Brahmavar, Kathalgere, Kurumbapet and Puducherry were not received). Data from 14 centers were not included in the analyses due to high CV % and low experimental mean at Pantnagar; low CV% at Jabalpur, Ambikapur, Masodha; low experimental mean at Kanpur, Rewa, Sindhewahi, Radhanagar, Jeypore, Lembucherra and with non-significant F variance ratio between treatments at Malda, Bankura, Gerua-ICAR, Pattambi.

The experimental mean of locations for days to fifty percent flowering varied from 87 (Ragolu) to 125 (Mugad), plant height from 79 cm (Jagadalpur) to 136 cm (Navsari), panicles per square metre from 165 (Varanasi) to 437 (Warangal). For grain yield, the experimental mean of the locations varied from 4019 kg/ha (Moncompu) to 8545 kg/ha (Kunaram). The zonal mean of the trial for grain yield ranged from 5013 kg/ha (Zone III) to 6297 kg/ha (Zone V). The performance of the varietal and hybrid entries is discussed below.

IET 29822 [ORJ 1342 (TP 29409)] [IR10M300], a varietal entry showed significant yield superiority and ranked first in eastern zone (Zone III) with a mean grain yield of 5734 kg/ha.

IET 29808 (RP6317-RMS-S35-BC_2F_4-49-25-12-24) derived from the cross MTU1121*2/ Swarna, a varietal entry ranked third in eastern zone (Zone III) with a mean grain yield of 5487 kg/ha.

IET 29188 (WGL 1355) derived from the cross of WGL 347/HKR06-47, a varietal entry showed significant yield superiority and ranked fifth in eastern zone (Zone III) with a mean grain yield of 5441 kg/ha.

IET 29820 (OR 2517-8) derived from the cross of OR 2006-25/IR65629-22-1, a varietal entry showed significant yield superiority in eastern zone (Zone III) with a mean grain yield of 5222 kg/ha.

IET 29734 (PHI-21104) is a hybrid entry showed significant yield superiority over BC and HC in northern (Zone II), north eastern (Zone IV), central (Zone V), western (Zone VI) and southern (Zone VII) zones in the third year of testing. It ranked first in zone IV (6971 kg/ha), V (7805 kg/ha) and VII (6750 kg/ha). In Zone II (6148 kg/ha) and Zone VI (6830 kg/ha), it secured second rank among the tested entries.

Zone wise Performance of the entries in AVT2-IME in *kharif* 2023

IET No/ Designation/ Cross Combination	GT	Mean grain yield (kg/ha)/Rank					
		II	**III**	**IV**	**V**	**VI**	**VII**
IET29822 (ORJ 1342 (TP 29409) IR10M300	MS		5734 (1) *				
IET29808 (RP6317-RMS-S35-BC_2F_4-49-25-12-24) MTU1121*2/Swarna	MS		5487 (3) *				
IET29188 (WGL 1355) WGL 347/HKR06-47	LS		5441 (5) *				
IET29820 (OR 2517-8) OR2006-25/IR 65629-22-1	LS		5222 (9) *				
Hybrid entries							
IET29734 (H) PHI-21104	LB	6148 (2) *#		6971 (1) ***#**	7805 (1) ***#**	6830 (2) ***#**	6750 (1) *#
IET29708 (H) MALI-348	LS					6858 (1) *#	
IET29726 (H) PHI-21103	LS						6475 (3) *#
IET29738 (H) (RNC-0457)	LS	6411 (1) *#					6707 (2) *#
Gontra Bidhan-3 (NC)	SB	4768	4609	5547	6426	5889	5977
Zonal Check (ZC)	LS	5249	4459	5439	4329	4926	5341
Local Check (LC)	LS	5500	4763	4696	5384	5736	5928
US 312 (HC)	MS	5683	5369	5384	6828	6220	5983
CD		351	310	1025	671	305	303
BC+CD		5851	5073	6572	7097	6194	6280
HC+CD		6034	5679	6409	7499	6525	6286

***Superior over BC+CD; #Superior over HC+CD**

IET 29708 (MALI-348) is a hybrid entry ranked first in western zone (Zone VI) with a mean grain yield of 6858 kg/ha.

IET 29726 (PHI-21103) is a hybrid entry showed significant yield superiority over BC and HC in southern zone (Zone VII) with a mean grain yield of 6475 kg/ha. It secured third rank in zone VII among the tested entries.

IET 29738 (RNC-0457) is a hybrid entry showed significant yield superiority over BC and HC in southern zone (Zone VII) with a mean grain yield of 6707 kg/ha. It also secures second rank in zone VII among the tested entries.

Three years' performance of the entries in AVT2-IME

IET 29822 [ORJ 1342 (TP 29409)] a varietal entry evaluated in 2021, 2022 and 2023. In 2021, it performed with significant yield superiority over the best varietal checks in Odisha and West Bengal. In 2022, significant yield performance was observed in Maharashtra. Further, in 2023, its consistent performance was observed in West Bengal in addition to significant yield performance in Bihar, Jharkhand and Kerala. It has medium slender grains with grain quality parameters of HRR (66.5%), AC (26.48%), GC (31 mm) and ASV (4.0). Considering its consistent performance only in the state of West Bengal, **IET 29822 is found promising for West Bengal**.

Three years' performance of the entries in AVT2-IME, *kharif* 2023

IET No/ Designation/ Cross Combination	Three years performance			Remarks
	2023	2022	2021	
IET29822 (ORJ 1342 (TP 29409) IR10M300	BI 6463 (1) * JH 6600 (1) * WB 5725 (6) * KE 4799 (5)*#	MA 5140 (6) *	OD 6041 (4) * WB 6520 (5) *	Promising for WB
IET29808 (RP6317-RMS-S35-BC_2F_4-49-25-12-24) MTU1121*2/Swarna	WB 5725 (6) * KE 4836 (3) *#	TN 6760 (3)*#	OD 6102 (2) * WB 6066 * AP 9905 (2) * KE 6872 (2) *	Promising for WB and KE
IET29188 (WGL 1355) WGL 347/HKR06-47	WB 5908 (5) *	TN 6371 (8) *# RJ 6124 (5)*	OD 5518 * BH 7943 (2) * WB 6973 (1) * KE 6679 (3) *	Promising for WB
IET29820 (OR 2517-8) OR2006-25/IR 65629-22-1	KE 5316 (2) *#	RJ 6137 (4) * MA 5651 (1) *# TS 8029 (1) * TN 6372 (7) * KA 5093(1) *	OD 5896 (6) *	Discontinued
IET29708 (H) MALI-348	TS 8643 (1) *#	MA 7170 (1) *# TN 6080 * #	HA 9033 (1) *#	Discontinued
IET29726 (H) PHI-21103	HA 8756 (1) * #	MA 5539 (2) * # OD 6345 (2) * # TN 6687 (4) * #	UP 7060 (3) *# TS 8354 (1) *#	Discontinued
IET29734 (H) PHI-21104	AS 6971 (1) *# CG 8089 (1) *# TS 8369 (2) *#	MP 5952 (1) *# RJ 6511 (1) *#	UP 6970 (5) *#	Discontinued
IET29738 (H) (RNC-0457)	HA 8689 (2) *# JK 5378 (1) *# MA-2 7044 (1) *# AP 7570 (1) *# TS 8318 (3) *#	BI 9025 (1)*# MP 5884 (2) *#	-	Discontinued

***Superior over BC+CD; #Superior over HC+CD**

IET 29808 (RP6317-RMS-S35-BC_2F_4-49-25-12-24) derived from the cross MTU1121*2/Swarna, a varietal entry has shown significant grain yield superiority over BC in West Bengal state during 2021 and 2023. In 2021, significant yield performance was observed in Odisha, Andhra Pradesh and Kerala in addition to West Bengal. In 2022, its significant yield performance was observed in Tamil Nadu. Further, in 2023, it performed

with significant yield superiority over the best varietal checks in West Bengal and Kerala. It has medium slender grains with HRR (64.2%), intermediate amylose content (20.18%), GC (46 mm) and ASV (4.0). **IET 29808 is found promising for West Bengal and Kerala states**.

IET 29188 (WGL 1355), a varietal entry derived from the cross of WLG 347/HKR06-47 has shown significant grain yield superiority over BC in West Bengal state during 2021 and 2023. It also shown significant yield performance during 2021 in Odisha, Bihar, West Bengal and Kerala. In 2022, its performance was observed in other states like Tamil Nadu and Rajasthan. Further, in 2023, it performed with significant yield superiority over the best varietal check in West Bengal. It has grain quality parameters - HRR (62.8%), intermediate amylose content (22.73%), GC (34 mm) and ASV (4.0) with long slender grains. **It is found to be promising for only West Bengal state**.

IET 29820 (OR 2517-8) a varietal entry derived from the cross of OR 2006-25/IR65629-22-1, a varietal entry recorded inconsistency in yield performance over the three years of testing. It did not show significant yield advantage over the BC in any state consistently at least for any of the two years. Hence, **IET 29690 is discontinued.**

IET 29708 (MALI-348) is a hybrid entry recorded inconsistency in yield performance over the three years of testing. It did not show significant yield advantage over the BC and HC in any state consistently at least for any of the two years. Hence, **IET 29708 is discontinued.**

IET 29726 (PHI-21103) is a hybrid entry recorded inconsistency in yield performance over the three years of testing. It did not show significant yield advantage over the BC and HC in any state consistently at least for any of the two years. Hence, **IET 29726 is discontinued.**

IET 29734 (PHI-21104) is a hybrid entry recorded inconsistency in yield performance over the three years of testing. It did not show significant yield advantage over the BC and HC in any state consistently at least for any of the two years. Hence, **IET 29734 is discontinued.**

IET 29738 (RNC-0457) is a hybrid entry recorded inconsistency in yield performance over the three years of testing. It did not show significant yield advantage over the BC and HC in any state consistently at least for any of the two years. Hence, **IET 29708 is discontinued.**

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Performance of Near Isogenic Lines in AVT2-IME trial

In the AVT2- IME trial, additionally four NIL entries were included in the second year of testing and evaluated for yield performance in Gazette notified states and adapted areas of the respective recurrent parents. Two NIL entries (IETs 30697 and 30695) were in the background of ADT39 with introgression of *Sub1* QTL for submergence tolerance and two NIL entries (IETs 30282 and 29203) in the background of Naveen, introgressed with *qBph4.3+ qBph4.4* for BPH resistance.

Notified states of recurrent parent used in the development of NILs

S. No.	Recurrent Parent	Notified states	Zones tested	No of RILs
1	Naveen	Odisha	III and IV	2
2	ADT39	Tamil Nadu	VII	2

NILs in the background of ADT39: Two entries in the background of ADT39 viz., IETs 30697 and 30695 introgressed with *Sub1* for submergence tolerance were evaluated in Zone VII.

IET	Designation	Cross combination	GT	Trait	Genes/QTL
30697	KR 19011	ADT39*4/Swarna	MS	Submergence tolerance	*SUB1*
30282	KR 190115	ADT39*4/Swarna	MS	Submergence tolerance	*SUB1*

Both the NILs (IETs 30695 and 30697) recorded on par yield with recurrent parent, ADT 39 in 2022 and 2023 under normal irrigated conditions in the Gazette notified state (Tamil Nadu) and also in the adapted areas of Z-VII. However, IET 30695 has short bold grains which is different from the medium slender grain type of RP in both the years of testing (2022 and 2023), hence discontinued. Considering the on par performance of IET 30697 with RP under normal irrigated conditions (refer table below) and its significant yield advantage over the RP under submergence stress (refer trait verification data from AVT-Submergence trial) and grain type similarity with the RP, **IET 30697 is found promising for the Gazette notified states and adapted areas of ADT 39.**

Entry	2022		2023	
	Gazette notified states	Adapted areas	Gazette notified states	Adapted areas
	TN	VII	TN	VII
IET 30695	6407	5657	6236	5853
IET 30697	5190	5355	5312	5828
ADT 39 (RP)	5463	5562	5663	5211
CD	588	324	590	303
RP+CD	6051	5886	6253	5514
RP-CD	4875	5238	5073	4908

Near isogenic lines in the background of Naveen: Two entries in the background of Naveen viz., IETs 30282 and 29203 introgressed with *qBph4.3+ qBph4.4* for BPH resistance were evaluated under Zones III and IV.

IET's	Designation	Cross combination	GT	Trait	Genes/QTL
29203	CR4331-85-1-1-1	Naveen*3/CR3006-8-2	MS	BPH tolerance	*qBph4.3+ qBph4.4*
30282	CR4331-74-2-2-1	Naveen*3/CR3006-8-2	MS	BPH tolerance	*qBph4.3+ qBph4.4*

Entry	2022		2023		
	Gazette notified states	Adapted areas	Gazette notified states	Adapted areas	
	OD	III	OD	III	IV
IET 30282	4235	5705	5113	4641	5494
IET 29203	5106	5500	5105	4489	4776
Naveen (RP)	5167	6151	4809	4238	5388
CD	461	329	490	310	1025
RP+CD	5628	6480	5299	4548	6413
RP-CD	3706	5822	4319	3928	4293

Both the NIL entries (IETs 30282 and 29203) recorded on par yield performance with RP, Naveen in the Gazette notified state, Odisha and also in the adapted areas in both the years of testing (2022 and 2023). They showed enhanced resistance to BPH compared to the RP. Based on the grain quality data available from 2022, they were found similar to RP in grain type and other grain quality attributes. **Hence, IETs 30282 and 29203 are found promising for the Gazette notified states and adapted areas of recurrent parent Naveen.**

IET No.	Designation	PNT	LDN	IIRR	CBT	MND
		BPH	BPH	BPH	BPH	BPH
		GH	GH	GH	GH	GH
		DS	DS	DS	DS	DS
30282	CR 4331-74-2-2-1	5.0	3.7	3.2	5.0	5.0
29203	CR 4331-85-1-1-1	5.3	NG	4.1	4.0	5.0
Naveen (RP)		9.0	NG	7.5	8.6	9.0
29217 (R)	Pusa 2090-17-20	9.0	8.0	6.9	7.9	7.0

ADVANCE VARIETY TRIAL 1-IRRIGATED MIDEARLY

(AVT 1- IME)

Locations: 52 **Test Entries: 36**

Checks: Gontra Bidhan-3 (National); PR 113-(Northern), Lalat (Eastern and North Eastern), Karjat 7 (Western), MTU 1010 (Central and Southern)-Zonal; US 312-Hybrid and Local Check **Table: 5b**

The AVT1-IME trial was constituted with 11 hybrid and 17 varietal in the second year of evaluation, 6 near isogenic lines (NIL) and 2 genome edited lines (GEL) are in the first year of evaluation along with National Check (NC)-Gontra Bidhan-3; Zonal check (ZC)-Northern-PR 113, Eastern and North Eastern-Lalat, Central and Southern-MTU 1010, Western –Karjat-7; Hybrid check-US 312, three recurrent parents-MTU 1010, Krishna Hamsa and Pusa 44 and a Local Check. Among the NIL entries, 4, 2 and 1 were in the background of MTU 1010, Krishna Hamsa and Pusa 44 respectively. The 2 GEL entries were also in the background of MTU 1010. The targeted trait introgression for NIL entries were blast, bacterial blight and yield and for GEL entries was yield. The trial was sent to 52 locations and data was not received from 7 locations viz., Kota, Chiplima, Gerua-ICAR, Radhanagari, Kathalgere, Kurumbapet, and Puducherry. Data from 5 locations viz., Pantnagar, Malda, Rewa, Brahmawar and Kanpur due to low experimental mean and from 2 locations viz., Ludhiana and Masodha due to low CV% were not considered in the analysis. Thus, data from 38 locations was included in the analysis and entries were assessed for their yield performance. The results of 2 GEL entries from background of MTU 1010 and NIL entries of blast, bacterial blight and yield are discussed in another chapter separately.

Zonal wise variation in mean performance of the entries for yield, days to fifty percent flowering (DFF), plant height (PH) and panicles per square meter (Pan/m^2) and zonal wise variation in CV and experimental mean across the locations is discussed below.

In Northern zone (II), NC is the best check with 5849 kg/ha and experimental mean ranged from 2907 (Pantnagar) to 7052 kg/ha (Kaul), overall mean from 3684 (IET 32046) to 6320 (IET 30704) and CV from 4.61 (Ludhiana) to 26.8 % (Pantnagar). DFF varied from 86 (IET 30574) to 103 days (RP-Pusa 44), PH from 93 (ZC) to 115 cm (IET 30742) and Pan/m^2 from 263 (ZC) to 325 (IET 30577).

In Eastern zone (III), LC is the best check with 4878 kg/ha and experimental mean ranged from 4461 (Malda) to 5732 kg/ha (Bankura), overall mean from 3819 (RP-Krishna Hamsa) to 6214 (IET 30579) and CV from 3.09 (Masodha) to 11.46 % (Malda). DFF varied from 91 (RP-Krishna Hamsa & IET 30574) to 103 days (RP-Pusa 44), PH from 87 (RP-Krishna Hamsa) to 117 cm (IET 30593) and Pan/m^2 from 254 (IET 30576) to 319 (LC).

In North-Eastern zone (IV), LC is the best check with 6400 kg/ha and experimental mean ranged from 5055 (Titabar) to 6010 kg/ha (Lembuchera), overall mean from 3516 (IET 30213) to 7361 (IET 30593) and CV from 9.4 (Lembuchera) to 11.92 % (Titabar). DFF varied from 82 (RP-Krishna Hamsa & IET 30719) to 103 days (IET 30740), PH from 90 (RP-Krishna Hamsa) to 121 cm (LC) and Pan/m^2 from 241 (IET 30580) to 310 (IET 30707).

In Central zone (V), NC is the best check with 5459 kg/ha and experimental mean ranged from 2995 (Rewa) to 7260 kg/ha (Jagadalpur), overall mean from 4249 (IET 32042) to 6479 (IET 30577) and CV from 5.48 (Jabalpur) to 12.46 % (Sindewahi). DFF varied from 90 (ZC) to 99 days (IETs 30575 & 30578), PH from 87 (IET 32044) to 110 cm (IET 30593) and Pan/m^2 from 215 (IET 32042) to 276 (MTU 1010).

In Western zone (VI), NC is the best check with 6305 kg/ha and experimental mean ranged from 4971 (Karjat) to 8720 kg/ha (Nawagam), overall mean from 4819 (ZC) to 7268 (IET 30573) and CV from 7.01 (Nawagam) to 14.12 % (Vyara). DFF varied from 87 (ZC) to 95 days (IET 30575), PH from 92 (ZC) to 125 cm (IET 30575) and Pan/m^2 from 242 (IET 30576) to 285 (IETs 30575 & 30587).

In Southern zone (VII), NC is the best check with 5775 kg/ha and experimental mean ranged from 3576 (Brahmawar) to 7116 kg/ha (Gangavati), overall mean from 4336 (IET 32044) to 6446 (IET 30577) and CV from 5.16 (Mandya) to 17.56 % (Mugad). DFF varied from 87 (RP-Krishna Hamsa, MTU 1010 & IET 32043) to 99 days (RP-Pusa 44), PH from 85 (Krishna Hamsa & IET 32044) to 108 cm (IET 30593) and Pan/m^2 from 320 (IET 32039) to 380 (IET 32043).

Zonal wise performance of the entries in AVT1-IME, *kharif* 2023

IET 30704 (WGL 1533) derived from a double cross of WGL 32100/MTU 1396-12-1-2-1//MTU1081/HRR2143 recorded significant yield advantage over the BVC with a mean grain yield of 6320 kg/ha with 91 days to fifty percent flowering in northern zone.

IET 30575 (RALLIS-21304) is a hybrid entry showing significant yield superiority over the BC and HC in eastern and southern zones with mean yield of 6104 and 6258 kg/ha and with a DFF of 98 and 96 days respectively.

IET 30577 (HRI-216) is a hybrid entry showing significant yield superiority over the BC and HC in eastern, central and southern zones with mean yield of 5560, 6479 and 6446 kg/ha and with a DFF of 95, 97 and 93 days respectively.

IET 30574 (RRX-3366) is a hybrid entry showing significant yield superiority over the BC and HC in northern eastern and southern zones with mean yield of 6284, 5323 and 6264 kg/ha and with a DFF of 86, 91 and 89 days respectively.

IET 30587 (SRPH-123) is a hybrid entry showing significant yield superiority over the BC and HC in eastern zone with mean yield of 5487 kg/ha and with a DFF of 94 days.

IET 30593 (LG-90303) is a hybrid entry showing significant yield superiority over the BC and HC in eastern, northern eastern, central and southern zones with mean yield of 5651, 7361, 6422 and 6286 kg/ha and with a DFF of 96, 88, 95 and 94 days respectively.

IET 30573 (SRH-333) is a hybrid entry showing significant yield superiority over the BC and HC in eastern, northern eastern and western zones with mean yield of 5361, 7287 and 7268 kg/ha and with a DFF of 97, 84 and 88 days respectively.

IET 30756 (RP 6693-16-388) derived from a cross of Swarna/MTU 1010 recorded significant yield advantage over the BVC with a mean grain yield of 5301 kg/ha with 101 days to fifty percent flowering in eastern zone.

IET 30578 (RNC-0752) is a hybrid entry showing significant yield superiority over the BC and HC in eastern, northern eastern and southern zones with mean yield of 5889, 7192 and 6097 kg/ha and with a DFF of 97, 86 and 97 days respectively.

IET 30589 (MEPH-168) is a hybrid entry showing significant yield superiority over the BC and HC in eastern zone with mean yield of 5623 kg/ha and with a DFF of 96 days.

IET 30579 (JKRH-1135) is a hybrid entry showing significant yield superiority over the BC and HC in eastern zone with mean yield of 6214 kg/ha and with a DFF of 96 days.

IET 30576 (ADVRH-162108) is a hybrid entry showing significant yield superiority over the BC and HC in southern zone with mean yield of 6073 kg/ha and with a DFF of 90 days.

Zonal wise performance of the entries in AVT1-IME, *kharif* 2023

IET No/ Designation/ Cross Combination	Mean grain yield (kg/ha)/Rank						Grain quality	Remarks
	II	III	IV	V	VI	VII		
30704 (WGL 1533) WGL 32100/MTU 1396-12-1-2-1//MTU1081/HRR2143	6320 (1) 91	-	-	-	-	-		Promoted in Z-II
30575 (Hybrid) RALLIS-21304	-	6104 (2) 98	-	-	-	6258 (4) 96		Promoted in Z-III & VII
30577 (Hybrid) HRI-216	-	5560 (6) 95	-	6479 (1) 97	-	6446 (1) 93		Promoted in Z-III, V & VII
30574 (Hybrid) RRX-3366	6284 (2) 86	5323 (9) 91	-	-	-	6264 (3) 89		Promoted in Z-II, III & VII
30587 (Hybrid) SRPH-123	-	5487 (7) 94	-	-	-	-		Promoted in Z-III
30593 (Hybrid) LG-90303	-	5651 (4) 96	7361 (1) 88	6422 (2) 95	-	6286 (2) 94		Promoted in Z-III, IV, V & VII
30573 (Hybrid) SRH-333	-	5361 (8) 97	7287 (2) 84	-	7268 (1) 88	-		Promoted in Z-III, IV & VI
30756 (RP 6693-16-388) Swarna/MTU 1010	-	5301 (10) 101	-	-	-	-		Promoted in Z-III
30578 (Hybrid) RNC-0752	-	5889 (3) 97	7192 (3) 86	-	-	6097 (5) 97		Promoted in Z-III, IV & VII
30589 (Hybrid) MEPH-168	-	5623 (5) 96	-	-	-	-		Promoted in Z-III
30579 (Hybrid)	-	6214	-	-	-	-		Promoted in Z-III

IET No/ Designation/ Cross Combination	Mean grain yield (kg/ha)/Rank						Grain quality	Remarks
	II	III	IV	V	VI	VII		
JKRH-1135		(1) 96						
30576 (Hybrid) ADVRH-162108	-	-	-	-	-	6073 (6) 90		Promoted in Z-VII
National check	**5849 89**	4845	5521	**5459 95**	**6305 90**	**5775 93**		
Zonal check	5138	4637	6367	4763	4819	5543		
Hybrid check	*5455 93*	*4916 95*	*5248 88*	*5990 96*	*6500 91*	*5680 96*		
Local check	5597	**4878 99**	**6400 88**	5251	5986	5695		
CD	390	267	755	364	449	276		

Best varietal check is in bold font and hybrid check is italicized.

Performance of the Near Isogenic Lines (NILs) in AVT1-IME

NILs in the background of MTU 1010: There are 4 NILs from the backcross populations in the background of MTU 1010. IETs 32039 and 32041 are NIL entries with trait introgressions for both bacterial blight (BB) and blast; IET 32040 for BB and IET 32042 for blast resistance.

Yield performance of the NIL entries in the background of MTU 1010 in AVT1-IME, *kharif* 2023

	Gazette notified states		Adapted areas	
Entry	**AP**	**TS**	**V**	**VII**
IET 32039	4953	5375	4928	5381
IET 32040	4448	4950	4660	5071
IET 32041	4589	5040	4898	5412
IET 32042	4753	5239	4249	5431
MTU1010 (RP)	4864	5327	5314	5499
CD	532	580	364	270
RP+CD	5396	5907	5678	5769
RP-CD	4332	4747	4950	5229

IET 32039 (RP 6529-RMS-77-98-77-23) derived from MTU1010*2/Improved Samba Mahsuri with *Xa21* and *Pi54* genes for bacterial blight and blast resistance respectively is in the first year of testing. It recorded on par yield performance with RP in Gazette notified states (AP and TS) and also in adapted areas of Z-VII. However, its Disease severity index (DSI) was higher than the RP. DSI of blast was recorded as 5.4 in IET 32039 while 4.7 in the RP and of BLB was recorded as 6.0 in IET 32039 while 5.3 in the RP. **Due to disease susceptibility of the IET 32039 over the RP, IET 32039 is dropped.**

IET 32040 (RP 6530-RMS-34-8-33-49) derived from MTU1010*2/Improved Samba Mahsuri with *Xa21* for bacterial blight resistance is in the first year of testing. It recorded on par yield performance with RP in the Gazette notified states, Andhra Pradesh and Telangana. However, its DSI was higher than the RP. DSI of BLB was recorded as 5.4 in IET 32040 while 5.3 in the RP. **Due to disease susceptibility of the IET 32040 over the RP, IET 32040 is dropped.**

NSN data of NIL entries for bacterial leaf blight

IET No.	NSN-1 Bacterial leaf blight (BLB)																								
Location	ADT	CHN	CHP	CHT	CTK	GNV	HRR	JCL	KJT	KRK	LDN	MNC	MSD	MTU	NLR	NVS	NWC	PNT	PTB	PTN	RPR	SBR	TTB	VRN	SI	BNK
Screening	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A		A
LSI	6.0	5.7	6.7	5.4	8.1	5.6	6.0	4.9	5.3	4.7	5.9	3.0	5.5	6.6	4.4	6.0	5.9	7.4	7.0	3.7	6.6	4.5	4.8	5.7		2.3
32039	3	3	7	7	3	9	1	9	7	9	5	5	7	5	5	5	7	9	9	5	7	7	5	5	6.0	3
32040	3	9	5	5	7	9	1	-	5	5	3	5	5	7	7	3	7	5	9	3	7	3	7	5	5.4	7
32041	7	3	5	7	9	7	1	7	5	3	3	7	5	7	7	5	5	3	7	3	7	5	5	3	5.3	1
MTU-1010 (RP)	5	3	5	7	9	7	7	3	5	9	3	5	5	7	5	3	5	5	5	3	5	5	5	7	5.3	3
ISM	5	3	3	5	5	5	1	3	5	9	3	5	7	5	5	7	5	1	9	3	7	0	3	5	4.5	7
TN1	7	9	9	5	9	9	9	7	7	9	7	7	9	7	7	7	9	9	7	9	7	9	5	5	2.7	9

IET 32041 (RP 6529-RMS-14-66-11-78) derived from MTU1010*2/Improved Samba Mahsuri with *Xa21* and *Pi54* genes for bacterial blight and blast resistance respectively is in the first year of testing. It recorded on par yield performance with RP in Gazette notified states (AP and TS) and also in adapted areas of Z-VII and Z-V. However, its DSI was higher than the RP. DSI of blast was recorded as 5.3 in IET 32041 while 4.7 in the RP and 2.9 in resistant check (Tetep) and of BLB was recorded as 5.3 in IET 32041 which is same as that of RP while it was 4.5 in resistant check (ISM). **Due to blast susceptibility of the IET 32041 over the RP and on par BLB reaction with RP, IET 32041 is dropped.**

IET 32042 (RP 6531-RMS-78-54-7-44) derived from MTU1010*2/Improved Samba Mahsuri with *Pi54* for blast resistance is in the first year of testing. It recorded on par yield performance with RP in Gazette notified states (AP and TS) and also in adapted areas of Z-VII. However, its DSI was higher than the RP. DSI of blast was recorded as 5.4 in IET 32042 while 4.7 in the RP and 2.9 in resistant check (Tetep). **Due to disease susceptibility of the IET 32042 over the RP, IET 32042 is dropped.**

NSN data of NIL entries for blast disease

IET No.	NSN-1 Leaf Blast (Frequency of score (0-9)																								
Location	CBT	CTK	CDL	CGT	GNV	HZB	HRR	JDP	JCL	KHD	KJT	LNV	MCD	MND	NLR	NVS	NWC	PNP	PTB	PTN	RCL	REW	WBL	SI	BNK	MTU
Screening	A	A	N	N	A	A	A	N	A	N	A	N	N	A	A	N	A	N	N	N	N	A	N		N	A
LSI	4.7	6.6	4.1	5.6	5.6	5.9	4.4	6.3	5.6	4.3	3.0	7.6	3.1	6.2	4.4	4.6	5.6	3.1	5.0	3.0	5.0	4.5	3.2		2.7	2.7
32039	2	-	4	5	4	1	0	9	5	2	1	8	3	8	3	5	8	6	9	5	5	2	5	5.4	9	0
32041	1	-	6	5	5	1	0	9	3	4	1	1	3	9	4	5	4	5	9	5	4	2	4	5.3	1	0
32042	6	-	4	5	2	8	6	9	5	6	1	1	3	9	4	5	1	6	8	2	4	3	5	5.4	5	4
MTU-1010 (RP)	6	-	5	1	1	1	3	1	5	2	5	9	3	4	4	5	5	3	2	5	4	5	5	4.7	3	4
32045	5	-	4	5	7	7	3	6	7	4	2	8	3	4	4	5	6	3	9	1	5	4	5	4.9	3	1
Krishna Hamsa (RP)	7	-	6	5	9	9	7	9	5	4	3	7	3	9	4	3	5	5	9	0	4	4	5	5.5	3	3
HR 12	7	9	6	5	9	8	7	9	9	8	2	9	5	9	6	7	8	4	9	7	8	5	2	6.9	1	7
Tetep	1	5	1	5	2	1	1	1	1	0	2	1	1	1	1	1	1	2	1		1	6	1	2.9	5	2

NILs in the background of Krishna Hamsa: IET 32045 (RP 6744-19182-1-1) derived from the cross of Krishna Hamsa/IRBB60//Krishna Hamsa/Tetep///Krishna Hamsa/IR 96321-1447-561-B-1//Krishna Hamsa/IR81896-96-B-B-195////Krishna Hamsa/IR 74371-46-1-1-13//Krishna Hamsa/DSB2 with *Pi9+Pi1+Pi20+Pi38* for blast resistance is in the first year of testing. It recorded on par yield performance in all the states/zones in which it was evaluated. Further, DSI of IET 32045 for blast was 4.9 while of RP was 5.5 and of resistance check (Tetep) was 2.9. **Considering its on par yield performance with RP and improved disease reaction over its RP, IET 32045 is promoted to 2nd year of testing.**

Yield performance of the NIL entry IET 32045 in the background of Krishna Hamsa in AVT1-IME, *kharif* 2023

Entry	OD	BI	JK	WB	UP	III	AS	TR	IV	AP	TS	TN	KE	KA	PD	VII
IET 32045	3794	4179	2755	4745	5977	4323	5214	6068	5641	4476	3944	5763	5054	4760	3419	4529
Krishna Hamsa (RP)	3391	3781	2582	4011	5410	3819	4590	4239	4415	4114	3915	4791	5384	5127	3345	4542
CD	478	466	587	431	691	267	1075	927	755	532	580	693	785	622	1134	270
RP+CD	3869	4247	3169	4442	6101	4086	5665	5166	5170	4646	4495	5484	6169	5749	4479	4812
RP-CD	2913	3315	1995	3580	4719	3552	3515	3312	3660	3582	3335	4098	4599	4505	2211	4272

NILs in the background of Pusa 44: IET 32046 (Gauri- Pusa 44 *qGN4.1*) derived from the cross of Pusa 44*3/RIL HG 28 with targeted introgression of *qGN4.1* for high grain number is in the first year of testing. It recorded significant yield improvement over the RP in Uttar Pradesh, Kerala and Puducherry. On zonal basis, it recorded significant inferior yield performance in northern, eastern and southern zones and also in the states of Haryana, Odisha, Bihar, West Bengal, Andhra Pradesh, Telangana, Tamil Nadu and Karnataka. Considering its significant yield advantage in the gazette notified state (Kerala) of the RP, **IET 32046** is promoted to AVT2-IME.

Yield performance of the NIL entry IET 32046 in the background of Pusa 44 in AVT1-IME, *kharif* 2023

Entry	HA	UP	II	OD	BI	JK	WB	UP	III	AP	TS	TN	KE	KA	PD	VII
IET 32046	5378	1989	3584	4234	3070	2730	4809	5419	4132	4082	4464	4688	6203	5423	6978	5122
PUSA 44 (RP)	5711	3808	4760	4276	5154	3222	4976	3733	4527	4835	5165	5655	5045	5222	3469	5054
CD	771	491	390	478	466	587	431	691	267	532	580	693	785	622	1134	270
RP+CD	6482	4299	5150	4754	5620	3809	5407	4424	4794	5367	5745	6348	5830	5844	4603	5324

The following entries are promoted to AVT2-IME

- **IET 30704: Promoted in Z-II**
- **IET 30575: Promoted in Z-III & VII**
- **IET 30577: Promoted in Z-III, V & VII**
- **IET 30574: Promoted in Z-II, III & VII**
- **IET 30587: Promoted in Z-III**
- **IET 30593: Promoted in Z-III, IV, V & VII**
- **IET 30573: Promoted in Z-III, IV & VI**
- **IET 30756: Promoted in Z-III**
- **IET 30578: Promoted in Z-III, IV & VII**
- **IET 30589: Promoted in Z-III**
- **IET 30579: Promoted in Z-III**
- **IET 30576: Promoted in Z-VII**

NILs promoted for second year of testing in AVT2-IME: IETs 32045 and 32046

INITIAL VARIETY TRIAL -IRRIGATED MIDEARLY (IVT- IME)

Locations: 52 **Test Entries: 64**

Checks: Gontra Bidhan-3 (National); PR 113-(Northern), Lalat (Eastern and North Eastern), Karjat 7 (Western), MTU 1010 (Central and Southern)-Zonal and Local Check **Table: 5c**

Initial variety trial –Irrigated Mid Early (IVT- IME) was constituted with 61 test entries and 3 checks namely Gontra Bidhan-3 (National check); Zonal checks -PR 113 (Northern), Lalat (Eastern and North Eastern), MTU1010 (Central & Southern), Karjat 7 (Western) and Local check. The trial was sent to 53 locations however data was not received from 9 locations namely Kota, Bankura, Gerua – ICAR, Rewa, Bilaspur, Kathalgere, Kurumbapet, Puducherry and Karaikal. Data from nine centers was excluded from analysis viz., Pantnagar, Chata, Kanpur, Jaypore, Ranchi, Lembucherra, Masodha, Brahmavar,and Ambhikapur due to either due to low (<5%) / high CV (20%) or low experimental yield (<4000Kg/ha) or based on nonsignificant F Value.

Among the centres from which data is included in analysis, location-wise mean grain yield ranged from 4034 kg/ha (Nawagam) to 7623 kg/ha (Mugad) while CV ranged from 5.21% (Jabalpur) to 17.96% (Mugad). Overall mean grain yield of the entries ranged from 4529 kg/ha (IET31585) to 6272 kg/ha (IET31603); days to 50% flowering from 89 days (IET31585) to 111 days (IET31577); plant height ranged from 89cm (IET31575) to 122cm (IET31598); number of panicles per square ranged from 236 (IET31578) to 309 (IET 31571).

Performance of the entries on overall mean basis

Among the varietal checks, national check was the highest yielder (5647 Kg/ha) followed by local check (5426kg/ha) and zonal check (5037 Kg/ha). The data pertaining to yield, days to 50% flowering, plant height, panicles/m^2 and quality are presented in tables 4c.2.and 4c.3 respectively. The Overall mean grain yield of the entries ranged from 5610 kg/ha (IET31596) to 6272 kg/ha (IET31603). Based on the overall performance entries namely IET 31603, IET 30713, IET 30692 and IET 31589 performed superior for grain yield by comparing with best check and CD value. Hence these entries were promoted for All India coordinated trial for 2nd year testing on overall basis.

Performance of the entries on overall mean basis IVT- IME, Kharif 2023

Rank	IET No/ Designation/ Cross Combination	Grain Yield	50% DFF	Grain Type	Remarks
1	IET 31603/YNPK-7258// (YNP-85 / YNP27)	6272	99	SB	Promoted
2	IET 30713/CR 4077-1357-5-4-2-1-1/ (PKV HMT/Vandana)	5900	103	MS	Promoted
3	IET 30692/NDR 8806-TFR-3/ (MTU1010/Bauni Pusa Basmati Mutant)	5877	103	LS	Promoted
4	IET 31589/ CR 4415-3-1-3-1-3-1// (CR 3562-2-1-2-1-1-1)	5873	102	SB	Promoted for AVT1-IME in Zone III
	Gontra Bidhan-3 (NC)	5647	94		
	Zonal check (ZC)	5037	93		
	Local check (LC)	5426	97		
	CD	210			

Zonal performance of the entries

Northern Zone (Zone II)

The trial was evaluated at six locations viz., Pantnagar (Uttarkhand), Ludhiana (Punjab), Kaul (Haryana), Chatha (Jammu Kashmir) Nagina and Kanpur (Uttar Pradesh) covering five states of Northern Zone and the data from Kota (Rajasthan) was not received thus this location is not included for analysis. The data received from Pantnagar, Kanpur and Chatha were also not included in analysis due to high CV% value or low experimental mean value. Experimental mean yield of the locations considered for analysis ranged from 1822 kg/ha (Pantnagar - Uttarakhand) to 5560 kg/ha (Kaul-Haryana) and CV% from 6.23% (Kaul) to 37.10% (Pantnagar). Zonal mean yield of the entries varied from 2867 kg/ha (IET 31588) to 5986 kg/ha (IET 31611); days to 50% flowering ranged from 82 days (IET 31586) to 125 days (IET 31612); plant height ranged from 80 cm (IET 31570) to 119cm (IET 30743) and panicles per square meter ranged from 242 (IET 31604) to 328(IET 31603). In Zone II, Zonal check was the best check followed by local check and national check which yielded 5729, 5699 and 5388 kg/ha respectively. In Zone II, none of the entries recorded significant superior yield performance hence none promoted to next year.

Eastern Zone (Zone III)

The trial was evaluated at twelve locations viz., ICAR–NRRI-Cuttack, Jeypore, Chiplima (Odisha), Bikramganj-Dhaangain, Sabour (Bihar), Ranchi (Jharkhand), Chinsurah, Hathwara, Malda, Bankura (West Bengal) and Masodha, Varanasi (Uttar Pradesh) covering five states of Eastern Zone. Data from Bankura not received thus this location is not included for analysis. Data from Jeypore, Ranchi and Masodha was not considered for analysis due to low CV% value or low experimental mean value. Experimental mean yield at the locations ranged from 1855 kg/ha (Jeypore) to 6068 kg/ha (Bikramganj- Dhaangain) and CV% from 8.80 (Sabour) to 15.05(Hathwara). Among the checks national check was the best check followed by local check and zonal check, which yielded 5050, 4776 and 4419 kg/ha respectively. Mean yield of the entries ranged from 4010 kg/ha (IET 30804) to 5717 kg/ha (IET 30713); days to 50% flowering ranged from 89 days (IET 30804) to 111 days (IET 31577); plant height ranged from 94 cm (IET 31571 and IET 31575) to 112 cm (IET 31604) and panicles per square meter ranged from 178 (IET 31578) to 274(IET 31571).

In zone III, entries namely IET 30649, IET 30713, IET 31572, IET 31603 recorded significant superior yields over the best check and are promoted to 2nd year of testing in IVT-2-IME (Zone III).

Performance of the entries IVT- IME, Zone III, Kharif 2023

Rank	IET No/ Designation/ Cross Combination	Grain Yield	50% DFF	Grain Type	Remarks
1	IET 30713/CR 4077-1357-5-4-2-1-1/ (PKV HMT/Vandana)	5717	101	MS	Promoted
2	IET 30649 / CR 4396-1-13-11 / (Lalat MAS/CR Dhan 801 // 3* Lalat MAS)	5597	102	LS	Promoted
3	IET 31572 / KNM 13568 / (MTU1156/WGL 1097 / / MTU NSI)	5509	97	LS	Promoted for AVT1-IME in Zone III
4	IET 31603 YNPK -7258 / (YNP 85/ YNP 27)	5500	98	SB	Promoted
	Gontra Bidhan-3 (NC)	5050	95		
	Zonal check (ZC) Lalat	4419	96		
	Local check (LC)	4776	94		
	CD	391			

North Eastern Zone (Zone IV)

The trial was sent for evaluation at three locations viz., Titabar, Gerua-ICAR, Lembucherra covering two states of Northern Zone and the data from Gerua-ICAR was not received thus this location is not included for analysis. The data received from Lembucherra is also not included in analysis due to low experimental mean value. Experimental mean yield at the Titabar location is 5289 kg/ha and CV% is 9.20. Mean yield of the entries ranged from 2963 kg/ha (Gontra Bidhan-3 (NC)) to 6835 kg/ha (IET 31608); days to 50% flowering ranged from 88 days (IET 31599) to 128 days (IET 31577); plant height ranged from 92 cm (IET 31575) to 132 cm (Local Check) and panicles per square meter ranged from 213 (IET 31578) to 393 (IET 31606). Among the checks local check was the best check followed by zonal check and national check, which yielded 5459, 5152 and 2963 kg/ha respectively. In Zone IV, IET 31608, IET 31611, IET 31594, IET 31587, were top performing entries and were promoted for 2nd year of testing in IVT-IME (Zone IV).

Performance of the entries IVT-IME, Zone IV, Kharif 2023

Rank	IET No/ Designation/ Cross Combination	Grain Yield	50% DFF	Grain Type	Remarks
1	IET 31608/CR 4396-291-2-6//(Lalat MAS* 2/ CR Dhan 801)	6835	106	MS	Promoted
2	IET 31611/RP 6746 – IR 17 A2831 // (IR 98418-B-B-15/ IR 11A293)	6770	103	LS	Promoted
3	IET 31594/ RNR 38966// (V6/RNR 25993)	6732	102	LS	Promoted
4	IET 31587/ NWGR-17075//(Gujari/IET 20575/5-2-1-1-2-2-1)	6637	101	M	Promoted
	Gontra Bidhan-3 (NC)	2963	95		
	Zonal check (ZC) Lalat	5152	104		
	Local check (LC)	5459	114		
	CD	973			

Central Zone (Zone V)

The trial was sent to eight locations viz., Rewa, Jabalpur (MP), Raipur, Ambikapur, Bilaspur and Jagadalpur (Chhattisgarh), Sakoli and Sindewahi (Maharashtra) and data from Bilaspur and Rewa were not received. The data obtained from Ambikapur station was not included in analysis due to NS F value. Experimental mean yield at the locations ranged from 4345 kg/ha (Sakoli) to 6550 kg/ha (Jagadalpur) and CV% ranged from 5.21 (Jabalpur) to 16.82 (Jagadaplur). Mean yield of the entries ranged from 4147 kg/ha (IET 31587) to 6426 kg/ha (IET 31603); days to 50% flowering ranged from 95 days (IET 31602) to 117 days (IET 31577); plant height ranged from 79 days (IET 31586 and IET 31589) to 103 days (IET 31570) and panicles per square meter ranged from 192 (IET 31562) to 271 (IET 30692). Among the checks national check was the best check followed by zonal check and local check, which yielded 5979, 5628 and 5321 kg/ha respectively. In Zone V, none of the entries recorded significant superior yield performance over best check, **hence none promoted to next year of testing.**

Western Zone (Zone VI)

The trial was sent for evaluation at six locations viz., Karjat, Vadagaon, Radhanagari (Maharashtra), Navsari, Nawagam, Vyara (Gujarat). Experimental mean yield at the locations ranged from 4034 kg/ha (Nawagam) to 5369 Kg/ha (Karjat) and CV% ranged from 10.31(Nawagam) to 15.45 (Vyara). Mean yield of the entries ranged from 3396 kg/ha (IET31585) to 6157 kg/ha (IET 31603); days to 50% flowering ranged from 87 days (IET 30804) to 110 days (IET 31612); plant height ranged from 96 cm (IET 31575) to 184 cm (IET 31598) and panicles per square meter ranged from 225 (IET 31578) to 313 (IET 30713). Among the checks national check was the best check followed by local check and zonal check, which yielded 5431, 4944 and 3893 kg/ha respectively. In Zone VI, IET 31603 was top performing entry with significant yield superiority over best check and was promoted for 2nd year of testing in IVT-IME (Zone IV).

Performance of the entries IVT-IME, Zone VI, Kharif 2023

Rank	IET No/ Designation/ Cross Combination	Grain Yield	50% DFF	Grain Type	Remarks
1	IET 31603/YNPK -7258 / (YNP 85/ YNP 27)	6157	100	SB	Promoted
	Gontra Bidhan-3 (NC)	5431	93		
	Zonal check (ZC) Kajarat - 7	3893	91		
	Local check (LC)	4944	91		
	CD	511			

Southern Zone (Zone VII)

The trial was sent to 15 locations viz., Maruteru, Ragolu (Andhra Pradesh), Rajendranagar, Kunaram, Warangal (Telangana), Aduthurai, Coimbatore, (TN), Moncompu, Pattambi (Kerala) Mandya, Mugad, Brahmavar, Gangavathi and Kathalgere (Karnataka), Kurumbapet, Puducherry and Karaikal (Pondicherry). The experimental data was not obtained Kathalgere, Kurumbapet, Puducherry and Karaikal and data obtained from Brahmavar reported low experimental yield, hence this location is not included in analysis. Experimental mean yield at the locations ranged from 4670 kg/ha (Moncompu) to 7623 Kg/ha (Mugad) and CV% ranged from 6.46 (Mandya) to 17.96 (Mugad). Mean yield of the entries ranged from 5080 kg/ha (IET 31585) to 6919 kg/ha (IET 31603); days to 50% flowering 87 days (IET 31569, IET 31599, ZC, IET 31614) to 107 days (IET 31577); plant height ranged from 85 cm (IET 31575) to 115 cm (IET 31570) and panicles per square meter ranged from 277 (IET 31568) to 378(IET 31571). Among the checks national check was the top yielder (6303 Kg/ha) followed by local check (6073 Kg/ha) and zonal check (5591 Kg/ha). In Zone VII three entries IET 31603, IET 31589 and IET 31582 entries recorded significant superior yield performance over best check, hence these are promoted to 2nd year of testing in zone VII.

Performance of the entries IVT-IME, Zone VII, Kharif 2023

Rank	IET No/ Designation/ Cross Combination	Grain Yield	50% DFF	Grain Type	Remarks
1	IET 31603/YNPK-7258// (YNP-85 / YNP27)	6919	97	SB	Promoted
2	IET 31589/ CR 4415-3-1-3-1-3-1// (CR 3562-2-1-2-1-1-1	6844	99	SB	Promoted
3	IET 31582/ BRR0287-IR143532-95-1-1-177-44-4// (DRRdhan44/ NX3533::IRGC63796)	6816	94	LS	Promoted
	Gontra Bidhan-3 (NC)	6303	92		
	Zonal check (ZC) Lalat	5591	87		
	Local check (LC)	6073	98		
	CD	392			
	BC+CD	6695			

SUMMARY
INITIAL VARIETY TRIAL- Irrigated Mid Early (IVT-IME)- Kharif 2023

Locations: 43
Test entries: 64

Checks: National - Gontra Bidhan-3;
Zonal- PR 113 (Northern), Lalat(Eastern and North Eastern), MTU1010 (Central & Southern), Kajrat 7 (Western)
Local check

IVT-IME The trial comprised of 64 test entries and three checks and tested in 43 locations.

List of the entries promoted in IVT-IME
Overall: IET 31603, IET 30713, IET 30692, IET 31589
Zone II: None of the entries promoted
Zone III: IET 30649, IET 30713, IET 31572, IET 31603
Zone IV: IET 31608, IET 31561, IET 31594, IET 31587
Zone V: None of the entries promoted
Zone VI: IET 31603
Zone VII: IET 31603, IET 31589 and IET 31582

Table No. 4a.1 : Composition of entries in Advance Variety Trial 2- Irrigated Mid Early (AVT 2 – IME), Kharif 2023.

Entry No.	IET No.	Designation	Cross Combination	GT	Zones	Trait
3rd year of testing:						
3601	29304	R 2454-1-R1-10	KM / IRBB 59	MB		
3602	29822	ORJ 1342 (TP 29409)	IR 10M300	MB		
3603	29808	RP 6317-RMS-S35-BC_2F_4-49-25-12-24	MTU 1121* 2 / Swarna	LS		
3604	29188	WGL 1355	WGL 347 / HKR 06-47	LS		
3605	**Gontra Bidhan-3 (NC)**					
3606	29820	OR 2517-8	OR 2006-25 / IR 65629-22-1	MS		
3607	29717	***RRX-271***	***Hybrid***	LS		
3608	29734	***PHI-21104***	***Hybrid***	LB		
3609	29708	***MALI-348***	***Hybrid***	LS		
3610	**PR 113-Northern, Lalat-Eastern and North Eastern, MTU 1010-Central and Southern, Karjat 7-Western-- ZC**					
3611	29726	***PHI-21103***	***Hybrid***	LS		
3612	29738	***RNC-0457***	***Hybrid***	LS		
3613	**US 312 (HC)**					
3614	**Local Check (LC)**					
2nd year of testing (NILs):						
3615	30697	KR 19011	ADT 39*4 / Swarna Sub-1	MS	VII	SUB
3616	30695	KR 19015	ADT 39*4 / Swarna Sub-1	MS	VII	SUB
3617	**ADT 39 (RP)**			MS	VII	
3618	30282	CR 4331-74-2-2-1	Naveen*3 / CR 3006-8-2	MS	III, IV	BPH
3619	29203	CR 4331-85-1-1-1	Naveen*3 / CR 3006-8-2	MS	III, IV	BPH
3620	**Naveen (RP)**			MS	III, IV	
3rd year of testing:						
3621	29217 (R)	Pusa 2090-17-20	Pusa 44 / CB 501	LB		

Table No. 4a.2: Grain Yield (kg/ha) in AVT 2 - IME, Zone 2,5 & 6, Kharif 2023

Entry No	IET No	ZONE II - NORTHERN									
		Punjab (1)		Haryana (1)		Jammu Kashmir (1)		Uttar Pradesh (1)		Zone II(4)	
		Ludhiana		Kaul		Chatha		Nagina		Mean	
3601	29304	6824	1 * #	5289		4011	8	5057	3 *	5295	8
3602	29822	5475		6822	8	3456		3333		4772	
3603	29808	4364		6111				3339		4605	
3604	29188	4497		6778	9			3085		4787	
3605	Gontra Bidhan-3 (NC)	6182	7 #	5711		4333	3	2845		4768	
3606	29820	4946		6644	10	3978	10	3025		4648	
3607	29717	5417		8022	4 *	3867		4484	6	5448	6
3608	29734	6312	5 #	8311	3 *	4600	2	5368	1 *	6148	2 * #
3609	29708	6599	2 #	6622		4133	7	3655	10	5252	9
3610	PR 113 (ZC)	5566	10	7111	7	4000	9	4318	7	5249	10
3611	29726	6390	4 #	8756	1 * #	4200	6	3794	9	5785	3
3612	29738	6488	3 #	8689	2 * #	5378	1 * #	5090	2 *	6411	1 * #
3613	US 312 (HC)	5620	9	7889	5	4333	3	4891	4 *	5683	4
3614	Local Check (LC)	6272	6 #	7178	6	4267	5	4283	8	5500	5
3621	29217 (R)	6009	8	5467				4624	5	5367	7
Exp. Mean		**5797**		**7027**		**4213**		**4079**		**5314**	
F Value		**16.04(p<0.0001)S**		**15.84(p<0.0001)S**		**2.86(p<0.0144)S**		**20.88(p<0.0001)S**		**17.71(p<0.0001)S**	
CD		514		765		744		502		351	
CV%		**5.3**		**6.51**		**10.43**		**7.35**		**3.95**	
D/S		26-06-2023		30-06-2023		19-06-2023		26-06-2023			
D/P		26-07-2023		08-02-2023		23-07-2023		15-07-2023			
Local Check Name		PR 130		HKR-47		SJR-5		Sarju 52			

Table No. 4a.2 (Contd).: Grain Yield (kg/ha) in AVT 2 - IME, Zone 2,5 & 6, Kharif 2023

Entry No	IET No	ZONE V - CENTRAL											
		Chhattisgarh						Chhattisgarh (3)		Maharashtra 1(1)		Zone V (4)	
		Raipur		Jagadalpur		Bilaspur		Mean		Sakoli		Mean	
3601	29304	6790	6	4615		7250	10	6218		5820	7	6119	9
3602	29822	6385	9	7409	2	6986		6927	8	5862	6	6661	5
3603	29808	6126		5807	9	7000		6311		5320	8	6063	10
3604	29188	5974		6999	3	8069	6	7014	6	3709		6188	8
3605	Gontra Bidhan-3 (NC)	7641	4	6454	6	7264	8	7120	5	4344		6426	7
3606	29820	6768	7	5668	10	7264	8	6567	10	4498	10	6050	
3607	29717	6322	10	5108		8278	3	6569	9	4060		5942	
3608	29734	8122	2	7535	1	8611	2	8089	1 * #	6951	1 *	7805	1 * #
3609	29708	7124	5	6887	4	8792	1	7601	2	6133	4	7234	2 *
3610	PR 113 (ZC)	3613		4732		6542		4962		2427		4329	
3611	29726	7687	3	6763	5	7944	7	7465	3	5960	5	7089	3
3612	29738	8201	1	5414		8264	4	7293	4	4267		6537	6
3613	US 312 (HC)	6761	8	6112	7	8097	5	6990	7	6340	3 *	6828	4
3614	Local Check (LC)	5008		6048	8	5319		5458		5160	9	5384	
3621	29217 (R)	5613		3946		7097		5552		6549	2 *	5801	
Exp. Mean		**6542**		**5967**		**7519**		**6676**		**5160**		**6297**	
F Value		**8.03(p<0.0001)S**		**3.23(p<0.0032)S**		**2.79(p<0.0085)S**		**7.44(p<0.0001)S**		**11.14 (p<0.0001)S**		**11.40(p<0.0001)S**	
CD		1188		1648		1475		867		1023		671	
CV%		**10.86**		**16.52**		**11.73**		**7.77**		**11.86**		**6.37**	
D/S		30-06-2023		45053		27-06-2023				29-06-2023			
D/P		27-07-2023		29-07-2023		27-07-2023				25-07-2023			
Local Check Name		IGKVR2		IGKVR 1		Chandra				PKV GANESH			

Table No. 4a.2 (Contd).: Grain Yield (kg/ha) in AVT 2 - IME, Zone 2,5 & 6, Kharif 2023

Entry No	IET No	ZONE VI -WESTERN									
		Maharashtra 2				Maharashtra 2 (2)		Maharashtra (3)		Gujarat	
		Karjat		Vadagaon		Mean		Mean		Navasari	
3601	29304	3824		5533	9	4679		5059	9	5975	10
3602	29822	4732	9	5710	8	5221	8	5435	7	6062	9
3603	29808	3968		4903		4436		4730		5476	
3604	29188	4260		5471	10	4866	10	4480		5753	
3605	Gontra Bidhan-3 (NC)	4989	8	4299		4644		4544		6726	6
3606	29820	5038	7	4550		4794		4695		6513	7
3607	29717	4719	10	5768	7	5244	6	4849	10	6149	8
3608	29734	5646	4	6939	4	6293	4 *	6512	2*	7906	1
3609	29708	5830	3	7464	1	6647	2 *	6476	3*	7377	2
3610	PR 113 (ZC)	4548		4970		4759		3982		5850	
3611	29726	4354		6113	6	5234	7	5476	6	5792	
3612	29738	6820	1	7267	2	7044	1 * #	6118	5*	6823	4
3613	US 312 (HC)	5398	5	6997	3	6198	5 *	6245	4	6768	5
3614	Local Check (LC)	5232	6	4817		5025	9	5070	8	7128	3
3621	29217 (R)	6617	2	6493	5	6555	3 *	6553	1*	5086	
Exp. Mean		**5065**		**5819**		**5442**		**5348**		**6359**	
F Value		**5.88(p<0.0001)S**		**16.52(p<0.0001)S**		**23.58(p<0.0001)S**		**21.10(p<0.0001)S**		**2.29(p<0.0268)S**	
CD		991		683		479		499		1384	
CV%		**11.7**		**7.02**		**5.26**		**5.58**		**13.01**	
D/S		24-06-2023		27-06-2023						20-06-2023	
D/P		18-07-2023		31-07-2023						07-12-2023	
Local Check Name		Karjat-3		Pawana						GNR-3	

Table No. 4a.2 (Contd).: Grain Yield (kg/ha) in AVT 2 - IME, Zone 2,5 & 6, Kharif 2023

Entry No	IET No	ZONE VI -WESTERN									
		Gujarat				Gujarat (3)		Zone VI (5)		Overall Mean (13)	
		Nawagam		Vyara		Mean		Mean			
3601	29304	9542	1	4282		6600	5	5831	7	5755	6
3602	29822	6211		4900	5	5724		5523		5642	9
3603	29808	7798	7	3955		5743		5220		5347	
3604	29188	6628		4731	7	5704		5369		5496	
3605	Gontra Bidhan-3 (NC)	8048	6	5385	2	6720	4	5889	6	5709	7
3606	29820	8133	5	4775	6	6474	6	5802	8	5523	
3607	29717	7351	8	4408	10	5969	10	5679	10	5689	8
3608	29734	9082	2	4577	8	7188	1 #	6830	2 * #	6920	1 * #
3609	29708	9054	3	4564	9	6998	2	6858	1 * #	6480	3 *
3610	PR 113 (ZC)	5152		4111		5038		4926		4842	
3611	29726	8457	4	6315	1	6855	3	6206	5	6348	4 *
3612	29738	7222	10	4987	3	6344	7	6624	3 *	6532	2 *
3613	US 312 (HC)	6965		4974	4	6236	8	6220	4	6242	5 *
3614	Local Check (LC)	7313	9	4190		6210	9	5736	9	5555	
3621	29217 (R)	5500		3696		4761		5478		5558	10
Exp. Mean		**7497**		**4657**		**6171**		**5879**		**5842**	
F Value		**10.51(p<0.0001)S**		**2.58(p<0.0137)S**		**6.13(p<0.0001)S**		**11.65(p<0.0001)S**		**23.61(p<0.0001)S**	
CD		1076		1161		769		459		305	
CV%		**8.58**		**14.91**		**7.45**		**4.67**		**3.12**	
D/S		21-06-2023		20-06-2023							
D/P		08-07-2023		21-07-2023							
Local Check Name		Mahisagar		GNR-3							

Table No. 4a.2 (Contd).: Grain Yield (kg/ha) in AVT 2 - IME, (Trial Not Considered), Zone 2,5 & 6, Kharif 2023

Entry No	IET No	Trial not considered													
		Uttarakhand (0)		Uttar Pradesh		Madhya Pradesh (0)				Chhattisgarh		Maharashtra		Maharashtra 2	
		@Pantnagar		@Kanpur		@Rewa		@Jabalpur		@Ambikapur		@Sindewahi		@Radhanagari	
3601	29304	1661	8	3956	3	2135		4733		5424		4075	5	2807	
3602	29822	762		4193	2	5375	2	4927		6727	5	3099		2518	
3603	29808	608		2838	8	2636	10	6477	7	5212		3211		3763	8
3604	29188	1424		2889	7	4128	6	5423	9	6364	7	3456	10	3965	5
3605	Gontra Bidhan-3 (NC)	1998	3	2687	9	3757	7	5230		5970	9	3361		5099	1
3606	29820	274		2331		2529		5807	8	5212		4667	4	3956	6
3607	29717	1568	10	3082	6	6261	1	5370	10	7364	3	3715	9	4041	4
3608	29734	1916	5	2511		4463	5	8137	1	7273	4	5079	1	3427	9
3609	29708	2075	2	2653	10	4547	4	7617	2	5758	10	3909	8	2527	
3610	PR 113 (ZC)	1921	4	3691	4	1347		6887	5	3545		3418		2720	
3611	29726	2622	1	2460		1294		7070	4	6303	8	4809	2	3302	10
3612	29738	1792	6	3500	5	3560	8	5290		8303	1	4735	3	4543	3
3613	US 312 (HC)	1598	9	2396		5329	3	6510	6	6667	6	4034	6	3822	7
3614	Local Check (LC)	1677	7	4298	1	2441		7072	3	5121		3966	7	2428	
3621	29217 (R)	1449		2413		3223	9	4357		8152	2	3333		4839	2
Exp. Mean		**1556**		**3060**		**3535**		**6060**		**6226**		**3925**		**3584**	
F Value		**6.83(p<0.0001)S**		**13.11(p<0.0001)S**		**27.28(p<0.0001)S**		**57.24(p<0.0001)S**		**55.40(p<0.0001)S**		**6.69(p<0.0001)S**		**14.02(p<0.0001)S**	
CD		641		522		777		407		459		671		633	
CV%		**24.63**		**10.19**		**13.14**		**4.02**		**4.41**		**10.23**		**10.55**	
D/S		24-06-2023		07-03-2023		07-04-2023		23-06-2023		29-06-2023		29-06-2023		21-06-2023	
D/P		20-07-2023		08-12-2023		14-08-2023		19-07-2023		44934		20-07-2023		20-07-2023	
Local Check Name		Pant Dhan 12		BC9-29-2021		MTU 1010		Kranti		RF-105		PDKV-GANESH		Phule Radha	

Table No. 4a.2 (Contd).: Grain Yield (kg/ha) in AVT 2 - IME, Zone 3 & 4, Kharif 2023

Entry No	IET No	ZONE III - EASTERN									
		Odisha				Odisha (2)		Bihar			
		ICAR-NRRI (Cuttack)		Chiplima		Mean		Bikramganj		Sabour	
3601	29304	5417		4495	10	4956		5386	8	5240	7
3602	29822	4613		4244		4429		6738	1	6187	2
3603	29808	4937		5046	4	4992		6086	6	5807	3
3604	29188	4770		5417	2	5094	8	6515	2	5226	8
3605	Gontra Bidhan-3 (NC)	5737	4	4024		4881		4401		6611	1
3606	29820	5973	1	5046	4	5510	2	5992	7	5052	10
3607	29717	4783		4417		4600		5023	9	4520	
3608	29734	5867	2	4529	8	5198	4	6096	5	5705	4
3609	29708	5563	8	4483		5023	10	3738		5349	5
3610	PR 113 (ZC)	4037		3843		3940		4093		4095	
3611	29726	5487	9	4726	6	5107	6	6481	3	4691	
3612	29738	5697	6	5644	1	5671	1 *	6204	4	5329	6
3613	US 312 (HC)	5143		5374	3	5259	3	4432	10	5183	9
3614	Local Check (LC)	5780	3	4344		5062	9	4173		3729	
3618	30282	5603	7	4622	7	5113	5	3049		3542	
3619	29203	5707	5	4502	9	5105	7	3559		4192	
3620	Naveen (RP)	5470	10	4147		4809		3074		3586	
3621	29217 (R)	4463		3048		3756		3750		3684	
Exp. Mean		**5280**		**4553**		**4917**		**4933**		**4874**	
F Value		**4.48(p<0.0001)S**		**8.03(p<0.0001)S**		**7.94(p<0.0001)S**		**24.48(p<0.0001)S**		**12.23(p<0.0001)S**	
CD		723		635		490		708		727	
CV%		**8.25**		**8.40**		**6.01**		**8.65**		**8.99**	
D/S		22-06-2023		45206				26-06-2023		26-06-2023	
D/P		28-07-2023		22-08-2023				27-07-2023		17-07-2023	
Local Check Name		CR DHAN 805		MTU-1156				Sabour Harshit		Rajendra Suwasini	

Table No. 4a.2 (Contd).: Grain Yield (kg/ha) in AVT 2 - IME, Zone 3 & 4, Kharif 2023

Entry No	IET No	ZONE III - EASTERN									
		Bihar (2)		Jharkhand (1)		West Bengal				West Bengal (2)	
		Mean		Ranchi		Chinsurah		Hatwara		Mean	
3601	29304	5313	9	3285		6367	6	4552		5460	10
3602	29822	6463	1 *	16600	1 *	25542		5907	2	5725	6 *
3603	29808	5947	2	85353	2	5799		5650	4	5725	6 *
3604	29188	5871	4	74167	10	6086	9	5729	3	5908	5 *
3605	Gontra Bidhan-3 (NC)	5506	8	3528		4757		4432		4595	
3606	29820	5522	7	2737		5858		4867	9	5363	
3607	29717	4772		4501	8	6180	7	4649		5415	
3608	29734	5901	3	74866	5	6517	4	5618	5	6068	3 *
3609	29708	4544		4805	6	6394	5	5933	1	6164	1 *
3610	PR 113 (ZC)	4094		5292	3	5356		4659		5008	
3611	29726	5586	6	3984		6160	8	4983	8	5572	9
3612	29738	5767	5	4744	7	6809	1	5269	7	6039	4 *
3613	US 312 (HC)	4808	10	4379	9	6711	2	5482	6	6097	2 *
3614	Local Check (LC)	3951		3923		5475		4571		5023	
3618	30282	3296		2950		6573	3	4811	10	5692	8 *
3619	29203	3876		2950		5935	10	4657		5296	
3620	Naveen (RP)	3330		2737		5442		4434		4938	
3621	29217 (R)	3717		5170	4	4924		4117		4521	
Exp. Mean		**4903**		**4221**		**5938**		**5018**		**5478**	
F Value		**29.93(p<0.0001)S**		**17.21(p<0.0001)S**		**2.05(p<0.0332)S**		**4.72(p<0.0001)S**		**4.58/(p<0.0001)S**	
CD		503		701		1203		715		657	
CV%		**6.18**		**10.01**		**12.21**		**8.58**		**7.23**	
D/S				26-06-2023		45084		45084			
D/P				20-07-2023		17-08-2023		45054			
Local Check Name				BVD-203		Muktosree (IET 21845)		Latat			

Table No. 4a.2 (Contd).: Grain Yield (kg/ha) in AVT 2 - IME, Zone 3 & 4, Kharif 2023

Entry No	IET No	ZONE III - EASTERN				ZONE IV - NORTH EASTERN				Overall Mean (9)	
		Uttara Pradesh (1)		Zone III (8)		Assam (1)		Zone IV (1)			
		Varanasi		Mean		Titabar		Mean			
3601	29304	5715	8	5057	10	5657	7	5657	7	5124	10 *
3602	29822	6042	5	5734	1 * #	4642		4642		5613	2 *
3603	29808	5214		5487	3 *	5922	3	5922	3	5535	3 *
3604	29188	5618	9	5441	5 *	5705	6	5705	6	5470	4 *
3605	Gontra Bidhan-3 (NC)	3378		4609		5547	8	5547	8	4713	
3606	29820	6248	2	5222	9 *	5879	4	5879	4	5295	8 *
3607	29717	5363		4930		6343	2	6343	2	5087	*
3608	29734	5460	10	5582	2 *	6971	1 * #	6971	1 * #	5737	1 * #
3609	29708	5832	7	5262	8 *	5835	5	5835	5	5326	7 *
3610	PR 113 (ZC)	4293		4459		5439	10	5439	10	4567	
3611	29726	6518	1	5379	6 *	4218		4218		5250	9 *
3612	29738	4132		5479	4 *	5266		5266		5455	5 *
3613	US 312 (HC)	6248	2	5369	7 *	5384		5384		5371	6 *
3614	Local Check (LC)	6110	4	4763		4696		4696		4756	
3618	30282	5981	6	4641		5494	9	5494	9	4736	
3619	29203	4410		4489		4776		4776		4521	
3620	Naveen (RP)	5016		4238		5388		5388		4366	
3621	29217 (R)	3574		4091		5380		5380		4234	
Exp. Mean		**5286**		**5013**		**5475**		**5475**		**5064**	
F Value		**18.07(p<0.0001)S**		**19.40(p<0.0001)S**		**3.04(p<0.0023)S**		**3.04(p<0.0023)S**		**22.39(p<0.0001)S**	
CD		614		310		1025		1025		266	
CV%		**6.99**		**3.73**		**11.28**		**11.28**		**3.17**	
D/S		20-06-2023				45084					
D/P		45267				44965					
Local Check Name		HUR-4-3				Numali					

Table No. 4a.2 (Contd).: Grain Yield (kg/ha) in AVT 2 - IME, (Trials Not Considered), Zone 3 & 4, Kharif 2023

Entry No	IET No	Trials not considered											
		Odisha		West Bengal				Uttar Pradesh		Assam		Tripura (0)	
		@Jeypore		@Malda		@Bankura		@Masodha		@Gerua-ICAR		@Lembuchherra	
3601	29304	2456	8	4417	8	9655	2	6072	3	4507	9	4784	5
3602	29822	2288		4278		9923	1	3535		4424		2682	
3603	29808	2871	5	4000		9617	3	4637		4299		4497	7
3604	29188	2980	2	4194		9464	4	4021		5526	3	5260	1
3605	Gontra Bidhan-3 (NC)	2212		4194		8973	6	6039	4	4186		4877	4
3606	29820	2426	10	4472	7	8008		5559	9	4385		2390	
3607	29717	2423		4889	1	8628	10	6195	2	4296		3139	
3608	29734	3188	1	4806	4	8774	7	5543	10	4765	6	4605	6
3609	29708	2929	3	4528	6	8215		4329		4837	5	4884	3
3610	PR 113 (ZC)	1816		4833	3	8069		4048		4730	7	3549	
3611	29726	2380		3856		8659	9	6388	1	6147	1	3803	8
3612	29738	2699	7	4861	2	7747		5581	8	4575	8	3752	9
3613	US 312 (HC)	2897	4	4389	10	8544		5881	6	5651	2	4943	2
3614	Local Check (LC)	2429	9	4372		9119	5	4550		3307		3043	
3618	30282	1968		4417	8	8697	8	5374		4926	4	3733	10
3619	29203	2236		4389	10	7701		4782		3078		3062	
3620	Naveen (RP)	2066		4250		7517		5979	5	4489	10	2641	
3621	29217 (R)	2755	6	4722	5	8084		5818	7	4248		3047	
Exp. Mean		**2501**		**4437**		**8633**		**5241**		**4576**		**3816**	
F Value		**15.44(p<0.0001)S**		**1.83(p<0.0602)NS**		**1.36(p<0.2104)NS**		**41.21(p<0.0001)S**		**1.73(p<0.0795)NS**		**6.12(p<0.0001)S**	
CD		263		651		1913		369		2274		1026	
CV%		**6.34**		**8.84**		**13.35**		**4.24**		**29.94**		**16.21**	
D/S		45084		20-07-2023		14-07-2023		25-06-2023		45084		18-07-2021	
D/P		45054		16-08-2023		45024		31-07-2023		45177		45207	
Local Check Name		Kalinga Dhan 1205		Satabdi		Lalat		IR 64-Sub 1		Naveen		Hakuchuk-2	

Table No. 4a.2 (Contd): Grain Yield (kg/ha) in AVT 2 - IME, Zone 7, Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN											
		Andhra Pradesh				Andhra Pradesh (2)		Telangana					
		Maruteru		Ragolu		Mean		Rajendranagar		Kunaram		Warangal	
3601	29304	4953		6012		5483		6034	8	8265		6524	10
3602	29822	5172	10	5587		5380		5665		8773	9	5970	
3603	29808	5871	3	6639	7	6255	6 #	5542		7947		6888	9
3604	29188	4645		8040	2	6343	5 #	6041	7	9005	6	7774	4
3605	Gontra Bidhan-3 (NC)	4688		7718	4	6203	7	5690	9	9278	4	7475	7
3606	29820	5276	9	6413	10	5845	10	6659	4	8958	7	5285	
3607	29717	5512	7	5607		5560		5667	10	8789	8	7774	4
3608	29734	5807	4	7659	5	6733	3 #	7321	1	9214	5	8572	2
3609	29708	5792	5	7552	6	6672	4 #	6769	3	10364	2	8797	1
3610	PR 113 (ZC)	4469		4659		4564		5149		7877		5159	
3611	29726	5501	8	8282	1	6892	2 #	7047	2	7064		7947	3
3612	29738	7398	1	7742	3	7570	1 * #	6606	5	10612	1	7737	6
3613	US 312 (HC)	4481		6024		5253		6301	6	9304	3	6992	8
3614	Local Check (LC)	4864		6524	8	5694		5075		8702	10	5801	
3615	30697	6653	2	5663		6158	8 #	5401		8014		4610	
3616	30695	5789	6	6345		6067	9 #	5101		8518		4667	
3617	ADT 39 (RP)	5013		5456		5235		3903		6447		5276	
3621	29217 (R)	3919		6472	9	5196		5132		6683		5412	
Exp. Mean		**5322**		**6577**		**5950**		**5839**		**8545**		**6592**	
F Value		**8.94(p<0.0001)S**		**4.57(p<0.0001)S**		**8.30(p<0.0001)S**		**6.53(p<0.0001)S**		**16.46(p<0.0001)S**		**19.42(p<0.0001)S**	
CD		765		1340		701		905		746		851	
CV%		**8.67**		**12.28**		**7.1**		**9.34**		**5.26**		**7.78**	
D/S		16-07-2023		07-04-2023				13-07-2023		23-06-2023		22-06-2023	
D/P		08-12-2023		25-07-2023				08-09-2023		15-07-2023		15-07-2023	
Local Check Name		MTU1121		MTU 1239				RNR 29325		KNM 1638		RNR 15048	

Table No. 4a.2 (Contd).: Grain Yield (kg/ha) in AVT 2 - IME, Zone 7, Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN											
		Telangana (3)		Tamilnadu				Tamilnadu (2)		Kerala (1)		Karnataka	
		Mean		Adhuturai		Coimbatore		Mean		Moncompu		Mandya	
3601	29304	6941	10	10351	1	5390		7871	1 * #	4836	3 * #	4707	
3602	29822	6803		5919	6	5488		5704	10	4799	5 * #	5196	
3603	29808	6792		5574		5404		5489		4836	3 * #	5236	
3604	29188	7607	4	5691	7	5698	10	5695		3544		5295	
3605	Gontra Bidhan-3 (NC)	7481	6	5330		5954	8	5642		2621		5408	9
3606	29820	6967	9	5141		6806	5	5974	9	5316	2 * #	5606	6
3607	29717	7410	7	5601	9	6998	2	6300	6	3175		5412	8
3608	29734	8369	2 * #	6492	5	6858	4	6675	2	4356	8 *	5877	3
3609	29708	8643	1 * #	5333		5361		5347		3433		5754	5
3610	PR 113 (ZC)	6062		5252		5820	9	5536		2436		4586	
3611	29726	7353	8	5586	10	6991	3	6289	7	4208	10 *	6565	1 *
3612	29738	8318	3 * #	6559	4	6752	6	6656	3	4245	9 *	5794	4
3613	US 312 (HC)	7532	5	5580		7059	1	6320	5	3913	*	6025	2
3614	Local Check (LC)	6526		7081	3	6129	7	6605	4	2798		5507	7
3615	30697	6008		5378		5246		5312		5611	1 * #	5375	10
3616	30695	6095		7177	2	5294		6236	8	4725	7 * #	4771	
3617	ADT 39 (RP)	5209		5661	8	5665		5663		4799	5.* #	4989	
3621	29217 (R)	5742		5096		5230		5163		2695		4949	
Exp. Mean		**6992**		**6045**		**6008**		**6026**		**4019**		**5392**	
F Value		**29.45(p<0.0001)S**		**14.28(p<0.0001)S**		**4.51(p<0.0001)S**		**9.86(p<0.0001)S**		**11.79(p<0.0001)S**		**6.64(p<0.0001)S**	
CD		478		903		908		590		793		547	
CV%		**4.12**		**9**		**9.11**		**5.9**		**11.89**		**6.12**	
D/S				07-01-2023		24-06-2023				26-07-2023		19-07-2023	
D/P				08-08-2023		18-07-2023				23-08-2023		08-10-2023	
Local Check Name				ADT 58		TKM 13				MO 16 Uma		Thanu	

Table No. 4a.2 (Contd).: Grain Yield (kg/ha) in AVT 2 - IME, Zone 7, Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN										Overall Mean (12)	
		Karnataka				Karnataka (3)		Puducherry (1)		Zone 7(12)			
		Mugad		Gangavathi		Mean		Karaikal		Mean			
3601	29304	4368		7177	3	5417	10	6562	8	6214	5	6214	5
3602	29822	5354	2	6259	9	5603	9	6233		5866		5866	
3603	29808	5361	1	7806	2	6134	2 #	7192	2 #	6140	8	6140	8
3604	29188	5212	4	6865	5	5791	5 #	6662	7	6189	7	6189	7
3605	Gontra Bidhan-3 (NC)	5139	5	6449	8	5665	8	6214		5977	10	5977	10
3606	29820	4758		6864	6	5743	6	7371	1 #	6247	4	6247	4
3607	29717	4942	10	3954		4769		5865		5934		5934	
3608	29734	5223	3	5941	10	5680	7	6808	4	6750	1 * #	6750	1 * #
3609	29708	4693		4439		4962		5280		6201	6	6201	6
3610	PR 113 (ZC)	5113	6	8754	1	6151	1 #	6786	6	5341		5341	
3611	29726	4921		6613	7	6033	3 #	6793	5	6475	3 * #	6475	3 * #
3612	29738	4862		5254		5303		6087		6707	2 *	6707	2 * #
3613	US 312 (HC)	4881		5345		5417	10	5617		5983	9	5983	9
3614	Local Check (LC)	4957	9	7164	4	5876	4 #	6848	3	5928		5928	
3615	30697	4982	8	4927		5095		6501	10	5828		5828	
3616	30695	4836		4685		4764		6507	9	5853		5853	
3617	ADT 39 (RP)	4672		4267		4643		5326		5211		5211	
3621	29217 (R)	5048	7	5596		5198		5477		5133		5133	
Exp. Mean		**4962**		**6020**		**5458**		**6340**		**5999**		**5999**	
F Value		**2.95(p<0.0001)S**		**37.79(p<0.0001)S**		**14.84(p<0.0001)S**		**5.02(p<0.0001)S**		**16.97(p<0.0001)S**		**16.97(p<0.0001)S**	
CD		550		582		345		767		303		303	
CV%		**6.67**		**5.83**		**3.81**		**7.29**		**3.05**		**3.05**	
D/S		24-07-2023		27-07-2023				07-09-2023					
D/P		10-03-2023		23-08-2023				10-10-2023					
Local Check Name		PSB-68		GNV 1109				ADT39					

Table No. 4a.2 (Contd).: Grain Yield (kg/ha) in AVT 2 - IME, (Trial not considered), Zone 7, Kharif 2023

Entry No	IET No	Trial not considered	
		Kerala	
		@Pattambi	
3601	29304	6422	
3602	29822	7551	2
3603	29808	6849	8
3604	29188	6467	
3605	Gontra Bidhan-3 (NC)	6138	
3606	29820	6804	10
3607	29717	6706	
3608	29734	7644	1
3609	29708	6120	
3610	PR 113 (ZC)	6444	
3611	29726	7302	6
3612	29738	6351	
3613	US 312 (HC)	7351	5
3614	Local Check (LC)	6813	9
3615	30697	7084	7
3616	30695	7440	3
3617	ADT 39 (RP)	7435	4
3621	29217 (R)	6675	
Exp. Mean		**6866**	
F Value		**1.60(p<0.1150)NS**	
CD		**NS**	
CV%		**9.47**	
D/S		07-11-2023	
D/P		08-05-2023	
Local Check Name		JYOTHI	

Table No. 4a.3 : Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 – IME, Zone -2,5 & 6 Kharif 2023

Entry No	IET No	ZONE II -NORTERN														
		Punjab (1)			Haryana (1)			Jammu Kashmir (1)			Uttar Pradesh (1)			Zone II (4)		
		Ludhiana			Kaul			Chatha			Nagina			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3601	29304	103	105	235	102	90	282	119	88	305	121	98	247	111	95	267
3602	29822	114	90	233	108	88	301	130	99	310	116	108	255	117	97	275
3603	29808	111	96	233	108	89	286				105	94	339	108	93	286
3604	29188	105	117	211	111	108	279				125	96	246	114	107	245
3605	Gontra Bidhan-3 (NC)	91	103	246	87	93	270	104	84	309	100	93	288	95	93	278
3606	29820	108	111	255	104	101	295	130	105	298	110	93	240	113	102	272
3607	29717	96	99	240	90	104	321	112	84	301	102	96	239	100	96	275
3608	29734	97	112	240	91	111	304	119	86	307	105	92	251	103	100	275
3609	29708	97	101	216	90	109	284	112	90	277	110	106	256	102	101	258
3610	PR 113 (ZC)	98	88	218	99	83	301	119	67	340	102	98	320	104	84	295
3611	29726	96	113	240	86	112	311	112	94	329	106	84	308	100	101	297
3612	29738	97	100	218	89	106	298	111	86	367	99	102	325	99	98	302
3613	US 312 (HC)	96	103	233	88	105	307	114	82	303	106	98	323	101	97	292
3614	Local Check (LC)	98	93	240	94	94	308	119	95	284	109	111	349	105	98	295
3621	29217 (R)	87	100	233	88	106	276				105	92	320	94	99	276
Exp. Mean		**100**	**102**	**233**	**96**	**100**	**295**	**117**	**88**	**311**	**108**	**97**	**287**	**104**	**97**	**279**

Table No. 4a.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 – IME, Zone -2,5 & 6 Kharif 2023

Entry No	IET No	ZONE V -CENTRAL																	
		Chhattisgarh									Chhattisgarh (3)			Maharashtra 1(1)			Zone V (4)		
		Raipur			Jagadalpur			Bilaspur			Mean			Sakoli			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3601	29304	98	117	211	106	69	312	99	113		101	100	261	96	116	273	100	104	265
3602	29822	105	117	293	108	78	351	106	115		106	103	322	101	123	262	105	108	302
3603	29808	101	115	190	95	79	237	104	112		100	102	214	98	108	260	100	104	229
3604	29188	102	128	209	105	87	327	102	140		103	118	268	100	124	224	102	120	253
3605	Gontra Bidhan-3 (NC)	87	103	233	91	74	269	90	117		89	98	251	90	96	270	89	97	257
3606	29820	100	112	217	104	87	280	102	128		102	109	248	100	128	223	101	114	240
3607	29717	88	122	215	94	79	229	92	117		91	106	222	91	96	210	91	103	218
3608	29734	92	116	225	97	85	248	92	127		94	109	236	90	124	294	93	113	256
3609	29708	92	116	212	94	80	323	92	118		93	105	268	91	99	273	92	103	270
3610	PR 113 (ZC)	86	106	216	93	70	293	84	115		88	97	255	81	124	129	86	104	213
3611	29726	91	131	194	93	88	295	90	145		91	121	245	90	128	262	91	123	250
3612	29738	91	125	216	102	81	306	95	122		96	109	261	93	119	251	95	112	257
3613	US 312 (HC)	90	120	229	96	80	298	89	129		92	110	264	90	124	284	91	113	270
3614	Local Check (LC)	91	111	226	96	67	345	90	113		92	97	285	95	120	264	93	103	278
3621	29217 (R)	90	108	181	99	81	262	95	118		95	102	221	87	121	283	93	107	242
Exp. Mean		**94**	**117**	**218**	**98**	**79**	**292**	**95**	**122**		**96**	**106**	**255**	**93**	**117**	**251**	**95**	**109**	**253**

Table No. 4a.3 Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 – IME, Zone -2,5 & 6 Kharif 2023

Entry No	IET No	ZONE VI -WESTERN														
		Maharashtra 2						Maharashtra 2 (2)			Maharashtra (3)			Gujarat		
		Karjat			Vadagaon			Mean			Mean			Navasari		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3601	29304	97	123	214	102	87	243	99	105	228	98	109	243	99	149	275
3602	29822	97	125	240	106	94	272	101	110	256	101	114	258	100	140	269
3603	29808	97	125	224	103	93	260	100	109	242	99	109	248	99	121	254
3604	29188	96	142	239	101	111	263	98	126	251	99	126	242	96	153	260
3605	Gontra Bidhan-3 (NC)	93	121	229	96	97	207	95	109	218	93	105	235	84	130	290
3606	29820	99	136	245	104	113	266	102	124	256	101	125	245	94	153	253
3607	29717	93	130	230	96	99	258	95	115	244	93	109	233	86	126	237
3608	29734	93	134	284	99	100	288	96	117	286	94	119	289	84	148	285
3609	29708	96	122	240	98	113	326	97	117	283	95	111	280	87	130	274
3610	PR 113 (ZC)	97	100	224	97	99	272	97	100	248	91	108	209	81	106	301
3611	29726	96	141	227	96	131	319	96	136	273	94	133	269	86	139	255
3612	29738	94	128	318	102	114	338	98	121	328	97	120	302	88	145	269
3613	US 312 (HC)	93	131	234	96	123	327	95	127	281	93	126	282	83	141	292
3614	Local Check (LC)	96	114	254	95	82	245	96	98	250	95	105	254	84	136	248
3621	29217 (R)	97	131	322	93	113	294	95	122	308	92	122	300	87	124	258
Exp. Mean		**96**	**127**	**248**	**99**	**104**	**278**	**97**	**116**	**263**	**96**	**116**	**259**	**89**	**136**	**268**

Table No. 4a.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 – IME, Zone -2,5 & 6 Kharif 2023

Entry No	IET No	ZONE VI -WESTERN												Overall Mean (13)		
		Gujarat						Gujarat (3)			Zone VI (5)					
		Navagam			Vyara			Mean			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3601	29304	94	109	302	102	110	239	98	123	272	98	116	255	103	106	261
3602	29822	96	108	288	111	116	238	102	121	265	102	117	261	107	108	276
3603	29808	98	113	294	106	110	195	101	115	248	101	112	245	102	105	252
3604	29188	101	121	286	105	120	290	101	131	278	100	129	267	104	121	257
3605	Gontra Bidhan-3 (NC)	94	93	294	87	110	204	88	111	262	91	110	245	92	101	259
3606	29820	103	113	299	106	113	217	101	127	256	101	126	256	105	115	257
3607	29717	104	108	291	95	112	220	95	115	249	95	115	247	95	106	249
3608	29734	99	116	295	99	118	291	94	127	290	95	123	288	97	113	276
3609	29708	104	108	299	93	120	275	94	120	283	95	119	283	96	109	271
3610	PR 113 (ZC)	94	99	291	90	91	313	88	99	302	92	99	280	94	96	268
3611	29726	97	114	298	90	114	331	91	122	295	93	128	286	94	118	281
3612	29738	99	114	285	95	110	202	94	123	252	96	122	282	97	112	283
3613	US 312 (HC)	102	114	288	93	119	290	93	124	290	93	125	286	95	113	284
3614	Local Check (LC)	91	98	294	90	110	260	88	115	267	91	108	260	96	103	276
3621	29217 (R)	100	108	292	97	117	198	95	116	249	95	119	273	94	110	265
Exp. Mean		**98**	**109**	**293**	**97**	**113**	**251**	**95**	**119**	**271**	**96**	**118**	**268**	**98**	**109**	**268**

Table No. 4a.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 – IME, (Trials not considered) Zone -2,5 & 6 Kharif 2023

Entry No	IET No	Trials not considered																			
		Uttarakhand			Uttar Pradesh			Madhya Pradesh						Chattisgarh			Maharashtra 1			Maharashtra 2		
		@Pantnagar			@Kanpur			@Rewa			@Jabalpur			@Ambikapur			@Sindewahi			@Radhanagari		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3601	29304	101	110	233	49	98	228	106	77	328	116	68	216	110	89	215	99	107	266	105	76	202
3602	29822	108	100	238	58	75	264	118	92	339	125	58	225	105	86	255	104	109	294	103	82	202
3603	29808	113	110	248	49	96	328	116	86	315	119	57	185	105	92	216	102	93	207	103	80	196
3604	29188	114	110	225	64	67	252	118	97	279	122	70	181	111	111	219	98	130	231	107	99	236
3605	Gontra Bidhan-3 (NC)	86	110	226	65	82	211	104	86	270	112	68	202	104	94	215	89	102	240	100	85	187
3606	29820	114	109	252	55	62	253	113	87	309	122	68	259	106	101	229	103	104	214	104	84	218
3607	29717	93	109	246	66	74	293	102	89	279	110	70	170	107	95	260	93	108	235	95	82	212
3608	29734	96	119	245	49	82	224	105	82	289	115	78	226	106	106	236	93	124	210	101	81	200
3609	29708	90	110	230	51	100	378	105	86	296	112	65	224	104	96	232	90	121	234	104	81	215
3610	PR 113 (ZC)	92	108	230	59	95	326	106	95	302	107	66	226	97	102	250	85	112	242	94	69	203
3611	29726	88	114	266	53	96	318	102	75	292	109	76	211	105	108	211	91	123	239	104	90	193
3612	29738	94	100	234	50	87	253	101	95	277	113	66	253	104	101	248	94	111	281	107	98	242
3613	US 312 (HC)	93	117	232	59	82	161	106	115	298	109	73	256	100	103	268	91	120	214	100	76	218
3614	Local Check (LC)	89	111	273	50	96	173	94	84	206	118	72	281	101	113	218	97	125	233	93	85	204
3621	29217 (R)	92	118	216	49	90	203	103	85	285	116	75	261	103	98	207	87	119	190	92	90	216
Exp. Mean		**98**	**110**	**240**	**55**	**85**	**258**	**106**	**89**	**291**	**115**	**69**	**225**	**105**	**100**	**232**	**95**	**114**	**235**	**101**	**84**	**210**

Table No. 4a.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 – IME, Zone -3&4 Kharif 2023

Entry No	IET No	ZONE III - EASTERN																	
		Odisha						Odisha (2)			Bihar						Bihar (2)		
		ICAR-NRRI (Cuttack)			Chiplima			Mean			Bikramganj			Sabour			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3601	29304	96	107	217	106	95	207	101	101	212	100	120	418	107	111	270	103	115	344
3602	29822	99	109	258	115	96	258	107	103	258	118	121	440	115	117	288	116	119	364
3603	29808	99	114	304	114	104	175	107	109	239	107	120	342	109	116	308	108	118	325
3604	29188	102	130	278	113	104	159	108	117	219	110	132	404	108	126	321	109	129	362
3605	Gontra Bidhan-3 (NC)	94	105	309	113	88	238	103	96	273	90	104	399	91	97	397	90	101	398
3606	29820	96	120	267	113	107	225	104	113	246	109	127	384	102	119	356	105	123	370
3607	29717	98	123	361	105	97	186	102	110	274	91	120	424	94	112	283	92	116	353
3608	29734	98	123	310	114	109	188	106	116	249	91	120	367	102	117	334	96	119	350
3609	29708	96	115	336	105	97	259	100	106	298	96	116	430	99	113	345	97	114	387
3610	PR 113 (ZC)	99	126	327	112	110	197	105	118	262	96	121	398	98	116	298	97	118	348
3611	29726	93	125	308	106	104	257	99	115	282	95	119	422	98	119	307	97	119	364
3612	29738	98	119	347	109	98	169	103	109	258	89	125	396	99	112	271	94	118	333
3613	US 312 (HC)	99	124	321	104	101	223	101	113	272	91	114	367	98	114	359	94	114	363
3614	Local Check (LC)	96	118	387	114	102	191	105	110	289	89	**125**	409	101	107	301	95	116	355
3618	30282	96	116	312	112	98	198	104	107	255	95	120	426	90	121	368	92	120	397
3619	29203	96	121	375	104	102	193	100	111	284	91	116	383	90	128	333	90	122	358
3620	Naveen (RP)	96	122	359	104	99	177	100	111	268	95	116	395	88	122	338	91	119	366
3621	29217 (R)	97	111	207	115	97	131	106	104	169	90	114	462	94	108	294	92	111	378
Exp. Mean		**97**	**118**	**310**	**110**	**100**	**201**	**103**	**109**	**256**	**97**	**119**	**403**	**99**	**115**	**320**	**98**	**117**	**362**

Table No. 4a.3 (Contd)..: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 – IME, Zone -3&4 Kharif 2023

Entry No	IET No	ZONE III - EASTERN														
		Jharkhand (1)			West Bengal						West Bengal (2)			Uttar Pradesh (1)		
		Ranchi			Chinsurah			Hatwara			Mean			Varanasi		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3601	29304	105	103	285	97	105	396	103	98	208	100	101	302	106	101	155
3602	29822	113	101	333	106	100	396	107	101	221	106	100	309	110	108	165
3603	29808	116	109	289	100	126	363	104	96	262	102	111	313	111	98	118
3604	29188	107	117	258	100	120	347	106	104	254	103	112	300	112	114	136
3605	Gontra Bidhan-3 (NC)	123	85	303	94	114	462	97	98	258	95	106	360	90	98	171
3606	29820	119	105	360	100	112	330	104	102	236	102	107	283	101	110	154
3607	29717	95	120	292	95	114	495	101	94	243	98	104	369	87	99	158
3608	29734	100	114	282	95	118	396	101	100	216	98	109	306	91	103	149
3609	29708	99	95	258	95	110	330	101	99	208	98	105	269	92	101	150
3610	PR 113 (ZC)	101	109	270	97	113	429	95	101	280	96	107	354	94	104	206
3611	29726	94	105	281	96	115	462	99	101	211	97	108	336	92	114	156
3612	29738	96	104	235	97	122	462	100	103	240	98	112	351	96	110	111
3613	US 312 (HC)	94	116	264	98	120	462	96	101	266	97	111	364	90	107	176
3614	Local Check (LC)	98	116	285	99	126	330	96	99	259	97	112	294	100	94	236
3618	30282	105	109	318	97	102	413	95	103	231	96	103	322	93	114	185
3619	29203	95	100	300	97	122	314	95	105	260	96	114	287	89	105	204
3620	Naveen (RP)	105	108	339	98	106	396	95	109	250	96	107	323	89	112	221
3621	29217 (R)	95	109	215	100	107	330	99	99	253	99	103	291	84	100	124
Exp. Mean		**103**	**107**	**287**	**97**	**114**	**395**	**99**	**101**	**242**	**98**	**107**	**318**	**96**	**105**	**165**

Table No. 4a.3 (Contd)..: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 – IME, Zone -3&4 Kharif 2023

Entry No	IET No	Zone III (8)			ZONE IV - NORTH EASTERN									Overall Mean (9)		
					Assam			Assam (1)			Zone IV (1)					
		Mean			Titabar			Mean			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3601	29304	102	105	269	116	104	287	116	104	287	116	104	287	104	105	271
3602	29822	110	107	295	122	105	348	122	105	348	122	105	348	111	106	300
3603	29808	107	110	270	120	105	298	120	105	298	120	105	298	109	110	273
3604	29188	107	118	269	119	120	295	119	120	295	119	120	295	108	118	272
3605	Gontra Bidhan-3 (NC)	99	99	317	101	100	309	101	100	309	101	100	309	99	99	316
3606	29820	105	113	289	117	116	300	117	116	300	117	116	300	107	113	290
3607	29717	96	110	305	110	107	320	110	107	320	110	107	320	97	110	307
3608	29734	99	113	280	109	111	345	109	111	345	109	111	345	100	113	287
3609	29708	98	106	289	102	105	287	102	105	287	102	105	287	98	106	289
3610	PR 113 (ZC)	99	113	300	109	112	340	109	112	340	109	112	340	100	113	305
3611	29726	96	113	300	101	117	345	101	117	345	101	117	345	97	113	305
3612	29738	98	112	279	107	109	281	107	109	281	107	109	281	99	111	279
3613	US 312 (HC)	96	112	305	105	110	298	105	110	298	105	110	298	97	112	304
3614	Local Check (LC)	99	111	300	117	123	264	117	123	264	117	123	264	101	112	296
3618	30282	98	110	306	112	116	357	112	116	357	112	116	357	99	111	312
3619	29203	94	112	295	108	118	337	108	118	337	108	118	337	96	113	300
3620	Naveen (RP)	96	112	309	114	114	359	114	114	359	114	114	359	98	112	315
3621	29217 (R)	97	106	252	118	111	261	118	111	261	118	111	261	99	106	253
Exp. Mean		**100**	**110**	**290**	**111**	**111**	**313**	**111**	**111**	**313**	**111**	**111**	**313**	**101**	**110**	**293**

Table No. 4a.3 (Contd)..: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 – IME, (Trials not considered), Zone -3&4 Kharif 2023

Entry No	IET No	Trials not considered																	
		Odisha			West bengal						Uttar Pradesh			Assam			Tripura (0)		
		@Jeypore			@Malda			@Bankura			@Masodha			@Gerua-ICAR			@Lembuchherra		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3601	29304	112	90	463	83	105	12	118	103	270	85	80	239	68	118	256	75	89	225
3602	29822	104	89	355	89	110	11	112	102	388	111	83	205	76	124	252	84	106	213
3603	29808	107	90	332	90	122	12	119	102	369	109	96	202	76	122	262	70	103	275
3604	29188	109	109	283	87	100	9	115	93	308	111	113	229	74	133	245	74	109	213
3605	Gontra Bidhan-3 (NC)	103	88	279	89	103	13	113	80	204	93	93	283	62	116	222	57	85	263
3606	29820	112	99	351	87	124	9	116	103	363	96	102	207	74	133	263	74	87	200
3607	29717	106	92	312	83	114	7	109	98	371	80	106	291	64	123	236	59	93	213
3608	29734	106	98	332	92	100	8	113	106	319	85	98	249	68	127	227	54	110	200
3609	29708	103	90	322	85	103	9	115	107	281	93	105	223	60	119	238	67	107	213
3610	PR 113 (ZC)	102	96	328	92	100	10	119	112	380	84	106	199	64	130	287	55	110	313
3611	29726	104	91	332	90	105	12	113	98	319	75	108	298	62	135	285	63	112	300
3612	29738	105	91	315	77	100	9	110	97	383	83	110	250	68	123	251	60	109	238
3613	US 312 (HC)	103	86	399	93	105	13	112	95	391	81	92	261	66	130	258	57	98	325
3614	Local Check (LC)	103	94	312	90	95	12	112	105	341	80	80	242	64	144	258	58	110	200
3618	30282	106	95	320	91	105	7	115	105	445	103	112	249	64	136	324	60	97	263
3619	29203	103	105	298	92	105	10	114	103	429	110	109	227	62	139	272	64	92	200
3620	Naveen (RP)	103	100	305	92	103	9	120	103	480	105	112	253	64	139	290	72	102	213
3621	29217 (R)	113	98	345	88	130	11	113	97	248	84	102	261	72	121	244	73	95	275
Exp. Mean		**106**	**94**	**332**	**88**	**107**	**10**	**114**	**101**	**349**	**92**	**100**	**242**	**67**	**128**	**259**	**65**	**101**	**241**

Table No. 4a.3 (Contd.)_.: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 – IME, Zone -7 Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN																	
		Andhra Pradesh						Andhra Pradesh (2)			Telangana								
		Maruteru			Ragolu			Mean			Rajendranagar			Kunaram			Warangal		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3601	29304	90	124	319	86	132	259	88	128	289	105	92	389	97	120	345	102	123	430
3602	29822	102	131	359	100	126	227	101	129	293	107	99	378	102	120	429	116	128	448
3603	29808	90	120	319	94	126	211	92	123	265	101	94	356	100	121	343	110	128	437
3604	29188	90	142	297	93	159	236	92	151	267	100	104	300	96	137	312	110	144	440
3605	Gontra Bidhan-3 (NC)	88	109	293	65	127	321	77	118	307	90	99	322	85	119	330	93	107	436
3606	29820	93	126	328	88	146	222	91	136	275	99	104	456	94	140	343	107	129	428
3607	29717	91	118	273	80	116	197	86	117	235	91	97	389	87	124	328	94	125	447
3608	29734	88	129	297	86	136	194	87	133	245	95	104	389	87	131	319	97	134	450
3609	29708	86	118	315	86	126	233	86	122	274	91	99	356	85	124	326	94	118	438
3610	PR 113 (ZC)	88	119	359	63	120	319	76	120	339	86	104	389	79	121	363	91	117	435
3611	29726	85	128	317	77	139	213	81	133	265	96	104	356	86	143	299	92	134	438
3612	29738	88	123	356	80	141	243	84	132	300	99	102	411	95	127	293	97	126	439
3613	US 312 (HC)	86	128	330	77	127	205	81	127	267	94	104	389	86	133	337	96	129	443
3614	Local Check (LC)	102	112	308	109	133	266	105	123	287	92	93	344	87	108	374	108	143	436
3615	30697	103	111	323	102	111	289	102	111	306	96	95	389	104	98	359	123	106	429
3616	30695	105	107	356	101	122	244	103	115	300	102	92	456	106	100	354	122	114	429
3617	ADT 39 (RP)	107	102	334	101	119	222	104	110	278	100	86	533	106	103	376	122	109	431
3621	29217 (R)	94	133	282	77	130	209	86	131	245	97	100	333	87	124	282	98	124	437
Exp. Mean		**93**	**121**	**320**	**87**	**130**	**239**	**90**	**125**	**280**	**97**	**99**	**385**	**93**	**122**	**340**	**104**	**124**	**437**

Table No. 4a.3 (Contd)..: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 – IME, Zone -7 Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN																	
		Telangana (3)			Tamilnadu						Tamilnadu (2)			Kerala (1)			Karnataka		
		Mean			Adhuturai			Coimbatore			Mean			Moncompu			Mandya		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3601	29304	101	112	388	93	104	402	107	101	358	100	103	380	105	114	238	103	89	295
3602	29822	108	116	418	94	123	429	103	112	390	98	118	410	116	113	215	96	82	306
3603	29808	104	114	378	93	94	440	105	107	358	99	100	399	103	113	222	96	92	272
3604	29188	102	129	351	94	116	443	103	125	333	99	120	388	116	128	213	95	93	261
3605	Gontra Bidhan-3 (NC)	89	108	363	95	97	366	95	111	347	95	104	356	98	112	235	95	84	215
3606	29820	100	124	409	94	115	416	95	115	352	95	115	384	103	127	211	96	98	295
3607	29717	91	116	388	93	103	427	93	100	352	93	102	389	98	106	222	93	93	249
3608	29734	93	123	386	93	114	427	97	117	347	95	115	387	101	113	209	94	100	306
3609	29708	90	113	373	94	95	462	93	105	352	94	100	407	99	118	206	93	100	227
3610	PR 113 (ZC)	85	114	395	95	81	410	87	95	353	91	88	382	92	99	235	84	85	283
3611	29726	91	127	364	96	117	444	97	109	357	96	113	401	100	114	244	99	101	272
3612	29738	97	119	381	96	112	452	97	124	298	97	118	375	100	122	209	102	97	249
3613	US 312 (HC)	92	122	390	95	105	416	94	110	367	95	107	392	101	115	213	94	89	261
3614	Local Check (LC)	96	115	385	95	107	558	104	104	410	100	106	484	116	104	233	98	93	283
3615	30697	108	100	392	95	101	371	103	99	343	99	100	357	116	112	220	96	78	227
3616	30695	110	102	413	95	100	470	104	102	327	99	101	398	117	112	242	95	78	249
3617	ADT 39 (RP)	110	99	447	95	102	464	100	96	317	97	99	390	118	104	249	96	81	283
3621	29217 (R)	94	116	351	92	92	447	102	101	332	97	97	390	105	117	224	95	92	261
Exp. Mean		**98**	**115**	**387**	**94**	**104**	**436**	**99**	**107**	**350**	**96**	**106**	**393**	**106**	**113**	**224**	**96**	**90**	**266**

Table No. 4a.3 (Contd)..: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 – IME, Zone -7 Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN																	
		Karnataka						Karnataka (3)			Puducherry			Puducherry (1)			Zone VII (12)		
		Mugad			Gangavathi			Mean			Karaikal			Mean			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3601	29304	119	73	159	102	114	395	108	92	283	91	94	338	91	94	338	100	107	327
3602	29822	120	82	167	99	111	336	105	92	270	91	93	347	91	93	347	104	110	336
3603	29808	120	83	184	100	108	371	105	94	276	91	93	345	91	93	345	100	107	322
3604	29188	129	86	138	99	126	370	108	101	256	91	93	355	91	93	355	101	121	308
3605	Gontra Bidhan-3 (NC)	119	80	160	97	118	325	104	94	233	89	86	342	89	86	342	92	104	308
3606	29820	129	83	161	100	115	340	108	99	265	92	92	373	92	92	373	99	116	327
3607	29717	128	84	181	102	116	314	108	98	248	92	90	341	92	90	341	95	106	310
3608	29734	120	88	160	101	116	306	105	101	257	93	94	318	93	94	318	96	115	310
3609	29708	127	87	153	100	116	417	107	101	266	92	94	327	92	94	327	95	108	318
3610	PR 113 (ZC)	117	84	191	88	107	400	96	92	292	75	77	347	75	77	347	87	101	340
3611	29726	129	87	176	101	131	360	110	106	269	92	94	316	92	94	316	96	117	316
3612	29738	118	83	168	104	121	345	108	100	254	93	95	350	93	95	350	97	114	318
3613	US 312 (HC)	122	79	174	100	108	358	105	92	264	86	88	345	86	88	345	94	110	320
3614	Local Check (LC)	130	85	192	95	100	347	108	93	274	93	94	374	93	94	374	102	106	344
3615	30697	132	83	188	104	100	343	111	87	253	95	96	381	95	96	381	106	99	322
3616	30695	126	82	185	103	98	325	108	86	253	96	96	385	96	96	385	106	100	335
3617	ADT 39 (RP)	135	83	149	103	94	293	111	86	242	94	94	366	94	94	366	106	98	335
3621	29217 (R)	124	90	157	103	113	290	107	98	236	105	107	369	105	107	369	98	110	302
Exp. Mean		**125**	**83**	**169**	**100**	**112**	**346**	**107**	**95**	**261**	**92**	**93**	**351**	**92**	**93**	**351**	**99**	**108**	**322**

Table No. 4a.3 (Contd)..: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 – IME, (Trials not considered) Kharif 2023

Entry No	IET No	Trial Not Considered		
		Kerala		
		@Pattambi		
		DFF	PH	PAN
3601	29304	100	97	336
3602	29822	99	107	469
3603	29808	97	100	344
3604	29188	98	115	304
3605	Gontra Bidhan-3 (NC)	114	89	311
3606	29820	92	106	440
3607	29717	90	89	409
3608	29734	93	95	327
3609	29708	101	94	265
3610	PR 113 (ZC)	104	77	542
3611	29726	102	99	376
3612	29738	93	106	263
3613	US 312 (HC)	94	98	356
3614	Local Check (LC)	89	78	298
3615	30697	102	93	351
3616	30695	98	98	398
3617	ADT 39 (RP)	103	86	436
3621	29217 (R)	105	101	354
Exp. Mean		**99**	**96**	**365**

Table No. 4a.4: Grain quality characteristics of entries in AVT 2-IME, kharif 2023

Entry No.	Designation/ IET No.	Hull	Mill	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
3601	29304	78.6	71.2	60.2	5.41	2.06	2.62	MS	VOC	4.0	20.73	48
3602	29822	80.6	70.8	66.5	5.48	2.06	2.66	MS	A	4.0	26.48	31
3603	29808	80.6	72.8	64.2	5.54	2.03	2.72	MS	VOC	4.0	20.18	46
3604	29188	81.2	73.0	62.8	6.12	2.02	3.02	LS	VOC	4.0	22.73	34
3605	Gontra Bidhan-3	80.2	70.9	55.8	5.26	2.31	2.27	SB	VOC	5.0	25.84	22
3606	29820	79.7	70.6	54.9	7.02	2.24	3.13	LS	VOC	5.0	25.43	34
3607	29717	81.5	69.4	45.5	6.60	2.09	3.15	LS	VOC	4.0	22.76	60
3608	29734	80.0	70.3	40.2	6.25	2.34	2.67	LB	VOC	4.0	24.84	22
3609	29708	80.8	70.8	55.7	6.24	2.06	3.02	LS	VOC	5.0	22.99	43
3610	MTU 1010 (ZC)	77.4	66.4	55.2	6.17	2.04	3.02	LS	VOC	4.0	21.50	68
3611	29726	81.7	71.0	46.0	6.62	2.14	3.09	LS	VOC	4.0	25.72	23
3612	29738	79.3	69.0	51.5	6.51	2.11	3.08	LS	VOC	7.0	22.26	53
3613	US 312 (HC)	79.8	70.5	55.6	5.70	2.05	2.78	MS	VOC	4.0	23.46	42
3614	Local Check	78.2	70.2	63.7	6.37	1.92	3.29	LS	A	7.0	20.12	69
3615	30697	80.8	70.2	52.2	5.08	1.96	2.59	MS	VOC	4.0	22.88	22
3616	30695	80.4	71.1	54.8	5.10	2.19	2.32	SB	VOC	4.0	21.50	26
3617	ADT 39 (RP)	81.4	72.6	63.4	5.24	1.96	2.67	MS	VOC	4.0	25.66	22
3618	30282											
3619	29203											
3620	Naveen (RP)									4.0	25.28	46
3621	29217	81.0	71.3	35.8	6.16	2.26	2.72	LB	VOC	4.0	23.73	53

HULL: Hulling (%); MILL: Milling (%); HRR: Head Rice Recovery (%); KL: Kernel Length (mm); KB: Kernel Breadth (mm); L/B: Length and breadth ratio; Grain Chalk: Grain Chalkiness; VOC: Very occasionally present; A: Absent ASV: Alkali Spreading Value; AC: Amylose Content (%); GC: Gel Consistency; LB: Long Bold; SB: Short Bold; LS: Long Slender; MS: Medium Slender; SS: Short Slender

Table No.4b.1: Composition of entries in Advance Variety Trial 1- Irrigated Mid Early (AVT 1 – IME), Kharif 2023.

Entry No.	IET No.	Designation	Cross Combination	GT	Zones	Trait
2nd year of testing:						
3701	30704	WGL 1533	WGL 32100 / MTU 1936-12-1-2-1 // MTU 1081 / HRR 2143	LS		
3702	30707	GNV 2020-05	IR 95097 / Dasmati	LS		
3703	30735	CR4388-RGA-202-1	CR Dhan 202 / ARIZE 8433 DT	MS		
3704	30740	BPT 3243	BPT 5204 / Ramappa	MS		
3705	30752	Super 4400	SRPG 13 / SRPG 19	LB		
3706	30213	BRR 2177	MTU 7029 / Taroari Basmati Dwarf Mutant 2	MS		
3707	30062	Daftari-1	Daftari 741 / MTU 1001	LB		
3708	30705	RP Bio 4918-NPS 58-1-8	Swarna / O.nivara	MS		
3709	30736	Super 4466	SRPG 10 / SRPG 13	MS		
3710	30742	KNM 13584	MTU 1156 / WGL 1097 // IR 10A 199	LS		
3711	30714	RNR 29320	TME 80518 / BPT 5204	LS		
3712	30741	BRR 2151	RP 5959 / IR 91158-IR 07F289	LS		
3713	30730	RDR 3609	MTU 1075 / MTU 1010	LS		
3714	**Gotra Bidhan -3 (NC)**					
3715	29976	ORJ 1313 (RP 5530-B-31-1)	RP Bio 226 / IRGC 48960 // MTU 1081	SB		
3716	30708	JNPT 1058	JR 201 / NPT 65 / JR 201	MS		
3717	30719	AD 19050	ADT 37 / WGL 32100	MS		
3718	30575	***RALLIS-21304***	***Hybrid***	LS		
3719	30577	***HRI-216***	***Hybrid***	LS		
3720	30574	***RRX-3366***	***Hybrid***	LS		
3721	30587	***SRPH-123***	***Hybrid***	LS		
3722	30580	***KJTRH-2107***	***Hybrid***	LS		
3723	**PR 113 (Northern), Lalat (Eastern and North Eastern), MTU 1010 (Central and Southern), Karjat 7 (Western) --- Zonal check**					
3724	30593	***LG-90303***	***Hybrid***	LS		
3725	30573	***SRH-333***	***Hybrid***	LB		
3726	30756	RP 6693-16-388	Swarna / MTU 1010	MS		
3727	30578	***RNC-0752***	***Hybrid***	LS		
3728	30589	***MEPH-168***	***Hybrid***	LB		
3729	**US 312 (HC)**					
3730	30579	***JKRH-1135***	***Hybrid***	LS		
3731	30576	***ADVRH-162108***	***Hybrid***	LS		
3732	**Local Check (LC)**					
1st year of testing (NILs):						
3733	32039	RP 6529-RMS-77-98-77-23	MTU 1010*2 / Improved Samba Mahsuri	LS	V, VII	BB+Bl
3734	32040	RP 6530-RMS-34-8-33-49	MTU 1010*2 / Improved Samba Mahsuri	LS	V, VII	BB
3735	32041	RP 6529-RMS-14-66-11-78	MTU 1010*2 / Improved Samba Mahsuri	LS	V, VII	BB+Bl
3736	32042	RP 6531-RMS-78-54-7-44	MTU 1010*2 / Improved Samba Mahsuri	LS	V, VII	Bl
3737	32043	DST 2bp 20-4-14-14	DST gene edited line of MTU 1010	LS	V, VII	GEL-Yield
3738	32044	DST 66bp 8-5-6-4	DST gene edited line of MTU	LS	V, VII	GEL-

Entry No.	IET No.	Designation	Cross Combination	GT	Zones	Trait
			1010			Yield
3739	**MTU-1010 (RP)**			LS	V, VII	-
3740	32045	RP 6744-19182-1-1	Krishna Hamsa / IRBB60 // Krishna Hamsa / Tetep /// Krishna Hamsa / IR 96321-1447-561-B-1 // Krishna Hamsa / IR 81896-96-B-B-195 //// Krishna Hamsa / IR 74371-46-1-1-13 // Krishna Hamsa / DSB 2	LS	III, IV, VII	Bl
3741	**Krishna Hamsa (RP**)			LS	III, IV, VII	-
3742	32046	Gauri (Pusa 44 qGN4.1)	Pusa 44*3 // RIL HG28*	LS	II, III, VII	Yield
3743	**Pusa 44 (RP)**			LS	II, III, VII	-

Table No. 4b.2: Grain Yield (kg/ha) in AVT 1 - IME, Zone 2, Kharif 2023

Entry No	IET No	ZONE II - NORTHERN						ZONE II (3)	
		Haryana(1)		Jammu Kashmir (1)		Uttarpradesh (1)			
		Kaul		Chatha		Nagina			
3701	30704	6533				6107	4 #	6320	1 * #
3703	30735	5778				2212		3995	
3707	30062	5867				5461	7 #	5664	
3709	30736	6511				4730		5621	
3710	30742	6378				3404		4891	
3713	30730	7000				4465		5733	10
3714	Gotra Bidhan -3 (NC)	7578	6	3556		6413	2 #	5849	6 #
3716	30708	5911				4774		5343	
3718	30575	7733	5	4200		2496		4810	
3719	30577	9000	1 * #	4533	7	4883	10	6139	3 #
3720	30574	7556	7	4489	8	6806	1 #	6284	2 * #
3721	30587	7333		4622	5	5499	6 #	5818	8
3723	Zonal check	6444		4467	10	4504		5138	
3724	30593	8311	4 #	4578	6	5431	8 #	6107	5 #
3725	30573	8489	3 * #	5044	1	3301		5611	
3727	30578	8778	2 * #	4644	4	4989	9	6137	4 #
3728	30589	7511	8	4489	8	5502	5 #	5834	7
3729	US 312 (HC)	7356	10	4467	10	4542		5455	
3731	30576	6511		4711	3	6208	3 #	5810	9
3732	Local Check (LC)	7467	9	4889	2	4435		5597	
3742	32046	5378				1989		3684	
3743	Pusa 44 (RP)	5711				3808		4760	
Exp. Mean		**7052**		**4515**		**4634**		**5482**	
F Value		**13.93(p<0.0001)S**		**6.12(p<0.0001)S**		**54.85(p<0.0001)S**		**25.72(p<0.0001)S**	
CD		771		613		491		390	
CV%		**6.63**		**8.06**		**6.43**		**4.32**	
D/S		30-06-2023		07-10-2023		30-06-2023			
D/P		26-07-2023		31-07-2023		28-07-2023			

Table No.4b.2: Grain Yield (kg/ha) in AVT 1 - IME, (Trials not considered) Zone 2, Kharif 2023

Entry No	IET No	Trials not considered					
		Uttarakhand (0)		Punjab		Uttar Pradesh	
		@Pantnagar		@Ludhiana		@Kanpur	
3701	30704	2594		5369		3189	
3703	30735	2275		4357		3631	4
3707	30062	2970	10	5052		2829	
3709	30736	2385		5757	9	3420	6
3710	30742	3979	5	4658		3962	2
3713	30730	2412		5167		3073	
3714	Gotra Bidhan -3 (NC)	4564	3	3985		2456	
3716	30708	4835	1	5473		3287	9
3718	30575	2541		7292	1	3320	8
3719	30577	1537		5852	7	2838	
3720	30574	3474	7	5630		3540	5
3721	30587	4161	4	5538		3358	7
3723	Zonal check	2906		5959	6	2669	
3724	30593	2385		5799	8	2780	
3725	30573	2097		6059	4	3027	
3727	30578	4821	2	6764	2	3233	10
3728	30589	3151	9	5994	5	4191	1
3729	US 312 (HC)	2206		6619	3	3711	3
3731	30576	3840	6	5665		2918	
3732	Local Check (LC)	3314	8	5735	10	2889	
3742	32046	708		3668		3144	
3743	Pusa 44 (RP)	787		4572		3084	
Exp. Mean		**2907**		**5498**		**3207**	
F Value		**6.05(p<0.0001)S**		**32.90(p<0.0001)S**		**10.48(p<0.0001)S**	
CD		1284		418		384	
CV%		**26.80**		**4.41**		**7.26**	
D/S		07-03-2023		07-01-2023		07-02-2023	
D/P		25-07-2023		08-01-2023		08-11-2023	
Local Check Name		Pant Dhan 12		PR 130		CSR 2-3-2021	

Table No. 4b.2 (Contd): Grain Yield (kg/ha) in AVT 1 - IME, Zone 3, Kharif 2023

Entry No	IET No	ZONE III - EASTERN											
		Odisha				Odisha (2)		Bihar				Bihar (2)	
		ICAR-NRRI (Cuttack)		Jeypore		Mean		Bikramganj		Sabour		Mean	
3714	Gotra Bidhan -3 (NC)	5008	9	4896		4952		4595		4831	8	4713	
3718	30575	6701	2	5971	5	6336	2 * #	6664	2	5407	5	6036	4 * #
3719	30577	4894	10	5686	7	5290		6096	6	6342	2	6219	3 * #
3720	30574	6101	3	5575		5838	5 * #	5801	9	4906	7	5354	7 * #
3721	30587	4675		6251	4	5463	8 #	4723		4829	9	4776	
3723	Zonal check	3563		5064		4314		3696		3106		3401	
3724	30593	5313	7	6500	1	5907	3 * #	6701	1	4222		5462	6 * #
3725	30573	5922	4	5700	6	5811	6 * #	5070	10	4533	10	4802	10
3726	30756	4504		6416	2	5460	9 #	4697		5691	4	5194	8 * #
3727	30578	7137	1	5594	10	6366	1 * #	6473	5	6242	3	6358	2 * #
3728	30589	5014	8	5621	9	5318	10	6608	4	4975	6	5792	5 * #
3729	US 312 (HC)	4465		5286		4876		5060		3797		4429	
3730	30579	5344	6	6357	3	5851	4 * #	6626	3	7468	1	7047	1 * #
3731	30576	5870	5	5243		5557	7 #	5855	8	3631		4743	
3732	Local Check (LC)	4869		5629	8	5249		4932		4152		4542	
3740	32045	4624		2963		3794		5032		3326		4179	
3741	Krishna Hamsa (RP)	3548		3233		3391		3982		3579		3781	
3742	32046	4411		4057		4234		3055		3085		3070	
3743	Pusa 44 (RP)	4334		4217		4276		5886	7	4421		5154	9 #
Exp. Mean		**5068**		**5277**		**5173**		**5345**		**4660**		**5002**	
F Value		**10.78(p<0.0001)S**		**35.30(p<0.0001)S**		**22.76(p<0.0001)S**		**29.90(p<0.0001)S**		**5.34(p<0.0001)S**		**35.88(p<0.0001)S**	
CD		787		464		478		539		825		466	
CV%		**9.38**		**5.31**		**5.58**		**6.09**		**10.69**		**5.63**	
D/S		29-06-2023		07-07-2023				07-02-2023		07-01-2023			
D/P		28-07-2023		08-07-2023				31-07-2023		29-07-2023			
Local Check Name		CR DHAN 805		Manaswini				Sabour Harshit		Sabour Harshit Dhan			

Table No. 4b.2(Contd).: Grain Yield (kg/ha) in AVT 1 - IME, Zone 3, Kharif 2023

Entry No	IET No	ZONE III - EASTERN													
		Jharkhand (1)		West Bengal						West Bengal (3)		Uttar Pradesh (1)		Zone III (9)	
		Ranchi		Chinsurah		Hatwara		Bankura		Mean		Varanasi		Mean	
3714	Gotra Bidhan -3 (NC)	4599	#	5186		4302		6888	1	5459	10	3301		4845	
3718	30575	6075	1 * #	6700	1	6139	3	4906		5915	3 #	6374	2 * #	6104	2 * #
3719	30577	5214	7 #	5802	7	4679		5347		5276		5979	3	5560	6 * #
3720	30574	4083		4638		5123	8	6403	3	5388		5279		5323	9 * #
3721	30587	5460	5 #	6230	4	5233	7	6233	5	5899	4 #	5752	6	5487	7 * #
3723	Zonal check	4943	9 #	6350	3	5449	5	5046		5615	7	4516		4637	
3724	30593	5804	3 * #	5172		5117	9	5082		5124		6946	1 * #	5651	4 * #
3725	30573	4993	8 #	5491	10	4697		6338	4	5509	9	5509	9	5361	8 * #
3726	30756	4697	10 #	5660	8	5678	4	5547	10	5628	6	4820		5301	10 * #
3727	30578	5804	3 * #	6027	6	6347	2	5377		5917	2 #	4003		5889	3 * #
3728	30589	5460	5 #	6065	5	5013	10	6052	7	5710	5	5802	5	5623	5 * #
3729	US 312 (HC)	3935		5448		4507		6131	6	5362		5613	8	4916	
3730	30579	5976	2 * #	6543	2	6468	1	6613	2	6541	1 * #	4527		6214	1 * #
3731	30576	4697	10 #	5309		5341	6	5935	8	5528	8	3756		5071	
3732	Local Check (LC)	2951		5503	9	4516		5688	9	5236		5662	7	4878	
3740	32045	2755		4467		4466		5301		4745		5977	4	4323	
3741	Krishna Hamsa (RP)	2582		3479		3059		5495		4011		5410		3819	
3742	32046	2730		4781		4481		5165		4809		5419	10	4132	
3743	Pusa 44 (RP)	3222		4882		4681		5365		4976		3733		4527	
Exp. Mean		**4525**		**5460**		**5016**		**5732**		**5403**		**5178**		**5140**	
F Value		**30.87(p<0.0001)S**		**5.98(p<0.0001)S**		**8.99(p<0.0001)S**		**8.20(p<0.0001)S**		**11.80(p<0.0001)S**		**14.91(p<0.0001)S**		**45.15(p<0.0001)S**	
CD		587		901		737		553		431		691		267	
CV%		**7.83**		**9.96**		**8.88**		**5.83**		**4.82**		**8.05**		**3.14**	
D/S		29-06-2023		07-06-2023		06-07-2023		14-07-2023				07-01-2023			
D/P		22-07-2023		17-08-2023		05-08-2023		09-11-2023				27-07-2023			
Local Check Name		NAVEEN		Muktosree (IET 21845)		Latat		Lalat				HUR-4-3			

Table No. 4b.2 (Contd).: Grain Yield (kg/ha) in AVT 1 - IME, (Trials not considered), Zone 3 Kharif 2023

Entry No	IET No	Trials not considered			
		West Bengal		Uttar Pradesh (1)	
		@Malda		@Masodha	
3714	Gotra Bidhan -3 (NC)	4750	6.5	4951	10
3718	30575	3861		6258	5
3719	30577	4750	6.5	4815	
3720	30574	4111		5941	6
3721	30587	4806	2	6438	3
3723	Zonal check	4472	10	4296	
3724	30593	4361		4228	
3725	30573	4778	4	6628	2
3726	30756	4778	4	4345	
3727	30578	4667	8	4348	
3728	30589	4778	4	6301	4
3729	US 312 (HC)	4417		5205	8
3730	30579	4361		6795	1
3731	30576	4500	9	4594	
3732	Local Check (LC)	3972		4514	
3740	32045	4167		4228	
3741	Krishna Hamsa (RP)	4111		5368	7
3742	32046	4833	1	4037	
3743	Pusa 44 (RP)	4278		5155	9
Exp. Mean		**4461**		**5181**	
F Value		**1.62(p<0.1026)NS**		**91.39(p<0.0001)S**	
CD		**NS**		265	
CV%		**11.46**		**3.09**	
D/S		27-07-2023		07-01-2023	
D/P		13-08-2023		08-05-2023	
Local Check Name		Satabdi		IR 64-Sub 1	

Table No. 4b.2 (Contd): Grain Yield (kg/ha) in AVT 1 - IME, Zone 4, Kharif 2023

Entry No	IET No	ZONE IV - NORTH EASTERN					
		Assam (1)		Tripura (1)		Zone IV(2)	
		Titabar		Lembucherra		Mean	
3702	30707	5643		6384	#	6014	#
3704	30740	4965		5968	#	5467	
3705	30752	5884		6085	#	5985	
3706	30213	2526		4505		3516	
3708	30705	4784		4514		4649	
3709	30736	5677		5860	#	5769	
3710	30742	4540		6850	6 #	5695	
3711	30714	4662		5129	#	4896	
3712	30741	5096		4256		4676	
3714	Gotra Bidhan -3 (NC)	4615		6426		5521	
3715	29976	6194	9	6625	7 #	6410	7 #
3716	30708	5613		7307	4 #	6460	6 #
3717	30719	4932		6575	8 #	5754	
3718	30575	6718	3	6043	#	6381	9 #
3719	30577	6019	10	7564	2 * #	6792	4 #
3720	30574	5462		5661	#	5562	
3721	30587	4952		5644	#	5298	
3722	30580	5120		4946	#	5033	
3723	Zonal check	6267	8	6467	10	6367	10
3724	30593	6651	5	8071	1 * #	7361	1 * #
3725	30573	7266	1	7307	4 #	7287	2 * #
3727	30578	7192	2			7192	3 * #
3728	30589	6630	6			6630	5 #
3729	US 312 (HC)	6680	4	3815		5248	
3731	30576	3968		7415	3 #	5692	
3732	Local Check (LC)	6275	7	6525	9	6400	8
3740	32045	5214		6068	#	5641	
3741	Krishna Hamsa (RP)	4590		4239		4415	
Exp. Mean		**5505**		**6010**		**5789**	
F Value		**7.20(p<0.0001)S**		**11.25(p<0.0001)S**		**10.91(p<0.0001)S**	
CD		1075		927		755	
CV%		**11.92**		**9.4**		**7.97**	
D/S		19-07-2023		28-07-2023			
D/P		16-08-2023		18-08-2023			
Local Check Name		Numali		Hakuchuk 2			

Table No. 4b.2 (Contd): Grain Yield (kg/ha) in AVT 1 - IME, Zone 5, Kharif 2023

Entry No	IET No	ZONE V- CENTRAL									
		Madya Pradesh (1)		Chattisgarh							
		Jabalpur		Raipur		Ambikapur		Jagadalpur		Bilaspur	
3714	Gotra Bidhan -3 (NC)	5287	6	4717		4012		6798		7500	4
3718	30575	4570		5871	3	7778	1	6830		8077	3
3719	30577	5293	5	5758	4	6975	3	7978	4	8250	1
3720	30574	4563		5416	8	5772	9	7585	7	7450	5
3721	30587	4613		5454	7	6636	6	7245		7343	7
3723	Zonal check	4783	9	3389		4043		7505	9	5245	
3724	30593	4090		5639	5	7346	2	7272		7150	9
3725	30573	4763	10	6520	1	6883	4	7610	6	8120	2
3727	30578	6180	1 * #	5977	2	6080	7	7057		6991	10
3728	30589	4010		5365	9	5772	9	8141	3	7310	8
3729	US 312 (HC)	5107	8	4839	10	6790	5	7933	5	7387	6
3731	30576	4573		5600	6	6080	7	7448	10	6800	
3732	Local Check (LC)	4537		4566		4537		8731	1	5383	
3733	32039	5967	2 * #	4084		4136		6676		6383	
3734	32040	5410	4	3196		4414		6434		4850	
3735	32041	5157	7	3749		4105		6314		5210	
3736	32042	4000		3881		4012		5012		4900	
3737	32043	5793	3 * #	3173		4321		7573	8	6207	
3738	32044	4557		2702		4105		6818		4383	
3739	MTU-1010 (RP)	4213		3653		4136		8231	2	6917	
Exp. Mean		**4873**		**4678**		**5397**		**7260**		**6593**	
F Value		**15.56(p<0.0001)S**		**11.74(p<0.0001)S**		**16.64(p<0.0001)S**		**2.70(p<0.0038)S**		**12.34(p<0.0001)S**	
CD		441		901		893		1381		948	
CV%		**5.48**		**11.65**		**10.01**		**11.51**		**8.70**	
D/S		07-04-2023		30-06-2023		29-06-2023		07-02-2023		27-06-2023	
D/P		28-07-2023		08-05-2023		08-04-2023		23-07-2023		19-07-2023	

Table No. 4b.2 (Contd).: Grain Yield (kg/ha) in AVT 1 - IME, Zone 5, Kharif 2023

Entry No	IET No	ZONE V- CENTRAL									
		Chattisgarh (4)		Maharashtra				Maharashtra (2)		Zone V(7)	
		Mean		Sakoli		Sindewahi		Mean		Mean	
3714	Gotra Bidhan -3 (NC)	5757		4867		5035	8	4951		5459	
3718	30575	7139	3 *	5822	6	4700	9	5261	7	6235	4 *
3719	30577	7240	2 *	5422	9	5676	2	5549	5	6479	1 * #
3720	30574	6556	8 *	4733		5638	3	5186	8	5880	10 *
3721	30587	6670	6 *	5400	10	5842	1	5621	3	6076	5 *
3723	Zonal check	5046		4733		3645		4189		4763	
3724	30593	6852	4 *	5244		4674	10	4959	10	5916	9 *
3725	30573	7283	1 * #	5711	7	5344	6	5528	6	6422	2 * #
3727	30578	6526	9 *	6022	4	5507	4	5765	2 * #	6259	3 *
3728	30589	6647	7 *	7133	1	4021		5577	4	5965	8 *
3729	US 312 (HC)	6737	5 *	5933	5	3942		4938		5990	7 *
3731	30576	6482	10 *	6578	2	5420	5	5999	1 * #	6071	6 *
3732	Local Check (LC)	5804		4844		4161		4503		5251	
3733	32039	5320		3800		3450		3625		4928	
3734	32040	4724		5533	8	2783		4158		4660	
3735	32041	4845		6578	2	3170		4874		4898	
3736	32042	4451		4400		3540		3970		4249	
3737	32043	5319		4167		3024		3596		4894	
3738	32044	4502		4967		2998		3983		4361	
3739	MTU-1010 (RP)	5734		4867		5181	7	5024	9	5314	
Exp. Mean		**5982**		**5338**		**4388**		**4863**		**5504**	
F Value		**25.70(p<0.0001)S**		**5.71(p<0.0001)S**		**9.95(p<0.0001)S**		**7.27(p<0.0001)S**		**28.46(p<0.0001)S**	
CD		509		975		903		751		364	
CV%		**5.15**		**11.05**		**12.46**		**9.34**		**4.00**	
D/S				29-06-2023		29-06-2023					
D/P				25-07-2023		22-07-2023					
Local Check Name				PKV GANESH		PDKV-GANESH					

Table No. 4b.2 (Contd).: Grain Yield (kg/ha) in AVT 1 - IME, (Trial not considered), Zone 5, Kharif 2023

Entry No	IET No	Trial not considered	
		Madhya Pradesh	
		@Reawa	
3714	Gotra Bidhan -3 (NC)	3348	6
3718	30575		
3719	30577	2761	
3720	30574	1481	
3721	30587	2173	
3723	Zonal check	1768	
3724	30593	4582	2
3725	30573	3761	4
3727	30578	2514	
3728	30589	3580	5
3729	US 312 (HC)	2985	9
3731	30576	3307	7
3732	Local Check (LC)	2126	
3733	32039	3176	8
3734	32040	2397	
3735	32041	5529	1
3736	32042	2590	
3737	32043	1983	
3738	32044	3966	3
3739	MTU-1010 (RP)	2882	10
Exp. Mean		**2995**	
F Value		**25.31(p<0.0001)S**	
CD		545	
CV%		**10.98**	
D/S		07-05-2023	
D/P		08-05-2023	
Local Check Name		JR206	

Table No.4b.2. (Contd): Grain Yield (kg/ha) in AVT 1 - IME, Zone 6, Kharif 2023

Entry No	IET No	ZONE VI -WESTERN							
		Maharashtra				Maharashtra (2)		Gujarat	
		Karjat		Vadagaon		Mean		Navasari	
3714	Gotra Bidhan -3 (NC)	3879		6640	3	5260	8	5089	6
3718	30575	5401	5	7066	2	6234	2 * #	4416	
3719	30577	5535	3	7388	1	6462	1 * #	5006	7
3720	30574	5129	9	6147	4	5638	4	4722	10
3721	30587	5195	7	6145	5	5670	3	5681	2
3723	Zonal check	4167	10	4865		4516		4305	
3724	30593	4146		5393	7	4770		5527	3
3725	30573	5658	2	5345	8	5502	5	6110	1
3727	30578	5170	8	5543	6	5357	6	4596	
3728	30589	5458	4	4947	10	5203	9	5411	4
3729	US 312 (HC)	5751	1	4857		5304	7	4737	9
3731	30576	3884		5149	9	4517		4952	8
3732	Local Check (LC)	5247	6	4851		5049	10	5330	5
Exp. Mean		**4971**		**5718**		**5344**		**5068**	
F Value		**4.76(p<0.0004)S**		**9.30(p<0.0001)S**		**8.31(p<0.0001)S**		**4.54(p<0.0006)S**	
CD		863		783		548		773	
CV%		**10.3**		**8.13**		**6.08**		**9.05**	
D/S		27-06-2023		30-06-2023				07-03-2023	
D/P		22-07-2023		31-07-2023				31-07-2023	
Local Check Name		Karjat-3		Pawana				GNR-3	

Table No.4b.2 (Contd).: Grain Yield (kg/ha) in AVT 1 - IME, Zone 6, Kharif 2023

Entry No	IET No	ZONE VI -WESTERN						Zone VI (5)	
		Gujarat				Gujarat (3)			
		Nawagam		Vyara		Mean			
3714	Gotra Bidhan -3 (NC)	9069	7	6849	8	7002	8	6305	8
3718	30575	9754	1	6622	10	6931	9	6652	4
3719	30577	9228	6	7441	6	7225	6	6920	2 *
3720	30574	9603	2	7741	5	7355	4	6668	3
3721	30587	8979	8	6598		7086	7	6520	5
3723	Zonal check	5819		4937		5020		4819	
3724	30593	9391	4	7936	3	7618	2	6479	7
3725	30573	9294	5	9934	1	8446	1 * #	7268	1 * #
3727	30578	8861	9	6749	9	6735	10	6184	10
3728	30589	7052		7400	7	6621		6054	
3729	US 312 (HC)	9394	3	7763	4	7298	5	6500	6
3731	30576	8815	10	8702	2	7490	3	6300	9
3732	Local Check (LC)	8100		6403		6611		5986	
Exp. Mean		**8720**		**7313**		**7034**		**6358**	
F Value		**8.70(p<0.0001)S**		**3.94(p<0.0016)S**		**9.95(p<0.0001)S**		**12.40(p<0.0001)S**	
CD		1031		1740		675		449	
CV%		**7.01**		**14.12**		**5.7**		**4.19**	
D/S		07-04-2023		07-04-2023					
D/P		08-07-2023		26-07-2023					
Local Check Name		Mahisagar		GNR-3					

Table No. 4b.2 (Contd).: Grain Yield (kg/ha) in AVT 1 - IME, Zone 7, Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN							
		Andhra Pradesh				Andhra Pradesh (2)		Telangana	
		Maruteru		Ragolu		Mean		Rajendrangar	
3714	Gotra Bidhan -3 (NC)	4753	10	7532	3	6143	4	6076	7
3718	30575	5880	4	5710	10	5795	6	8705	1
3719	30577	6836	1	7706	2	7271	1 * #	5894	10
3720	30574	5471	6	8448	1	6960	2 * #	5907	9
3721	30587	6416	2	6742	6	6579	3 #	6496	4
3723	Zonal check	4598		5766	8	5182		4376	
3724	30593	5873	5	5492		5683	8	6284	5
3725	30573	6039	3	5528		5784	7	6523	3
3727	30578	5448	7	5206		5327		7451	2
3728	30589	4619		5401		5010		6272	6
3729	US 312 (HC)	5138	8	6151	7	5645	9	5217	
3731	30576	3446		7290	4	5368	10	5969	8
3732	Local Check (LC)	4936	9	6746	5	5841	5	5028	
3733	32039	4552		5353		4953		5061	
3734	32040	3879		5016		4448		4344	
3735	32041	3984		5194		4589		4977	
3736	32042	4112		5393		4753		4281	
3737	32043	2828		5758	9	4293		4783	
3738	32044	2903		5341		4122		3836	
3739	MTU-1010 (RP)	4299		5429		4864		5049	
3740	32045	3702		5250		4476		3893	
3741	Krishna Hamsa (RP)	2811		5417		4114		4205	
3742	32046	2890		5274		4082		4249	
3743	Pusa 44 (RP)	4447		5222		4835		4741	
Exp. Mean		**4577**		**5932**		**5255**		**5401**	
F Value		**14.30(p<0.0001)S**		**8.29(p<0.0001)S**		**20.80(p<0.0001)S**		**10.30(p<0.0001)S**	
CD		842		905		532		1027	
CV%		**11.19**		**9.29**		**6.16**		**11.57**	
D/S		16-07-2023		07-04-2023				07-03-2023	
D/P		13-08-2023		25-07-2023				08-07-2023	
Local Check Name		MTU1121		MTU 1239				RNR 29325	

Table No. 4b.2 (Contd).: Grain Yield (kg/ha) in AVT 1 - IME, Zone 7, Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN									
		Telangana				Telangana (3)		Tamil Nadu			
		Kunaram		Warangal		Mean		Adhuturai		Coimbatore	
3714	Gotra Bidhan -3 (NC)	5426	9	6773	8	6092	8 #			6840	6
3718	30575	4670		8056	2	7144	2 * #	4731	6	6440	10
3719	30577	5473	7	7958	4	6442	4 #	5248	4	6687	7
3720	30574	6353	1	5724		5995	9 #	5611	3	6549	8
3721	30587	5353	10	6972	6	6274	7 #	4299	10	6889	4
3723	Zonal check	4359		5742		4826				6154	
3724	30593	5593	6	7161	5	6346	5 #	4662	7	5504	
3725	30573	5854	4	6511		6296	6 #	4259		6422	
3727	30578	6090	2	8040	3	7194	1 * #	5799	2	5743	
3728	30589	4775		8702	1	6583	3 #	4109		6945	2
3729	US 312 (HC)	4947		5540		5235				6915	3
3731	30576	5996	3	5414		5793	10	4194		7003	1
3732	Local Check (LC)	5781	5	6459		5756		4028		6189	
3733	32039	4449		6614	9	5375				5196	
3734	32040	3705		6802	7	4950				5571	
3735	32041	3540		6604	10	5040		6144	1	5448	
3736	32042	4969		6467		5239				6465	9
3737	32043	5465	8	5838		5362				5194	
3738	32044	3354		4583		3924				5223	
3739	MTU-1010 (RP)	4814		6118		5327				6889	4
3740	32045	4796		3143		3944				5763	
3741	Krishna Hamsa (RP)	4792		2748		3915		4662	7	4920	
3742	32046	5135		4007		4464		4458	9	4917	
3743	Pusa 44 (RP)	4742		6011		5165		4931	5	6379	
Exp. Mean		**5018**		**6166**		**5528**		**4795**		**6094**	
F Value		**11.61(p<0.0001)S**		**18.43(p<0.0001)S**		**19.39(p<0.0001)S**		**8.04(p<0.0001)S**		**4.98(p<0.0001)S**	
CD		631		933		580		639		873	
CV%		**7.66**		**9.21**		**6.38**		**7.94**		**8.72**	
D/S		07-03-2023		26-06-2023				07-01-2023		28-06-2023	
D/P		08-05-2023		25-07-2023				08-08-2023		26-07-2023	
Local Check Name		KNM 1638		RNR 15048				ADT 58		TKM 13	

Table No. 4b.2 (Contd).: Grain Yield (kg/ha) in AVT 1 - IME, Zone 7, Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN									
		Tamil Nadu (2)		Kerala				Kerala (2)		Karnataka	
		Mean		Moncompu		Pattambi		Mean		Mandya	
3714	Gotra Bidhan -3 (NC)	6840	3	3038		6920	4	4979		5626	10
3718	30575	5586		5816	7	6222	10	6019	7	5770	9
3719	30577	5968	7	6424	4	6129		6277	4	6749	4
3720	30574	6080	6	5642	9	6298	8	5970	8	6296	7
3721	30587	5594		5642	9	5627		5635		6811	3
3723	Zonal check	6154	5	3733		7866	1	5800	10	3683	
3724	30593	5083		5881	6	6933	3	6407	3	6925	1
3725	30573	5341		4731		6044		5388		6864	2
3727	30578	5771	9	5469		5978		5724		6091	8
3728	30589	5527		6771	1	6800	5	6786	2 * #	5547	
3729	US 312 (HC)	6915	1	5469		6115		5792		6673	5
3731	30576	5599		6250	5	5987		6119	6	6364	6
3732	Local Check (LC)	5109		4774		5642		5208		5573	
3733	32039	5196		4167		6462	6	5315		4968	
3734	32040	5571		5642	9	6062		5852	9	3745	
3735	32041	5796	8	5208		6000		5604		4474	
3736	32042	6465	4	4253		6195		5224		4236	
3737	32043	5194		6684	2	6942	2	6813	1 * #	3060	
3738	32044	5223		2474		6075		4275		2234	
3739	MTU-1010 (RP)	6889	2	3385		6449	7	4917		3686	
3740	32045	5763	10	4427		5680		5054		4042	
3741	Krishna Hamsa (RP)	4791		4470		6298	8	5384		4465	
3742	32046	4688		6467	3	5938		6203	5	4545	
3743	Pusa 44 (RP)	5655		4427		5662		5045		5488	
Exp. Mean		**5700**		**5052**		**6263**		**5658**		**5163**	
F Value		**5.99(p<0.0001)S**		**6.51(p<0.0001)S**		**3.15(p<0.0004)S**		**4.63(p<0.0001)S**		**69.41(p<0.0001)S**	
CD		693		1264		821		785		438	
CV%		**7.4**		**15.23**		**7.98**		**8.44**		**5.16**	
D/S				21-07-2023		17-07-2023				19-07-2023	
D/P				19-08-2023		08-10-2023				08-10-2023	
Local Check Name				MO 16 Uma		JYOTHI				Thanu	

Table No. 4b.2 (Contd).: Grain Yield (kg/ha) in AVT 1 - IME, Zone 7, Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN									
		Karnataka				Karnataka (3)		Puducherry (1)		Zone VII(13)	
		Mugad		Gangavathi		Mean		Karaikal		Mean	
3714	Gotra Bidhan -3 (NC)	4811		8003	10	6147		3505		5775	10
3718	30575	8818	1	6425		7004	3 #	4113		6258	4 * #
3719	30577	7475	4	6736		6987	4 #	4488		6446	1 * #
3720	30574	5878		8259	5	6811	5	4999	8 #	6264	3 * #
3721	30587	5856		6716		6461	7	4697		6040	7 #
3723	Zonal check	5565		8739	4	5996		5939	5 #	5543	
3724	30593	6352	7	7902		7060	2 #	7160	2 * #	6286	2 * #
3725	30573	6407	6	5879		6383	8	7344	1 * #	6031	8 #
3727	30578	6520	5	4983		5865		6440	4 #	6097	5 * #
3728	30589	5520		7590		6219		4807	10	5989	9 #
3729	US 312 (HC)	6088	9	6074		6278	10	3830		5680	
3731	30576	7749	2	7910		7341	1 * #	5373	6 #	6073	6 * #
3732	Local Check (LC)	6321	8	8029	8	6641	6	4524		5695	
3733	32039	5803		8168	7	6313	9	3777		5381	
3734	32040	4652		8005	9	5467		3423		5071	
3735	32041	5951		8187	6	6204		4642		5412	
3736	32042	5278		8984	2	6166		4543		5431	
3737	32043	4990		8750	3	5600		5360	7 #	5471	
3738	32044	4288		7840		4787		3883		4336	
3739	MTU-1010 (RP)	5575		9458	1	6240		4838	9	5499	
3740	32045	5569		4668		4760		3419		4529	
3741	Krishna Hamsa (RP)	6003	10	4913		5127		3345		4542	
3742	32046	7601	3	4124		5423		6978	3 #	5122	
3743	Pusa 44 (RP)	5734		4443		5222		3469		5054	
Exp. Mean		**6033**		**7116**		**6104**		**4787**		**5584**	
F Value		**2.69(p<0.0018)S**		**46.21(p<0.0001)S**		**9.73(p<0.0001)S**		**9.22(p<0.0001)S**		**35.07(p<0.0001)S**	
CD		1741		633		622		1134		270	
CV%		**17.56**		**5.42**		**6.2**		**14.41**		**2.95**	
D/S		13-07-2023		27-07-2023				09-12-2023			
D/P				23-08-2023				13-12-2023			
Local Check Name		PSB-68		GNV 1109				ADT39			

Table No. 4b.2 (Contd).: Grain Yield (kg/ha) in AVT 1 - IME, (Trial not considered) Zone 7, Kharif 2023

Entry No	IET No	Trial not considered	
		Karnataka	
		@Brahmawar	
3714	Gotra Bidhan -3 (NC)	3375	
3718	30575	3279	
3719	30577	4339	2
3720	30574	4166	4
3721	30587	4069	7
3723	Zonal check	3834	9
3724	30593	3476	
3725	30573	4162	5
3727	30578	3548	10
3728	30589	3022	
3729	US 312 (HC)	3956	8
3731	30576	3127	
3732	Local Check (LC)	4108	6
3733	32039	3106	
3734	32040	3333	
3735	32041	3225	
3736	32042	3371	
3737	32043	3296	
3738	32044	3139	
3739	MTU-1010 (RP)	2766	
3740	32045	3381	
3741	Krishna Hamsa (RP)	4453	1
3742	32046	3089	
3743	Pusa 44 (RP)	4200	3
Exp. Mean		**3576**	
F Value		**13.27(p<0.0001)S**	
CD		380	
CV%		**6.47**	
D/S		06-06-2023	
D/P		07-11-2023	

Table No.4b.3: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – IME, Zone -2 Kharif 2023

Entry No	IET No	ZONE II - NORTHERN									ZONE II (3)		
		Haryana(1) Kaul			Jammu Kashmir (1) Chatha			Uttarpradesh (1) Nagina					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3701	30704	87	116	292				95	103	258	91	110	275
3703	30735	89	106	295				101	105	327	95	106	311
3707	30062	91	119	290				103	110	265	97	114	277
3709	30736	88	113	284				94	101	322	91	107	303
3710	30742	86	122	307				95	108	239	91	115	273
3713	30730	83	110	320				94	106	234	89	108	277
3714	Gotra Bidhan -3 (NC)	81	102	341	92	123	307	93	102	323	89	109	324
3716	30708	93	108	283				110	103	248	101	106	266
3718	30575	90	113	317	96	111	306	102	100	215	96	108	279
3719	30577	88	111	354	93	99	297	98	102	323	93	104	325
3720	30574	78	123	291	88	103	305	92	107	344	86	111	314
3721	30587	82	111	317	90	88	313	95	113	243	89	104	291
3723	Zonal check	90	88	292	95	94	311	105	98	185	97	93	263
3724	30593	86	121	341	96	97	295	98	112	321	93	110	319
3725	30573	83	117	338	90	107	293	95	104	173	89	109	268
3727	30578	87	113	339	96	110	307	101	107	280	95	110	309
3728	30589	84	117	324	96	105	301	96	111	295	92	111	307
3729	US 312 (HC)	89	106	278	94	102	304	95	100	252	93	103	278
3731	30576	83	112	321	92	99	308	95	108	252	90	106	294
3732	Local Check (LC)	94	102	327	101	103	298	108	104	188	101	103	271
3742	32046	92	112	306				105	101	269	99	107	288
3743	Pusa 44 (RP)	98	89	314				109	105	276	103	97	295
Exp. Mean		**87**	**111**	**312**	**94**	**103**	**304**	**99**	**105**	**265**	**94**	**107**	**291**

Table No. 4b.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – IME, (Trial Not Considered), Zone -2 Kharif 2023

Entry No	IET No	Trials not considered								
		Uttarakhand @Pantnagar			Punjab @Ludhiana			Uttarpradesh @Kanpur		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3701	30704	83	112	261	90	110	216	50	103	306
3703	30735	90	115	259	93	102	200	48	105	213
3707	30062	94	126	267	96	109	224	56	110	253
3709	30736	84	113	266	88	109	208	49	101	295
3710	30742	86	120	218	89	116	187	50	108	316
3713	30730	82	109	277	86	104	229	51	106	289
3714	Gotra Bidhan -3 (NC)	84	102	249	87	95	189	50	102	306
3716	30708	94	115	236	94	111	196	55	103	300
3718	30575	90	111	247	96	109	220	54	100	317
3719	30577	88	102	254	91	108	220	53	102	308
3720	30574	81	104	174	87	116	191	49	107	223
3721	30587	85	120	236	90	97	192	52	113	280
3723	Zonal check	93	95	206	98	95	222	50	98	302
3724	30593	86	116	267	90	104	200	52	112	254
3725	30573	81	81	210	92	111	249	50	104	174
3727	30578	86	111	266	95	106	216	52	107	273
3728	30589	85	108	251	90	111	233	49	111	340
3729	US 312 (HC)	87	105	242	92	107	209	47	100	279
3731	30576	80	115	231	90	100	213	51	108	275
3732	Local Check (LC)	84	101	272	99	92	264	57	104	262
3742	32046	98	110	246	100	106	202	52	101	245
3743	Pusa 44 (RP)	99	87	252	101	83	246	49	105	201
Exp. Mean		**87**	**108**	**245**	**93**	**105**	**215**	**51**	**105**	**273**

Table No. 4b.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – IME, Zone - 3 Kharif 2023

Entry No	IET No	ZONE III - EASTERN																	
		Odisha						Odisha (2)			Bihar						Bihar (2)		
		ICAR-NRRI (Cuttack)			Jeypore			Mean			Bikramganj			Sabour			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3714	Gotra Bidhan -3 (NC)	85	111	347	108	78	315	97	95	331	96	116	317	91	101	246	94	108	281
3718	30575	95	129	406	107	91	439	101	110	422	93	126	237	101	111	284	97	118	261
3719	30577	95	123	329	105	82	431	100	102	380	95	104	419	97	106	272	96	105	345
3720	30574	85	124	265	98	89	422	91	107	343	90	117	346	94	111	226	92	114	286
3721	30587	89	116	354	103	92	444	96	104	399	95	114	352	97	110	228	96	112	290
3723	Zonal check	97	129	322	104	98	503	101	113	413	87	113	389	105	112	268	96	113	329
3724	30593	95	136	334	105	93	345	100	115	340	92	128	316	96	119	262	94	124	289
3725	30573	88	126	288	108	83	464	98	105	376	118	113	341	93	111	286	106	112	314
3726	30756	97	129	316	106	90	344	101	109	330	92	116	387	108	118	301	100	117	344
3727	30578	95	127	387	107	85	404	101	106	395	92	120	340	101	109	283	97	114	312
3728	30589	94	126	287	108	94	384	101	110	336	95	118	343	101	111	307	98	115	325
3729	US 312 (HC)	95	131	290	109	94	438	102	112	364	97	127	310	99	110	301	98	118	306
3730	30579	88	122	396	103	87	344	96	104	370	95	120	282	101	109	280	98	115	281
3731	30576	86	125	314	98	86	387	92	106	351	88	112	324	93	108	215	91	110	270
3732	Local Check (LC)	94	117	354	105	92	414	100	105	384	98	136	393	97	120	285	98	128	339
3740	32045	94	113	355	106	71	322	100	92	339	94	112	405	107	95	288	101	103	347
3741	Krishna Hamsa (RP)	86	97	319	97	71	357	91	84	338	95	103	387	94	91	274	95	97	331
3742	32046	97	122	298	107	78	360	102	100	329	92	120	350	108	111	281	100	115	316
3743	Pusa 44 (RP)	97	96	293	107	75	367	102	86	330	97	103	314	110	85	278	104	94	296
Exp. Mean		**92**	**121**	**329**	**105**	**86**	**394**	**98**	**103**	**362**	**95**	**117**	**345**	**100**	**108**	**272**	**97**	**112**	**308**

Table No. 4b.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – IME, Zone - 3 Kharif 2023

Entry No	IET No	ZONE III - EASTERN																				
		Jharkhand (1)			West Bengal									West Bengal (3)			Uttar Pradesh (1)			Zone III (9)		
		Ranchi			Chinsurah			Hatwara			Bankura			Mean			Varanasi			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3714	Gotra Bidhan -3 (NC)	91	83	137	94	75	242	95	97	256	98	77	441	96	83	313	86	104	145	94	93	272
3718	30575	99	96	183	98	115	385	102	102	347	91	72	315	97	96	349	93	108	196	98	105	310
3719	30577	95	91	165	99	99	451	96	98	251	83	81	275	92	93	326	89	102	177	95	98	308
3720	30574	88	100	133	96	100	319	92	106	182	90	89	385	93	98	295	90	116	130	91	106	267
3721	30587	92	89	145	96	97	330	94	101	325	96	76	347	95	91	334	88	105	156	94	100	298
3723	Zonal check	91	98	160	96	99	297	93	101	336	93	94	341	94	98	325	92	112	134	95	106	306
3724	30593	94	107	181	96	120	297	95	106	293	98	83	364	96	103	318	90	113	163	96	112	284
3725	30573	90	97	123	96	93	220	93	101	240	91	92	347	93	95	269	96	109	133	97	103	271
3726	30756	102	91	180	108	97	297	104	99	325	98	75	332	103	90	318	91	104	193	101	102	297
3727	30578	94	93	165	99	104	341	103	102	245	88	83	364	96	96	317	98	108	145	97	103	297
3728	30589	90	94	181	98	91	308	93	100	215	95	83	348	95	92	290	92	106	164	96	103	282
3729	US 312 (HC)	93	100	203	96	100	253	93	104	261	89	84	337	93	96	284	86	113	151	95	107	283
3730	30579	92	96	146	97	106	341	100	99	316	95	92	311	97	99	322	92	106	177	96	104	288
3731	30576	94	100	101	90	97	253	96	103	229	96	71	341	94	90	274	91	107	124	92	101	254
3732	Local Check (LC)	98	98	189	98	120	341	98	99	336	98	103	362	98	107	346	100	89	194	99	108	319
3740	32045	100	83	195	94	88	385	89	94	235	93	79	315	92	87	311	86	100	221	96	93	302
3741	Krishna Hamsa (RP)	92	91	156	88	75	396	88	85	347	91	72	342	89	77	362	92	94	195	91	87	308
3742	32046	104	91	166	99	99	253	100	99	208	92	93	367	97	97	276	91	113	145	99	103	270
3743	Pusa 44 (RP)	111	77	174	99	98	418	103	88	272	97	80	351	100	88	347	101	88	173	103	88	293
Exp. Mean		**95**	**93**	**162**	**97**	**98**	**322**	**96**	**99**	**275**	**93**	**83**	**347**	**95**	**94**	**315**	**92**	**105**	**164**	**96**	101	**290**

Table No. 4b.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – IME, (Trials not considered), Zone -3 Kharif 2023

Entry No	IET No	Trials not considered					
		West Bengal			Uttar Pradesh		
		@Malda			@Masodha		
		DFF	PH	PAN	DFF	PH	PAN
3714	Gotra Bidhan -3 (NC)	67	105	9	101	81	231
3718	30575	78	151	8	96	92	274
3719	30577	77	92	9	101	86	244
3720	30574	68	105	8	97	9	285
3721	30587	76	119	8	94	92	284
3723	Zonal check	77	107	6	105	102	237
3724	30593	79	142	8	115	70	213
3725	30573	68	105	11	90	103	294
3726	30756	75	100	9	88	83	233
3727	30578	73	108	9	83	78	215
3728	30589	69	130	10	87	64	266
3729	US 312 (HC)	67	90	8	91	90	242
3730	30579	81	100	10	95	103	286
3731	30576	63	100	8	103	95	243
3732	Local Check (LC)	66	100	10	86	79	255
3740	32045	65	95	8	92	77	247
3741	Krishna Hamsa (RP)	64	100	9	88	75	265
3742	32046	67	111	9	103	81	229
3743	Pusa 44 (RP)	66	105	9	89	92	262
Exp. Mean		**71**	**109**	**9**	**95**	**82**	**253**

Table No. 4b.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – IME, Zone - 4 Kharif 2023

Entry No	IET No	ZONE IV - NORTH EASTERN								
		Assam (1)			Tripura (1)			Zone IV(2)		
		Titabar			Lembucherra			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3702	30707	107	114	279	79	112	342	93	113	310
3704	30740	122	93	264	85	102	283	103	97	274
3705	30752	105	101	249	74	104	250	90	103	250
3706	30213	111	106	276	71	100	283	91	103	280
3708	30705	107	94	273	75	94	283	91	94	278
3709	30736	100	109	280	57	109	275	79	109	278
3710	30742	100	95	258	86	117	233	93	106	246
3711	30714	99	87	281	77	101	292	88	94	286
3712	30741	114	98	284	78	113	292	96	105	288
3714	Gotra Bidhan -3 (NC)	96	91	282	80	109	283	88	100	283
3715	29976	106	103	269	79	103	275	93	103	272
3716	30708	108	102	258	79	103	275	93	102	267
3717	30719	98	95	285	66	105	258	82	100	272
3718	30575	101	111	270	75	124	325	88	118	298
3719	30577	99	96	287	76	105	292	88	101	289
3720	30574	95	96	281	85	117	217	90	106	249
3721	30587	99	94	249	74	105	308	86	99	279
3722	30580	112	105	249	75	100	233	93	102	241
3723	Zonal check	101	111	263	74	101	250	87	106	256
3724	30593	99	106	280	76	110	217	88	108	248
3725	30573	97	108	253	70	114	242	84	111	247
3727	30578	99	108	306	72	109	233	86	108	270
3728	30589	100	96	266				100	96	266
3729	US 312 (HC)	99	113	286	76	123	267	88	118	276
3731	30576	93	106	269	75	116	250	84	111	259
3732	Local Check (LC)	107	123	283	69	118	258	88	121	271
3740	32045	97	92	280	72	97	283	85	95	282
3741	Krishna Hamsa (RP)	95	87	270	69	92	283	82	90	277
Exp. Mean		**102**	**101**	**272**	**75**	**108**	**270**	**89**	**104**	**271**

Table No. 4b.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – IME, Zone - 5 Kharif 2023

Entry No	IET No	ZONE V- CENTRAL														
		Madya Pradesh (1)			Chattisgarh											
		Jabalpur			Raipur			Ambikapur			Jagadalpur			Bilaspur		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3714	Gotra Bidhan -3 (NC)	98	72	240	101	104	201	104	100	203	93	76	230	86	106	
3718	30575	101	75	234	100	113	203	110	112	274	98	75	288	92	120	
3719	30577	101	66	174	100	107	195	104	96	252	98	74	310	90	116	
3720	30574	97	75	175	94	124	198	100	114	213	94	77	322	86	119	
3721	30587	97	74	164	96	108	199	105	104	250	94	75	340	87	117	
3723	Zonal check	94	70	216	96	103	177	98	101	282	89	66	333	83	105	
3724	30593	96	83	178	98	120	211	105	119	271	97	77	260	87	124	
3725	30573	97	75	174	96	122	194	106	97	193	94	77	319	87	114	
3727	30578	101	77	198	100	116	198	106	101	227	101	75	291	94	116	
3728	30589	99	68	163	97	110	191	100	109	242	92	75	275	87	117	
3729	US 312 (HC)	98	73	181	99	120	211	104	108	246	95	85	311	88	133	
3731	30576	97	74	174	96	113	204	104	106	222	94	79	267	86	117	
3732	Local Check (LC)	98	75	202	95	115	191	97	115	191	98	77	321	88	108	
3733	32039	96	71	169	99	112	187	105	100	189	94	81	345	92	110	
3734	32040	97	72	181	97	106	198	104	97	255	93	68	315	84	117	
3735	32041	93	71	206	96	104	193	99	98	181	92	69	295	85	108	
3736	32042	94	78	236	96	116	171	100	103	186	93	74	259	88	109	
3737	32043	94	69	244	104	106	205	98	97	230	86	69	274	83	109	
3738	32044	94	53	240	96	88	199	99	90	270	89	68	296	84	92	
3739	MTU-1010 (RP)	94	73	289	94	107	201	100	106	256	86	72	354	83	105	
Exp. Mean		**97**	**72**	**202**	**98**	**111**	**196**	**102**	**104**	**232**	**94**	**74**	**300**	**87**	**113**	

Table No. 4b.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – IME, Zone - 5 Kharif 2023

Entry No	IET No	ZONE V- CENTRAL														
		Chattisgarh (4)			Maharashtra						Maharashtra (2)			Zone V(7)		
		Mean			Sakoli			Sindewahi			Mean			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3714	Gotra Bidhan -3 (NC)	96	96	211	91	114	281	92	114	236	92	114	259	95	98	232
3718	30575	100	105	255	96	127	308	94	117	238	95	122	273	99	106	257
3719	30577	98	98	252	94	116	308	89	112	289	91	114	299	97	98	255
3720	30574	94	109	244	87	124	260	87	115	203	87	119	232	92	107	228
3721	30587	96	101	263	90	115	309	90	118	247	90	117	278	94	102	252
3723	Zonal check	92	94	264	82	118	286	86	111	276	84	115	281	90	96	262
3724	30593	97	110	247	90	124	302	90	126	227	90	125	264	95	110	241
3725	30573	96	103	235	89	125	277	87	116	233	88	120	255	94	104	232
3727	30578	100	102	239	93	126	274	95	121	248	94	124	261	99	105	239
3728	30589	94	103	236	92	118	374	90	110	200	91	114	287	94	101	241
3729	US 312 (HC)	97	111	256	94	125	270	91	122	169	93	124	220	96	109	231
3731	30576	95	104	231	89	127	310	92	121	189	91	124	250	94	105	228
3732	Local Check (LC)	95	104	234	95	114	280	96	132	271	96	123	275	95	105	242
3733	32039	98	101	240	86	126	225	91	117	219	89	121	222	95	102	222
3734	32040	95	97	256	88	123	289	88	113	240	88	118	264	93	99	246
3735	32041	93	95	223	86	127	297	87	114	197	87	120	247	91	99	228
3736	32042	94	101	205	84	119	235	87	114	200	85	117	218	92	102	215
3737	32043	93	95	236	90	94	277	86	118	275	88	106	276	92	95	251
3738	32044	92	84	255	88	123	285	88	92	227	88	108	256	91	87	253
3739	MTU-1010 (RP)	91	97	270	103	123	286	87	116	269	95	120	278	92	100	276
Exp. Mean		**95**	**101**	**243**	**90**	**120**	**287**	**90**	**116**	**233**	**90**	**118**	**260**	**94**	**101**	**242**

Table No. 4b.3 (Contd) : Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – IME, (Trial not considered) Zone -5 Kharif 2023

Entry No	IET No	Trial not considered		
		Madhya Pradesh		
		@Rewa		
		DFF	PH	PAN
3714	Gotra Bidhan -3 (NC)	97	86	221
3718	30575			
3719	30577	94	79	247
3720	30574	95	81	250
3721	30587	96	89	254
3723	Zonal check	91	85	242
3724	30593	95	85	295
3725	30573	95	95	233
3727	30578	99	83	285
3728	30589	94	83	260
3729	US 312 (HC)	95	74	235
3731	30576	99	85	234
3732	Local Check (LC)	92	85	205
3733	32039	96	85	155
3734	32040	92	75	246
3735	32041	91	81	291
3736	32042	92	84	234
3737	32043	91	98	223
3738	32044	93	75	114
3739	MTU-1010 (RP)	91	76	268
Exp. Mean		**94**	**83**	**236**

Table No. 4b.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – IME, Zone - 6 Kharif 2023

Entry No	IET No	ZONE VI -WESTERN											
		Maharashtra						Maharashtra (2)			Gujarat		
		Karjat			Vadagaon			Mean			Navasari		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3714	Gotra Bidhan -3 (NC)	95	110	225	97	91	325	96	101	275	84	116	261
3718	30575	94	129	293	94	111	307	94	120	300	90	130	278
3719	30577	96	119	256	93	100	333	95	110	295	91	122	270
3720	30574	94	114	234	86	109	289	90	112	261	82	123	286
3721	30587	93	117	274	90	104	295	92	111	285	81	104	322
3723	Zonal check	94	97	231	90	76	263	92	87	247	80	99	292
3724	30593	95	129	234	91	110	265	93	120	250	91	135	242
3725	30573	93	115	279	90	103	228	92	109	253	84	117	242
3727	30578	95	128	253	98	95	261	97	112	257	92	138	294
3728	30589	95	124	278	86	96	261	91	110	270	90	123	271
3729	US 312 (HC)	93	127	307	93	93	258	93	110	283	86	122	300
3731	30576	92	114	208	98	102	222	95	108	215	77	120	256
3732	Local Check (LC)	97	106	274	93	82	226	95	94	250	80	127	290
Exp. Mean		**94**	**118**	**257**	**92**	**98**	**272**	**93**	**108**	**265**	**85**	**121**	**277**

Table No. 4b.3 (Contd) : Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – IME, Zone - 6 Kharif 2023

Entry No	IET No	ZONE VI -WESTERN									Zone VI (5)		
		Gujarat						Gujarat (3)					
		Nawagam			Vyara			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3714	Gotra Bidhan -3 (NC)	89	98	307	83	120	220	85	111	263	90	107	268
3718	30575	95	113	307	99	143	238	95	129	274	95	125	285
3719	30577	94	103	300	87	132	252	91	119	274	92	115	282
3720	30574	98	116	309	83	134	261	88	124	285	89	119	276
3721	30587	92	119	299	85	130	234	86	118	285	88	115	285
3723	Zonal check	90	86	291	83	99	288	84	95	290	87	92	273
3724	30593	87	122	304	85	154	235	88	137	260	90	130	256
3725	30573	89	116	302	82	127	256	85	120	267	88	116	261
3727	30578	99	118	299	87	141	279	92	132	290	94	124	277
3728	30589	96	114	285	87	129	259	91	122	272	91	117	271
3729	US 312 (HC)	97	116	303	87	145	238	90	128	280	91	121	281
3731	30576	97	114	303	81	136	219	85	123	259	89	117	242
3732	Local Check (LC)	87	112	296	85	124	268	84	121	285	88	110	271
Exp. Mean		**93**	**111**	**300**	**86**	**132**	**250**	**88**	**121**	**276**	**90**	**116**	**271**

Table No. 4b.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – IME, Zone - 7 Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN											
		Andhra Pradesh						Andhra Pradesh (2)			Telangana		
		Maruteru			Ragolu			Mean			Rajendranagar		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3714	Gotra Bidhan -3 (NC)	89	103	284	85	128	332	87	115	308	98	92	364
3718	30575	91	120	315	86	140	279	88	130	297	103	101	402
3719	30577	91	112	350	76	114	318	84	113	334	99	93	371
3720	30574	85	121	326	65	131	334	75	126	330	93	102	344
3721	30587	85	112	321	66	124	256	76	118	289	93	98	318
3723	Zonal check	91	115	315	64	115	339	78	115	327	95	92	373
3724	30593	92	122	315	82	136	267	87	129	291	98	101	404
3725	30573	84	117	323	75	125	216	80	121	270	93	95	340
3727	30578	88	125	361	86	123	291	87	124	326	105	85	318
3728	30589	88	123	332	83	136	249	85	130	291	97	100	400
3729	US 312 (HC)	81	126	350	78	129	213	80	127	281	99	99	391
3731	30576	86	108	310	65	126	316	75	117	313	93	102	333
3732	Local Check (LC)	101	120	370	102	114	262	101	117	316	93	99	398
3733	32039	85	111	310	87	134	248	86	122	279	93	89	376
3734	32040	81	114	317	77	124	289	79	119	303	93	94	371
3735	32041	83	119	312	64	127	301	74	123	307	93	101	336
3736	32042	83	122	326	61	132	252	72	127	289	93	103	349
3737	32043	88	114	337	64	113	324	76	114	330	93	92	393
3738	32044	107	93	310	63	111	234	85	102	272	92	85	424
3739	MTU-1010 (RP)	83	107	277	64	112	324	74	110	300	93	86	469
3740	32045	86	99	326	75	107	295	81	103	310	99	85	429
3741	Krishna Hamsa (RP)	86	95	304	62	102	249	74	99	276	93	84	378
3742	32046	92	115	339	85	138	228	89	127	283	101	97	333
3743	Pusa 44 (RP)	97	92	317	95	101	227	96	96	272	101	77	429
Exp. Mean		**88**	**113**	**323**	**76**	**123**	**277**	**82**	**118**	**300**	**96**	**94**	**377**

Table No.4b.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – IME, Zone - 7 Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN														
		Telangana						Telangana (3)			Tamil Nadu					
		Kunaram			Warangal			Mean			Adhuturai			Coimbatore		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3714	Gotra Bidhan -3 (NC)	87	114	332	93	117	380	93	108	359		.		98	92	355
3718	30575	101	114	317	100	129	372	101	115	364	95	97	402	98	93	335
3719	30577	97	110	389	101	119	380	99	107	380	91	95	449	97	104	375
3720	30574	89	127	332	90	123	382	91	117	353	95	110	430	94	103	370
3721	30587	91	115	350	94	121	369	93	111	345	95	102	421	97	93	358
3723	Zonal check	90	111	427	90	118	381	91	107	394		.		87	86	393
3724	30593	94	129	321	95	139	387	96	123	371	94	105	426	96	105	338
3725	30573	91	115	317	94	114	382	93	108	346	94	115	344	94	95	343
3727	30578	96	115	328	97	129	386	100	110	344	94	108	488	104	90	385
3728	30589	96	124	332	95	130	393	96	118	375	93	91	440	93	102	358
3729	US 312 (HC)	97	118	312	96	133	381	97	117	361		.		96	96	392
3731	30576	88	121	341	90	124	373	90	116	349	94	98	444	94	92	363
3732	Local Check (LC)	91	101	359	106	139	383	97	113	380	95	108	483	102	95	420
3733	32039	92	116	304	96	129	374	93	111	351		.		93	98	335
3734	32040	90	119	341	93	123	392	92	112	368		.		89	93	357
3735	32041	90	121	345	94	126	399	92	116	360	93	96	513	87	96	378
3736	32042	93	124	323	94	135	378	94	121	350		.		90	96	338
3737	32043	89	112	367	92	116	387	91	106	383		.		90	87	368
3738	32044	96	95	427	91	96	373	93	92	408		.		94	76	340
3739	MTU-1010 (RP)	90	119	337	91	125	374	91	110	393		.		89	85	357
3740	32045	92	101	339	95	107	365	95	98	378		.		94	90	322
3741	Krishna Hamsa (RP)	85	98	431	88	108	375	88	97	395	95	83	412	87	83	355
3742	32046	95	123	326	96	120	409	97	113	356	95	120	424	95	99	303
3743	Pusa 44 (RP)	102	94	354	99	106	380	101	92	388	94	93	415	99	100	365
Exp. Mean		**93**	**114**	**348**	**94**	**122**	**381**	**94**	**110**	**369**	**94**	**101**	**435**	**94**	**94**	**359**

Table No. 4b.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – IME, Zone - 7 Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN														
		Tamil Nadu (2)			Kerala						Kerala (2)			Karnataka		
		Mean			Moncompu			Pattambi			Mean			Mandya		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3714	Gotra Bidhan -3 (NC)	98	92	355	93	100	315	106	76	553	100	88	434	96	92	340
3718	30575	96	95	369	94	106	255	104	92	440	99	99	348	98	90	374
3719	30577	94	99	412	95	99	317	102	88	487	98	94	402	92	86	306
3720	30574	94	106	400	91	100	215	106	97	444	98	99	330	93	99	317
3721	30587	96	97	390	91	102	264	105	96	333	98	99	299	92	97	351
3723	Zonal check	87	86	393	91	93	377	103	88	542	97	90	460	83	100	329
3724	30593	95	105	382	94	109	297	102	78	396	98	93	346	91	102	329
3725	30573	94	105	344	94	103	269	106	70	542	100	87	405	90	100	317
3727	30578	99	99	437	96	107	275	105	97	440	100	102	358	102	93	340
3728	30589	93	96	399	93	104	269	107	95	347	100	99	308	90	84	306
3729	US 312 (HC)	96	96	392	93	109	249	109	95	476	101	102	362	93	93	351
3731	30576	94	95	404	91	109	326	104	83	302	98	96	314	98	97	340
3732	Local Check (LC)	98	101	452	98	102	213	102	68	364	100	85	289	97	102	374
3733	32039	93	98	335	91	112	224	105	96	431	98	104	328	87	93	329
3734	32040	89	93	357	91	100	329	106	93	336	98	97	332	87	83	317
3735	32041	90	96	446	89	98	286	104	87	342	96	93	314	86	87	329
3736	32042	90	96	338	91	102	222	104	81	331	98	91	277	86	92	351
3737	32043	90	87	368	89	91	313	99	83	613	94	87	463	81	88	340
3738	32044	94	76	340	91	78	329	104	83	438	98	81	383	81	71	329
3739	MTU-1010 (RP)	89	85	357	91	96	382	103	88	631	97	92	506	83	76	272
3740	32045	94	90	322	91	95	317	102	78	408	97	87	363	92	82	272
3741	Krishna Hamsa (RP)	91	83	384	88	76	315	102	72	327	95	74	321	89	64	317
3742	32046	95	110	364	98	112	286	96	91	556	97	101	421	98	99	306
3743	Pusa 44 (RP)	96	97	390	98	86	240	107	70	422	103	78	331	97	81	340
Exp. Mean		**94**	**95**	**380**	**93**	**100**	**287**	**104**	**85**	**438**	**98**	**92**	**362**	**91**	**90**	**328**

Table No. 4b.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – IME, Zone - 7 Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN														
		Karnataka						Karnataka (3)			Puducherry (1)			Zone VII(13)		
		Mugad			Gangavathi			Mean			Karaikal			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3714	Gotra Bidhan -3 (NC)	90	67	239	99	104	432	95	88	337	82	86	366	93	98	358
3718	30575	93	81	331	100	119	357	97	97	354	89	86	339	96	105	348
3719	30577	83	67	298	100	101	241	92	84	281	86	88	355	93	98	357
3720	30574	80	66	254	97	111	393	90	92	322	80	82	371	89	106	347
3721	30587	87	68	259	97	113	489	92	93	366	95	98	382	91	103	344
3723	Zonal check	85	74	285	88	104	375	85	93	330	85	90	364	88	99	375
3724	30593	91	71	260	97	113	313	93	95	301	90	94	330	94	108	337
3725	30573	93	64	270	98	106	309	94	90	299	88	90	310	92	101	329
3727	30578	86	69	289	106	107	336	98	90	322	95	98	373	97	103	355
3728	30589	82	68	317	91	110	344	88	87	322	86	89	359	92	104	342
3729	US 312 (HC)	86	74	331	97	103	286	92	90	323	92	95	383	93	106	343
3731	30576	90	72	287	99	112	510	96	94	379	83	87	346	90	102	353
3732	Local Check (LC)	99	77	250	91	111	453	95	97	359	84	80	370	97	101	361
3733	32039	83	71	281	89	113	318	86	92	309	85	88	315	90	104	320
3734	32040	81	65	262	88	105	379	85	85	319	84	88	349	88	100	336
3735	32041	89	72	224	88	107	370	88	89	307	84	85	385	88	102	348
3736	32042	86	83	253	86	108	375	86	94	326	86	84	355	88	105	321
3737	32043	82	65	279	86	104	483	83	85	367	94	97	353	87	97	380
3738	32044	85	51	265	86	94	425	84	72	340	81	84	376	89	85	356
3739	MTU-1010 (RP)	91	70	296	89	110	405	88	85	324	81	85	322	87	97	370
3740	32045	92	62	278	90	107	376	91	84	308	86	89	384	91	92	342
3741	Krishna Hamsa (RP)	92	56	300	85	105	360	88	75	326	76	78	350	87	85	344
3742	32046	99	73	306	101	111	371	99	94	328	95	98	358	96	107	350
3743	Pusa 44 (RP)	96	57	256	102	97	390	98	78	329	97	100	364	99	89	346
Exp. Mean		**88**	**68**	**278**	**93**	**107**	**379**	**91**	**88**	**328**	**87**	**89**	**357**	**91**	**100**	**348**

Table No. 4b.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – IME, (Trial not considered) Zone -7 Kharif 2023

Entry No	IET No	Trial not considered		
		Karnataka		
		@Brahmawar		
		DFF	PH	PAN
3714	Gotra Bidhan -3 (NC)	121	74	353
3718	30575	124	71	386
3719	30577	120	73	369
3720	30574	119	82	321
3721	30587	119	86	328
3723	Zonal check	106	71	362
3724	30593	116	93	372
3725	30573	117	80	389
3727	30578	129	73	326
3728	30589	120	70	361
3729	US 312 (HC)	124	60	349
3731	30576	125	79	373
3732	Local Check (LC)	98	97	320
3733	32039	118	74	321
3734	32040	113	70	319
3735	32041	110	73	332
3736	32042	113	77	330
3737	32043	110	70	340
3738	32044	111	79	374
3739	MTU-1010 (RP)	114	64	364
3740	32045	110	72	388
3741	Krishna Hamsa (RP)	108	72	386
3742	32046	124	82	321
3743	Pusa 44 (RP)	125	83	368
Exp. Mean		**116**	**76**	**352**

Table No.4b.4: Grain quality characteristics of entries in AVT 1-IME, kharif 2023

Entry No.	Designation /IET No.	HULL	MILL	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV
3701	30704	79.1	71.6	63.8	5.99	2.17	2.76	MS	VOC	4.0
3702	30707	76.3	65.9	64.6	6.27	1.91	3.28	LS	A	7.0
3703	30735	76.2	68.3	64.3	5.30	2.23	2.37	SB	VOC	3.0
3704	30740	78.1	67.3	60.0	5.28	2.02	2.61	MS	A	4.0
3705	30752	75.8	68.4	60.1	6.70	2.19	3.05	LS	VOC	5.0
3706	30213	75.0	59.3	45.2	5.74	1.57	3.43	SS	VOC	5.0
3707	30062	78.6	70.2	67.7	6.52	2.18	2.99	LB	VOC	7.0
3708	30705	79.9	66.2	44.8	4.87	1.90	2.56	MS	VOC	4.0
3709	30736	78.6	70.1	63.9	6.19	2.20	2.81	LB	VOC	4.0
3710	30742	77.4	70.4	67.9	6.80	2.00	3.04	LS	A	7.0
3711	30714	76.4	68.0	62.6	6.35	1.92	3.30	LS	A	3.0
3712	30741	78.2	70.6	67.2	6.34	2.23	2.84	LB	A	4.0
3713	30730	78.6	69.7	66.1	6.24	2.12	2.94	LB	VOC	4.0
3714	**Gontrabidhan-3 (NC)**	80.5	71.4	64.0	5.32	2.25	2.36	SB	VOC	5.0
3715	29976	79.1	67.2	54.1	5.60	2.22	2.52	MS	VOC	4.0
3716	30708	-	-	-	-	-	-	-		
3717	30719	-	-	-	-	-	-	-		
3718	30575	80.5	69.1	50.2	5.76	2.35	2.45	SB	VOC	4.0
3719	30577	81.0	71.2	43.4	5.62	2.23	2.52	MS	VOC	7.0
3720	30574	80.0	67.3	43.2	6.95	2.00	3.47	LS	A	4.0
3721	30587	79.9	67.4	43.8	7.00	2.17	3.22	LS	VOC	7.0
3722	30580	-	-	-	-	-	-			
3723	**MTU - 1010(ZC)**	77.4	63.0	56.7	6.23	1.98	3.14	LS	VOC	7.0
3724	30593	79.7	71.4	58.3	6.2	2.15	2.88	LB	VOC	5.0
3725	30573	80.2	67.5	51.6	6.26	2.27	2.75	LB	VOC	7.0
3726	30756	81.4	71.7	67.2	5.88	2.12	2.77	MS	A	4.0
3727	30578	80.9	69.0	40.9	6.53	2.32	2.81	LB	VOC	7.0
3728	30589	81.1	70.7	50.2	6.09	2.27	2.68	LB	VOC	4.0
3729	**US -312(HC)**	79.6	69.6	57.3	5.35	1.97	2.71	MS	A	4.0
3730	30579	-	-	-	-	-	-			
3731	30576	81.0	69.8	45.9	5.85	2.24	2.61	MS	VOC	4.0
3732	**Local Check**	79.4	66.4	56.3	6.41	1.99	3.22	LS	A	4.0
3733	32039	78.5	69.1	59.2	6.42	1.94	3.30	LS	A	7.0
3734	32040	80.7	64.0	25.4	6.52	1.84	3.54	LS	A	3.0
3735	32041	80.4	65.2	45.6	6.50	1.91	3.40	LS	A	4.0
3736	32042	80.5	68.8	54.4	6.31	1.95	3.23	LS	A	3.0
3737	32043	79.5	68.6	51.5	6.32	2.08	3.03	LS	VOC	4.0
3738	32044	77.7	67.3	53.1	6.07	2.13	2.84	LB	VOC	4.0
3739	**MTU - 1010(RP)**	79.3	67.4	56.8	6.28	2.08	3.01	LS	VOC	7.0
3740	32045	79.1	67.8	49.2	6.61	2.01	3.28	LS	VOC	5.0
3741	**Krishnahamsa (RP**	78.9	68.0	56.8	6.36	1.93	3.29	LS	A	4.0
3742	32046	80.0	68.8	56.6	6.25	2.14	2.92	LB	VOC	7.0
3743	**PUS - 44 (RP)**	77.0	67.2	56.1	6.09	1.94	3.13	LS	VOC	7.0

HULL: Hulling (%); MILL: Milling (%); HRR: Head Rice Recovery (%); KL: Kernel Length (mm); KB: Kernel Breadth (mm); L/B: Length and breadth ratio; Grain Chalk: Grain Chalkiness; VOC: Very occasionally present; A: Absent ASV: Alkali Spreading Value; AC: Amylose Content (%); GC: Gel Consistency; LB: Long Bold; SB: Short Bold; LS: Long Slender; MS: Medium Slender; SS: Short Slender

Trial No.4c.1 38: Composition of entries in Initial Variety Trial – Irrigated Mid Early (IVT– IME), Kharif 2023.

Entry No.	IET No.	Designation	Cross Combination	GT
1st year of testing:				
3801	30649	CR 4396-1-13-11	Lalat MAS / CR Dhan 801 // 3* Lalat MAS	LS
3802	30692	NDR 8806-TFR-3	MTU1010 / Bauni Pusa Basmati Mutant	LS
3803	30804	GNV 2188-1	Selection from traditional variety asaleeya	LB
3804	31562	AD 21184	Turantdhan / IET 22075-12-3-3-1	MS
3805	31563	BNP -401	BNP 1009 / BNP 57	
3806	31564	OROI-11-IR 88243-17-1-1-3	IRRI 141 / IR 64-Sub 1 // NCIC RC 158	MS
3807	31565	CB 17504	CO 51 / CB 08538	MS
3808	31566	Pusa 2087-40-19-4-1	Pusa 3039-3-6 / Pusa Samba 1853	Ls
3809	31567	RP 6529-52-5-7-9	MTU 1010*2 / Improved Samba Mahsuri	LS
3810	30672	CR 4388-RGA-245	CR Dhan 202 / Arize 8433DT	MS
3811	30639	CSR AP10	IRRI 134/IR 70479-45-2-3// IR 64680-81-2-2-1-3	
3812	31568	RP 6745-MSAC 23-49	HWR 8 / IR 64	SB
3813	30713	CR 4077-1357-5-4-2-1-1	PKV HMT / Vandana	MS
3814	31569	ORJ 1348		
3815	31570	JNPT 581-64	MTU 1081 / NPT 13-01 / IR 64	MS
3816	31571	KJT-23-3	IR36 / KJT323	SB
3817	31572	KNM 13568	MTU 1156 / WGL 1097 // MUT NSI	LS
3818	31573	TRC 2023-51/ IR126999-B-32-2-1-3	IR04A429 / WHD IS-75-1-127	LS
3819	31574	KMP 252	BPT 5204 / BR-2655-17	MB
3820	31575	NDR TFR-10	CSR 10/ Dwarf Mutant CSR 27	
3821	31576	NVSR 941	(Gurjari / IR-28) / Gurjari	LB
3822	31577	NLR 3819	NLR 3041 / NLR 145	MS
3823	**Gontra Bidhan-3 (NC)**			
3824	31578	CR 4388-RGA-60-53-1	CR Dhan 202 / Arize 8433DT	MB
3825	31579	UPR 4611-1-1-1-1-1	Pant Dhan11 / Sahbhagidhan	LS
3826	31580	RNR 38125	R 741-55-2-1-R-1 / IR -64	LS
3827	31581	PAU 6707-22-1-2-2 (RYT 3889)	PR 121 / IR 84678-25-5-B	
3828	31582	BRR 0287-IR 143532-95-1-1-177-44-4	DRR Dhan 44 / NX3533::IRGC63796	LS
3829	31583	IR 19L1054	IR 09N538 / IR 93312-30-101-20-3-66-6 // IR 09N538 / IR 11L101 /// IR 09N538 / Tadukan // IR 09N538 / Rathu Heenati / 4 / IR 09N538 / Abhaya // IR 09N538 / IR BB 0 (IR 72920-1-44-4) /// IR 09N538 / IR 94225-B-82-B // IR 09N538 / IR 94226-B-177-B / 5 / IR 09N538 / WHDIS-75-1-1-127 // IR 09N538 / IR 96322-34-223-B /// IR 09N538 / IR 91648-B-32-B	LS
3830	31584	HURS-23-17-IR 143534-114-1-1-387-81-38	DRR Dhan 44/Meleke::IRGC 56823-1	LS
3831	31585	BKR 510	Pusa 1176 / Lalat	MB
3832	31586	CR 4396-4--2--23	Lalat MAS / CR Dhan 801 // 3* Lalat MAS	LS
3833	31587	NWGR-17075	Gujari / IET 20575 / 5-2-1-1-2-2-1	M
3834	31588	MTU 1392 (MTU 2640-170-2-1-1-1)	{(MTU 1010 /KMP 105) / MTU 1081} / (MTU 1075 / MTU 1081)	LS
3835	31589	CR 4415-3-1-3-1-3-1	CR 3562-2-1-2-1-1-1	SB
3836	31590	KPS 10642	HMT Sona / BM-71	MS
3837	31591	JGL 41240	JGL 24423 / MUT NS 1	LS

Entry No.	IET No.	Designation	Cross Combination	GT
3838	31592	CR 4343-15-2-1-1	MTU 1001 / Pusa 44 // IR 102698-1-47-57-102-1-B	LS
3839	31593	R 2341-329-2-169-1	Karma Mahsuri / Guang jiang-1	LB
3840	31594	RNR 38966	V6 / RNR 25993	LS
3841	30667	CR 3506 -1-2-3-1-2-1	IR 36 / Tapaswini	MS
3842	31595	OR 2577-5	IR 43/ Jogesh	MS
3843	31596	RP 6721-LVS24-CN2103-21-11-2	BPT 5204 / IC 449880	
3844	31597	RP 6744-19180-1-1	Krishna Hamsa / IRBB60 // Krishna Hamsa / Tetep /// Krishna Hamsa / IR 96321-1447-561-B-1 // Krishna Hamsa / IR 81896-96-B-B-195 //// Krishna Hamsa / IR 74371-46-1-1-13 // Krishna Hamsa / DSB 2	LS
3845	31598	CR 4385-RGA-6-2	PK117 / SR-1-3-1	MB
3846	31599	HKR 18-33	HKR 48 / HKR06-47 / HKR 47	LS
3847	31600	BRR 0053-IR 96321-10999-347-B-1-2	IR 91659:54-35 // IR 81895-B-B-195 / 2* IR05F102	MS
3848	31601	WGL -1740	Gontrabidhan-3 / MTU 1159	LS
3849	**PR 113 (Northern), Lalat (Eastern and North Eastern), MTU 1010 (Central and Southern), Karjat-7 (Western)-- ZC**			
3850	31602	RP 6475-CGR 16-CGIL54-CGK2-1-2131-5	Samba Mahsuri*2 / Oryza rufipogon-VN 90-1032-58 (3)	LS
3851	31603	YNPK-7258	YNP 85 / YNP 27	SB
3852	31604	CR 4428-1-1-2-1-3-1	CR 3562-2-1-2-1-1-1	MB
3853	31605	RP 6529-RMS-64-5-7-9	MTU 1010*2 / Improved Samba Mahsuri	LS
3854	31606	Pusa 2086-36-11-12-1	Pusa 3039-3-6 / Pusa 1853-12-7792	LS
3855	31607	RP 6459-C2-sel12	166S (Swarna / O. nivara) // 14S (Swarna / O. nivara)	MS
3856	31608	CR 4396-291-2-6	Lalat MAS*2 / CR Dhan 801	MS
3857	31609	HURS-23-2-IR 18A1565	IR 99085-B-B-82 / IR 09A224 (AGGRi Alliance)	LS
3858	31610	ORR 1815	ORR 110 / OR 2634-1-1	MB
3859	31611	RP 6746- IR17A2831	IR 98418-B-B-15 / IR 11A293	LS
3860	31612	SKL-8-33-1570-107-320-242-127	SYE-1 / RTN-1	LS
3861	31613	Surya 27	BPT 5204 / NBIR 957 // BPT 5204	SS
3862	31614	BRR-2134	Sita / Rajendra Mahsuri-1	MS
3863	31615	Nath 20:20	MTU 1010 / NBIR 240 // MTU 1010	LS
3864	**Local Check (LC)**			

Table No. 4c.2 : Grain Yield (kg/ha) in IVT – IME, Kharif 2023

Entry No	IET No	ZONE II-NORTHERN								ZONE III-EASTERN	
		PUNJAB (1)		HARYANA (1)		Uttarpradesh 1 (1)		Zone II (3)		ODISHA	
		Ludhiana		Kaul		Nagina		Mean		Cuttack	
3801	30649	5321		6400		3092		4938		5720	7
3802	30692			5450		5412	5 *	5431		4580	
3803	30804	5024		6100		4096		5073		3255	
3804	31562	5136		5200		3810		4715		5105	
3805	31563	3558		6150		4036		4581		3425	
3806	31564	5873		6150		4528		5517	10	4460	
3807	31565	5913		5000		4189		5034		1270	
3808	31566	4864		4800		2826		4163		3420	
3809	31567	4287		3450		3185		3641		2400	
3810	30672	6010		6000		4096		5369		4575	
3811	30639	5857		6450		4082		5463		2990	
3812	31568	2196		4300		4302		3599		5475	
3813	30713			3250		5266	6 *	4258		6280	3
3814	31569	5353		4600		4634		4862		4010	
3815	31570	6595	9	7150	4	4043		5929	4	4360	
3816	31571	6378		5350		4315		5348		4585	
3817	31572	6194		4000		4654		4949		3820	
3818	31573	5721		7050	5	3657		5476		5090	
3819	31574	3806		5450		4747		4668		2640	
3820	31575	4704		4650		3803		4386		2865	
3821	31576	5753		6300		4023		5359		4590	
3822	31577					2985		2985		3845	
3823	**Gontra Bidhan-3 (NC)**	6250		6550	10	3364		5388		5640	8
3824	31578	5729		5500		3278		4836		3550	
3825	31579	7268	3	6200		4481		5983	2	3155	
3826	31580	6699	8	5850		3158		5236		4405	
3827	31581	7380	2	6150		3045		5525	9	4370	
3828	31582	5933		7350	3 *	3145		5476		6645	2
3829	31583	3846		7000	6	3251		4699		5310	
3830	31584	6739	7	6150		4089		5659	8	4440	
3831	31585	4327		5550		3311		4396		3960	
3832	31586			4500		4176		4338		5600	9
3833	31587	3237		4150		4362		3916		4550	
3834	31588	1312		3700		3590		2867		4490	
3835	31589	3830		6650	8	4029		4836		4590	
3836	31590	2292		5550		3531		3791		5470	
3837	31591	4888		5700		3451		4680		5490	
3838	31592			4500		3584		4042		6700	1 *
3839	31593	5056		5450		5465	4 *	5324		5025	
3840	31594			5750		3384		4567		5255	
3841	30667	3333		4300		3205		3613		3725	
3842	31595	4030		6450		3258		4579		5910	6
3843	31596			5000		5060	8 *	5030		5060	
3844	31597			4500		4807		4654		5210	
3845	31598	6490		6650	8	4229		5790	5	6050	5
3846	31599	5929		6400		3757		5362		4545	
3847	31600	6747	6	4700		3983		5143		4195	
3848	31601	5593		6500		3258		5117		5465	
3849	Zonal Check	6442		6650	8	4096		5729	6	3400	
3850	31602	3213		4100		4940	9 *	4084		4270	
3851	31603	7508	1	6300		4016		5941	3	4655	
3852	31604	3333		3950		4894	*	4059		4285	
3853	31605	5096		6200		4122		5139		4415	
3854	31606			4800		5226	7 *	5013		5170	
3855	31607	4391		5100		3238		4243		3340	
3856	31608	5361		6450		4229		5347		4075	
3857	31609	4768		7750	1 *	4003		5507		4945	
3858	31610	3910		5150		5632	3 *	4897		6180	4
3859	31611	6891	5	4950		6117	1 *	5986	1	3510	
3860	31612					4009		4009		4005	
3861	31613	4327		7450	2 *	4076		5284		5090	
3862	31614	4054		5600		5658	2 *	5104		3490	
3863	31615	6554	10	4200		4934	10 *	5229		5165	
3864	Local Check	6979	4	6050		4069		5699	7	5525	10
Exp. Mean		**5153**		**5560**		**4083**		**4873**		**4517**	
F value		**15.73(p<0.0001)S**		**18.24(p<0.0001)S**		**8.40(p<0.0001)S**		**19.02(p<0.0001)S**		**8.44(p<0.0001)S**	
CD		1004		693		734		464		1024	
CV%		**9.72**		**6.23**		**9.00**		**4.76**		**11.34**	
D/S		20-06-2023		02-07-2023		05-07-2023				29-06-2023	
D/P		20-07-2023		03-08-2023		25-07-2023				08-08-2023	
Local Check Name		PR 130		HKR 47		PR 126				CR DHAN 805	

Table No.4c.2 (Contd).: Grain Yield (kg/ha) in IVT – IME, Kharif 2023

Entry No	IET No	ZONE III-EASTERN									
		ODISHA		Odisha (2)		BIHAR				Bihar (2)	
		Chiplima		Mean		Bikramganj (Dhangain)		Sabour		Mean	
3801	30649	5108		5414	10	7897	2	4894		6396	5 *
3802	30692	6073	2	5327		7235	10	5284	4	6260	7 *
3803	30804	3673		3464		4960		2949		3955	
3804	31562	4879		4992		6124		4443		5284	
3805	31563	4252		3839		4709		4148		4429	
3806	31564	4452		4456		6673		3385		5029	
3807	31565	4954		3112		5225		3346		4286	
3808	31566	4545		3983		6138		4134		5136	
3809	31567	4715		3558		5450		3475		4463	
3810	30672	4776		4676		6931		3737		5334	
3811	30639	5201		4096		6515		3861		5188	
3812	31568	3989		4732		5926		3158		4542	
3813	30713	5563	10	5922	2 *	7738	5	5776	2	6757	2 *
3814	31569	5910	4	4960		5952		3459		4706	
3815	31570	5100		4730		6607		4491		5549	
3816	31571	4792		4689		7698	6	4990	10	6344	6 *
3817	31572	4244		4032		7811	4	4698		6255	8 *
3818	31573	5648	9	5369		5503		3836		4670	
3819	31574	4938		3789		7573	8	5256	5	6415	4 *
3820	31575	4784		3825		7116		4921		6019	10
3821	31576	5401		4996		7057		4750		5904	
3822	31577	4892		4369		3239		1549		2394	
3823	**Gontra Bidhan-3 (NC)**	4823		5232		6085		5019	8	5552	
3824	31578	4738		4144		5476		3013		4245	
3825	31579	5062		4109		6138		4218		5178	
3826	31580	4931		4668		3135		3930		3533	
3827	31581	4915		4643		7923	1	5575	3	6749	3 *
3828	31582	4992		5819	3	5827		2950		4389	
3829	31583	5085		5198		5847		4157		5002	
3830	31584	5826	5	5133		6495		3719		5107	
3831	31585	4120		4040		3049		2493		2771	
3832	31586	5270		5435	8	5675		4059		4867	
3833	31587	4884		4717		7857	3	3810		5834	
3834	31588	5193		4842		6032		4029		5031	
3835	31589	6628	1	5609	4	6978		5149	6	6064	9
3836	31590	4784		5127		5741		3507		4624	
3837	31591	5517		5504	7	6892		3938		5415	
3838	31592	5787	6	6244	1 *	5655		3848		4752	
3839	31593	5170		5098		6263		3777		5020	
3840	31594	4715		4985		5794		4045		4920	
3841	30667	5363		4544		6157		4968		5563	
3842	31595	4938		5424	9	6554		5087	7	5821	
3843	31596	4830		4945		7097		3374		5236	
3844	31597	5008		5109		5397		3042		4220	
3845	31598	4198		5124		5906		3076		4491	
3846	31599	3812		4179		4107		4031		4069	
3847	31600	4344		4270		6065		3849		4957	
3848	31601	4861		5163		6224		4721		5473	
3849	Zonal Check	5031		4216		5284		3951		4618	
3850	31602	4383		4327		5384		2965		4175	
3851	31603	5015		4835		7685	7	5896	1	6791	1 *
3852	31604	5440		4863		6508		4535		5522	
3853	31605	4907		4661		4478		2898		3688	
3854	31606	4282		4726		7478	9	4039		5759	
3855	31607	4282		3811		4193		3707		3950	
3856	31608	4792		4434		6501		4640		5571	
3857	31609	4529		4737		6012		4068		5040	
3858	31610	4915		5548	5	6429		5014	9	5722	
3859	31611	5733	7	4622		5035		3865		4450	
3860	31612	5656	8	4831		5893		2102		3998	
3861	31613	5949	3	5520	6	6706		4275		5491	
3862	31614	5224		4357		6660		4470		5565	
3863	31615	4414		4790		5635		4905		5270	
3864	Local Check	4498		5012		3998		3876		3937	
Exp. Mean		**4949**		**4733**		**6068**		**4049**		**5058**	
F value		**2.92(p<0.0001)S**		**8.70(p<0.0001)S**		**6.83(p<0.0001)S**		**11.49(p<0.0001)S**		**13.18(p<0.0001)S**	
CD		925		598		1231		712		701	
CV%		**9.35**		**6.33**		**10.15**		**8.80**		**6.94**	
D/S		10-07-2023				29-06-2023		26-06-2023			
D/P		23-08-2023				30-07-2023		25-07-2023			
Local Check Name		MTU-1156				Sabour Deep		Rajendra Suwasini			

Table No.4c.2 (Contd).: Grain Yield (kg/ha) in IVT – IME, Kharif 2023

Entry No	IET No	ZONE III-EASTERN									
		WEST BENGAL						WEST BENGAL (3)		Uttar pradesh 2 (1)	
		Chinsurah		Hathwara		Malda		Mean		Varanasi	
3801	30649	6308	8	6006		4500	8	5605	7	4343	
3802	30692	6275	9	5553		3750		5193		4373	
3803	30804	4748		4042		4167		4319		4287	
3804	31562	5547		5207		6083	1	5612	6	4666	10
3805	31563	5425		5052		3083		4520		4581	
3806	31564	4510		6822	5	3667		5000		4566	
3807	31565	6561	2	6355	10	3792		5569	8	4435	
3808	31566	4459		3784		4000		4081		4072	
3809	31567	4827		5504		4250		4860		4193	
3810	30672	5334		5753		3667		4918		6174	2 *
3811	30639	6405	6	5424		3667		5165		4404	
3812	31568	5347		6471	7	3583		5134		6337	1 *
3813	30713	6370	7	6088		3917		5458		4001	
3814	31569	4307		6454	8	4000		4920		4438	
3815	31570	5529		6295		3333		5052		4273	
3816	31571	6450	4	5461		3750		5220		4596	
3817	31572	6628	1	7282	1	3458		5789	1	6134	3 *
3818	31573	4734		6289		4467	10	5163		4273	
3819	31574	5649		5487		4167		5101		5303	6
3820	31575	5393		4433		3250		4359		3254	
3821	31576	3391		5927		4167		4495		4282	
3822	31577	6227	10	5822		4058		5369		3069	
3823	**Gontra Bidhan-3 (NC)**	4830		6033		3583		4815		4389	
3824	31578	3907		6345		3417		4556		4376	
3825	31579	5338		6042		3750		5043		2649	
3826	31580	4607		5482		4458		4849		4220	
3827	31581	5525		5016		3250		4597		4643	
3828	31582	4973		5402		4667	3	5014		3450	
3829	31583	4460		6035		3667		4721		4376	
3830	31584	3393		6205		4500	8	4699		4623	
3831	31585	3705		6206		4000		4637		4205	
3832	31586	6145		6959	3	3750		5618	5	2048	
3833	31587	6090		6691	6	4333		5705	3	4199	
3834	31588	5441		5591		4250		5094		5292	7
3835	31589	5793		6059		3250		5034		4131	
3836	31590	4547		4644		3750		4314		4171	
3837	31591	6419	5	6266		4417		5701	4	4203	
3838	31592	5732		5310		4417		5153		4361	
3839	31593	6047		5488		3917		5151		4436	
3840	31594	5382		3215		4333		4310		3983	
3841	30667	5431		5540		3750		4907		4018	
3842	31595	6143		6257		4167		5522	10	4199	
3843	31596	4892		6377	9	3250		4840		4179	
3844	31597	5714		5353		4208		5092		4519	
3845	31598	4665		4179		3917		4254		4566	
3846	31599	2128		4900		4333		3787		4376	
3847	31600	5025		5550		3833		4803		4541	
3848	31601	2221		5151		4458		3943		4177	
3849	Zonal Check	5089		5345		4125		4853		3129	
3850	31602	5825		5546		4583	4	5318		3165	
3851	31603	6495	3	5931		4250		5559	9	4072	
3852	31604	5212		5845		4292		5116		5192	8
3853	31605	4241		7218	2	3667		5042		4282	
3854	31606	4736		4480		4083		4433		6028	4 *
3855	31607	4237		4711		4000		4316		4700	9
3856	31608	5452		6180		4542	6	5391		4284	
3857	31609	4053		4805		3917		4258		4319	
3858	31610	4013		6313		4042		4789		5772	5 *
3859	31611	3848		5750		4500	8	4699		4596	
3860	31612	4617		5882		4192		4897		1807	
3861	31613	4768		4492		4175		4478		3575	
3862	31614	6055		4577		4125		4919		4468	
3863	31615	5721		6850	4	4558	5	5710	2	4225	
3864	Local Check	5337		5533		4917	2	5262		4527	
Exp. Mean		**5136**		**5136**		**4037**		**4939**		**4321**	
F value		**5.16(p<0.0001)S**		**1.87(p<0.0067)S**		**3.54(p<0.0001)S**		**3.35(p<0.0001)S**		**6.89(p<0.0001)S**	
CD		1219		1698		719		721		866	
CV%		**11.87**		**15.05**		**8.91**		**7.30**		**10.03**	
D/S		10-07-2023		14-07-2023		13-07-2023				17-06-2023	
D/P		15-08-2023		13-08-2023		12-08-2023				14-07-2023	
Local Check Name		Muktosree (IET 21845)		Lalat		Satabdi				HUR-4-3	

Table No. 4c.2 (Contd).: Grain Yield (kg/ha) in IVT – IME, Kharif 2023

Entry No	IET No	Zone III (8)		ZONE IV- NORTH EASTERN ASSAM (1)		Zone IV (1)		ZONE-V – CENTRAL MADHYA PRADESH (1)		CHHATTISGARH	
		Mean		Titabar		Mean		Jabalpur		Raipur	
3801	30649	5597	2 *	5163		5163		6210		5352	
3802	30692	5390	7	6386	6	6386	6	7013	9	5928	
3803	30804	4010		3705		3705		7151	7	4142	
3804	31562	5257		4979		4979		4484		4862	
3805	31563	4334		3406		3406		5828		4306	
3806	31564	4817		5766		5766		6513		8169	2
3807	31565	4492		5393		5393		6667		3559	
3808	31566	4319		5544		5544		4813		4384	
3809	31567	4352		5207		5207		4441		5738	
3810	30672	5118		5660		5660		7459	4	5035	
3811	30639	4808		5343		5343		6067		5216	
3812	31568	5036		4736		4736		5398		4935	
3813	30713	5717	1 *	6289	7	6289	7	6157		6888	6
3814	31569	4816		6026		6026		7283	6	4979	
3815	31570	4999		5269		5269		5562		5816	
3816	31571	5290		5197		5197		8155	2 *	4935	
3817	31572	5509	3 *	4630		4630		4840		5886	
3818	31573	4980		5351		5351		5456		5624	
3819	31574	5127		5415		5415		4415		5660	
3820	31575	4502		4794		4794		5429		5016	
3821	31576	4946		3956		3956		6503		4557	
3822	31577	4088		4828		4828		4441		4763	
3823	**Gontra Bidhan-3 (NC)**	5050		2963		2963		5084		6356	10
3824	31578	4353		5024		5024		4510		3859	
3825	31579	4544		6286	8	6286	8	5897		4775	
3826	31580	4396		5231		5231		4282		5890	
3827	31581	5152		5859		5859		6125		7513	3
3828	31582	4863		4931		4931		5440		6218	
3829	31583	4867		4874		4874		5010		5643	
3830	31584	4900		5388		5388		6078		5811	
3831	31585	3967		4360		4360		6189		3768	
3832	31586	4938		5939		5939		4760		4490	
3833	31587	5302	10	6637	4 *	6637	4 *	4287		4951	
3834	31588	5040		5366		5366		5578		7076	4
3835	31589	5322	9	5784		5784		5132		6298	
3836	31590	4577		5342		5342		4537		4862	
3837	31591	5393	6	5174		5174		6471		5580	
3838	31592	5226		5630		5630		5541		6384	9
3839	31593	5015		4921		4921		4888		6903	5
3840	31594	4590		6732	3 *	6732	3 *	5594		6549	7
3841	30667	4869		4396		4396		4399		4133	
3842	31595	5407	5	6079	10	6079	10	5413		5848	
3843	31596	4882		6045		6045		6513		4979	
3844	31597	4806		5035		5035		5020		4513	
3845	31598	4570		4533		4533		5243		5239	
3846	31599	4029		4397		4397		6184		5556	
3847	31600	4675		5949		5949		5663		5261	
3848	31601	4660		4171		4171		7060	8	5816	
3849	Zonal Check	4419		5152		5152		6933	10	4198	
3850	31602	4515		4365		4365		5966		4129	
3851	31603	5500	4 *	5593		5593		5732		8493	1
3852	31604	5164		5616		5616		4388		4201	
3853	31605	4513		4713		4713		5371		4445	
3854	31606	5037		6250	9	6250	9	5355		6510	8
3855	31607	4146		4847		4847		5323		4700	
3856	31608	5058		6835	1 *	6835	1 *	4803		5152	
3857	31609	4581		6421	5	6421	5	4324		6020	
3858	31610	5335	8	5751		5751		7448	5	5879	
3859	31611	4605		6770	2 *	6770	2 *	7560	3 *	4271	
3860	31612	4269		5499		5499		6630		5703	
3861	31613	4879		5240		5240		5605		6011	
3862	31614	4884		4678		4678		4627		5194	
3863	31615	5184		5254		5254		8415	1 *	4075	
3864	Local Check	4776		5459		5459		6237		4271	
Exp. Mean		**4840**		**5289**		**5289**		**5717**		**5364**	
F value		**8.98(p<0.0001)S**		**5.38(p<0.0001)S**		**5.38(p<0.0001)S**		**23.05(p<0.0001)S**		**6.85(p<0.0001)S**	
CD		391		973		973		595		1112	
CV%		**4.05**		**9.20**		**9.20**		**5.21**		**10.37**	
D/S				07-07-2023				23-06-2023		30-06-2023	
D/P				04-08-2023				19-07-2023		28-07-2023	
Local Check Name				Numali				JR 206		IGKVR 2	

Table No. 4c.2 (Contd).: Grain Yield (kg/ha) in IVT – IME, Kharif 2023

Entry No	IET No	ZONE-V – CENTRAL									
		CHHATTISGARH		Chattisgarh (2)		MAHARASHTRA					
		Jagadalpur		Mean		Sakoli		Sindewahi		Maharastra 1 (2)	
3801	30649	7161		6257		4700		3821		4261	
3802	30692	7415		6672		3350		5405	8	4378	
3803	30804	5221		4682		4250		3743		3997	
3804	31562	7181		6022		3800		4325		4063	
3805	31563	7913		6110		3500		3757		3629	
3806	31564	6930		7550	2	3750		4197		3974	
3807	31565	8027	4	5793		4400		3857		4129	
3808	31566	7552		5968		3650		4382		4016	
3809	31567	7728		6733		6350	4	3658		5004	
3810	30672	8086	1	6561		5250		4119		4685	
3811	30639	7962	6	6589		4250		6428	2	5339	5
3812	31568	5778		5357		3200		3935		3568	
3813	30713	6898		6893	9	4150		4091		4121	
3814	31569	6357		5668		5400		4659		5030	
3815	31570	3900		4858		4250		5135		4693	
3816	31571	3851		4393		4100		4517		4309	
3817	31572	7562		6724		3900		4098		3999	
3818	31573	4398		5011		4150		3970		4060	
3819	31574	7917		6789		5150		5121		5136	10
3820	31575	6074		5545		3150		5412	7	4281	
3821	31576	7298		5928		5150		4091		4621	
3822	31577	6071		5417		5000		3970		4485	
3823	**Gontra Bidhan-3 (NC)**	7939	7	7148	5	5450		5064		5257	6
3824	31578	4518		4189		6500	1	3771		5136	10
3825	31579	6312		5544		4100		3786		3943	
3826	31580	7936	9	6913	8	4000		4858		4429	
3827	31581	7448		7481	3	5000		5348	9	5174	9
3828	31582	5452		5835		5450		3658		4554	
3829	31583	7005		6324		3550		3920		3735	
3830	31584	3932		4872		6300	5	5753	3	6027	1
3831	31585	7555		5662		6450	2	3935		5193	8
3832	31586	5671		5081		4450		4197		4324	
3833	31587	4463		4707		3150		3885		3518	
3834	31588	6774		6925	7	2700		3913		3307	
3835	31589	5856		6077		2600		6705	1	4653	
3836	31590	8047	2	6455		3800		5007		4404	
3837	31591	7360		6470		3000		4283		3642	
3838	31592	6732		6558		4050		4091		4071	
3839	31593	7562		7233	4	3550		4588		4069	
3840	31594	4398		5474		6450	2	4574		5512	2
3841	30667	7917		6025		4800		4538		4669	
3842	31595	6074		5961		4400		4205		4303	
3843	31596	7298		6139		6000	6	3828		4914	
3844	31597	6071		5292		5800	8	3906		4853	
3845	31598	7939	7	6589		5350		4034		4692	
3846	31599	4518		5037		4100		4908		4504	
3847	31600	6312		5787		4000		4013		4007	
3848	31601	7936	9	6876	10	4350		4126		4238	
3849	Zonal Check	7448		5823		3900		5661	6	4781	
3850	31602	5452		4791		3100		3857		3479	
3851	31603	7005		7749	1	5650	9	5249	10	5450	3
3852	31604	3932		4067		3700		4759		4230	
3853	31605	7555		6000		3400		4162		3781	
3854	31606	5671		6091		5950	7	4496		5223	7
3855	31607	4463		4582		3900		4574		4237	
3856	31608	6774		5963		3750		3878		3814	
3857	31609	5856		5938		3400		5732	4	4566	
3858	31610	8047	2	6963	6	4650		4759		4705	
3859	31611	7360		5816		3000		4695		3848	
3860	31612	6732		6218		3200		4858		4029	
3861	31613	5856		5934		3750		5703	5	4727	
3862	31614	7347		6271		3050		4212		3631	
3863	31615	8001	5	6038		4000		4844		4422	
3864	Local Check	5378		4825		5500	10	5220		5360	4
Exp. Mean		**6550**		**5957**		**4345**		**4504**		**4425**	
F value		**2.69(p<0.0001)S**		**3.94(p<0.0001)S**		**7.39(p<0.0001)S**		**3.83(p<0.0001)S**		**4.60(p<0.0001)S**	
CD		2202		1183		1061		997		761	
CV%		**16.82**		**9.94**		**12.21**		**11.07**		**8.60**	
D/S		06-07-2023				29-06-2023		28-06-2023			
D/P		26-07-2023				03-08-2023		16-07-2023			
Local Check Name		IGKVR 1				PKV GANESH		PKV-GANESH			

Table No. 4c.2 (Contd).: Grain Yield (kg/ha) in IVT – IME, Kharif 2023

Entry No	IET No	Zone V (5)		ZONE VI – WESTERN MAHARASHTRA							
		Mean		Karjat		Vadagaon		Radhanagari		Maharastra 2 (3)	
3801	30649	5449		5619		5283		4984		5295	
3802	30692	5822	10	6521		5169		5545		5745	9
3803	30804	4901		3656		3493		4295		3815	
3804	31562	4930		4834		4545		5007		4795	
3805	31563	5061		2830		4318		3802		3650	
3806	31564	5912	7	6641	10	5466		5847	9	5985	5
3807	31565	5302		5322		4423		5474		5073	
3808	31566	4956		3726		3781		4573		4027	
3809	31567	5583		5122		4133		3503		4253	
3810	30672	5990	4	4800		4800		5480		5027	
3811	30639	5985	5	5512		4429		5853	8	5265	
3812	31568	4649		4983		4705		4855		4848	
3813	30713	5637		8082	1	5719	7	6458	1	6753	1 *
3814	31569	5736		5182		4436		5057		4892	
3815	31570	4933		5391		4741		5754		5295	
3816	31571	5112		5880		4290		5668		5279	
3817	31572	5257		5852		4898		5725		5492	
3818	31573	4720		5881		5104		4960		5315	
3819	31574	5653		5125		4328		3406		4286	
3820	31575	5016		5488		4100		4259		4616	
3821	31576	5520		4329		4935		6077	6	5114	
3822	31577	4849		5813		5179		4033		5008	
3823	**Gontra Bidhan-3 (NC)**	5979	6	5931		5479		6413	3	5941	8
3824	31578	4632		4195		4296		3896		4129	
3825	31579	4974		4878		5560	10	4479		4972	
3826	31580	5393		4436		5586	8	5637		5220	
3827	31581	6287	2	6432		7442	1	3966		5947	7
3828	31582	5244		3850		6885	2	4522		5086	
3829	31583	5026		5080		4882		6088	5	5350	
3830	31584	5575		4364		5023		3858		4415	
3831	31585	5579		2418		3200		3768		3129	
3832	31586	4714		4113		5354		4350		4606	
3833	31587	4147		4099		5088		4471		4553	
3834	31588	5208		6781	9	4218		4659		5219	
3835	31589	5318		7811	2	5424		4747		5994	4
3836	31590	5251		5366		5112		4451		4976	
3837	31591	5339		5955		3753		4635		4781	
3838	31592	5360		6335		4903		4478		5239	
3839	31593	5498		6866	8	4036		5219		5374	
3840	31594	5513		4016		4732		4850		4533	
3841	30667	5157		5635		4293		3145		4358	
3842	31595	5188		6925	7	4469		5503		5632	
3843	31596	5724		7496	5	5492		4920		5969	6
3844	31597	5062		7305	6	4953		4738		5665	
3845	31598	5561		4287		5451		5701		5146	
3846	31599	5053		5616		3678		4906		4733	
3847	31600	5050		5217		4936		5835	10	5329	
3848	31601	5858	9	5887		5186		5757		5610	
3849	Zonal Check	5628		2894		4450		4109		3818	
3850	31602	4501		3524		4341		4224		4030	
3851	31603	6426	1	7648	4	6596	3	5877	7	6707	2 *
3852	31604	4196		5556		5234		5142		5311	
3853	31605	4987		4115		4408		5087		4537	
3854	31606	5596		5807		5993	5	5428		5743	10
3855	31607	4592		5415		5759	6	4497		5224	
3856	31608	4871		5312		5012		5140		5155	
3857	31609	5066		5142		5484		4563		5063	
3858	31610	6157	3	7667	3	6563	4	5611		6614	3 *
3859	31611	5377		6175		4146		5279		5200	
3860	31612	5425		4072		5572	9	4313		4652	
3861	31613	5385		6263		4759		4098		5040	
3862	31614	4886		5677		5099		6427	2	5734	
3863	31615	5867	8	5449		4312		6274	4	5345	
3864	Local Check	5321		5026		5118		4101		4748	
Exp. Mean		**5296**		**5369**		**4915**		**4934**		**5073**	
F value		**4.58(p<0.0001)S**		**5.09(p<0.0001)S**		**3.34(p<0.0001)S**		**4.31(p<0.0001)S**		**9(p<0.0001)S**	
CD		619		1530		1204		1085		659	
CV%		**5.84**		**14.26**		**12.26**		**11.00**		**6.50**	
D/S				17-06-2023		27-06-2023		16-06-2023			
D/P				13-07-2023		28-07-2023		12-07-2023			
Local Check Name				Karjat-3		Pawana		Phule Radha			

Table No. 4c.2 (Contd).: Grain Yield (kg/ha) in IVT – IME, Kharif 2023

Entry No	IET No	ZONE VI – WESTERN									
		Maharastra (5)		GUJARAT							
		Mean		Navsari		Nawagam		Vyara		Gujarat 2 (3)	
3801	30649	4881		4267		4475		5661		4801	
3802	30692	5198		5130		6237	1	4908		5425	2
3803	30804	3887				4714	8	3819		4267	
3804	31562	4502		3985		3464		3257		3569	
3805	31563	3641		3965		3698		3119		3594	
3806	31564	5180		5056		3880		3685		4207	
3807	31565	4695		3513		4092		2407		3337	
3808	31566	4022		4782		4007		4408		4399	
3809	31567	4553		4340		3760		3674		3925	
3810	30672	4890		5460		3464		5049		4658	
3811	30639	5294	10	4410		3497		4629		4179	
3812	31568	4336		4292		4461		6033	7	4929	
3813	30713	5700	3	4914		4505		5938		5119	10
3814	31569	4947		5077		3627		5276		4660	
3815	31570	5054		3772		4896	5	3686		4118	
3816	31571	4891		5940	4	3642		4985		4856	
3817	31572	4895		4239		3821		3419		3826	
3818	31573	4813		3757		3464		3872		3698	
3819	31574	4626		3703		4743	7	4343		4263	
3820	31575	4482		4810		3749		5232		4597	
3821	31576	4916		6307	1	4609	9	4598		5171	8
3822	31577	4799		2483		4932	4	4117		3844	
3823	**Gontra Bidhan-3 (NC)**	5667	4	4994		3290		6477	2	4920	
3824	31578	4532		6117	2	3876		6178	5	5390	3
3825	31579	4561		4654		3717		3058		3810	
3826	31580	4903		5671	8	4159		4834		4888	
3827	31581	5638	5	5799	5	4010		6251	4	5353	5
3828	31582	4873		5221		3378		5065		4555	
3829	31583	4704		5315		3824		5666		4935	
3830	31584	5060		5512		3743		3601		4285	
3831	31585	3954		4448		3847		2694		3663	
3832	31586	4493		5599		4747	6	4702		5016	
3833	31587	4139		3703		4368		3455		3842	
3834	31588	4454		4479		4104		3901		4161	
3835	31589	5457	8	6116	3	3757		6094	6	5322	6
3836	31590	4747		4476		4546	10	3970		4331	
3837	31591	4325		5669	9	3579		4805		4684	
3838	31592	4771		4522		3664		6376	3	4854	
3839	31593	4852		4760		5387	3	5940	10	5362	4
3840	31594	4924		4929		4022		5341		4764	
3841	30667	4482		5150		3711		3790		4217	
3842	31595	5100		5721	6	3571		5450		4914	
3843	31596	5547	6	4145		4527		4732		4468	
3844	31597	5340	9	3858		3266		5441		4188	
3845	31598	4965		5688	7	4040		5258		4995	
3846	31599	4642		4846		3571		3686		4034	
3847	31600	4800		5108		4174		3388		4223	
3848	31601	5061		4625		4286		3638		4183	
3849	Zonal Check	4203		3934		3795		4178		3969	
3850	31602	3809		2663		4129		3687		3493	
3851	31603	6204	1	5607	10	4464		6751	1	5607	1
3852	31604	4878		3445		3352		3988		3595	
3853	31605	4234		2876		3977		3651		3501	
3854	31606	5535	7	4736		3553		4433		4241	
3855	31607	4829		3437		3423		2200		3020	
3856	31608	4618		4858		3943		5596		4799	
3857	31609	4864		4948		3519		5051		4506	
3858	31610	5850	2	5420		3802		5949	8	5057	
3859	31611	4659		5475		4115		3435		4342	
3860	31612	4403		2412		3266		4644		3441	
3861	31613	4915		5522		4077		5946	9	5182	7
3862	31614	4893		4835		3914		4715		4488	
3863	31615	4976		5467		4077		4417		4654	
3864	Local Check	4993		5396		5893	2	4130		5140	9
Exp. Mean		**4813**		**4704**		**4034**		**4573**		**4435**	
F value		**7.24(p<0.0001)S**		**4.61(p<0.0001)S**		**4.14(p<0.0001)S**		**4.64(p<0.0001)S**		**6.87(p<0.0001)S**	
CD		513		1179		831		1412		647	
CV%		**5.33**		**12.54**		**10.31**		**15.45**		**7.30**	
D/S				15-06-2023		28-07-2023		20-06-2023			
D/P				12-07-2023		21-08-2023		18-07-2023			
Local Check Name				GNR-3		Mahisagar		GNR-3			

Table No. 4c.2 (Contd).: Grain Yield (kg/ha) in IVT – IME, Kharif 2023

Entry No	IET No	Zone VI (6)		ZONE VII – SOUTHERN							
				ANDHRA PRADESH						TELANGANA	
		Mean		Maruteru		Ragolu		Aandra pradesh(2)		Rajendranagar	
3801	30649	5048		6833	1	7317	1	7075	1 *	6820	
3802	30692	5585	6	6343	4	5344		5844	8	5289	
3803	30804	3995		4131		5636		4884		5735	
3804	31562	4182		4833		5278		5056		6482	
3805	31563	3622		5240		5256		5248		6985	
3806	31564	5096		5257		5599		5428		5832	
3807	31565	4205		5382		5599		5491		5641	
3808	31566	4213		5349		5263		5306		6190	
3809	31567	4089		2923		4920		3922		6186	
3810	30672	4842		6012		4481		5247		5818	
3811	30639	4722		4999		5073		5036		6768	
3812	31568	4888		5634		4159		4897		6863	
3813	30713	5936	2	6175	8	5694		5935	5	5314	
3814	31569	4776		5267		5556		5412		7507	7
3815	31570	4707		5970		4649		5310		7428	9
3816	31571	5068		3570		6425		4998		6573	
3817	31572	4659		6347	3	5775		6061	4	5306	
3818	31573	4506		4129		6528		5329		5366	
3819	31574	4275		5889		7281	2	6585	3	5850	
3820	31575	4606		4611		6148		5380		5278	
3821	31576	5143		4792		4050		4421		6230	
3822	31577	4426		5346		3969		4658		5891	
3823	**Gontra Bidhan-3 (NC)**	5431	7	6058	10	4620		5339		4384	
3824	31578	4760		4499		7178	4	5839	9	6101	
3825	31579	4391		3538		6075		4807		7158	
3826	31580	5054		4456		7149	6	5803	10	6912	
3827	31581	5650	5	6292	5	5424		5858	7	5902	
3828	31582	4820		4714		6199		5457		7603	6
3829	31583	5143		6229	7	4284		5257		6503	
3830	31584	4350		4499		4152		4326		7132	
3831	31585	3396		2533		3801		3167		5456	
3832	31586	4811		5173		6016		5595		6479	
3833	31587	4197		4789		4481		4635		4853	
3834	31588	4690		3385		5665		4525		6826	
3835	31589	5658	4	6084	9	5782		5933	6	4221	
3836	31590	4654		4852		5000		4926		5613	
3837	31591	4733		4840		5775		5308		7035	
3838	31592	5046		5114		5950		5532		7100	
3839	31593	5368	8	3764		5775		4770		8035	3
3840	31594	4648		4170		7178	4	5674		6609	
3841	30667	4287		4422		5249		4836		7650	5
3842	31595	5273	9	4089		4232		4161		7220	
3843	31596	5219	10	3863		7208	3	5536		8119	2
3844	31597	4927		4271		6075		5173		6430	
3845	31598	5071		5685		5855		5770		7490	8
3846	31599	4384		3279		5073		4176		6485	
3847	31600	4776		4692		4313		4503		8269	1
3848	31601	4897		5292		5826		5559		6639	
3849	Zonal Check	3893		3114		5541		4328		7780	4
3850	31602	3761		4935		4452		4694		5842	
3851	31603	6157	1 *	6625	2	4430		5528		7045	
3852	31604	4453		3805		6930	8	5368		7271	10
3853	31605	4019		2244		4927		3586		5478	
3854	31606	4992		5932		4174		5053		6269	
3855	31607	4122		3244		4035		3640		6128	
3856	31608	4977		4948		4174		4561		6432	
3857	31609	4785		6288	6	7105	7	6697	2 *	5477	
3858	31610	5835	3	4136		6849	9	5493		6726	
3859	31611	4771		4395		4722		4559		5509	
3860	31612	4047		4050		4254		4152		5489	
3861	31613	5111		4214		4839		4527		6938	
3862	31614	5111		4075		5044		4560		5067	
3863	31615	4999		4806		4123		4465		5883	
3864	Local Check	4944		4732		6667	10	5700		6262	
Exp. Mean		**4753**		**4799**		**5416**		**5107**		**6362**	
F value		**9.24(p<0.0001)S**		**5.41(p<0.0001)S**		**5.25(p<0.0001)S**		**5.03(p<0.0001)S**		**2.36(p<0.0004)S**	
CD		511		1255		1224		912		1631	
CV%		**5.38**		**13.09**		**11.31**		**8.93**		**12.83**	
D/S				16-07-2023		04-07-2023				03-07-2023	
D/P				14-08-2023		26-07-2023				03-08-2023	
Local Check Name				MTU1121		MTU 1121				RNR 29325	

Table No. 4c.2 (Contd).: Grain Yield (kg/ha) in IVT – IME, Kharif 2023

Entry No	IET No	ZONE VII – SOUTHERN									
		TELANGANA						TAMIL NADU			
		Kunaram		Warangal		Telangana (3)		Aduthurai		Coimbatore	
3801	30649	6662		7455		6979		7444	2	5908	
3802	30692	6514		8794	4	6866		4148		6867	2
3803	30804	3591		5341		4889		4644		5809	
3804	31562	7430		5862		6591		4437		6511	8
3805	31563	4398		5162		5515		4241		5585	
3806	31564	4718		5948		5499		4148		5552	
3807	31565	6533		5952		6042		4474		6394	10
3808	31566	6024		5703		5972		4815		5374	
3809	31567	8104	7	5924		6738		5741		5858	
3810	30672	6432		8414	9	6888		4185		4891	
3811	30639	5330		6792		6297		4293		6654	6
3812	31568	6483		5967		6438				5633	
3813	30713	7571		9276	1	7387	9			5770	
3814	31569	8021	8	6598		7375	10			4915	
3815	31570	7619		6827		7291		4481		5624	
3816	31571	7505		5526		6535		7296	3	5960	
3817	31572	9348	1	6874		7176		5630		5886	
3818	31573	5955		6753		6025		4204		4973	
3819	31574	5810		6003		5888		5667		4796	
3820	31575	7901	9	5002		6060		6667	5	6085	
3821	31576	7653		6262		6715		5837		5185	
3822	31577	5376		6962		6076		6433	8	5942	
3823	**Gontra Bidhan-3 (NC)**	9225	2	5556		6388		6422	9	6750	3
3824	31578			8537	7	7319		4111		4729	
3825	31579	6561		5886		6535		4296		5223	
3826	31580	7782		8051		7582	7 *	4211		6943	1
3827	31581	6963		8089	10	6985		5304		4778	
3828	31582	7361		8633	6	7866	4 *	6815	4	6349	
3829	31583	7282		6883		6889		5689		5163	
3830	31584	7477		7452		7354		4091		6052	
3831	31585	5761		6553		5923		4119		5150	
3832	31586	7072		6163		6571		8215	1	5633	
3833	31587	7047		4893		5598		4148		4497	
3834	31588	7757		7484		7356		4444		5570	
3835	31589	7573		8923	2	6906		4411		6586	7
3836	31590	7342		6364		6440		5793		6743	4
3837	31591	7499		6512		7015		4630		5256	
3838	31592	8700	4	7604		7801	5 *	4804		5625	
3839	31593	7825	10	8009		7956	3 *	4670		5278	
3840	31594	5946		5469		6008		4748		6127	
3841	30667	4805		6572		6342		4193		4637	
3842	31595	6161		7540		6974		4126		6150	
3843	31596	5765		7582		7155		5056		4544	
3844	31597	6149		5522		6034		5185		6125	
3845	31598	8146	6	8489	8	8042	2 *	4200		6098	
3846	31599	7406		8650	5	7514	8 *			6133	
3847	31600	5601		7034		6968		4459		5083	
3848	31601	8380	5	7827		7615	6 *	4741		6135	
3849	Zonal Check	4705		4674		5720		4352		6466	9
3850	31602	5733		6528		6034		4030		6160	
3851	31603	8764	3	8872	3	8227	1 *	5830		6198	
3852	31604	5739		5658		6223		4341		4982	
3853	31605	7044		5669		6064		5719		6080	
3854	31606	6042		5663		5991		6667	5	4671	
3855	31607	5654		4057		5280		5281		5255	
3856	31608	5405		7510		6449		6570	7	4634	
3857	31609	6981		7341		6600		4167		5325	
3858	31610	6230		6148		6368		3522		5444	
3859	31611	7420		5934		6288		4115		4648	
3860	31612	6614		5296		5800		4481		6332	
3861	31613	6676		7572		7062		5856		6662	5
3862	31614	6505		6826		6133		6222	10	6140	
3863	31615	6596		7878		6786		4222		6316	
3864	Local Check	7514		6280		6685		4104		6178	
Exp. Mean		**6765**		**6743**		**6626**		**5019**		**5703**	
F value		**9.23(p<0.0001)S**		**4.49(p<0.0001)S**		**6.39(p<0.0001)S**		**4.01(p<0.0001)S**		**3.18(p<0.0001)S**	
CD		1116		1593		804		1464		1078	
CV%		**8.25**		**11.82**		**6.07**		**14.57**		**9.46**	
D/S		24-06-2023		22-06-2023				01-07-2023		19-06-2023	
D/P		22-07-2023		23-07-2023				08-08-2023		12-07-2023	
Local Check Name		KNM 1638		RNR 15048				ADT 58		TKM 13	

Table No. 4c.2 (Contd).: Grain Yield (kg/ha) in IVT – IME, Kharif 2023

Entry No	IET No	ZONE VII – SOUTHERN									
		TAMIL NADU		KERALA						KARNATAKA	
		Tamilnadu (2)		Moncompu		Pattambi		Kerala (2)		Mandya	
3801	30649	6676	2	5556		6166		5861		5687	
3802	30692	5508		5694	7	7860		6777	7	6488	6
3803	30804	5227		4306		7700		6003			
3804	31562	5474		4097		7393		5745		5081	
3805	31563	4913		5347		6799		6073		4502	
3806	31564	4850		4097		9036	3	6567	10	6163	9
3807	31565	5434		3681		7499		5590		5152	
3808	31566	5095		4861		6766		5814		4021	
3809	31567	5800		3194		8995	4	6095		4399	
3810	30672	4538		3889		6833		5361		5433	
3811	30639	5474		4722		9664	1	7193	3 *	6001	
3812	31568	5633		4514		6732		5623		5352	
3813	30713	5770		5694	7	6113		5904		5893	
3814	31569	4915		4861		7932		6397		5103	
3815	31570	5053		4444		7083		5764		4594	
3816	31571	6628	3	4514		7000		5757		5005	
3817	31572	5758		5347		6333		5840		6650	5
3818	31573	4589		5069		5533		5301		5482	
3819	31574	5232		4931		6166		5549		6055	10
3820	31575	6376	6	4861		6432		5647		3966	
3821	31576	5511		4583		6264		5424		5141	
3822	31577	6188	9	5903	2	7999		6951	6	4334	
3823	**Gontra Bidhan-3 (NC)**	6586	4	2917		6522		4720		5774	
3824	31578	4420		4375		6066		5221		5639	
3825	31579	4760		3125		6607		4866		5741	
3826	31580	5577		4028		5399		4714		5406	
3827	31581	5041		2986		8093		5540		4648	
3828	31582	6582	5	4375		8209	7	6292		6764	3
3829	31583	5426		4375		7866		6121		5238	
3830	31584	5072		5347		8166	9	6757	8	6407	7
3831	31585	4635		3125		5399		4262		3761	
3832	31586	6924	1	5556		5970		5763		5179	
3833	31587	4323		3681		8366	6	6024		4275	
3834	31588	5007		5799	4	5866		5833		6732	4
3835	31589	5499		7292	1	7633		7463	1 *	6981	2
3836	31590	6268	7	4028		6499		5264		5509	
3837	31591	4943		4931		7899		6415		5893	
3838	31592	5215		4271		5944		5108		4838	
3839	31593	4974		5000		6082		5541		5655	
3840	31594	5438		4306		7241		5774		5741	
3841	30667	4415		5764	5	6896		6330		6174	8
3842	31595	5138		5347		9232	2	7290	2 *	8463	1
3843	31596	4800		5625	9	8432	5	7029	4	4968	
3844	31597	5655		5000		8199	8	6600	9	5303	
3845	31598	5149		5000		8002		6501		5135	
3846	31599	6133		4167		7433		5800		4264	
3847	31600	4771		3958		7833		5896		5731	
3848	31601	5438		4514		8066		6290		4978	
3849	Zonal Check	5409		3681		8099	10	5890		4697	
3850	31602	5095		4097		8066		6082		4410	
3851	31603	6014		5764	5	6875		6320		5887	
3852	31604	4662		5486		7099		6293		4870	
3853	31605	5900		4375		5733		5054		5152	
3854	31606	5669		4167		6899		5533		5005	
3855	31607	5268		4583		6123		5353		4919	
3856	31608	5602		5903	2	8016		6960	5	5308	
3857	31609	4746		4514		6200		5357		5363	
3858	31610	4483		4514		5966		5240		3929	
3859	31611	4382		5556		6866		6211		5866	
3860	31612	5407		4861		8008		6435		5628	
3861	31613	6259	8	4931		6133		5532		5265	
3862	31614	6181	10	3681		6766		5224		4145	
3863	31615	5269		4653		6233		5443		5996	
3864	Local Check	5141		5069		7133		6101		6006	
Exp. Mean		**5380**		**4670**		**7132**		**5901**		**5367**	
F value		**4.46(p<0.0001)S**		**4.20(p<0.0001)S**		**2.21(p<0.0009)S**		**2.86(p<0.0001)S**		**11.70(p<0.0001)S**	
CD		858		1139		1907		1083		693	
CV%		**7.98**		**12.20**		**13.38**		**9.18**		**6.46**	
D/S				21-07-2023		24-06-2023				19-07-2023	
D/P				18-08-2023		14-07-2023				11-08-2023	
Local Check Name				MO 16 Uma		JYOTHI				Thanu	

Table No. 4c.2 (Contd).: Grain Yield (kg/ha) in IVT – IME, Kharif 2023

Entry No	IET No	ZONE VII – SOUTHERN KARNATAKA						Zone VII (12)		Overall Mean (35)	
		Mugad		Gangavati		Karnataka (3)		Mean			
3801	30649	9050	5	5160		6632		6672	4	5781	5
3802	30692	7084		6417		6663		6404	6	5877	3 *
3803	30804	5470		6531		6001		5354		4678	
3804	31562	7993		4763		5946		5847		5174	
3805	31563	7234		5744		5827		5541		4724	
3806	31564	7107		6071		6447		5794		5443	
3807	31565	8340		6801	9	6764		5954		5132	
3808	31566	8770		5231		6007		5697		4886	
3809	31567	7588		3378		5122		5601		4874	
3810	30672	6085		4577		5365		5588		5393	
3811	30639	6096		5250		5782		5970		5431	
3812	31568	6343		4372		5356		5641		5013	
3813	30713	7288		5558		6246		6395	7	5900	2 *
3814	31569	8253		5417		6258		6312		5468	
3815	31570	8872		6103		6523		6141		5418	
3816	31571	8971	8	5929		6635		6190		5537	
3817	31572	7741		6542		6978		6482	5	5588	
3818	31573	7585		5519		6195		5591		5124	
3819	31574	6990		5071		6039		5876		5281	
3820	31575	7617		4032		5205		5717		5008	
3821	31576	6571		6321		6011		5741		5341	
3822	31577	8910	9	7917	3	7054	9	6249		5039	
3823	**Gontra Bidhan-3 (NC)**	11607	1	5795		7725	2	6303		5647	7
3824	31578	9004	6	3987		6210		5839		5009	
3825	31579	8600		4500		6280		5609		5118	
3826	31580	8501		4686		6198		6127		5341	
3827	31581	8986	7	5792		6475		6105		5778	6
3828	31582	8254		6519		7179	8	6816	3 *	5634	9
3829	31583	5625		5449		5437		5882		5271	
3830	31584	5332		6269		6003		6031		5369	
3831	31585	8869		6429		6353		5080		4529	
3832	31586	8584		5949		6571		6332		5369	
3833	31587	8902	10	5622		6266		5463		4922	
3834	31588	9137	4	5744		7204	6	6201		5225	
3835	31589	9438	3	7203	6	7874	1	6844	2 *	5873	4 *
3836	31590	5960		5314		5594		5751		5043	
3837	31591	7806		5253		6317		6111		5451	
3838	31592	6238		5122		5399		5943		5409	
3839	31593	6066		6667		6129		6069		5530	
3840	31594	8888		6955	8	7195	7	6115		5336	
3841	30667	8682		6135		6997	10	5932		5054	
3842	31595	6877		7288	5	7543	3	6394	8	5639	8
3843	31596	7775		6705	10	6483		6304		5610	10
3844	31597	6785		8442	2	6843		6124		5328	
3845	31598	5423		6109		5556		6303		5495	
3846	31599	5267		4346		4626		5682		4906	
3847	31600	7356		7333	4	6807		5972		5267	
3848	31601	8831		5417		6409		6387	9	5489	
3849	Zonal Check	8069		5910		6225		5591		5037	
3850	31602	6517		4769		5232		5462		4667	
3851	31603	10671	2	6071		7543	3	6919	1 *	6272	1 *
3852	31604	8013		5536		6140		5811		5044	
3853	31605	7955		5705		6271		5507		4896	
3854	31606	7852		6167		6341		5792		5412	
3855	31607	6029		5865		5604		5098		4560	
3856	31608	6918		4763		5663		5882		5375	
3857	31609	6703		3378		5148		5737		5213	
3858	31610	7003		6314		5749		5565		5591	
3859	31611	8146		5295		6436		5706		5301	
3860	31612	8760		4936		6441		5726		4963	
3861	31613	8592		8487	1	7448	5	6347	10	5539	
3862	31614	6354		4372		4957		5433		5124	
3863	31615	5572		5609		5726		5657		5418	
3864	Local Check	5947		6981	7	6311		6073		5426	
Exp. Mean		**7623**		**5748**		**6249**		**5950**		**5291**	
F value		**2(p<0.0032)S**		**8.07(p<0.0001)S**		**5.02(p<0.0001)S**		**8.09(p<0.0001)S**		**20.94(p<0.0001)S**	
CD		2736		1062		899		392		210	
CV%		**17.96**		**9.24**		**7.20**		**3.29**		**1.98**	
D/S		11-07-2023		28-07-2023							
D/P				03-08-2023							

Table No. 4c.2 (Contd).: Grain Yield (kg/ha) in IVT – IME, (Trials not considered) Kharif 2023

Entry No	IET No	Trial Not Considered									
		UTTARAKHAND (0)		JAMMU KASHMIR (0)		UTTAR PRADESH		ODISHA		JHARKHAND (0)	
		@ Pantnagar		@ Chata		@ Kanpur		@ Jeypore		@ Ranchi	
3801	30649	2084		4500	10	3875		2024		3250	
3802	30692	851				2770		1618		4250	
3803	30804	2973	4	4350		5395	2	1965		5250	
3804	31562	2188		4700	3	5115	8	2024		4250	
3805	31563	1816		3850		3340		2135		7750	1
3806	31564	1510		4600	6	3510		1905		3375	
3807	31565	2149				4440		1333		3750	
3808	31566	1339				4090		1165		2875	
3809	31567	3189	2			4335		1838		6250	5
3810	30672	2180				3185		1811		3750	
3811	30639	1868		4750	1	2620		1659		2750	
3812	31568	1067				4495		1185		6250	5
3813	30713	303				4550		1948		3000	
3814	31569	2276				3195		1478		3000	
3815	31570	2082				3995		1933		3375	
3816	31571	2731	7			4240		1537		3250	
3817	31572	2501		4600	6	4066		3228	1	2750	
3818	31573	1929				4485		3142	2	6250	5
3819	31574	2316				5285	5	2214		3750	
3820	31575	1974				3905		1308		5750	9
3821	31576	1141				2905		1691		3250	
3822	31577	374				4495		1130		3375	
3823	**Gontra Bidhan-3 (NC)**	2276		4252		3665		1929		4375	
3824	31578	1611		4362		4155		1982		3250	
3825	31579	1581		4150		4600		1272		5875	8
3826	31580	3138	3	4650	4	3380		2122		6375	3
3827	31581	3393	1	3513		5125	7	1306		4125	
3828	31582	2080		3444		3670		2128		3375	
3829	31583	2306				4315		1829		2875	
3830	31584	1982		4000		3260		2645	3	3250	
3831	31585	1071		3912		3045		1572		3625	
3832	31586	641				4355		2454	6	3500	
3833	31587	2251				4025		1546		2875	
3834	31588	1328				3010		1888		3625	
3835	31589	2119				4405		1522		4500	
3836	31590	2259				5385	3	1856		3375	
3837	31591	2564	8			2445		2188		2875	
3838	31592	471				4910	10	2193		2375	
3839	31593	2231				5500	1	1718		4250	
3840	31594	960				4240		1266		2250	
3841	30667	2186		4750	1	2695		2222	10	3375	
3842	31595	1559				3915		1864		3250	
3843	31596	1262				4215		2572	4	2625	
3844	31597	237				3075		1329		5750	9
3845	31598	2559	9	4475		4555		2134		3375	
3846	31599	2416		4500	10	3910		1660		3250	
3847	31600	2965	5	4588	8	3460		1780		6250	5
3848	31601	1834		3992		3935		2115		3375	
3849	Zonal Check	1911		4118		3325		1410		5250	
3850	31602	1399				4560		2189		3125	
3851	31603	2940	6	4150		4390		1279		3500	
3852	31604	2233				4045		2256	9	3000	
3853	31605	1528		4360		5245	6	1634		3750	
3854	31606	1066				3140		1317		2250	
3855	31607	2005		4550	9	3280		1864		6550	2
3856	31608	889				3350		1973		5250	
3857	31609	1687		4475		5325	4	1267		2875	
3858	31610	781				3565		1277		4200	
3859	31611	1481				4420		1907		2375	
3860	31612	211				2590		2341	7	3875	
3861	31613	2263				2945		2272	8	3000	
3862	31614	2253				4480		2003		3125	
3863	31615	2534	10			4995	9	2458	5	4250	
3864	Local Check	1286		4650	4	3725		1916		4125	
Exp. Mean		**1822**		**4317**		**3983**		**1855**		**3906**	
F value		**2.49(p<0.0002)S**		**1.73(p<0.0869)NS**		**3.49(p<0.0001)S**		**8.69(p<0.0001)S**		**5.94(p<0.0001)S**	
CD		1351		**NS**		1188		426		873	
CV%		**37.10**		**11.21**		**14.93**		**11.50**		**11.18**	
D/S		17-06-2023		14-06-2023		05-07-2023		29-06-2023		26-06-2023	
D/P		19-07-2023		26-07-2023		13-08-2023		08-08-2023		25-08-2023	
Local Check Name		Pant Dhan 12		SJR-5		CSR-30		CR DHAN 805		BVD-203	

Table No. 4c.2 (Contd).: Grain Yield (kg/ha) in IVT – IME, (Trials not considered) Kharif 2023

Entry No	IET No	Trial Not Considered							
		UTTAR PRADESH		TRIPURA (0)		CHHATTISGARH		KARNATAKA	
		@ Masodha		@ Lembucherra		@Ambikhapur		@Brahmavar	
3801	30649	5738	8	3099		4051		4227	3
3802	30692	5386		3255		4282		4098	
3803	30804	4422		2389		4630		3847	
3804	31562	5718	9	3108		5729	3	4006	
3805	31563	4541		2406		4398		4119	
3806	31564	3737		2761		5324	7		
3807	31565	4697		2311		5440	5	4138	
3808	31566	4255		1974		4745		3684	
3809	31567	5612	10	2277		4919		2842	
3810	30672	4388		2614		4977		3698	
3811	30639	4468		3324		5440	5	3598	
3812	31568	4096		2432		4051		3774	
3813	30713	4056		4198	10	5671	4	3698	
3814	31569	4435		3211				3531	
3815	31570	6682	1	2623		5150		3809	
3816	31571	4973		2675		4803		3567	
3817	31572	6390	4	4856	4	6597	1	3472	
3818	31573	4528		2900		5035		3828	
3819	31574	5539		3385		4051		4143	
3820	31575	4488		3108		4225		3917	
3821	31576	5153		6020	2	5208	9	3735	
3822	31577	3191		2744				4308	2
3823	**Gontra Bidhan-3 (NC)**	4395		2580		4109		3691	
3824	31578	6463	2	2986		5035		3736	
3825	31579	5472		2744		4572		3874	
3826	31580	5572		2129				3873	
3827	31581	4840		2683		4051		4115	
3828	31582	5332		3082		5150		4126	
3829	31583	5153		2848		6366	2	4217	4
3830	31584	4727		3532		4167		3710	
3831	31585	4761		4129		4340		3810	
3832	31586	4382		3134		4514		3979	
3833	31587	5020		3082		4861		4213	5
3834	31588	3597		6141	1	4282		3814	
3835	31589	4528		4242	8	5150		4089	
3836	31590	5452		3160		4167		3206	
3837	31591	4727		3437		4225		3379	
3838	31592	4594		2848		4051		3533	
3839	31593	5180		4276	7	5266	8	4104	
3840	31594	4555		2986		4514		3518	
3841	30667	4122		2415		4282		2784	
3842	31595	4787		3558				4013	
3843	31596	5525		2493		5150		3775	
3844	31597	4688		2978		4456		3697	
3845	31598	6430	3	2580		4572		3977	
3846	31599	5379		2580		4225		4180	8
3847	31600	5598		3134		4398		3985	
3848	31601	5166		4371	5	4398		4148	9
3849	Zonal Check	4508		2753		4398		3914	
3850	31602	5918	6	2580				3769	
3851	31603	5073		2943		4630		3787	
3852	31604	5086		4207	9	4572		4182	7
3853	31605	4279		2952		4340		4030	
3854	31606	4368		3056				4019	
3855	31607	3723		3385		4282		3912	
3856	31608	5166		2510		4572		4043	
3857	31609	4854		2770		4688		2551	
3858	31610	5891	7	2917		4225		4672	1
3859	31611	5984	5	4285	6	4225		4081	
3860	31612	5565		2917		4688		4148	9
3861	31613	4960		2571		4572		3636	
3862	31614	5578		3679		4861		3798	
3863	31615	5053		4891	3	4745		3621	
3864	Local Check	4521		2562		4803		4211	6
Exp. Mean		**4960**		**3168**		**4700**		**3841**	
F value		**19.81(p<0.0001)S**		**20.95(p<0.0001)S**		**1.16(p<0.2858)NS**		**1.92(p<0.0054)S**	
CD		453		513		**NS**		763	
CV%		**4.56**		**8.10**		**15.51**		**9.94**	
D/S		29-06-2023		10-07-2023		29-06-2023		13-06-2023	
D/P		06-08-2023		01-08-2023		04-08-2023		17-07-2023	
Local Check Name		IR 64-Sub 1		Tripura Nirog		RF-105		Sahyadri Sapthami	

Table No. 4c.3 : Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – IME, Kharif 2023

Entry No	IET No	ZONE II-NORTHERN														
		PUNJAB (1)			HARYANA (1)			UTTAR PRADESH			Uttarpradesh 1 (1)			Zone II (3)		
		Ludhiana			Kaul			Nagina			Mean			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3801	30649	112	95	277	104	94	312	108	97	316	108		316	108	95	301
3802	30692				109	91	273	113	107	328	113		328	111	99	
3803	30804	95	106	350	88	92	308	87	97	232	87		232	90	98	296
3804	31562	103	94	274	94	93	283	104	99	327	104		327	100	95	295
3805	31563	92	112	294	88	109	275	90	103	326	90		326	90	108	298
3806	31564	101	104	327	100	86	276	100	94	327	100		327	100	95	310
3807	31565	100	105	278	93	93	259	95	98	289	95		289	96	99	275
3808	31566	105	92	254	99	88	269	104	99	313	104		313	102	93	279
3809	31567	99	107	314	93	91	269	96	102	270	96		270	96	100	284
3810	30672	102	113	297	93	102	305	94	105	227	94		227	96	107	276
3811	30639	103	89	248	89	94	284	94	89	247	94		247	95	91	259
3812	31568	102	91	281	97	89	276	99	91	239	99		239	99	90	265
3813	30713				99	67	239	115	94	293	115		293	107	80	
3814	31569	94	105	267	88	101	268	91	103	288	91		288	91	103	274
3815	31570	97	121	297	89	121	285	92	114	270	92		270	93	119	284
3816	31571	102	91	310	92	81	294	97	96	340	97		340	97	89	315
3817	31572	96	100	274	93	99	282	98	103	322	98		322	95	101	293
3818	31573	102	105	291	84	106	298	101	103	275	101		275	95	105	288
3819	31574	112	105	258	102	94	335	108	97	188	108		188	107	99	260
3820	31575	103	82	297	94	72	258	99	77	260	99		260	98	77	271
3821	31576	94	110	281	90	107	284	91	94	332	91		332	92	103	299
3822	31577							135	101	183	135		183	135	101	
3823	**Gontra Bidhan-3 (NC)**	92	100	314	90	90	293	91	98	275	91		275	91	96	294
3824	31578	93	105	241	89	109	291	98	101	245	98		245	93	105	259
3825	31579	94	104	287	88	97	287	90	106	286	90		286	91	102	287
3826	31580	94	109	291	87	104	275	91	99	323	91		323	91	104	296
3827	31581	111	95	314	102	84	302	107	106	340	107		340	106	95	319
3828	31582	101	113	281	95	116	304	100	103	255	100		255	99	111	280
3829	31583	101	93	241	86	101	285	98	106	327	98		327	95	100	284
3830	31584	97	121	307	90	112	307	94	109	258	94		258	94	114	290
3831	31585	94	131	307	85	124	270	89	116	315	89		315	89	123	297
3832	31586				104	78	269	61	95	188	61		188	82	87	
3833	31587	102	115	291	96	94	270	95	106	190	95		190	97	105	250
3834	31588	97	102	281	92	95	251	103	87	305	103		305	97	95	279
3835	31589	106	95	277	97	105	298	121	101	256	121		256	108	100	277
3836	31590	103	99	310	102	93	279	108	88	259	108		259	104	93	283
3837	31591	101	92	279	90	90	282	96	90	288	96		288	95	91	283
3838	31592				108	84	256	123	87	314	123		314	115	86	
3839	31593	95	107	330	84	103	266	92	103	298	92		298	90	104	298
3840	31594				93	100	300	105	97	280	105		280	99	99	
3841	30667	111	100	297	97	99	252	106	103	284	106		284	104	100	277
3842	31595	112	108	291	98	99	293	107	111	316	107		316	106	106	300
3843	31596				113	102	278	131	96	251	131		251	122	99	
3844	31597				109	104	260	124	97	333	124		333	116	100	
3845	31598	94	112	255	90	98	285	99	104	237	99		237	94	105	259
3846	31599	92	107	244	87	109	277	90	94	325	90		325	90	103	282
3847	31600	98	101	241	89	105	274	92	95	233	92		233	93	100	249
3848	31601	96	105	297	89	104	263	91	96	231	91		231	92	102	264
3849	Zonal Check	101	89	241	97	82	280	102	98	267	102		267	100	90	263
3850	31602	95	113	337	83	92	261	98	102	298	98		298	92	102	299
3851	31603	103	104	363	97	92	322	103	102	301	103		301	101	99	328
3852	31604	102	114	261	93	106	257	100	119	208	100		208	98	113	242
3853	31605	94	112	350	88	98	280	91	104	304	91		304	91	105	311
3854	31606		.		104	83	285	111	95	332	111		332	108	89	
3855	31607	103	103	307	96	95	288	100	105	254	100		254	100	101	283
3856	31608	112	102	304	101	86	305	108	94	242	108		242	107	94	283
3857	31609	104	100	320	93	103	287	101	89	331	101		331	99	97	313
3858	31610	98	107	255	104	99	284	113	104	318	113		318	105	103	285
3859	31611	95	98	304	86	99	289	92	98	333	92		333	91	98	308
3860	31612							125	101	330	125		330	125	101	
3861	31613	112	94	353	106	89	289	108	100	249	108		249	109	94	297
3862	31614	104	105	310	96	97	301	104	102	308	104		308	101	101	306
3863	31615	96	109	261	88	109	274	90	104	315	90		315	91	107	283
3864	Local Check	93	94	297	94	96	292	96	100	327	96		327	94	97	305
Mean		**100**	**103**	**291**	**94**	**97**	**282**	**100**	**100**	**283**	**100**		**283**	**99**	**99**	**286**

Table No. 4c.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – IME, Kharif 2023

Entry No	IET No	ZONE III-EASTERN														
		ODISHA						Odisha (2)			BIHAR					
		NRRI Cuttack			Chiplima			Mean			Bikramganj (Dhangain)			Sabour		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3801	30649	103	100	263	103	100	247	103	100	255	109	115	370	106	100	303
3802	30692	101	98	291	110	100	220	105	99	255	109	117	345	111	112	287
3803	30804	93	97	302	91	91	249	92	94	275	94	116	426	95	108	227
3804	31562	101	96	264	102	91	215	102	93	240	100	119	437	98	110	315
3805	31563	95	102	429	101	90	172	98	96	301	94	119	411	87	115	225
3806	31564	101	91	241	111	95	207	106	93	224	96	124	340	97	114	224
3807	31565	99	88	281	115	100	206	107	94	243	96	119	414	98	108	253
3808	31566	98	99	297	117	88	229	107	93	263	110	107	403	106	105	256
3809	31567	96	109	242	109	103	188	102	106	215	96	121	468	95	106	291
3810	30672	99	101	281	122	105	160	110	103	220	99	123	394	99	112	260
3811	30639	100	79	274	120	86	250	110	83	262	96	111	347	96	97	258
3812	31568	99	79	358	123	87	159	111	83	258	102	110	400	97	96	344
3813	30713	100	87	264	115	86	205	107	87	234	98	108	433	119	99	358
3814	31569	99	98	258	104	101	219	102	100	238	98	114	350	92	124	263
3815	31570	99	103	249	104	116	187	102	109	218	96	131	394	93	122	246
3816	31571	97	75	365	104	77	315	100	76	340	100	110	385	103	105	348
3817	31572	99	90	198	124	94	190	111	92	194	96	113	399	96	120	342
3818	31573	98	106	280	118	98	201	108	102	241	94	123	420	96	104	254
3819	31574	101	95	209	119	99	193	110	97	201	105	113	369	107	121	235
3820	31575	99	89	312	105	76	218	102	82	265	100	105	358	97	94	203
3821	31576	94	93	279	100	89	215	97	91	247	98	112	380	95	112	231
3822	31577	104	86	253	125	104	183	114	95	218	123	112	365	115	106	295
3823	**Gontra Bidhan-3 (NC)**	98	98	330	107	83	156	102	90	243	99	118	391	94	103	285
3824	31578	97	108	192	111	104	178	104	106	185	98	117	301	95	132	196
3825	31579	92	87	241	106	95	201	99	91	221	96	122	397	93	109	236
3826	31580	93	87	390	105	94	210	99	90	300	96	113	327	85	100	239
3827	31581	101	96	258	104	89	173	103	92	215	110	117	450	105	113	230
3828	31582	105	95	209	107	106	207	106	101	208	93	128	392	95	117	247
3829	31583	95	96	215	115	95	208	105	95	211	96	125	376	94	111	288
3830	31584	93	101	280	110	104	315	102	102	298	96	125	343	93	119	228
3831	31585	96	111	284	114	107	204	105	109	244	98	129	369	83	120	229
3832	31586	99	87	292	107	106	252	103	97	272	109	120	334	78	111	333
3833	31587	95	105	237	118	105	189	106	105	213	96	117	342	107	101	302
3834	31588	95	97	237	126	101	131	111	99	184	93	115	353	97	124	246
3835	31589	102	103	269	114	94	227	108	99	248	105	116	422	113	100	268
3836	31590	98	92	251	114	97	174	106	95	213	94	119	410	107	109	218
3837	31591	100	83	241	115	92	214	107	88	228	109	110	394	95	96	248
3838	31592	103	86	396	113	94	185	108	90	291	96	109	406	116	102	353
3839	31593	96	96	242	125	95	182	111	96	212	98	115	360	94	109	205
3840	31594	99	95	240	107	107	207	103	101	224	105	115	398	94	109	215
3841	30667	101	91	248	109	100	169	105	95	208	109	120	406	105	116	299
3842	31595	101	104	396	124	101	179	112	102	287	119	111	362	108	115	300
3843	31596	104	103	258	120	102	158	112	103	208	122	120	355	119	121	232
3844	31597	101	99	281	123	105	246	112	102	263	119	112	367	111	107	255
3845	31598	101	104	299	119	106	139	110	105	219	96	125	302	95	113	274
3846	31599	93	96	264	119	96	239	106	96	251	92	123	348	85	107	214
3847	31600	97	96	301	113	98	195	105	97	248	96	114	340	95	109	245
3848	31601	91	100	270	110	95	191	100	97	230	94	112	313	92	100	222
3849	Zonal Check	95	98	302	115	108	168	105	103	235	100	116	363	95	117	216
3850	31602	97	100	308	98	102	221	97	101	265	94	121	345	97	117	218
3851	31603	99	91	231	117	100	216	108	96	223	99	117	372	97	110	230
3852	31604	101	107	274	111	112	203	106	109	239	100	125	362	98	120	260
3853	31605	96	105	296	104	96	185	100	101	240	100	114	427	92	108	211
3854	31606	104	100	462	127	96	221	116	98	342	125	113	412	112	107	344
3855	31607	94	94	267	95	98	208	94	96	237	97	123	412	96	113	317
3856	31608	100	101	259	107	93	234	103	97	246	108	111	402	105	109	324
3857	31609	98	90	263	114	98	264	106	94	263	107	117	386	97	113	263
3858	31610	94	105	291	102	88	211	98	96	251	99	123	322	106	118	238
3859	31611	101	84	281	111	90	221	106	87	251	104	127	414	94	108	300
3860	31612	103	106	281	107	90	240	105	98	260	99	130	373	114	120	217
3861	31613	105	91	297	114	101	209	109	96	253	110	118	408	116	97	299
3862	31614	102	94	270	115	97	216	108	95	243	102	121	384	107	111	277
3863	31615	93	87	231	114	98	203	103	92	217	91	113	409	93	104	303
3864	Local Check	96	105	429	111	83	259	103	94	344	96	122	372	96	112	226
Mean		**98**	**96**	**282**	**112**	**97**	**207**	**105**	**96**	**244**	**101**	**117**	**380**	**99**	**110**	**263**

Table No. 4c.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – IME, Kharif 2023

Entry No	IET No	ZONE III-EASTERN														
		Bihar (2)			WEST BENGAL									WEST BENGAL (3)		
		Mean			Chinsurah			Hathwara			Malda			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3801	30649	107	107	336	99	96	281	101	100	336	80	126	10	93	107	209
3802	30692	110	114	316	99	99	264	105	105	272	81	125	7	95	110	181
3803	30804	94	112	326	94	103	347	83	82	304	77	112	6	85	99	219
3804	31562	99	114	376	97	90	264	91	91	248	79	126	7	89	102	173
3805	31563	90	117	318	93	97	314	91	91	248	72	111	9	85	100	190
3806	31564	96	119	282	99	102	281	96	96	392	79	107	9	91	102	227
3807	31565	97	114	333	99	98	297	99	99	360	86	111	8	95	103	222
3808	31566	108	106	330	98	98	248	105	105	248	84	126	14	96	110	170
3809	31567	95	113	379	93	103	347	91	91	248	70	112	12	85	102	202
3810	30672	99	118	327	97	109	314	100	99	272	81	125	11	92	111	199
3811	30639	96	104	302	97	93	396	101	101	240	79	125	11	92	106	216
3812	31568	99	103	372	97	90	363	98	98	320	83	127	13	92	105	232
3813	30713	108	103	395	99	93	248	104	104	320	85	106	10	96	101	192
3814	31569	95	119	306	93	98	198	88	89	280	78	107	10	86	98	163
3815	31570	94	126	320	93	107	198	91	90	272	74	118	11	86	105	160
3816	31571	101	108	366	95	93	297	99	99	304	77	108	6	90	100	202
3817	31572	96	116	371	96	102	314	95	95	272	77	106	7	89	101	197
3818	31573	95	113	337	95	98	281	91	91	296	78	123	9	88	104	195
3819	31574	106	117	302	99	106	248	101	100	256	77	104	10	92	104	171
3820	31575	98	99	280	99	93	231	99	98	272	83	120	12	93	104	172
3821	31576	96	112	306	91	98	347	89	90	240	81	126	10	87	105	199
3822	31577	119	109	330	106	101	248	102	110	264	86	122	9	98	111	173
3823	**Gontra Bidhan-3 (NC)**	96	110	338	92	100	330	91	91	264	87	106	5	90	99	200
3824	31578	96	124	248	94	102	215	99	99	232	82	118	8	92	106	151
3825	31579	94	115	316	94	92	314	86	86	256	72	107	10	84	95	193
3826	31580	90	106	283	92	97	215	90	90	304	87	105	8	89	97	175
3827	31581	107	115	340	98	88	347	104	104	232	76	124	9	93	105	196
3828	31582	94	123	320	100	103	248	99	99	248	73	121	11	91	108	169
3829	31583	95	118	332	97	100	264	88	88	296	76	121	9	87	103	190
3830	31584	94	122	285	94	101	314	89	89	232	72	113	9	85	101	185
3831	31585	90	125	299	90	109	215	85	86	296	84	123	11	86	106	174
3832	31586	93	115	333	99	98	198	101	101	328	87	115	8	95	105	178
3833	31587	101	109	322	97	102	231	101	101	312	75	123	8	91	109	184
3834	31588	95	120	299	97	104	264	96	93	256	85	121	10	92	106	177
3835	31589	109	108	345	95	101	330	101	100	360	82	117	6	92	106	232
3836	31590	100	114	314	93	95	281	99	99	280	81	113	12	91	102	191
3837	31591	102	103	321	95	96	231	91	91	272	79	116	12	88	101	172
3838	31592	106	106	379	98	91	297	105	105	264	83	110	9	95	102	190
3839	31593	96	112	282	96	98	281	95	95	200	84	127	12	91	107	164
3840	31594	99	112	306	97	102	330	99	99	216	77	114	11	91	105	186
3841	30667	107	118	352	98	98	248	100	100	344	77	113	10	92	104	200
3842	31595	113	113	331	98	103	215	101	101	336	79	129	8	92	111	186
3843	31596	120	121	293	90	108	248	102	101	368	87	113	11	93	107	209
3844	31597	115	109	311	99	100	297	105	105	216	77	110	11	93	105	175
3845	31598	95	119	288	95	105	281	117	125	192	74	110	9	95	113	160
3846	31599	88	115	281	91	88	198	84	82	280	71	122	11	82	97	163
3847	31600	95	111	292	92	98	297	100	100	296	78	106	11	90	101	201
3848	31601	93	106	268	96	98	215	91	90	280	74	112	9	87	100	168
3849	Zonal Check	97	116	289	96	99	281	96	96	304	75	129	8	89	108	198
3850	31602	95	119	282	92	102	198	90	90	288	81	121	7	88	104	164
3851	31603	98	113	301	97	89	330	101	101	288	73	129	12	90	106	210
3852	31604	99	122	311	94	105	231	98	98	280	75	130	9	89	111	173
3853	31605	96	111	319	91	100	281	89	89	240	87	123	11	89	104	177
3854	31606	118	110	378	98	96	264	114	114	256	77	104	11	96	105	177
3855	31607	96	118	364	94	104	363	101	100	312	79	107	8	91	104	228
3856	31608	106	110	363	97	96	264	98	99	376	77	120	9	91	105	216
3857	31609	102	115	324	96	98	330	101	101	264	73	107	8	90	102	201
3858	31610	102	120	280	96	98	281	95	95	312	77	105	11	89	99	201
3859	31611	99	117	357	94	103	314	92	91	288	76	117	7	87	104	203
3860	31612	106	125	295	99	106	281	100	100	304	87	108	7	95	105	197
3861	31613	113	107	353	98	98	264	106	107	256	75	105	7	93	103	176
3862	31614	104	116	330	97	104	248	91	91	248	75	124	12	88	106	169
3863	31615	92	108	356	90	95	248	89	89	320	76	105	6	85	96	191
3864	Local Check	96	117	299	97	119	314	89	90	280	75	102	7	87	104	200
Mean		**100**	**114**	**322**	**96**	**99**	**277**	**96**	**97**	**282**	**79**	**116**	**9**	**90**	**104**	**189**

Table No. 4c.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – IME, Kharif 2023

Entry No	IET No	ZONE III-EASTERN									ZONE IV- NORTH EASTERN					
		UTTAR PRADESH			Uttarpradesh 2 (1)			Zone III (8)			ASSAM (1)			Zone IV (1)		
		Varanasi			Mean			Mean			Titabar			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3801	30649	115	80	153	115	80	153	102	102	245	110	109	320	110	109	320
3802	30692	117	87	130	117	87	130	104	105	227	117	113	292	117	113	292
3803	30804	88	83	139	88	83	139	89	99	250	98	104	353	98	104	353
3804	31562	104	81	133	104	81	133	96	100	235	110	105	269	110	105	269
3805	31563	92	115	162	92	115	162	90	105	246	95	104	314	95	104	314
3806	31564	97	101	176	97	101	176	97	104	234	106	108	320	106	108	320
3807	31565	93	95	165	93	95	165	98	102	248	103	109	337	103	109	337
3808	31566	111	84	136	111	84	136	103	101	229	110	110	286	110	110	286
3809	31567	89	109	157	89	109	157	92	107	244	102	107	314	102	107	314
3810	30672	94	108	179	94	108	179	98	110	234	108	115	331	108	115	331
3811	30639	94	77	112	94	77	112	98	96	236	109	96	293	109	96	293
3812	31568	96	91	186	96	91	186	99	97	268	104	100	309	104	100	309
3813	30713	93	83	173	93	83	173	101	96	251	120	99	314	120	99	314
3814	31569	87	92	141	87	92	141	92	103	215	101	113	281	101	113	281
3815	31570	95	94	119	95	94	119	93	110	209	104	124	236	104	124	236
3816	31571	101	82	175	101	82	175	97	94	274	105	106	370	105	106	370
3817	31572	93	104	124	93	104	124	97	103	231	101	108	381	101	108	381
3818	31573	89	77	116	89	77	116	95	102	232	105	107	275	105	107	275
3819	31574	121	98	129	121	98	129	104	105	206	110	106	281	110	106	281
3820	31575	111	76	124	111	76	124	99	94	216	104	92	281	104	92	281
3821	31576	103	83	117	103	83	117	94	100	227	117	99	275	117	99	275
3822	31577	129	101	117	129	101	117	111	105	216	128	106	286	128	106	286
3823	**Gontra Bidhan-3 (NC)**	97	82	110	97	82	110	95	97	234	95	100	252	95	100	252
3824	31578	105	88	105	105	88	105	97	109	178	104	113	213	104	113	213
3825	31579	94	87	133	94	87	133	91	98	223	97	111	264	97	111	264
3826	31580	89	77	136	89	77	136	92	95	228	99	101	281	99	101	281
3827	31581	103	100	149	103	100	149	100	104	231	105	104	292	105	104	292
3828	31582	106	98	158	106	98	158	97	108	215	105	115	286	105	115	286
3829	31583	89	80	119	89	80	119	93	102	222	104	110	342	104	110	342
3830	31584	93	98	192	93	98	192	92	106	239	103	116	259	103	116	259
3831	31585	79	96	123	79	96	123	91	110	216	100	123	314	100	123	314
3832	31586	125	89	236	125	89	236	100	103	247	116	104	370	116	104	370
3833	31587	105	101	126	105	101	126	99	107	218	101	116	264	101	116	264
3834	31588	94	100	164	94	100	164	98	107	207	103	104	297	103	104	297
3835	31589	116	87	138	116	87	138	103	102	252	105	107	286	105	107	286
3836	31590	105	90	134	105	90	134	99	102	220	110	106	269	110	106	269
3837	31591	95	78	117	95	78	117	97	95	216	104	100	309	104	100	309
3838	31592	114	86	155	114	86	155	103	98	258	116	102	275	116	102	275
3839	31593	81	80	140	81	80	140	96	102	203	102	109	297	102	109	297
3840	31594	96	88	110	96	88	110	97	104	216	102	105	219	102	105	219
3841	30667	109	80	153	109	80	153	101	102	234	103	111	309	103	111	309
3842	31595	98	96	143	98	96	143	103	107	242	112	117	359	112	117	359
3843	31596	114	97	148	114	97	148	107	108	222	122	113	320	122	113	320
3844	31597	116	92	160	116	92	160	106	103	229	120	108	342	120	108	342
3845	31598	92	99	128	92	99	128	99	111	203	103	113	236	103	113	236
3846	31599	88	81	153	88	81	153	90	99	213	88	105	264	88	105	264
3847	31600	85	95	150	85	95	150	94	102	229	103	108	381	103	108	381
3848	31601	89	76	139	89	76	139	92	98	205	100	104	309	100	104	309
3849	Zonal Check	101	96	163	101	96	163	96	107	225	104	114	370	104	114	370
3850	31602	116	78	129	116	78	129	95	104	214	102	116	320	102	116	320
3851	31603	102	90	144	102	90	144	98	103	228	105	105	281	105	105	281
3852	31604	96	103	143	96	103	143	97	112	220	104	120	314	104	120	314
3853	31605	91	77	116	91	77	116	94	102	221	103	109	269	103	109	269
3854	31606	107	102	138	107	102	138	108	104	263	112	107	393	112	107	393
3855	31607	93	103	188	93	103	188	93	105	259	101	65	353	101	65	353
3856	31608	115	81	165	115	81	165	101	101	254	106	105	381	106	105	381
3857	31609	106	84	167	106	84	167	99	101	243	104	107	359	104	107	359
3858	31610	120	95	149	120	95	149	98	103	227	107	116	297	107	116	297
3859	31611	87	83	200	87	83	200	95	100	253	103	111	348	103	111	348
3860	31612	124	86	157	124	86	157	104	106	232	114	121	286	114	121	286
3861	31613	119	75	160	119	75	160	105	99	237	113	100	303	113	100	303
3862	31614	109	89	151	109	89	151	100	104	225	108	108	281	108	108	281
3863	31615	82	89	121	82	89	121	91	97	230	100	112	303	100	112	303
3864	Local Check	96	73	163	96	73	163	94	101	256	114	132	236	114	132	236
Mean		**101**	**89**	**146**	**101**	**89**	**146**	**98**	**103**	**231**	**106**	**108**	**303**	**106**	**108**	**303**

Table No. 4c.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – IME, Kharif 2023

Entry No	IET No	ZONE-V – CENTRAL														
		MADHYA PRADESH (1)			CHHATTISGARH									MAHARASHTRA		
		Jabalpur			Raipur			Jagadalpur			Chattisgarh (2)			Sakoli		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3801	30649	122	52	275	108	107	210	110	62	303	109	84	257	118	114	245
3802	30692	126	68	245	106	118	225	103	70	300	104	94	263	116	92	227
3803	30804	112	79	195	89	125	202	91	73	315	90	99	259	100	107	159
3804	31562	109	76	165	96	108	209	95	63	149	95	85	179	114	111	195
3805	31563	109	76	230	92	114	210	98	76	229	95	95	220	109	127	170
3806	31564	107	70	215	101	113	213	105	67	270	103	90	242	116	94	193
3807	31565	110	74	225	93	103	200	98	64	322	95	84	261	111	96	285
3808	31566	122	64	227	105	101	210	110	62	263	107	81	237	100	92	202
3809	31567	107	68	210	96	125	186	102	66	172	99	95	179	94	110	281
3810	30672	108	83	245	96	115	195	102	77	201	99	96	198	91	97	275
3811	30639	112	72	215	95	101	204	95	86	189	95	94	197	110	81	285
3812	31568	115	58	255	99	105	216	107	62	309	103	84	263	105	93	180
3813	30713	123	49	165	106	105	196	107	88	170	107	97	183	109	97	193
3814	31569	109	72	205	90	123	220	93	76	181	91	100	201	111	107	257
3815	31570	109	88	175	92	141	199	94	96	220	93	118	210	100	95	181
3816	31571	120	56	265	97	97	209	104	67	220	100	82	215	100	94	218
3817	31572	120	68	155	96	116	210	103	79	268	99	98	239	102	117	226
3818	31573	110	77	255	91	115	186	96	67	249	93	91	218	96	85	204
3819	31574	115	75	165	101	114	208	108	79	200	104	97	204	111	109	275
3820	31575	116	52	210	96	96	187	97	90	143	96	93	165	106	124	191
3821	31576	110	77	180	94	116	180	101	70	279	97	93	230	100	97	283
3822	31577	125	61	245	124	99	225	114	73	151	119	86	188	91	103	260
3823	**Gontra Bidhan-3 (NC)**	106	68	205	122	108	187	101	65	210	111	86	199	94	118	265
3824	31578	106	74	140	94	116	150	96	77	220	95	97	185	106	96	281
3825	31579	105	76	255	92	122	206	101	67	203	96	94	205	103	123	203
3826	31580	107	66	165	91	117	207	92	76	190	91	96	199	109	118	225
3827	31581	125	64	210	104	111	195	110	66	260	107	89	228	118	97	285
3828	31582	106	82	170	96	126	205	106	84	259	101	105	232	115	105	271
3829	31583	108	79	130	92	115	182	94	71	245	93	93	214	110	116	204
3830	31584	106	85	171	92	125	206	94	85	210	93	105	208	111	113	283
3831	31585	109	82	165	88	136	188	91	75	180	89	105	184	102	94	290
3832	31586	121	60	270	104	103	204	109	61	153	106	82	179	105	96	262
3833	31587	115	76	205	98	117	216	102	77	301	100	97	259	119	85	243
3834	31588	116	71	210	96	115	194	100	71	323	98	93	259	106	93	230
3835	31589	121	55	235	106	115	203	111	70	289	108	93	246	104	75	199
3836	31590	118	70	190	102	124	205	102	68	228	102	96	217	96	96	193
3837	31591	115	71	195	94	108	214	100	66	253	97	87	234	105	75	217
3838	31592	125	59	205	107	113	212	110	64	320	108	88	266	103	85	225
3839	31593	118	72	155	90	115	189	94	70	223	92	93	206	108	84	222
3840	31594	115	73	151	91	119	213	92	70	251	92	95	232	96	147	266
3841	30667	122	55	180	104	106	227	109	68	230	107	87	229	94	116	245
3842	31595	127	71	233	99	106	195	103	73	245	101	90	220	106	98	276
3843	31596	126	73	230	107	126	219	109	72	183	108	99	201	111	108	315
3844	31597	128	63	265	108	108	190	111	67	213	109	87	202	94	123	270
3845	31598	107	85	155	92	145	192	103	71	248	97	108	220	95	124	250
3846	31599	108	78	175	93	115	174	94	74	216	93	94	195	96	97	261
3847	31600	105	76	280	93	112	204	96	73	202	94	93	203	104	127	284
3848	31601	106	78	220	91	123	200	94	75	205	92	99	203	92	124	276
3849	Zonal Check	109	73	270	88	108	208	93	69	239	90	89	224	106	86	204
3850	31602	107	77	200	90	126	205	94	79	346	92	102	276	94	97	192
3851	31603	117	71	195	99	117	198	98	69	308	98	93	253	95	117	302
3852	31604	114	81	155	96	117	203	103	82	240	100	99	222	108	85	191
3853	31605	108	74	105	90	112	190	91	63	223	91	88	207	105	77	249
3854	31606	125	58	210	111	106	189	116	90	290	113	98	240	96	96	285
3855	31607	121	65	260	99	109	197	104	66	240	101	88	219	99	108	204
3856	31608	125	53	265	102	105	189	109	61	150	105	83	170	106	95	268
3857	31609	111	75	255	98	117	198	102	69	268	100	93	233	105	85	225
3858	31610	111	79	275	100	127	201	105	76	225	102	101	213	104	115	253
3859	31611	109	70	185	90	101	212	91	65	201	90	83	207	101	126	206
3860	31612	123	81	287	113	135	206	111	81	323	112	108	265	111	95	192
3861	31613	119	68	230	104	107	190	107	62	200	105	85	195	102	97	215
3862	31614	118	69	220	97	124	201	100	72	238	98	98	220	103	86	221
3863	31615	108	82	245	89	112	198	91	71	254	90	92	226	120	95	263
3864	Local Check	107	81	205	92	117	200	100	66	211	96	91	206	104	117	307
Mean		**114**	**71**	**210**	**97**	**115**	**201**	**101**	**72**	**236**	**99**	**93**	**219**	**104**	**102**	**239**

Table No. 4c.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – IME, Kharif 2023

Entry No	IET No	ZONE-V – CENTRAL									ZONE VI – WESTERN					
		MAHARASHTRA						Zone V (5)			MAHARASHTRA					
		Sindewahi			Maharastra 1 (2)			Mean			Karjat			Vadagaon		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3801	30649	108	71	256	113	93	251	113	81	258	105	119	304	102	89	261
3802	30692	106	87	357	111	90	292	111	87	271	97	119	361	98	89	245
3803	30804	90	86	226	95	97	193	96	94	219	93	116	179	85	108	167
3804	31562	97	88	243	105	100	219	102	89	192	99	122	240	88	90	212
3805	31563	96	86	315	102	107	243	101	96	231	96	117	184	97	102	207
3806	31564	102	81	255	109	87	224	106	85	229	97	124	366	99	97	248
3807	31565	96	103	302	103	100	294	101	88	267	97	116	237	95	94	196
3808	31566	105	90	376	102	91	289	108	82	256	99	113	215	102	86	235
3809	31567	93	82	241	93	96	261	98	90	218	97	126	259	93	103	157
3810	30672	95	98	248	93	98	262	98	94	233	97	129	251	95	104	213
3811	30639	95	84	296	102	83	291	101	85	238	96	108	259	89	83	217
3812	31568	98	74	187	101	84	184	104	78	229	98	111	232	98	93	221
3813	30713	107	83	369	108	90	281	110	84	219	108	114	394	99	84	307
3814	31569	91	98	291	101	103	274	99	95	231	93	119	237	91	104	193
3815	31570	93	97	223	96	96	202	97	103	200	97	143	286	90	115	207
3816	31571	105	77	269	102	85	244	105	78	236	99	104	307	98	86	241
3817	31572	95	114	323	98	116	275	103	99	236	98	121	252	102	104	232
3818	31573	88	83	256	92	84	230	96	85	230	97	117	276	88	102	245
3819	31574	108	87	205	109	98	240	108	93	211	109	127	244	102	94	215
3820	31575	100	75	447	103	99	319	103	87	236	97	99	229	93	74	142
3821	31576	91	93	269	95	95	276	99	91	238	94	111	242	97	104	228
3822	31577	132	84	262	111	94	261	117	84	229	121	125	276	92	95	257
3823	**Gontra Bidhan-3 (NC)**	96	99	246	95	109	256	104	91	223	98	117	344	96	102	274
3824	31578	101	103	195	103	100	238	100	93	197	97	128	219	97	101	156
3825	31579	92	81	241	97	102	222	98	94	222	86	115	252	82	96	341
3826	31580	92	84	197	100	101	211	98	92	197	93	119	225	94	92	287
3827	31581	104	86	186	111	92	236	112	85	227	98	115	314	106	92	366
3828	31582	100	88	302	107	97	287	104	97	241	97	130	199	103	115	317
3829	31583	93	87	234	101	102	219	99	94	199	97	128	249	91	104	243
3830	31584	89	97	267	100	105	275	98	101	227	96	136	229	93	105	252
3831	31585	89	99	212	95	97	251	96	97	207	94	136	187	84	106	227
3832	31586	110	75	212	107	85	237	110	79	220	107	111	229	94	102	261
3833	31587	97	108	265	108	97	254	106	93	246	97	119	242	98	107	239
3834	31588	93	96	219	99	94	225	102	89	235	97	125	332	104	86	241
3835	31589	77	81	287	90	78	243	103	79	243	96	117	382	107	90	311
3836	31590	100	96	230	98	96	212	103	91	209	97	126	287	98	96	312
3837	31591	95	86	320	100	80	269	102	81	240	97	109	259	94	89	234
3838	31592	114	83	202	108	84	214	112	81	233	92	112	267	101	85	256
3839	31593	89	80	326	98	82	274	100	84	223	95	122	242	88	98	222
3840	31594	95	88	222	95	117	244	98	99	221	96	116	232	95	103	255
3841	30667	105	73	347	99	95	296	107	84	246	107	114	239	105	91	216
3842	31595	105	102	226	105	100	251	108	90	235	97	127	276	98	97	217
3843	31596	113	97	295	112	102	305	113	95	248	107	131	322	102	106	274
3844	31597	105	104	255	99	114	263	109	93	239	121	127	329	103	100	246
3845	31598	96	85	262	95	104	256	98	102	221	97	120	222	102	107	263
3846	31599	95	98	204	95	97	233	97	92	206	95	124	230	91	102	197
3847	31600	95	86	266	99	106	275	98	95	247	97	123	225	90	84	246
3848	31601	94	84	338	93	104	307	95	97	248	97	117	247	91	103	257
3849	Zonal Check	89	105	290	97	96	247	97	88	242	86	91	202	92	85	220
3850	31602	93	110	243	93	103	218	95	98	237	94	124	230	91	99	215
3851	31603	100	77	220	97	97	261	102	90	245	99	116	336	102	89	316
3852	31604	100	97	294	104	91	243	104	92	217	84	134	256	99	106	255
3853	31605	89	105	230	97	91	240	97	86	199	96	128	242	92	92	220
3854	31606	114	90	252	105	93	269	112	88	245	113	117	239	109	93	283
3855	31607	102	95	265	100	102	235	105	89	233	97	120	252	103	98	274
3856	31608	104	77	348	105	86	308	109	78	244	103	118	234	104	91	273
3857	31609	97	79	338	101	82	282	102	85	257	97	127	224	100	84	299
3858	31610	104	97	400	104	106	327	104	99	271	102	132	332	101	104	316
3859	31611	94	85	311	97	106	259	97	89	223	97	123	307	91	91	223
3860	31612	109	95	181	110	95	187	113	98	238	117	138	202	109	109	309
3861	31613	105	76	217	103	86	216	107	82	210	105	120	286	104	84	301
3862	31614	93	95	320	98	90	271	102	89	240	96	119	245	93	95	264
3863	31615	90	109	228	105	102	246	99	94	238	94	119	256	91	97	223
3864	Local Check	101	94	290	102	105	299	101	95	243	97	105	235	94	86	251
Mean		**98**	**90**	**269**	**101**	**96**	**254**	**103**	**90**	**231**	**98**	**120**	**261**	**96**	**96**	**247**

Table No. 4c.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – IME, Kharif 2023

Entry No	IET No	ZONE VI – WESTERN														
		MAHARASHTRA			Maharastra 2 (3)			Maharastra (5)			GUJARAT					
		Radhanagari			Mean			Mean			Navsari			Nawagam		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3801	30649	105	103	284	104	103	283	107	99	270	104	114	288	94	105	283
3802	30692	91	109	300	95	106	302	101	99	298	105	112	248	97	124	294
3803	30804	87	109	315	88	111	220	91	105	209		.	.	90	110	286
3804	31562	103	106	257	96	106	236	100	103	229	96	115	226	83	109	280
3805	31563	93	107	280	95	109	224	98	108	231	91	124	270	92	115	288
3806	31564	105	106	274	100	109	296	103	100	267	98	118	234	94	116	284
3807	31565	93	105	257	95	105	230	98	103	255	92	107	180	105	117	282
3808	31566	84	99	225	95	99	225	98	96	251	101	110	222	93	110	290
3809	31567	92	108	330	94	112	249	93	106	254	92	119	288	92	113	293
3810	30672	97	113	320	96	115	261	95	108	261	93	146	240	87	131	279
3811	30639	95	93	247	93	94	241	97	90	261	94	98	330	103	106	282
3812	31568	97	97	266	97	100	240	99	94	217	93	102	282	94	106	281
3813	30713	104	95	300	103	98	334	105	94	313	108	113	318	93	114	286
3814	31569	92	108	277	92	110	236	95	107	251	88	103	246	85	116	281
3815	31570	98	117	253	95	125	249	95	113	230	91	130	286	95	135	274
3816	31571	93	102	272	96	97	273	99	92	261	92	101	246	90	104	285
3817	31572	96	110	200	98	112	228	98	113	247	93	127	336	106	119	274
3818	31573	96	106	272	94	108	264	93	98	251	91	130	258	102	125	278
3819	31574	103	102	330	104	108	263	106	104	254	102	124	252	88	120	273
3820	31575	89	90	260	93	88	210	97	92	254	92	99	246	92	102	281
3821	31576	86	108	318	92	108	263	93	103	268	88	122	312	96	115	282
3822	31577	103	113	260	105	111	264	108	104	263	116	118	270	89	119	284
3823	**Gontra Bidhan-3 (NC)**	96	109	320	96	109	313	96	109	290	89	79	312	94	110	274
3824	31578	97	110	312	97	113	229	99	107	233	91	120	222	94	136	277
3825	31579	91	97	222	86	103	272	91	102	252	86	118	240	94	121	274
3826	31580	96	104	260	94	105	257	97	103	239	88	111	222	94	125	273
3827	31581	107	104	256	103	104	312	106	99	281	98	108	258	99	121	278
3828	31582	103	105	320	101	117	279	103	109	282	95	120	294	97	125	270
3829	31583	93	107	270	94	113	254	97	108	240	91	136	306	92	119	272
3830	31584	94	109	233	94	117	238	96	112	253	92	132	318	94	130	278
3831	31585	86	106	258	88	116	224	91	108	235	86	141	300	98	132	274
3832	31586	106	106	295	102	106	262	104	98	252	102	120	270	96	126	286
3833	31587	93	120	220	96	115	234	100	108	242	93	130	300	96	112	280
3834	31588	96	112	250	99	107	274	99	102	254	90	126	228	93	117	277
3835	31589	106	104	313	103	104	335	98	93	298	103	120	270	92	106	276
3836	31590	105	103	305	100	108	301	99	103	265	88	123	258	97	115	282
3837	31591	102	111	199	97	103	231	98	94	246	91	109	282	96	115	273
3838	31592	105	107	254	99	101	259	103	94	241	108	111	270	103	115	279
3839	31593	98	107	260	94	109	241	95	98	254	86	110	240	101	117	289
3840	31594	97	105	192	96	108	226	95	112	233	88	117	324	99	120	277
3841	30667	107	107	310	106	104	255	103	100	271	102	117	348	97	115	279
3842	31595	96	114	232	97	113	241	100	108	245	96	121	330	96	118	272
3843	31596	106	106	213	105	114	270	108	109	284	105	141	288	102	124	279
3844	31597	102	106	240	108	111	272	105	112	268	102	129	246	103	111	275
3845	31598	93	111	198	97	113	228	96	109	239	90	514	342	97	119	276
3846	31599	93	110	242	93	112	223	94	106	227	86	129	294	95	116	270
3847	31600	92	110	244	93	106	238	95	106	253	88	125	306	102	112	280
3848	31601	88	111	221	92	110	242	92	108	268	88	118	270	96	118	283
3849	Zonal Check	94	98	242	90	91	221	93	93	232	86	101	246	98	110	278
3850	31602	95	112	252	93	112	232	93	108	226	88	155	330	99	119	277
3851	31603	104	109	244	101	104	299	100	101	284	96	123	240	101	116	284
3852	31604	104	106	265	95	115	259	99	105	252	91	145	318	99	131	272
3853	31605	91	107	324	93	109	262	94	102	253	91	152	270	102	114	277
3854	31606	106	107	330	109	106	284	107	101	278	90	130	294	100	112	273
3855	31607	100	110	270	100	109	265	100	106	253	91	133	264	95	112	270
3856	31608	104	103	305	104	104	270	104	97	285	100	127	282	94	116	278
3857	31609	102	107	250	99	106	258	100	97	267	92	123	294	97	116	274
3858	31610	102	119	240	101	118	296	102	113	308	108	156	234	100	120	271
3859	31611	90	110	257	92	108	262	94	107	261	85	117	330	96	107	279
3860	31612	105	110	310	110	119	274	110	109	239	115	154	270	102	125	265
3861	31613	106	100	222	105	101	270	104	95	248	104	124	240	109	119	282
3862	31614	95	106	300	94	107	270	96	100	270	92	120	312	104	117	282
3863	31615	91	108	302	92	108	260	97	105	254	88	119	270	97	128	280
3864	Local Check	92	109	330	94	100	272	97	102	283	88	135	330	89	128	291
Mean		**97**	**107**	**268**	**97**	**108**	**259**	**99**	**103**	**257**	**94**	**128**	**277**	**96**	**117**	**279**

Table No. 4c.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – IME, Kharif 2023

Entry No	IET No	ZONE VI – WESTERN									ZONE VII – SOUTHERN					
		GUJARAT			Gujarat 2 (3)			Zone VI (6)			ANDHRA PRADESH					
		Vyara			Mean			Mean			Maruteru			Ragolu		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3801	30649	101	117	360	100	112	310	102	108	297	96	121	356	101	109	297
3802	30692	106	131	252	103	122	265	99	114	283	96	124	416	99	119	310
3803	30804	81	123	309	85	116	298	87	113	251	84	117	396	119	130	264
3804	31562	97	117	279	92	113	262	94	110	249	89	119	337	90	117	238
3805	31563	90	117	315	91	119	291	93	114	257	85	124	356	79	127	317
3806	31564	103	112	333	98	115	284	99	112	290	90	119	383	75	116	310
3807	31565	96	112	222	97	112	228	96	108	229	92	114	416	81	116	290
3808	31566	101	123	246	98	115	253	96	107	239	96	120	356	101	104	323
3809	31567	96	128	297	93	120	293	93	116	271	85	126	350	80	122	277
3810	30672	92	130	204	91	135	241	93	125	251	87	116	409	82	125	330
3811	30639	96	112	336	98	105	316	95	100	278	90	118	416	80	103	287
3812	31568	98	121	213	95	110	259	96	105	249	90	118	389	86	108	297
3813	30713	107	122	270	102	116	291	103	107	313	93	116	403	101	110	356
3814	31569	87	117	207	87	112	245	89	111	240	84	120	396	70	106	265
3815	31570	90	138	423	92	134	328	93	130	288	91	137	363	74	136	238
3816	31571	92	111	252	91	105	261	94	101	267	88	111	396	87	102	363
3817	31572	102	122	204	100	122	271	99	117	250	89	132	409	79	122	268
3818	31573	96	131	357	96	129	298	95	118	281	88	117	389	78	120	231
3819	31574	99	129	204	96	124	243	100	116	253	93	126	376	90	117	185
3820	31575	90	113	210	91	104	246	92	96	228	94	113	383	86	101	190
3821	31576	90	122	279	91	120	291	92	114	277	92	122	350	83	102	210
3822	31577	118	112	198	108	116	251	106	114	257	102	125	343	120	115	290
3823	**Gontra Bidhan-3 (NC)**	86	121	324	90	104	303	93	106	308	80	115	356	102	123	211
3824	31578	92	133	165	92	130	221	94	121	225	90	128	337	77	133	310
3825	31579	88	122	267	89	120	260	88	111	266	90	120	403	70	113	271
3826	31580	90	120	258	91	119	251	92	112	254	79	123	409	64	104	250
3827	31581	97	117	330	98	115	289	101	110	300	90	121	409	96	115	264
3828	31582	99	126	315	97	124	293	99	120	286	88	126	396	70	124	198
3829	31583	90	121	285	91	125	288	92	119	271	92	119	396	79	116	264
3830	31584	92	125	276	92	129	291	93	123	264	91	133	422	78	126	225
3831	31585	84	135	327	89	136	300	88	126	262	85	139	396	65	133	218
3832	31586	100	117	222	99	121	259	101	114	260	92	124	396	100	102	330
3833	31587	92	123	201	93	122	260	94	118	247	91	127	436	82	120	310
3834	31588	93	118	195	92	120	233	95	114	254	84	119	416	114	114	271
3835	31589	98	119	315	97	115	287	100	109	311	93	122	363	96	131	317
3836	31590	92	123	246	92	120	262	96	114	282	92	121	409	88	116	238
3837	31591	97	123	213	94	116	256	96	109	243	91	115	363	80	104	265
3838	31592	108	118	294	106	114	281	102	108	270	91	130	409	100	106	244
3839	31593	90	120	240	92	115	256	93	112	249	93	119	383	80	111	274
3840	31594	86	121	267	91	119	289	93	113	258	86	125	422	80	119	265
3841	30667	99	114	321	99	116	316	102	110	285	96	117	383	96	117	291
3842	31595	97	129	210	96	123	271	96	118	256	91	130	416	100	114	271
3843	31596	108	136	182	105	134	250	105	124	260	97	143	363	102	132	257
3844	31597	108	123	240	104	121	254	106	116	263	93	131	396	101	126	277
3845	31598	98	135	249	95	256	289	96	184	258	86	124	389	80	131	239
3846	31599	85	122	321	88	122	295	90	117	259	78	117	370	74	103	225
3847	31600	98	117	282	96	118	289	94	112	264	93	121	363	76	110	264
3848	31601	92	118	273	92	118	275	92	114	259	83	119	383	72	106	238
3849	Zonal Check	90	103	261	91	105	262	91	98	241	85	108	370	69	104	310
3850	31602	88	128	225	92	134	277	92	123	255	87	124	376	75	110	323
3851	31603	99	125	351	98	121	292	100	113	295	89	117	396	90	115	232
3852	31604	97	132	246	95	136	279	95	125	269	86	136	403	96	140	284
3853	31605	89	131	294	94	132	280	93	120	271	84	124	409	91	115	264
3854	31606	105	121	210	98	121	259	104	113	271	98	122	389	102	104	245
3855	31607	90	124	237	92	123	257	96	116	261	96	119	403	85	113	323
3856	31608	99	122	258	97	122	273	100	113	272	94	124	383	99	103	264
3857	31609	98	132	216	96	123	261	97	115	260	88	126	376	86	115	284
3858	31610	108	141	219	105	139	241	103	129	269	90	118	383	99	126	363
3859	31611	96	117	210	92	114	273	92	111	268	83	120	429	72	104	250
3860	31612	115	133	228	111	137	254	110	128	264	88	127	409	100	126	321
3861	31613	99	113	252	104	119	258	104	110	264	96	112	376	102	101	261
3862	31614	93	127	273	96	121	289	95	114	279	94	121	389	90	115	221
3863	31615	88	122	228	91	123	259	91	115	260	79	121	370	72	108	284
3864	Local Check	90	124	258	89	129	293	91	114	283	103	119	350	102	104	383
Mean		**96**	**123**	**262**	**95**	**123**	**273**	**96**	**115**	**266**	**90**	**122**	**387**	**87**	**115**	**274**

Table No. 4c.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – IME, Kharif 2023

Entry No	IET No	ZONE VII – SOUTHERN														
		Andhra pradesh(2)			TELANGANA									Telangana (3)		
		Mean			Rajendranagar			Kunaram			Warangal			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3801	30649	98	115	327	108	85	109	106	108	337	108	117	409	107	103	285
3802	30692	97	121	363	99	95	99	106	117	370	110	122	422	105	111	297
3803	30804	101	123	330	99	85	98	86	98	409	92	113	416	92	99	308
3804	31562	89	118	287	102	87	105	98	115	363	101	116	343	100	106	270
3805	31563	82	125	337	99	97	98	95	115	363	96	118	396	96	110	286
3806	31564	82	117	346	107	95	109	102	115	356	104	114	432	104	108	299
3807	31565	86	115	353	99	93	99	91	115	350	103	115	337	97	108	262
3808	31566	98	112	340	107	79	105	104	102	350	107	114	363	106	98	273
3809	31567	82	124	313	102	95	99	87	103	310	100	124	350	96	107	253
3810	30672	84	121	370	102	100	99	92	128	304	102	130	376	98	119	260
3811	30639	85	110	351	102	75	98	95	100	376	103	108	416	100	94	297
3812	31568	88	113	343	105	83	105	96	99	323	104	109	310	102	97	246
3813	30713	97	113	379	105	88	105	107	112	370	113	117	452	108	105	309
3814	31569	77	113	331	93	91	93	88	115	396	97	115	314	92	107	268
3815	31570	82	137	301	93	103	93	92	140	297	98	137	323	94	126	238
3816	31571	87	106	380	99	89	99	94	112	337	100	106	429	97	102	288
3817	31572	84	127	339	105	100	105	97	126	343	103	126	340	101	117	263
3818	31573	83	119	310	99	87	99	98	117	429	98	130	347	98	111	292
3819	31574	91	121	281	105	99	105	102	118	304	105	121	330	104	113	246
3820	31575	90	107	286	96	78	99	95	95	343	99	95	413	97	89	285
3821	31576	87	112	280	96	92	98	92	125	330	96	118	399	94	111	276
3822	31577	111	120	317	108	96	108	119	112	350	122	119	363	116	109	274
3823	**Gontra Bidhan-3 (NC)**	91	119	284	96	96	99	88	113	350	94	109	366	92	106	272
3824	31578	83	130	323	96	97	93		.	.	101	130	340	99	114	216
3825	31579	80	117	337	93	93	93	84	118	310	96	114	406	91	108	270
3826	31580	71	113	330	100	84	99	93	117	363	95	118	403	96	106	288
3827	31581	93	118	337	105	93	104	97	108	337	105	114	347	102	105	262
3828	31582	79	125	297	106	104	105	103	125	343	102	124	416	103	117	288
3829	31583	85	118	330	94	91	94	93	118	284	98	116	396	95	108	258
3830	31584	84	130	324	98	105	98	96	113	304	101	124	343	98	114	248
3831	31585	75	136	307	93	104	93	90	143	297	97	144	406	93	130	265
3832	31586	96	113	363	108	90	107	103	115	350	109	119	353	107	108	270
3833	31587	86	123	373	96	95	93	94	130	323	99	127	380	96	117	265
3834	31588	99	116	343	100	95	99	94	114	330	100	118	333	98	109	254
3835	31589	94	127	340	99	91	98	107	112	330	100	118	432	102	107	287
3836	31590	90	118	324	93	95	93	93	118	323	102	121	383	96	111	266
3837	31591	85	110	314	100	93	99	95	111	337	99	116	330	98	107	255
3838	31592	95	118	327	106	95	105	106	103	356	110	114	403	107	104	288
3839	31593	86	115	328	94	99	93	84	114	389	99	123	356	92	112	280
3840	31594	83	122	344	94	89	93	93	111	363	97	114	370	94	105	275
3841	30667	96	117	337	108	89	109	102	119	376	103	111	442	104	106	309
3842	31595	95	122	343	106	97	105	94	113	337	108	124	386	102	111	276
3843	31596	99	137	310	109	95	109	112	126	350	113	127	429	111	116	296
3844	31597	97	128	337	109	98	109	107	111	323	117	127	337	111	112	256
3845	31598	83	128	314	99	100	99	92	133	277	100	123	297	97	118	224
3846	31599	76	110	297	93	89	93	88	118	310	93	113	333	91	107	246
3847	31600	84	116	314	94	89	93	89	116	323	99	121	399	94	108	272
3848	31601	77	113	310	99	94	99	91	114	337	98	120	327	96	109	254
3849	Zonal Check	77	106	340	93	85	93	89	114	383	93	117	429	91	105	302
3850	31602	81	117	350	99	98	99	86	137	350	99	133	389	94	122	279
3851	31603	89	116	314	109	95	108	96	115	356	105	118	350	103	109	271
3852	31604	91	138	343	99	102	98	102	132	277	102	143	350	101	125	242
3853	31605	87	119	337	93	89	93	86	117	403	96	122	403	91	109	299
3854	31606	100	113	317	118	84	119	107	113	383	111	125	370	112	107	290
3855	31607	90	116	363	100	97	99	104	115	343	98	124	386	100	112	276
3856	31608	96	113	323	109	84	109	102	116	383	106	126	409	106	109	300
3857	31609	87	120	330	102	89	98	93	113	337	104	132	370	99	111	268
3858	31610	94	122	373	105	104	105	102	123	304	107	137	380	104	122	263
3859	31611	77	112	340	93	90	93	88	111	396	99	134	426	93	112	305
3860	31612	94	127	365	105	103	104	107	136	323	111	144	386	107	127	271
3861	31613	99	106	319	108	94	109	106	112	330	107	123	337	107	110	259
3862	31614	92	118	305	93	99	93	95	108	376	101	122	366	96	110	279
3863	31615	75	114	327	93	95	93	88	119	317	97	123	383	93	112	264
3864	Local Check	102	112	366	95	92	95	95	109	350	109	148	376	99	116	274
Mean		**88**	**119**	**331**	**100**	**93**	**100**	**96**	**116**	**344**	**102**	**122**	**377**	**99**	**110**	**273**

Table No. 4c.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – IME, Kharif 2023

Entry No	IET No	ZONE VII – SOUTHERN																	
		TAMIL NADU						Tamilnadu (2)			KERALA						Kerala (2)		
		Aduthurai			Coimbatore			Mean			Moncompu			Pattambi			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3801	30649	96	100	450	109	92	335	102	96	393	101	105	286	100	96	273	101	101	280
3802	30692	97	85	360	109	103	345	103	94	353	100	109	240	90	102	420	95	105	330
3803	30804	99	100	415	86	75	370	92	88	393	94	102	260	87	108	480	91	105	370
3804	31562	94	94	425	88	78	305	91	86	365	90	106	253	87	89	466	88	98	360
3805	31563	96	103	399	102	91	340	99	97	370	98	104	453	91	98	253	95	101	353
3806	31564	97	99	355	117	92	405	107	95	380	95	109	260	98	108	433	96	108	346
3807	31565	98	99	395	91	85	290	94	92	343	95	101	193	91	101	266	93	101	230
3808	31566	99	106	403	110	92	270	104	99	337	104	103	280	90	99	300	97	101	290
3809	31567	98	117	425	97	93	310	97	105	368	94	113	273	89	103	226	92	108	250
3810	30672	97	102	395	102	106	260	99	104	328	95	110	260	95	99	371	95	104	315
3811	30639	97	86	311	88	78	420	92	82	366	93	90	420	93	85	426	93	88	423
3812	31568				112	79	310	112	79	310	98	103	246	97	90	280	97	97	263
3813	30713				109	86	340	109	86	340	99	98	226	95	87	206	97	93	216
3814	31569				98	88	295	98	88	295	90	97	306	88	103	220	89	100	263
3815	31570		123	313	88	110	260	88	116	287	88	110	266	93	102	260	91	106	263
3816	31571	97	100	492	99	82	405	98	91	449	96	91	420	92	91	500	94	91	460
3817	31572	98	106	425	96	96	350	97	101	388	99	113	213	92	97	220	95	105	217
3818	31573	99	113	401	97	90	310	98	101	356	90	100	246	97	98	346	93	99	296
3819	31574	96	114	495	108	98	355	102	106	425	100	111	260	91	95	200	95	103	230
3820	31575	94	85	520	112	79	345	103	82	433	97	91	213	95	93	213	96	92	213
3821	31576	98	117	442	98	85	310	98	101	376	94	99	266	91	101	639	93	100	453
3822	31577	99	111	504	111	101	315	105	106	410	111	111	200	87	105	579	99	108	390
3823	**Gontra Bidhan-3 (NC)**	98	97	405	89	90	290	93	94	348	93	102	200	95	86	186	94	94	193
3824	31578	98	94	392	116	108	280	107	101	336	95	113	333	99	101	260	97	107	296
3825	31579	98	105	360	99	86	350	99	95	355	96	99	253	92	88	213	94	93	233
3826	31580	98	93	399	99	86	275	98	89	337	88	94	313	89	90	293	89	92	303
3827	31581	96	103	480	108	84	285	102	93	383	100	104	213	95	92	173	97	98	193
3828	31582	94	101	592	103	99	315	98	100	454	93	110	233	92	117	506	93	114	370
3829	31583	99	101	460	93	92	290	96	97	375	93	97	226	88	99	539	90	98	383
3830	31584	98	105	325	99	93	380	98	99	353	93	111	260	92	105	639	93	108	450
3831	31585	98	116	340	89	93	295	93	104	318	88	118	273	89	112	533	88	115	403
3832	31586	106	105	524	105	87	350	105	96	437	102	104	293	90	87	313	96	96	303
3833	31587	98	122	528	97	96	370	97	109	449	101	115	246	91	126	306	96	120	276
3834	31588	97	107	499	111	99	250	104	103	375	94	115	253	94	99	253	94	107	253
3835	31589	98	94	396	105	96	270	101	95	333	106	105	246	89	99	433	97	102	340
3836	31590	99	107	415	96	107	290	97	107	353	100	106	226	94	99	626	97	103	426
3837	31591	98	97	395	101	83	285	99	90	340	95	95	306	92	94	559	93	94	433
3838	31592	99	107	399	103	98	280	101	102	340	101	104	266	91	83	226	96	93	246
3839	31593	98	103	421	96	88	290	97	95	356	93	98	220	95	100	353	94	99	286
3840	31594	99	103	366	102	84	290	100	93	328	95	103	260	93	93	220	94	98	240
3841	30667	94	105	418	112	106	285	103	106	352	105	112	293	97	102	273	101	107	283
3842	31595	95	97	303	100	96	280	97	97	292	97	115	220	93	97	360	95	106	290
3843	31596	95	109	525	107	102	370	101	106	448	99	108	226	92	104	306	95	106	266
3844	31597	95	106	460	116	105	305	105	105	383	111	124	220	92	112	546	101	118	383
3845	31598	99	116	399	109	115	310	104	115	355	98	109	226	89	109	220	94	109	223
3846	31599				99	83	330	99	83	330	90	107	213	95	98	333	93	102	273
3847	31600	99	90	368	100	83	345	99	86	357	91	104	313	90	94	380	91	99	346
3848	31601	99	88	326	99	79	390	99	83	358	90	99	273	92	98	353	91	98	313
3849	Zonal Check	97	97	372	92	92	315	94	94	344	88	92	413	88	82	240	88	87	326
3850	31602	98	94	346	97	99	315	97	96	331	92	112	226	89	107	213	90	109	220
3851	31603	99	108	495	113	91	295	106	99	395	102	104	206	92	117	413	97	110	310
3852	31604	99	99	315	99	106	305	99	103	310	95	112	266	92	100	233	94	106	250
3853	31605	95	88	342	95	85	330	95	87	336	93	102	233	89	104	613	91	103	423
3854	31606	96	105	518	113	108	295	104	106	407	111	109	233	89	83	273	100	96	253
3855	31607	95	103	391	105	95	335	100	99	363	98	112	333	92	84	326	95	98	330
3856	31608	96	93	395	107	93	365	101	93	380	102	110	260	90	81	260	96	96	260
3857	31609	96	117	415	103	95	290	99	106	353	98	103	186	90	89	280	94	96	233
3858	31610	96	95	309	100	84	400	98	89	355	91	101	253	87	91	147	89	96	200
3859	31611	95	87	319	99	81	320	97	84	320	88	106	326	91	101	386	90	103	356
3860	31612	94	106	388	118	118	305	106	112	347	95	109	293	90	93	320	92	101	306
3861	31613	98	116	390	108	91	315	103	103	353	111	102	180	96	90	326	104	96	253
3862	31614	94	144	526	94	84	335	94	114	431	103	103	266	99	102	366	101	102	316
3863	31615	95	86	316	95	89	300	95	87	308	92	113	266	86	98	326	89	106	296
3864	Local Check	96	91	399	106	82	365	101	87	382	104	102	233	89	94	326	96	98	280
Mean		**97**	**102**	**411**	**101**	**92**	**320**	**99**	**97**	**363**	**97**	**105**	**263**	**92**	**98**	**344**	**94**	**101**	**304**

Table No. 4c.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – IME, Kharif 2023

Entry No	IET No	ZONE VII – SOUTHERN															Overall mean (35)		
		KARNATAKA									Karnataka (3)			Zone VII (12)					
		Mandya			Mugad			Gangavati			Mean			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3801	30649	82	96	340	103	69	392	105	92	259	97	86	330	101	99	320	104	99	288
3802	30692	75	95	306	97	59	289	100	99	233	91	85	276	98	102	317	103	103	281
3803	30804		.		91	68	289	88	103	233	90	85	261	93	100	330	91	101	279
3804	31562	66	83	306	88	76	340	94	81	315	82	80	320	90	97	316	95	99	265
3805	31563	76	91	306	91	70	285	102	104	295	90	88	295	92	103	322	93	105	278
3806	31564	77	92	306	91	68	366	102	106	325	90	89	332	96	103	337	99	101	287
3807	31565	68	93	340	92	98	578	96	96	385	85	95	434	91	102	328	96	101	280
3808	31566	81	91	340	101	69	379	107	97	285	96	85	335	100	98	313	102	98	269
3809	31567	68	94	272	86	70	272	97	100	225	83	88	256	90	105	282	93	105	263
3810	30672	72	110	340	92	75	262	100	111	235	88	98	279	93	109	303	96	110	267
3811	30639	71	79	340	85	71	360	101	86	265	86	79	322	91	90	345	96	93	284
3812	31568	73	93	306	94	79	255	102	100	223	90	90	261	96	96	277	98	95	263
3813	30713	73	81	306	95	74	370	102	97	295	90	84	324	99	97	312	103	96	280
3814	31569	67	97	272	86	73	384	93	125	250	82	98	302	87	102	290	91	103	253
3815	31570	66	101	272	91	75	424	92	107	285	83	94	327	88	115	283	92	115	254
3816	31571	76	82	374	95	63	340	102	88	385	91	77	366	93	93	378	96	92	309
3817	31572	77	95	272	98	74	272	103	109	233	93	93	259	94	108	288	97	106	264
3818	31573	66	94	340	84	69	226	95	108	265	82	90	277	91	104	302	94	103	270
3819	31574	75	111	340	95	90	181	103	112	200	91	104	240	97	109	278	102	106	246
3820	31575	73	60	374	88	54	299	101	78	322	87	64	332	94	85	309	97	89	260
3821	31576	78	89	340	97	75	184	100	108	250	92	91	258	93	102	318	94	102	276
3822	31577	92	94	340	103	77	364	119	98	355	105	90	353	107	105	343	111	103	273
3823	**Gontra Bidhan-3 (NC)**	78	89	306	90	66	533	102	95	268	90	83	369	92	98	298	94	98	272
3824	31578	77	101	272	94	76	413	102	106	233	91	95	306	95	108	297	96	108	236
3825	31579	69	92	340	95	70	411	98	104	265	87	89	339	90	100	306	91	101	265
3826	31580	70	92	306	88	69	418	94	100	345	84	87	356	88	97	323	91	99	268
3827	31581	88	91	306	97	85	340	107	94	295	97	90	314	98	100	296	102	100	274
3828	31582	81	101	306	98	74	386	106	115	415	95	97	369	94	110	351	98	110	285
3829	31583	67	99	306	87	77	357	96	109	259	83	95	307	90	103	323	93	104	270
3830	31584	77	101	374	87	74	219	98	124	285	87	100	293	92	109	323	94	110	275
3831	31585	69	100	306	83	67	369	87	106	289	79	91	321	86	114	318	89	114	267
3832	31586	74	78	340	101	85	407	108	93	363	94	85	370	100	99	344	101	99	282
3833	31587	72	91	340	96	82	396	105	113	402	91	95	379	93	112	344	97	109	274
3834	31588	70	100	306	90	79	331	103	103	241	87	94	293	96	105	299	97	104	259
3835	31589	84	100	340	103	71	269	113	95	245	100	89	285	99	103	312	102	100	284
3836	31590	69	99	340	95	72	344	102	103	285	89	91	323	93	105	331	98	103	274
3837	31591	69	94	340	91	66	378	99	95	325	86	85	348	92	97	332	96	96	272
3838	31592	72	92	306	102	76	215	102	99	259	92	89	260	98	100	289	104	97	269
3839	31593	68	97	272	86	71	127	101	102	295	85	90	231	90	102	289	94	102	254
3840	31594	69	92	306	94	77	506	102	102	373	88	90	395	92	101	319	95	103	265
3841	30667	84	88	306	101	68	258	103	100	295	96	85	286	100	103	311	102	101	277
3842	31595	75	104	306	95	75	198	98	104	363	89	94	289	96	106	295	101	106	270
3843	31596	75	100	272	98	80	338	104	104	415	92	94	342	100	111	330	106	110	276
3844	31597	78	98	272	102	84	168	103	101	355	94	94	265	102	110	314	106	106	274
3845	31598	75	100	272	89	63	352	103	105	295	89	89	306	93	111	281	96	122	248
3846	31599	68	94	340	92	67	235	94	90	402	85	83	326	87	98	289	90	102	252
3847	31600	67	85	340	90	60	383	95	88	385	84	78	369	90	97	330	93	101	278
3848	31601	66	92	272	88	79	305	95	94	285	83	88	287	89	98	299	92	101	260
3849	Zonal Check	68	78	272	87	68	599	94	89	295	83	78	389	87	94	341	93	97	277
3850	31602	69	91	306	91	63	342	94	91	295	84	82	314	89	105	298	93	107	264
3851	31603	75	176	272	95	71	361	107	92	277	92	113	303	97	110	313	99	105	281
3852	31604	68	96	238	88	70	255	100	100	313	85	89	269	94	111	278	97	112	252
3853	31605	68	91	272	87	73	454	95	95	311	83	86	346	89	100	344	92	103	278
3854	31606	86	92	306	94	66	338	114	100	275	98	86	306	103	101	312	106	101	286
3855	31607	80	100	306	95	73	294	107	86	305	94	86	302	96	102	320	97	102	282
3856	31608	83	88	340	98	84	284	107	89	295	96	87	306	99	99	312	102	99	282
3857	31609	70	92	340	94	64	331	105	84	265	89	80	312	94	101	298	98	101	276
3858	31610	69	102	340	91	56	369	92	88	300	84	82	336	94	102	304	99	107	274
3859	31611	67	90	374	86	70	328	96	85	249	83	82	317	88	98	325	92	100	283
3860	31612	73	90	272	95	70	265	96	98	235	88	86	257	97	110	302	105	110	269
3861	31613	86	86	374	102	69	279	108	97	385	98	84	346	102	99	305	105	98	268
3862	31614	71	86	340	95	78	376	103	92	295	90	85	337	94	104	329	98	104	281
3863	31615	69	99	306	87	68	168	95	96	295	83	87	256	87	101	285	91	102	262
3864	Local Check	88	108	306	100	76	386	99	91	311	95	91	334	98	101	323	97	103	285
Mean		**74**	**95**	**314**	**93**	**72**	**331**	**100**	**99**	**298**	**89**	**88**	**314**	**94**	**103**	**313**	**97**	**103**	**271**

Table No. 4c.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – IME, (Trials not considered) Kharif 2023

Entry No	IET No	Trial Not Considered														
		Uttarkhand @ Pantnagar			Jammu & Kashmir @ Chata			Uttar Pradesh @KANPUR			Odisha @ Jeypore			Jharkhand @ Ranchi		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3801	30649	116	110	238	130	81	303	61		266	97	72	358	107	65	99
3802	30692	120	122	258				66		303	107	68	365	117	61	109
3803	30804	96	113	217	140	93	321	62		273	99	70	378	103	70	139
3804	31562	109	106	217	125	114	316	66		242	98	65	398	109	61	127
3805	31563	92	115	242	114	100	355	56		298	106	77	285	102	77	107
3806	31564	105	114	240	120	111	301	64		243	98	80	372	111	83	160
3807	31565	102	117	279				65		246	104	65	295	124	74	139
3808	31566	109	107	257				57		249	100	64	355	104	55	101
3809	31567	99	112	218				55		294	94	81	251	102	71	170
3810	30672	102	127	251				59		245	97	90	238	112	53	86
3811	30639	119	99	249	124	114	322	58		221	98	68	291	120	48	119
3812	31568	106	96	231				55		263	105	70	289	119	64	114
3813	30713	126	83	283				61		245	105	67	315	113	50	98
3814	31569	96	116	256				54		208	98	78	214	120	63	125
3815	31570	99	139	237				52		211	97	91	201	111	67	105
3816	31571	105	105	300				63		261	102	57	281	113	61	132
3817	31572	102	114	255	119	122	300	66		248	106	79	248	122	72	73
3818	31573	102	115	261				59		312	94	87	298	110	56	104
3819	31574	107	127	260				61		256	108	72	392	122	80	105
3820	31575	98	93	232				56		290	103	64	295	110	61	123
3821	31576	95	128	225				59		281	102	66	231	115	68	100
3822	31577	123	92	240				62		258	111	71	328	104	53	106
3823	**Gontra Bidhan-3 (NC)**	91	111	238	114	83	300	60		217	100	69	360	120	61	186
3824	31578	99	110	203	120	109	317	61		276	105	89	214	101	66	121
3825	31579	95	122	268	112	97	340	56		238	98	74	318	104	59	142
3826	31580	92	116	242	116	93	352	57		208	97	73	238	105	63	140
3827	31581	106	110	229	120	110	309	59		298	102	60	275	113	65	123
3828	31582	104	121	278	118	102	325	57		200	107	92	315	112	61	142
3829	31583	103	107	222				55		240	99	81	288	111	69	84
3830	31584	100	132	252	121	106	295	66		310	103	93	352	112	67	141
3831	31585	96	146	278	118	110	323	57		220	94	93	271	109	59	120
3832	31586	116	103	242				59		236	109	71	466	114	52	86
3833	31587	102	130	268				66		253	105	80	308	105	52	93
3834	31588	99	113	276				62		290	103	76	221	107	66	138
3835	31589	119	115	252				57		278	99	66	352	109	68	109
3836	31590	109	98	218				69		270	99	76	371	112	62	121
3837	31591	99	108	252				52		199	101	73	224	110	48	136
3838	31592	111	82	21				58		305	103	70	312	115	59	84
3839	31593	97	116	268				58		286	104	74	281	115	68	175
3840	31594	104	111	211				63		256	101	76	214	112	78	88
3841	30667	104	119	269	120	114	308	51		312	103	65	382	107	59	103
3842	31595	117	117	248				50		257	107	79	342	104	67	64
3843	31596	122	109	250				60		305	104	74	292	110	58	90
3844	31597	124	120	236				55		263	96	87	246	114	66	73
3845	31598	102	132	197	118	103	321	59		246	103	87	265	106	73	115
3846	31599	95	116	238	116	99	382	54		286	97	77	194	106	55	90
3847	31600	98	108	254	120	107	305	60		194	97	69	298	107	71	125
3848	31601	97	113	249	117	102	301	60		308	96	77	285	109	61	109
3849	Zonal Check	105	96	250	117	101	308	56		213	94	75	352	108	65	147
3850	31602	96	109	238				51		308	98	87	351	115	60	117
3851	31603	106	117	251	124	110	306	61		303	107	68	194	106	58	88
3852	31604	103	128	237				65		266	103	86	238	105	54	111
3853	31605	96	120	277	120	104	311	63		230	98	78	268	105	60	111
3854	31606	116	111	295				58		219	104	76	372	104	54	96
3855	31607	101	115	267	118	113	309	51		279	90	74	281	110	72	84
3856	31608	116	112	279				63		316	107	72	299	106	51	146
3857	31609	105	102	249	130	102	282	56		290	101	73	261	110	78	112
3858	31610	122	105	255				68		289	98	70	261	108	68	109
3859	31611	104	117	292				56		282	103	71	283	111	63	87
3860	31612	125	98	266				63		269	105	80	332	105	64	89
3861	31613	114	105	269				54		302	106	68	325	110	56	96
3862	31614	108	102	257				61		257	107	68	245	101	55	81
3863	31615	95	116	269				67		283	101	78	264	104	66	88
3864	Local Check	94	106	251	124	118	369	64		283	99	85	305	105	64	124
Mean		**105**	**112**	**247**	**120**	**105**	**318**	**59**		**263**	**101**	**75**	**297**	**110**	**63**	**113**

Table No. 4c.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – IME, (Trials not considered) Kharif 2023

Entry No	IET No	Trial Not Considered											
		Uttar Pradesh @ Masodha			Tripura @ Lembucherra			Chhattisgarh @Ambikhapur			Karnataka @Brahmavar		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3801	30649	95	87	272	98	99	275	114	82	260	123	65	389
3802	30692	117	90	236	75	96	275	100	96	245	121	72	390
3803	30804	96	87	232	76	95	425	98	102	185	120	81	372
3804	31562	95	79	286	76	95	225	103	96	276	122	75	400
3805	31563	97	87	229	75	101	275	97	96	248	123	79	396
3806	31564	111	78	219	88	100	350	105	91	297			
3807	31565	100	82	242	74	108	400	99	106	288	121	69	370
3808	31566	115	86	240	98	90	300	114	87	253	123	75	410
3809	31567	99	93	288	76	100	275	99	102	204	121	81	390
3810	30672	100	89	237	99	110	325	105	108	238	117	85	382
3811	30639	95	76	240	104	87	325	103	86	335	121	61	400
3812	31568	95	81	262	99	90	275	108	86	240	124	76	372
3813	30713	111	86	218	95	94	275	111	80	284	117	72	390
3814	31569	93	93	239	104	105	275	97			123	87	368
3815	31570	91	105	289	91	122	225	103	107	221	124	89	370
3816	31571	100	76	239	93	89	250	105	85	275	120	74	342
3817	31572	94	94	292	76	108	350	105	102	231	117	84	390
3818	31573	100	103	239	73	107	325	99	104	198	125	86	382
3819	31574	99	96	257	90	98	225	105	94	192	126	72	396
3820	31575	111	77	239	86	72	200	101	89	241	118	81	398
3821	31576	94	88	252	75	102	350	104	100	258	130	79	400
3822	31577	117	89	204	122	98	275	125			117	76	342
3823	**Gontra Bidhan-3 (NC)**	95	84	229	71	99	225	99	88	242	114	81	386
3824	31578	103	103	290	73	102	325	97	106	133	115	73	371
3825	31579	97	76	253	92	84	350	104	96	257	118	79	348
3826	31580	88	81	274	74	91	250	97			115	90	368
3827	31581	95	94	241	77	94	250	114	85	203	117	73	381
3828	31582	96	95	277	82	117	300	105	109	237	114	70	380
3829	31583	100	102	287	73	103	275	101	103	208	114	81	371
3830	31584	100	85	241	74	111	300	101	111	240	115	76	369
3831	31585	89	91	229	77	126	325	121	132	200	122	80	392
3832	31586	101	81	229	96	97	275	110	92	300	127	89	390
3833	31587	100	80	253	93	116	275	106	105	210	120	82	328
3834	31588	111	78	219	104	100	325	101	97	204	121	76	381
3835	31589	116	98	227	111	98	325	114	89	220	123	70	392
3836	31590	96	94	288	77	98	325	112	100	240	112	84	376
3837	31591	93	92	248	76	96	325	101	96	246	125	87	348
3838	31592	117	91	229	83	95	325	113	84	235	127	72	359
3839	31593	102	110	286	77	97	375	99	99	206	127	75	372
3840	31594	100	93	230	89	103	200	106	105	190	124	82	390
3841	30667	90	88	229	102	110	400	110	93	245	106	63	381
3842	31595	98	102	251	102	100	350	108			117	62	376
3843	31596	111	96	267	98	112	350	110	102	240	116	76	368
3844	31597	104	96	229	99	85	225	119	94	243	112	81	390
3845	31598	101	101	290	81	98	300	105	109	210	114	88	349
3846	31599	96	92	298	74	105	450	101	100	184	121	65	390
3847	31600	110	86	259	78	98	350	97	101	280	122	71	348
3848	31601	88	76	263	105	103	300	98	103	242	123	81	390
3849	Zonal Check	95	96	227	75	89	225	97	95	239	130	77	377
3850	31602	95	89	255	73	115	275	105			121	82	384
3851	31603	99	98	250	88	93	250	109	93	226	124	89	362
3852	31604	97	105	239	89	118	400	106	110	165	114	69	390
3853	31605	97	96	238	75	113	325	99	102	229	123	78	370
3854	31606	104	93	231	107	99	325	119			128	81	381
3855	31607	101	78	228	86	100	350	114	95	297	120	78	367
3856	31608	91	89	253	76	89	250	110	94	257	120	75	360
3857	31609	99	92	260	105	102	275	106	95	255	121	82	352
3858	31610	114	91	270	70	98	225	105	104	253	117	83	370
3859	31611	98	82	269	74	103	350	97	107	257	121	81	379
3860	31612	107	73	292	84	104	425	110	101	180	120	81	384
3861	31613	111	77	264	86	97	225	114	88	242	116	79	390
3862	31614	99	93	253	82	104	225	106	92	235	121	82	371
3863	31615	91	84	231	91	113	275	99	109	221	116	80	364
3864	Local Check	81	79	243	101	98	275	121	115	185	112	69	389
Mean		**100**	**89**	**251**	**86**	**101**	**300**	**105**	**98**	**235**	**120**	**77**	**377**

ADVANCED VARIETY TRIAL 2 - IRRIGATED MEDIUM (AVT 2-IM)

Locations: 48 **Test Entries: 17**

Checks: NDR 359-National; PR 121 (Northern), CR Dhan 300 (Eastern and North Eastern), Karma Mahsuri (Central), Akshyadhan (Western), Jaya (Southern)-Zonal; HRI 174 (Hybrid) and Local check. **Table: 5a**

AVT-2-IM trial constituted with 17 entries (11 test entries and 4 checks and one NIL with Recurrent Parent) was sent to 48 locations covering 6 zones (II, III, IV, V, VI and VII) across the country. Among the total test entries, 5 are hybrid entries and 6 are varietal entries and 1 NIL and checks included NDR359 as national check (NC), PR121 in northern, CR Dhan 300 in eastern and north eastern, Karma Mahsuri in central, Akshaydhan in western and Jaya in southern as zonal checks (ZC), HRI-174 as hybrid check (HC), local check (LC) and Gangavati Sona as Recurrent Parent (RP). Data was not received from four locations i.e., Chiplima, Tirur, Kathalgere, and Puducherry. Data from locations such as Pantnagar, Gorakpur, Gerua,Arundathinagar and Brahmawar had low experimental mean yield; Masoda had low CV % and ICAR-NRRI (Cuttack), Malda, Bankura, Jagadalpur and Karaikal were had non-significant F value, hence not included in the analysis.

Experimental mean yield across the locations ranged from 4150 kg/ha at Nagina to 8411 kg/ha at Jagithyal. CV ranged from as low as 5.65% at Jeypore to as high as 17.38% at Sakoli. Days to fifty percent flowering (DFF) ranged from 99 days for IET 29002and IET 29741 to 112 days for IET 29301, plant height ranged from 104 cm (PR 121:ZC) to 132cm IET 29284and panicles/m^2ranged from 248 (IET 28523) to 329 (IET 29741). The data pertaining to yield, daysto 50% flowering, plant height, panicles/m^2 and quality are presented in tables 5a.1, 5a.2 and 5a.3 respectively.

The performance of eleven test entries in third year of testing are discussed below.

Three-year performance of entries during Kharif 2023

Entry	Year	Zone	No. of Locations	Yield (kg/ha)	States	No. of Locations	Yield (Kg/ha)	Remarks
IET 29257 (R)	2020	V	4	5415	MP	1	6981	Discontinued due to inconsistent performance
	2021	II	3	6352	PU	1	5486	
	2022	-	-	-	-	-	-	
	2023	-	-	-	KA	3	6661	
IET 29301	2020	VII	7	6652	AP	2	6878	Discontinued due to inconsistent
					TE	1	9829	

Entry	Year	Zone	No. of Locations	Yield (kg/ha)	States	No. of Locations	Yield (Kg/ha)	Remarks
(R)	2021	II	3	6901	-	-	-	performance
		IV	2	5765	TR	1	6495	
		V	6	5315	-	-	-	
	2022	-	-	-	-	-	-	
	2023	-	-	-	UP	1	5134	
		-	-	-	KA	3	6495	
IET 29284 (R)	2020	III	3	6270	OD	3	6270	Promising for the state of Karnataka only
		V	4	5552	MA1	2	6165	
		VII	7	6875	TE	1	9487	
	2021	VII	13	6598	AP	2	6633	
					KA	3	6768	
	2022	II	3	6661	-	-	-	
		III	8	6527	BI	2	7345	
					WB	2	7155	
		V	7	5250	CH	4	5938	
	2023	III	6	5866	-	-	-	
		VII	12	6601	KA	3	6810	
IET 29014 (R) ***Hybrid***	2020	IV	2	6123	-	-	-	Discontinued due to inconsistent performance
		V	7	7083	CH	3	7565	
					MP	2	7343	
	2021	II	3	6610	JK	1	6422	

Entry	Year	Zone	No. of Locations	Yield (kg/ha)	States	No. of Locations	Yield (Kg/ha)	Remarks
	2022	-	-	-	-	-	-	
	2023	-	-	-	UP	1	5357	
		-	-	-	KA	3	7078	
IET 29002 (R) ***Hybrid***	2020	V	7	7531	CH	3	7930	Discontinued due to inconsistent performance
	2021	II	3	6624	PB	1	5536	
	2022	-	-	-	-	-	-	
	2023	-	-	-	-	-	-	
IET 29290 (R)	2020	VII	4	6664	AP	4	7197	Discontinued due to inconsistent performance
	2021	II	3	6425	-	-	-	
		V	6	5248	-	-	-	
	2022	-	-	-	-	-	-	
	2023	-	-	-	-	-	-	
IET 28523	2021	III	9	4965	-	-	-	Discontinued due to inconsistent performance
	2022	III	12	6791	-	-	-	
	2023	-	-	-	-	-	-	
IET 29833	2021	III	9	4958	-	-	-	Promising for the state of Bihar and Telangana only
	2022	III	12	6645	BI	3	8139	
		VI	4	6475	MH	4	5523	
		VII	11	6658	AP	2	7296	
					TE	3	7594	
					TN	3	6380	

Entry	Year	Zone	No. of Locations	Yield (kg/ha)	States	No. of Locations	Yield (Kg/ha)	Remarks
	2023	III	6	6331	BI	2	6907	
		VII	12	7190	TE	3	7901	
					KA	3	6720	
					PU	1	9561	
IET 29743 ***Hybrid***	2021	VII	7	7467	-	-	-	Discontinued due to inconsistent performance
	2022	II	4	6408	HA	1	8620	
		III	12	7730	OD	3	7728	
					UP	4	7564	
		VII	11	6664	AP	2	7048	
					TE	3	7970	
					TN	3	6125	
	2023	VI	4	6334	-	-	-	
		VII	12	7485	KA	3	7563	
IET 29742 ***Hybrid***	2021	III	9	7242	-	-	-	Discontinued due to inconsistent performance
	2022	III	12	7731	OD	3	7858	
	2023	-	-	-	UP	1	5071	
		VII	12	7161	KA	3	7292	
IET 29741 ***Hybrid***	2021	II	3	7190	-	-	-	Discontinued due to inconsistent performance
		III	9	6775	-	-	-	
		IV	2	7016	-	-	-	
		V	6	6764	-	-	-	

Entry	Year	Zone	No. of Locations	Yield (kg/ha)	States	No. of Locations	Yield (Kg/ha)	Remarks
	2022	III	12	7752	OD	3	7934	
	2023	II	3	6373	-	-	-	
		-	-	-	BI	2	6947	
		V	6	6508	CH	3	6324	
		VI	4	6755	MH	4	6147	
					GU	2	7781	
		VII	12	7112	TE	3	8897	

IET 29257 (RNR 28399), a repeat varietal entry has completed four years of testing from 2020, 2021, 2022 and 2023. It recorded mean grain yield of 6981 kg/ha in Madhya Pradesh state, in first year of testing (2020). In 2021, it recorded mean grain yield 5486 kg/ha in Punjab state. In 2023, it recorded significant yield performance in the state of Karnataka. Due to inconsistency in yield performance over the years in any zone or state, ***the varietal entry IET 29257 is discontinued.***

IET 29301 (AD 16124), a repeat varietal has completed four years of testing from 2020, 2021, 2022 and 2023. It recorded mean grain yield of 6878 and 9829 kg/ha in Andhra Pradesh and Telangana states with significant yield advantage over the BVC in 2020.In 2021, it recorded grain yield of 6495 kg/ha in Tripura state (Zone IV). In, it recorded significant yield performance in Uttar Pradesh and Karnataka states only. It had low HRR (47.2%). Due to inconsistency in yield performance over the years in any zone or state and unacceptable quality parameters, ***the varietal entry IET 29301 is discontinued.***

IET 29284 (MTU 1348), a repeat varietal entry has completed four years of testing from 2020, 2021,2022 and 2023. In 2020, it recorded mean grain yield of 6270, 6165 and 9487 kg/ha in Odisha, Maharashtra and Telangana in Zones III, V and VII respectively. In 2021, it recorded grain yield of 6633 and 6768 kg/ha in Andhra Pradesh and Karnataka state. In 2023, it recorded significant yield performance in Karnataka state only. ***Hence, the varietal entry IET 29284 is considered promising for the state of Karnataka only.***

IET 29014 (*MEPH-159*), a repeat hybrid entry has completed four years of testing from 2020, 2021, 2022 and 2023. In 2020, it recorded mean grain yield of 7565 and 7343 kg/ha in Chhattisgarh and Madhya Pradesh states over the BVC and HC. In 2021, it recorded grain yield of 6422 kg/ha in Jammu & Kashmir over the BVC and HC. In 2023, it recorded significant yield performance in Uttar Pradesh and Karnataka states over the BVC and HC. Despite its superior performance over the BVC and HC in several states in different years, consistent performance at least in two years over BVC and HC in any zone or state was not

observed. It had unacceptable quality parameter viz., low HRR (47.9%). ***Hence, the hybrid entry IET 29014 is discontinued.***

IET 29002 (*PHI-20106*), a repeat hybrid entry has completed four years of testing from 2020, 2021, 2022 and 2023. In 2020, it recorded mean grain yield of 7930 kg/ha in Chhattisgarh state with yield superiority over the BVC and HC. In 2021, it recorded grain yield of 5536 kg/ha in Punjab state significance over the BVC and HC. In 2022 and 2023, it did not record significant yield performance in any zone or state. It had low HRR (32.3%) and high AC (26.38%) and hard GC (22). Due to inconsistent performance in any zone or state and unacceptable quality parameter, ***the hybrid entry IET 29002 is discontinued.***

IET 29290 (HURS 19-3), a repeat varietal entry has completed four years of testing from 2020, 2021, 2022 and 2023. In 2020, it recorded a mean grain yield of 7197 kg/ha in Andhra Pradesh state with significant yield advantage over the BVC. In 2021, 2022 and 2023, it did not record significant yield performance in any state. It had unacceptable quality parameter viz., low HRR (24.5%) and high AC (26.16%) and hard GC (22). Consistent performance at least in two years with significant yield performance over BVC is required, which was not observed. ***Hence, the varietal entry IET 29290 is discontinued.***

IET 28523 (CR 3564-1-1-4-2-2-1), a varietal entry has completed three years of testing from 2021, 2022 and 2023. In 2021 and 2022, it recorded zonal mean grain yield of 4965kg/ha and 6791 kg/ha in Zone III, but did not record significant yield performance in any state over the BVC. In 2023, it did not record significant yield performance in any state. It had high AC (26.16%) and hard GC (22).Consistent performance of at least in two years with required yield advantage over BVC is not observed. ***Hence, the varietal entry IET 28523 is discontinued.***

IET 29833(JGL 34560), a varietal entry has completed three years of testing from 2021, 2021 and 2023. In 2021, it recorded zonal mean grain yield of 4958 kg/ha in Zone III. In 2022, it recorded grain yield of 8139, 5523 ,7296, 7594 and 6380kg/ha in Bihar, Maharashtra, Andhra Pradesh, Telangana and Tamil Nadu States in Zones III, VI and VII respectively. In 2023, it recorded grain yield 6907, 7901, 6720 and 9561 kg/ha in Bihar, Telangana, Karnataka and Puducherry states of Zone III and VII, respectively. Despite its superior performance over the BVC in several states across the years, consistent performance at least in two years with required yield advantage over BVC was observed only in two states ie., Bihar and Telangana. Further, IET 29833 recorded acceptable grain quality parameters viz., HRR of 63.1%, AC of 25.54 %, GC of 42 mm and ASV of 4.0. ***Hence, the varietal entry IET 29833 is considered promising for the state of Bihar (Zone III) and Telangana (Zone VII) only.***

IET 29743(*HRI-211*), a hybrid entry has completed three years of testing from 2021, 2022 and 2023. In 2021, it recorded zonal mean grain yield of 7467 kg/ha in zone VII. In 2022, it recorded grain yield of 8620,7728,7564,7048,7970 and 6125 kg/ha in Odisha, Uttar Pradesh, Andhra Pradesh, Telangana and Tamil Nadu of Zones II, III and VII, respectively. In 2023, it recorded grain yield 7563 kg/ha in Karnataka only. Despite its superior performance over the BVC and HC in several states in different years, consistent performance over the years in any state was not observed, ***Hence, the hybrid entry IET 29743 is discontinued.***

IET 29742 (*RRX-338*), a hybrid entry completed three years of testing from 2021, 2022 and 2023. In 2021, it recorded zonal mean grain yield of 7242 kg/ha in zone III. In 2022, it recorded grain yield of 7858 kg/ha in Odisha state. In 2023, it recorded grain yield 7292 kg/ha in Karnataka (zone VII). It had quality parameters viz., HRR (60.7%), AC of 23.7 %, and GC of 43. Due to inconsistent performance in any state over the years and unacceptable quality parameters, the hybrid entry IET 29742 is discontinued.

IET 29741(*HRI-209*), a hybrid entry completed three years of testing from 2021, 2022 and 2023. In 2021, it recorded significant superiority over BVC and HC in Zones, II, III, IV, and V. In 2022, it recorded grain yield of 7934 kg/ha in Odisha state. In 2023, it recorded significant yield superiority over the BVC and HC in the states of Odisha, Bihar, Chhattisgarh, Maharashtra, Gujarat and Telangana. Despite its superior performance over the BVC and HC in several states across the years, consistent performance of at least two years with required yield significant superiority over BVC and HC was not observed. ***Hence, the hybrid entry IET 29741 is discontinued.***

Entries found promising in the third year of testing in AVT 2-IM trial

IET 29284, a varietal entry is considered promising for the state of Karnataka
IET 29833, a varietal entry is considered promising for the states of Bihar and Telangana

Assessment of NIL entries tested under AVT 2-IM trial

One NIL tested in AVT 2-IM trial along with their recurrent parent in the genetic background of Gangavati Sona.

Near Isogenic Lines (NILs) in the genetic background of Gangavati Sona

IET30757 (RP 6697-P.N.24-14) is in second year of testing derived from the cross of Gangavati Sona*^{2}/Improved Samba Mahsuri possessing genes for Bacterial Leaf Blight resistance. IET30757 showed on par yield performance to recurrent parent and resistance disease reaction to bacterial leaf blight with a severity index of 4.6. It recorded grain quality parameters viz., HRR of 61.5%, AC of 22.08 %, MS grain type, GC of 46 mm and an ASV of 4.0. ***Hence promising for the state of Karnataka.***

Performance of the NIL entries during Kharif 2023

IET No	Recurrent Parent (RP) and genes	Gazette notified states	No. of locations	Normal condition (CD:894)			Severity Index (%) from hot spots		Remarks
				RP Yield	NIL Yield	% over RP	Bacterial leaf blight		
							RP	NIL	
30757	Gangavati Sona	KA	3	5875	6079	+3.00 %	5.5	4.6	Promising for the state of Karnataka

Disease reaction of the entries to Bacterial leaf blight disease during Kharif 2023

Entry Name	ADT	CHN	CHP	CHT	CTK	GNV	IIRR	JGL	KJT	LDN	MNC	MTU	NLR	NWG	PNT	PTN	SBR	TTB	VRN	SI
	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
	6.0	5.7	6.7	5.4	8.1	5.6	6.0	4.9	5.3	5.9	3.0	6.6	4.4	5.9	7.4	3.7	4.5	4.8	5.7	
IET 30757	9	3	7	7	3	7	1	5	5	3	3	7	5	5	3	5	0	3	7	**4.6**
Gangavati Sona (RP)	9	3	7	5	9	7	7	5	5	7	3	7	7	5	5	5	0	3	-	**5.5**
ISM (RC)	5	3	3	5	5	5	1	3	5	3	5	5	5	5	1	3	0	3	5	**4.5**

RP: Recurrent Parent; RC: Resistant Check; ISM: Improved Samba Mahsuri; SI: Severity Index

ADVANCED VARIETY TRIAL 1-IRRIGATED MEDIUM (AVT 1-IM)

Locations: 48 **Test Entries: 31**

Checks: NDR 359-National; PR 121 (Northern), CR Dhan 300 (Eastern and North Eastern), Karma Mahsuri (Central), Akshyadhan (Western), Jaya (Southern) - Zonal; HRI 174 (Hybrid) and Local check. **Table: 5b**

AVT-1-IM trial constituted with 31 entries was sent to 48 locations covering 6 zones (II, III, IV, V, VI and VII) across the country. Among the total test entries, 9 are varietal test entries, 11 are hybrid entries, 5 Near Isogenic lines, 2 recurrent parents and 4 checks included viz., NDR359 as national check (NC), PR121 in northern, CR Dhan 300 in eastern and north eastern, Karma Mahsuri in central, Akshaydhan in western and Jaya in southern as zonal checks (ZC), HRI-174 as hybrid check (HC) and a local check (LC). Data was not received from eight locations namely Bankura, Arundathinagar, Ambikhapur, Bilaspur, Shirgaon, Tirur, Kathalgere and Puducherry. Data from following locations were not included in analysis due to low CV (Masodha and Gorakpur) High CV (Gerua), low experimental mean yield (Pantnagar,Waraseoni and Brahmawar), based on F value significance Malda, Kurumbapet and Karaikal.

Zone wise performance of the entries is discussed here under:

Northern Zone (II)

Four varietal and six hybrid entries were tested across four locations *viz*., Pantnagar (Uttarakhand), Kaul (Haryana), Chatha (Jammu &Kashmir) and Nagina (Uttar Pradesh). Data from Pantnagar is not included in the analysis due to low experimental mean yield (1553kg/ha). In Zone II, the mean yield of the entries varied from 3902 kg/ha IET 29859 to 6276 kg/ha (IET 30608) and days to 50%flowering ranged from 90 days (IET 30608) to 108 days (IET 32051).Plant height ranged from 82cm (IET 30602) to 108 cm (IET 30620) whereas panicles/m^2ranged from 261 (IET 30819)to 321 (LC). In this zone II, only two entries IET 30608 (Hybrid) and IET 30603 recorded significant superior yield performance over best varietal check (Local check) and hybrid check. ***IET 30608 and IET 30603 are promoted to 3rd year of testing (AVT-2-IM) in Zone II.***

Eastern Zone (III)

In the Eastern Zone (Zone III), seven varietal and nine hybrid entries were tested across eleven locations (Bhubaneswar, ICAR-NRRI (Cuttack) ,Jeypore, Chiplima (Odisha); Bikramganj, Sabour (Bihar); Ranchi (Jharkhand); Chinsurah, Malda (West Bengal); Masodha, Gorakpur (Uttar Pradesh). However, data from three locations viz., Malda was not included in analysis due to non-significant F value and from Masodha and Gorakpur due to low CV. Zonal mean ranged from 4593kg/ha (IET 32050) to 6257kg/ha (IET 30617); Mean 50 % flowering duration ranged from 96 days (IET 32049) to 114days (ZC); Plant height ranged from 95 cm (IET 32049) to 119 cm(IET 30604) and panicles per meter square ranged from 263(IET32050) to 328 (IET 30772).In this zone III, Five hybrids viz., IET's 30604, 30617, 30608, 30605 and 30620 recorded significant superior yield performance over best varietal check (Zonal check) and hybrid check. Two varietal entries viz., IET30772 and IET 30819 recorded significant superior yield performance over best varietal check (Zonal check). ***Hence, seven entries viz., IET's 30604, 30617, 30608, 30605, 30620, 30772 and 30819 are promoted to AVT-2 -IM in Eastern zone.***

North Eastern Zone (IV)

In North Eastern Zone, five varietal and four hybrid entries were tested across three locations Titabar, Gerua and Lembucherra. Data from Gerua was not considered due to high CV. In this zone, none of the entries showed significant superior performance over best varietal check and hybrid check. ***Therefore, none of the varietal and hybrid entries are promoted in North Eastern zone.***

Central Zone (V)

Three varietal and four hybrid entries were tested in central zone at five locations viz., Waraseoni, Raipur, Jagadalpur, Sakoli and Sindewahi. Data from Waraseoni was not considered due to low experimental Mean yield. In this zone, none of the entries showed significant superior performance over best varietal check and hybrid check ***Therefore, none of the varietal and hybrid entries are promoted in Central zone to AVT-2-IM.***

Western Zone (VI)

Three varietal and five hybrid entries were tested in the western Zone (Zone VI) in three locations i.e., Karjat, Nawagam and Navasari. In this zone, none of the entries showed significant superior performance over best varietal check and hybrid check. ***Therefore, none of the varietal and hybrid entries are promoted in Western zone to AVT-2-IM.***

Southern Zone (Zone VII)

In southern zone, three varietal, four hybrid, five near isogenic lines and two recurrent parents were tested across fourteen locations viz., Maruteru, Ragolu, Rajendranagar, Warangal, Jagtial, Coimbatore, Aduturai, Pattambi, Mandya, Mugad, Brahmavar, Gangavathi, Kurumbapet and Karaikal. Due to low experimental mean yield, the data from Brahmavar (3558kg/ha); and due to non-significant F value in Karaikal, data from these locations were not included in analysis. Zonal mean yield ranged from 5350 kg/ha (IET 32049) to 7895 kg/ha (IET 30603). Days to 50% flowering ranged from 97 days (IET 32049) to 107 days IET 29264; Plant height ranged from 96 cm (IET 32049 and Zonal check) to 117 cm (IET 29264) and panicles per metre square from 351 (IET 30620 and IET 32050) to 406

(IET 32047). In this zone, three hybrids namely IET's 30604, 30603 and 30620 recorded significant yield advantage over best varietal check (Local check) and hybrid check; and one varietal entry IET 30819 showed significant yield advantage over best varietal check (Local check). ***Hence, four entries viz., IET's 30604, 30603, 30620 and 30819 are promoted to next year of testing.***

Promoted only based on zonal mean basis:

Zone		**Promoted to AVT 2-IM**
II (Northern)	:	IETs 30608 and IET 30603
III (Eastern)	:	IETs 30604, 30617, 30608, 30605, 30620, 30772 and 30819
IV (North Eastern)	:	None
V (Central)	:	None
VI (Western)	:	None
VII (Southern)	:	IETs 30604, 30603, 30620 and 30819

Entries promoted to AVT 2-IM:

Eight entries viz., IETs 30603, 30604, 30605, 30608, 30617, 30620, 30772 and 30819,

Two Near Isogenic Lines namely IET 32047 (Recurrent Parent: WGL 14) and IET 32051(Recurrent Parent: Jaya)

Assessment of NIL entries tested under AVT 1-IM trial

A total of 5 NILs were tested in AVT 1-IM trial along with their recurrent parents. Three NIL's are in the genetic background of Jaya, two NIL's in the genetic background of WGL 14 were nominated and tested in AVT 1-IM.

Near Isogenic Lines (NILs) in the genetic background of Jaya

A total of three NILs were evaluated in AVT 1-IM. Three NIL's viz., IET 32049, IET 32050 and IET 32051 are in first year of testing. IET32049 (RP 6743-RAF-0208-IJ-9), IET32050 (RP 6741-RAF-0607-IJ-2) and IET 32051(RP 6742-RAF-909-IJ-4) are the sister lines derived from the cross of Jaya*2/Isogenic line of MTU 1010 possessing genes resistance to bacterial leaf blight, leaf blast and yield enhancing genes. All the three Near Isogenic lines viz., IET 32049, IET 32050 and IET 32051 had at par yield advantage compared to recurrent parent (Jaya) tested across the states in 29 locations.

IET32049 (RP 6743-RAF-0208-IJ-9) and IET32050 (RP 6741-RAF-0607-IJ-2) had at par yield performance compared to recurrent parent but showed on par disease reaction to bacterial leaf blight with a severity index of 5.2 and 5.1 and for blast with a severity index of 5.8 and 5.1 respectively, compared to recurrent parent 5.1 for blast and 5.0 for Bacterial leaf blight. ***Hence, IET 32049 and IET 32050 are dropped.***

IET 32051 (RP 6742-RAF-909-IJ-4) showed at par to superior yield performance (5609 kg/ha) to recurrent parent (5562 kg/ha) and showed resistance reaction to bacterial leaf blight with a severity index of 4.8 and 4.9 for blast. **Hence IET 32051 is promoted to second year of testing in AVT 2-IM.** .

Near Isogenic Line (NIL) in the genetic background of WGL 14 (Warangal Samba)

A total of two NILs were evaluated in AVT 1-IM. IET 32047 (RP 6747-19484-1-1) and IET 32048 (RP 6747-19483-1-1) are in first year of testing. IET 32047 possesses Bacterial leaf blight resistance and IET 32048 for both bacterial leaf blight and leaf blast resistance.

IET 32047 (RP 6747-19484-1-1) had at par yield performance compared to recurrent parent WGL 14. It showed resistance reaction to bacterial leaf blight with a severity index of 4.6 compared to recurrent parent 5.2. ***Hence, IET 32047 is promoted to second year of testing in AVT 2-IM.***

IET 32048 (RP 6747-19483-1-1) had at par yield performance compared to recurrent parent WGL 14. It showed susceptible disease reaction to blast with a severity index of 5.6; and had resistant reaction to BLB (3.69. ***Hence, IET 32048 is dropped.***

Performance of the Jaya NIL entries during Kharif 2023

IET No	Recurrent Parent (RP) and genes	States	No. of locations	Normal condition (CD:395)			Severity Index (%) from hot spots				Remarks
				RP Yield	NIL Yield	Over RP	Blast		Bacterial leaf blight		
							RP	NIL	RP	NIL	
32049	Jaya (BB+Bl+Yield)	HA, UP, OD, Bl, JH, WB, AS TR, MH, GU, AP, TE, TN, KE, KA, PY	29	5562	5202	At Par	5.0	5.8	5.1	5.2	Dropped due to on par disease reaction to BLB and Blast
32050	Jaya (BB+Bl+Yield)		29	5562	5272	At Par	5.0	5.1	5.1	5.1	Dropped due to on par disease reaction to BLB and Blast
32051	Jaya (BB+Bl+Yield)		29	5562	5609	At Par	5.0	4.9	5.1	4.8	Promoted

RP: Recurrent Parent; * Plus CD value; # Minus CD value

Performance of the WGL 14 NIL entries during Kharif 2023

IET No	Recurrent Parent (RP) and genes	States	No. of locations	Normal condition (CD:693)			Severity Index (%) from hot spots				Remarks
				RP Yield	NIL Yield	Over RP	Blast		Bacterial leaf blight		
							RP	NIL	RP	NIL	
32047	WGL 14 (BB)	AP, KE	3	5399	5793	At Par	-	-	5.2	4.6	Promoted
32048	WGL 14 (BB+Bl)		3	5399	5729	At Par	6.3	5.6	5.2	3.9	Dropped due to susceptible reaction to blast disease

RP: Recurrent Parent; * Plus CD value; # Minus CD value

Disease reaction of the entries to blast disease during Kharif 2023

Entry Name	CBT	GDL	GNV	HZB	IIRR	JDP	JGL	KJT	LNV	MGD	MND	NLR	NVS	NWG	PNP	PTB	RCI	WBL	SI
	A	N	A	A	A	N	A	A	N	N	A	A	N	A	N	N	N	N	
	4.7	**4.1**	**5.6**	**5.9**	**4.4**	**6.3**	**5.6**	**3.0**	**7.6**	**3.1**	**6.2**	**4.4**	**4.6**	**5.6**	**3.1**	**5.0**	**5.0**	**3.2**	
IET 32049	4	4	9	7	4	9	7	3	8	3	9	4	5	8	4	5	7	5	**5.8**
IET 32050	4	3	5	8	2	9	5	2	7	3	9	4	4	5	6	5	6	4	**5.1**
IET 32051	3	3	9	8	2	9	5	1	7	3	9	4	3	6	6	5	4	2	**4.9**
Jaya (RP)	3	3	7	7	3	9	5	1	7	3	9	4	5	7	5	6	3	3	**5.0**
IET 32047	5	4	6	7	6	9	5	4	9	3	9	5	5	8	5	8	4	4	**5.9**
IET 32048	5	4	3	7	6	8	7	4	9	3	9	4	3	7	5	8	4	4	**5.6**
WGL 14 (RP)	-	-	9	7	5	8	7	4	9	3	9	6	5	8	4	9	4	4	**6.3**
Tetep (RC)	3	3	2	3	1	3	3	2	3	1	3	4	3	4	2	3	1	3	**2.6**

RP: Recurrent Parent; RC: Resistant Check; SI: Severity Index

Disease reaction of the entries to Bacterial leaf blight disease during Kharif 2023

Entry Name	ADT	CHN	CHP	CHT	CTK	GNV	IIRR	JGL	KJT	LDN	MNC	MTU	NLR	NWG	PNT	PTN	SBR	TTB	VRN	SI
	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
	6.0	5.7	6.7	5.4	8.1	5.6	6.0	4.9	5.3	5.9	3.0	6.6	4.4	5.9	7.4	3.7	4.5	4.8	5.7	
IET 32049	7	3	9	5	9	1	1	-	5	5	5	7	5	7	5	3	7	5	5	**5.2**
IET 32050	7	5	7	5	1	9	1	5	5	7	0	7	7	5	3	5	5	5	7	**5.1**
IET 32051	5	3	9	5	5	9	1	7	5	7	0	9	3	5	5	1	0	5	7	**4.8**
Jaya (RP)	7	3	3	7	9	3	7	5	5	7	3	9	3	5	5	7	3	3	3	**5.1**
IET 32047	5	5	9	5	3	3	1	7	5	7	1	7	5	7	3	1	5	3	-	**4.6**
IET 32048	1	5	5	5	3	3	1	7	5	7	0	7	5	7	3	3	0	3	5	**3.9**
WGL 14 (RP)	7	5	9	3	9	3	3	7	5	7	0	7	5	5	7	3	-	3	5	**5.2**
ISM (RC)	5	3	3	5	5	5	1	3	5	3	5	5	5	5	1	3	0	3	5	**4.5**

RP: Recurrent Parent; RC: Resistant Check; ISM: Improved Samba Mahsuri; SI: Severity Index

INITIAL VARIETAL TRIAL – IRRIGATED MEDIUM (IVT-IM)

Locations: 48 **Test Entries: 64**

Checks: **NDR 359-National; PR 121 (Northern), CR Dhan 300 (Eastern and North Eastern), Karma Mahsuri (Central), Akshyadhan (Western), Jaya (Southern)-Zonal and Local check.** **Table:5c**

The Initial Varietal Trial - Irrigated Medium (IVT-IM) consisted of 61 test entries and three checks, including the national check NDR 359, respective zonal checks, and local checks. The trial was conducted at 48 locations across all zones, with data being received from 42 locations. Data was not received from 6 centers: Arundhuti Nagar, Waraseoni, Bilaspur, Tirur, Kathalgere, and Puducherry. Data from 9 centers - Pantnagar, Kaul, Chatha, Masodha, Gerua, Lembucherra, Shirgaon, Mugad, and Brahmavar - were excluded from the analysis due to low (<5%) or high CV (20%), low experimental yield (<4000 kg/ha), and non-significant F variance ratio between treatments.

Overall performance of the entries:

The overall mean (considering 33 centers) yield (kg/ha) varied from 3937 kg/ha of IET 31647 to 6086 kg/ha of IET 31638. The days to 50% flowering varied from 95 days (IET 31660) to 117 days (IET 31620 & IET 31632), panicles/m^2 varied from 262 (IET 31647) to 309 (IET 31634), the plant height varied from 92 cm (IET 31625 & IET 31665) to 135 cm (IET 31619).

Based on the overall mean performance, six entries: IET 31638, IET 31641, IET 31643, IET 31633, IET 31618, and IET 31659 recorded significant superiority in yield with days to fifty percent flowering over the best check i.e., local check. ***Hence, these six entries are promoted to AVT-I.*** The data concerning yield, days to 50% flowering, are presented in the following Table.

Table: Overall performance of the promising entries of IVT-IM, *Kharif* 2023.

Rank	IETNo/ Designation/Cross combination	Grain Yield (Kg/ha)*	Days to 50% flowering	Remarks
1	IET 31638	6086*	105	Promoted To AVT 1-IM
2	IET 31641	5888*	113	Promoted To AVT 1-IM
3	IET 31643	5841*	111	Promoted To AVT 1-IM
3	IET 31633	5841*	110	Promoted To AVT 1-IM

Rank	IETNo/ Designation/Cross combination	Grain Yield (Kg/ha)*	Days to 50% flowering	Remarks
5	IET 31618	5830*	110	Promoted To AVT 1-IM
6	IET 31659	5816*	104	Promoted To AVT 1-IM
	NDR359(NC)	**5504**	**101**	
	Zonal Check(ZC)	**5119**	**106**	
	Local Check (LC)	**5554**	**107**	
	CD	**203**		
	Exp Mean	**5233**	**105**	

*Significantly superior

Zone II Northern:

Out of the four locations (Pantnagar, Kaul, Chatha, and Nagina), data from the Nagina location was selected for analysis. The data from the remaining three locations (Pantnagar, Kaul, and Chatha) were excluded from the analysis due to low experimental yield and invalid CV%. The mean yield (kg/ha) in the Northern zones ranged from 2952 kg/ha for IET 31621 to 7473 kg/ha for IET 31637. The days to 50% flowering varied from 94 days for IET 31662 to 141 days for IET 31616. Panicles/m2 ranged from 180 panicles/m2 for IET 31651 to 333 panicles/m2 for IET 31635 and IET 31636. Plant height varied from 77 cm for IET 31625 to 129 cm for IET 31670.

Twenty entries, including IET 31625, IET 31626, IET 31629, IET 31630, IET 31633, IET 31635, IET 31636, IET 31637, IET 31644, IET 31646, IET 31648, IET 31649, IET 31654, IET 31657, IET 31659, IET 31660, IET 31662, IET 31668, IET 31672, and IET 31673, recorded significantly higher yields compared to the checks and promoted to next level.

However, among these twenty entries, five entries viz., ***IET 31635, IET 31648, IET 31657, IET 31662, IET 31660 shifted to IVT-Irrigated Mid Early (IRME)*** based on their low DFF and nine entries viz., ***IET 31637, IET 31659, IET 31633, IET 31649, IET 31625, IET 31626, IET 31646, IET 31668, and IET 31636 shifted to IVT-Late*** based on their high DFF**.** The data on yield and days to 50% flowering are presented in the following table for reference.

Table: Performance of the entries in Zone II Northern, IVT-IM *Kharif* 2023

Rank	IET No/Designation/Cross combination	Grain Yield (Kg/ha)*	Days to 50% flowering	Remarks
1	IET 31637	7473	118	Shift to Late
2	IET 31659	7420	115	Shift to Late
3	IET 31633	6961	121	Shift to Late
4	IET 31649	6689	114	Shift to Late
5	IET 31635	6662	95	Shift to Irrigated Mid Early (IRME)
6	IET 31630	6642	111	Promoted To AVT 1-IM
7	IET 31625	6609	126	Shift to Late
8	IET 31648	6569	95	Shift to IRME
9	IET 31673	6117	111	Promoted To AVT 1-IM
10	IET 31626	6017	118	Shift to Late
11	IET 31657	6004	96	Shift to IRME
12	IET 31646	5964	117	Shift to Late
13	IET 31629	5858	98	Promoted To AVT 1-IM
14	IET 31668	5851	123	Shift to Late
15	IET 31644	5738	111	Promoted To AVT 1-IM
16	IET 31672	5718	110	Promoted To AVT 1-IM
17	IET 31662	5711	94	Shift to IRME
18	IET 31660	5705	96	Shift to IRME
19	IET 31636	5625	124	Shift to Late
20	IET 31654	5618	110	Promoted To AVT 1-IM
	NDR359(NC)	**4495**	**107**	
	ZonalCheck(ZC)	**4408**	**108**	
	LocalCheck (LC)	**4920**	**111**	
	CD	**666**		

*Significantly superior

Zone III Eastern:

This zone comprises 12 locations including Bhubaneswar, ICAR-NRRI (Cuttack), Jeypore, Chiplima, Bikramganj, Sabour, Ranchi, Chinsurah, Malda, Bankura, Masodha, and Gorakpur. Data from Masodha was excluded from the analysis due to a low coefficient of variation. The mean yield in the eastern zone ranged from 3814 kg/ha for IET 31647 to 5938 kg/ha for IET 31641. The days to 50% flowering ranged from 118 days for IET 31620, IET 31632, and IET 31642 to 97 days for IET 31623 and IET 31660. Panicles per square meter varied from 209 for IET 31654 to 277 for IET 31634 and IET 31651, while plant height ranged from 133 cm for IET 31619 to 91 cm for IET 31649 and IET 31665.

Twelve entries, namely, IET 31618, IET 31619, IET 31623, IET 31630, IET 31633, IET 31637, IET 31638, IET 31639, IET 31640, IET 31643, IET 31655, and IET 31659 recorded significantly higher yields compared to the checks. ***These twelve entries have been selected for advancement to AVT-IM and three entries viz. IET 31616, IET 31632 and IET***

31641 also recorded significantly superior yields compared to best check, however due to DFF they are proposed for shift to Late. Detailed data on yield and days to 50% flowering can be found in the table below.

Table: Performance of the entries in ZONE III Eastern, IVT-IM *Kharif*2023.

Rank	IET No /Designation/ Cross combination	Grain Yield (Kg/ha)*	Days to 50% flowering	Remarks
1	IET 31641	5938	114	Shift to Late
2	IET 31618	5732	110	Promoted To AVT-IM
3	IET 31655	5696	112	Promoted To AVT-IM
4	IET 31633	5654	109	Promoted To AVT-IM
5	IET 31643	5587	112	Promoted To AVT-IM
6	IET 31638	5570	105	Promoted To AVT-IM
7	IET 31640	5512	113	Promoted To AVT-IM
8	IET 31659	5491	106	Promoted To AVT-IM
9	IET 31632	5463	118	Shift to Late
10	IET 31630	5450	108	Promoted To AVT-IM
	IET 31639	5443	107	Promoted To AVT-IM
	IET 31637	5322	108	Promoted To AVT-IM
	IET 31619	5309	109	Promoted To AVT-IM
	IET 31616	5258	116	Shift to Late
	IET 31623	5249	97	Promoted To AVT-IM
	NDR359(NC)	**4764**	**101**	
	ZonalCheck(ZC)	**4862**	**116**	
	LocalCheck (LC)	**4959**	**107**	
	CD	**259**		

*Significantly superior

Zone IV North Eastern:

Zone IV in the North Eastern region comprises four centers: Titabar, Gerua-ICAR, Arundhuti Nagar, and Lembucherra. Unfortunately, data was not received from Arundhuti Nagar, and therefore, was not included in the analysis. Data from Gerua-ICAR and Lembucherra was also excluded due to various factors such as low experimental yield, high coefficient of variation, or non-significant F variance ratio between treatments. Ultimately, only data from the Titabar center was considered for analysis in this zone. ***However, no superior entry was identified from this center, leading to the decision not to promote any entry from the North Eastern zone.***

Zone V Central:

In Zone V Central, the overall mean yield ranged from 3158 kg/ha (IET 31647) to 6646 kg/ha (IET 31643). The days to 50% flowering varied from 117 days (IET 31616) to 94 days (IET 31660), panicles/m2 ranged from 210 (IET 31624) to 278 (IET 31641), and plant height varied from 121 cm (IET 31619) to 82 cm (IET 31650). Notably, entries IET 31643 and IET 31638 demonstrated significantly superior yields compared to the best local check. The 50% days to flowering for IET 31643 (112) and IET 31638 (106) fall within the designated duration of the IVT-IM trial. ***Hence, these two entries (IET 31643 and IET 31638) are promoted to the AVT -IM***. Detailed data on yield and days to 50% flowering can be found in the table below.

Table: Performance of the entries in ZONE V Central, IVT-IM *Kharif* 2023.

Rank	IET No/Designation/ Cross combination	Grain Yield (Kg/ha)/ daysto50% flowering/ Grain type *	Days to 50% flowering	Remarks
1	IET 31643	6646	112	Promoted to AVT1 -IM
2	IET 31638	6013	106	Promoted to AVT 1-IM
	NDR359(NC)	**5368**	**101**	
	Zonal Check (ZC)	**4670**	**102**	
	Local Check (LC)	**5358**	**103**	
	CD	**548**		

*Significantly superior

Zone VI Western:

In Zone VI, there are four centers - Karjat, Shirgaon, Navsari, and Nawagam. Data was collected from all centers, however, the data from Shirgaon was excluded from the analysis due to low experimental yield. The mean yield in the Western zones ranged from 3014 kg/ha (IET 31647) to 6612 kg/ha (IET 31651). The days to 50% flowering varied from 93 days (IET 31624, IET 31635, and IET 31656) to 118 days (IET 31620). Panicles/m2 ranged from 235 (IET 31656) to 302 (IET 31616), and plant height varied from 101 cm (IET 31665) to 155 cm (IET 31652). ***None of the entries in Zone VI demonstrated significantly superior yields, and therefore, none were promoted.***

Zone VII Southern:

In Zone VII Southern, there are a total of 17 centers including Maruteru, Ragolu, Rajendranagar, Warangal, Jagithyal, Aduthurai, Coimbatore, Mandya, Pattambi, Mugad, Gangavathi, Kurumbapet, Brahmawar, Karaikal, Puducherry, Kathalgere, and Tirur. Unfortunately, we did not receive data from three centers - Tirur, Kathalgere, and Puducherry. Additionally, the data from Mugad and Brahmawar centers was not included in the analysis due to low experimental yield and low CV% respectively. As a result, we analyzed the data from 12 centers. The mean yield (kg/ha) in the Central zone ranged from 4584 kg/ha (IET 31647) to 6779 kg/ha (IET 31618). The days to 50% flowering varied from 94 days (IET 31660) to 114 days (IET 31617 and IET 31632), panicles/m2 ranged

from 299 (IET 31647) to 388 (IET 31664), and plant height varied from 90 cm (IET 31665) to 141 cm (IET 31619).

Notably, two entries, IET 31618 (6779 kg/ha) and IET 31638 (6688 kg/ha), demonstrated significantly superior yields compared to the best local check. ***Therefore, these two entries (IET 31618 and IET 31638) have been promoted to AVT-IM.*** The detailed data on yield and days to 50% flowering can be found in the following table.

Table: Performance of the entries in ZONE VII Southern

Rank	IET No /Designation/ Cross combination	Grain Yield (Kg/ha)/ daysto50% flowering/grain type *	Days to 50%flowering	Remarks
1	IET 31618	6779	108	Promoted
2	IET 31638	6688	104	Promoted
	NDR 359(NC)	**6065**	**100**	
	Zonal Check (ZC)	**5790**	**98**	
	Local Check (LC)	**6203**	**108**	
	CD	**351**		

*Significantly superior

List of entries promoted to AVT-IM/shifted to IVT-Late/IRME

Overall/ Zones	Number of entries	Entries promoted to AVT-IM	Entries shifted to IVT-Late	Entries shift to IVT-Irrigated Mid Early (IRME)
Overall	6	IET 31638, IET 31641 IET 31643, IET 31633 IET 31618, IET 31659.	Nil	Nil
Zone-II	20	**9 Entries:** IET 31630, IET 31673, IET 31629, IET 31644, IET 31672, IET 31654, IET 31637**,** IET 31659 and IET 31633	**6 Entries:** IET 31649**,** IET 31625, IET 31626, IET 31646, IET 31668, and IET 31636	**5 Entries:** IET 31635, IET31648, IET 31657, IET 31662, and IET 31660
Zone III	15	**13 Entries:** IET 31618, IET 31619, IET 31623, IET 31630, IET 31633, IET 31637, IET 31638, IET 31639, IET 31640, IET 31643, IET 31655, IET 31659 and IET 31641	**2 Entries:** IET 31616 and IET 31632	Nil
Zone IV	Nil	Nil	Nil	Nil

Overall/ Zones	Number of entries	Entries promoted to AVT-IM	Entries shifted to IVT-Late	Entries shift to IVT-Irrigated Mid Early (IRME)
Zone-V	2	IET 31643, IET 31638	Nil	Nil
Zone- VI	Nil	Nil	Nil	Nil
Zone VII	2	IET 31618, IET 31638	Nil	Nil

Table No.5a.1: Composition of entries in Advance Variety Trial 2- Irrigated Medium (AVT 2 – IM), Kharif 2023.

Entry No.	IET No.	Designation	Cross Combination	GT	Zones	Trait
3rd year of testing:						
3901	29257 (R)	RNR 28399	BPT 5204 / IR 79216-141-1-3-3-3	LS		
3902	29284 (R)	MTU 1348 (MTU 2689-45-1-1)	MTU 1010 / MTU 7029	MS		
3903	28523	CR 3564-1-1-4-2-2-1	Vijetha / N22	MS		
3904	29833	JGL 34560	JGL 20171 / MTU 1075	LB		
3905	29301 (R)	AD 16124	CO (R) 50 /AD 08132	SB		
3906	29290 (R)	HURS 19-3	CR 2407 / IR 64	SB		
3907	**NDR 359 (NC)**					
3908	29743	***HRI-211***	***Hybrid***	LB		
3909	29742	***RRX-338***	***Hybrid***	LB		
3910	29002 (R)	***PHI-20106***	***Hybrid***	LB		
3911	**PR 121 (Northern), CR Dhan 300 (Eastern & North Eastern), Karma Mahsuri (Central), Akshayadhan (Western), Jaya (Southern)—ZC**					
3912	29014 (R)	***MEPH-159***	***Hybrid***	LS		
3913	29741	***HRI-209***	***Hybrid***	MS		
3914	**HRI 174 (HC)**					
2nd year of testing (NILs):						
3915	30757	RP 6697-P.N.24-14	Gangavati Sona *2 / Improved Samba Mahsuri	MS	VII	BB
3916	**Gangavati Sona (RP)**			MS		
3917	**Local Check (LC)**					

Table No. 5a.2: Grain Yield (kg/ha) in AVT 2 - IM, Zone 2 to 6, Kharif 2023

Entry No	IET No	ZONE II - NORTHERN							
		Haryana (1)		Jammu Kashmir (1)		Uttar Pradesh (1)		Zone II (3)	
		Kaul		Chatha		Nagina		Mean	
3901	29257 (R)	6200	10	3862		4193	5 #	4752	
3902	29284 (R)	6822	9	3967	10	3819		4869	9
3903	28523	5533		3864		4831	4 * #	4743	
3904	29833	5822				3402		4612	
3905	29301 (R)	4556				5134	2 * #	4845	10
3906	29290 (R)	6889	8	4118	8	4113	7 #	5040	7
3907	NDR 359 (NC)	5978		4071	9	4062	9	4704	
3908	29743	7889	3 *	5644	5 *	4122	6 #	5885	4 *
3909	29742	7733	4	5662	4 *	5071	3 * #	6155	3 *
3910	29002 (R)	7533	6	5864	3 *	3393		5597	6 *
3911	PR 121 (ZC)	6133		3658		4075	8	4622	
3912	29014 (R)	7711	5	5547	6 *	5357	1 * #	6205	2 *
3913	29741	8467	1 *	6811	1 *	3841	10 #	6373	1 * #
3914	HRI 174 (HC)	8022	2	6267	2	3347		5879	5
3917	Local Check (LC)	7022	7	4267	7	3489		4926	8
Exp. Mean		**6821**		**4892**		**4150**		**5280**	
F Value		**14.91(p<0.0001)S**		**5.57(p<0.0001)S**		**13.43(p<0.0001)S**		**13.81(p<0.0001)S**	
CD		779		1271		491		478	
CV%		**6.83**		**15.41**		**7.08**		**5.41**	
D/S		07-02-2023		19-06-2023		26-06-2023			
D/P		08-02-2023		15-07-2023		23-07-2023			
Local Check Name		HKR 128		SJR-5		PR-113			

Table No. 5a.2 (Contd).: Grain Yield (kg/ha) in AVT 2 - IM, Zone 2 to 6, Kharif 2023

Entry No	IET No	ZONE III - EASTERN									
		Odisha				Odisha (2)		Bihar			
		Bhubaneswar		Jeypore		Mean		Bikramganj		Sabour	
3901	29257 (R)	5006		4572	10	4789		5785		4374	
3902	29284 (R)	7251	1	4417		5834	6	6752	5	4913	
3903	28523	5712	10	5060	8	5386	10	6586	7	4004	
3904	29833	5953	7	5133	7	5543	8	8156	1	5657	4
3905	29301 (R)	5782	9	4536		5159		5378		6337	2
3906	29290 (R)	6049	4	4767	9	5408	9	6580	8	4468	
3907	NDR 359 (NC)	5525		3862		4694		4463		5061	9
3908	29743	5676		6168	2	5922	5	4810		5403	6
3909	29742	5350		2716		4033		5711		6354	1
3910	29002 (R)	5973	5	6067	4	6020	4	6611	6	5647	5
3911	PR 121 (ZC)	4495		3950		4223		7884	3	4970	10
3912	29014 (R)	6253	2	5991	5	6122	2 *	6387	9	5175	8
3913	29741	6182	3	6243	1	6213	1 *	8091	2	5802	3
3914	HRI 174 (HC)	5949	8	6121	3	6035	3	6755	4	5372	7
3917	Local Check (LC)	5965	6	5361	6	5663	7	6318	10	4445	
Exp. Mean		**5808**		**4998**		**5403**		**6418**		**5199**	
F Value		**5.79(p<0.0001)S**		**35.39(p<0.0001)S**		**24.82(p<0.0001)S**		**23.98(p<0.0001)S**		**6.56(p<0.0001)S**	
CD		716		472		380		608		744	
CV%		**7.37**		**5.65**		**4.20**		**5.66**		**8.56**	
D/S		07-04-2023		07-06-2023				26-06-2023		26-06-2023	
D/P		17-08-2023		08-04-2023				22-07-2023		17-07-2023	
Local Check Name		Pradeep		Kalinga Dhan 1203				Sabour Shree		Rajendra Sweta	

Table No. 5a.2 (Contd).: Grain Yield (kg/ha) in AVT 2 - IM, Zone 2 to 6, Kharif 2023

Entry No	IET No	ZONE III - EASTERN								ZONE IV - NORTH EASTERN	
		Bihar (2)		Jharkhand (1)		West Bengal (1)		Zone III (6)		Assam (1)	
		Mean		Ranchi		Chinsurah		Mean		Titabar	
3901	29257 (R)	5080		3469		7424	8	5105		4467	
3902	29284 (R)	5833	8	3843		8021	7	5866	7 *	4862	8
3903	28523	5295		5358	1	6340		5510	8	4490	
3904	29833	6907	2 * #	4699	8	8385	4	6331	3 *	5436	5
3905	29301 (R)	5858	7	3469		6733	10	5373		3604	
3906	29290 (R)	5524	10	3821		6920	9	5434	10	4575	10
3907	NDR 359 (NC)	4762		4392		6365		4945		5205	7
3908	29743	5107		5160	4	8931	2 *	6025	6 *	5755	3
3909	29742	6033	6	4765	7	6299		5199		5829	1
3910	29002 (R)	6129	4	5314	3	9115	1 *	6455	2 *	4516	
3911	PR 121 (ZC)	6427	3	4941	6	6601		5474	9	4501	
3912	29014 (R)	5781	9	4545	9	8372	5	6121	5 *	5799	2
3913	29741	6947	1 * #	5336	2	8708	3 *	6727	1 *	5556	4
3914	HRI 174 (HC)	6064	5	5072	5	8236	6	6251	4 *	5287	6
3917	Local Check (LC)	5382		4523	10	5934		5424		4701	9
Exp. Mean		**5808**		**4581**		**7492**		**5749**		**4972**	
F Value		**13.52(p<0.0001)S**		**4.57(p<0.0002)S**		**2.87(p<0.0070)S**		**26.12(p<0.0001)S**		**5.06(p<0.0001)S**	
CD		476		873		1891		290		871	
CV%		**4.91**		**11.4**		**15.09**		**3.02**		**10.47**	
D/S				24-06-2023		26-06-2023				07-06-2023	
D/P				21-07-2023		28-07-2023				08-01-2023	
Local Check Name				BVD-203		PRATIKSHYA				Numali	

Table No. 5a.2 (Contd).: Grain Yield (kg/ha) in AVT 2 - IM, Zone 2 to 6, Kharif 2023

Entry No	IET No	ZONE IV - NORTH EASTERN				ZONE V- CENTRAL					
		Tripura (1)		Zone IV (2)		Madhya Pradesh (1)		Chattisgarh			
		Lembucherra		Mean		Waraseoni		Raipur		Ambikapur	
3901	29257 (R)	7099	3	5783	6	5308	6	4709		4145	
3902	29284 (R)	7747	2	6305	3	4212		5709	3	4615	6
3903	28523	4306		4398		3918		3697		4038	
3904	29833	5561	9	5499	10	3537		5675	4	4744	5
3905	29301 (R)	4497		4051		4152		5777	1	4274	10
3906	29290 (R)	4830		4703		4517	10	5008	7	4791	4
3907	NDR 359 (NC)	8146	1	6676	1	3803		5760	2	4615	6
3908	29743	6667	7	6211	4	4687	9	4765	9	4038	
3909	29742	5544	10	5687	8	6189	4 *	5265	5	4081	
3910	29002 (R)	7024	4	5770	7	6524	3 *	4556		6175	2
3911	PR 121 (ZC)	5254		4878		4780	8	4716	10	4380	8
3912	29014 (R)	7024	4	6412	2	5329	5	4499		4936	3
3913	29741	4190		4873		6949	1 *	4986	8	6303	1
3914	HRI 174 (HC)	7016	6	6152	5	6669	2	5135	6	4316	9
3917	Local Check (LC)	6658	8	5680	9	4871	7	4222		4081	
Exp. Mean		**6104**		**5538**		**5030**		**4965**		**4636**	
F Value		**13.08(p<0.0001)S**		**12.59(p<0.0001)S**		**13.99(p<0.0001)S**		**3.42(p<0.0022)S**		**7.28(p<0.0001)S**	
CD		1008		658		815		907		752	
CV%		**9.87**		**7.1**		**9.68**		**10.92**		**9.7**	
D/S		07-09-2023				23-06-2023		30-06-2023		30-06-2023	
D/P		28-07-2023				20-07-2023		45054		17-08-2023	
Local Check Name		AUSH				JR 206		IGKVR 1244		MTU 1010	

Table No. 5a.2 (Contd).: Grain Yield (kg/ha) in AVT 2 - IM, Zone 2 to 6, Kharif 2023

Entry No	IET No	ZONE V- CENTRAL									
		Chattisgarh		Chattisgarh (3)		Maharashtra 1				Maharashtra 1(2)	
		Bilaspur		Mean		Sakoli		Sindewahi		Mean	
3901	29257 (R)	4843		4566		4067		3475		3771	
3902	29284 (R)	5067		5130	9	5020		4422		4721	
3903	28523	5350	9	4362		4827		4468	10	4648	
3904	29833	5133	10	5184	8	6207	8	3871		5039	
3905	29301 (R)	4250		4767		5613	10	4899	7	5256	8
3906	29290 (R)	4817		4872		5773	9	4354		5064	9
3907	NDR 359 (NC)	6767	5	5714	3	6347	7	4414		5381	7
3908	29743	6980	4	5261	6	7547	2	6037	1	6792	1 *
3909	29742	7583	2	5643	4	6480	6	5082	6	5781	6
3910	29002 (R)	7500	3	6077	2 #	7593	1	5251	4	6422	3
3911	PR 121 (ZC)	6093	8	5063	10	4787		4651	9	4719	
3912	29014 (R)	6473	6	5303	5	7153	5	5194	5	6174	5
3913	29741	7683	1	6324	1 * #	7427	3	5701	2	6564	2 *
3914	HRI 174 (HC)	6150	7	5200	7	7220	4	5297	3	6259	4
3917	Local Check (LC)	5067		4457		5280		4831	8	5056	10
Exp. Mean		**5984**		**5195**		**6089**		**4796**		**5443**	
F Value		**9.08(p<0.0001)S**		**7.04(p<0.0001)S**		**3.43(p<0.0021)S**		**3.44(p<0.0021)S**		**4.25(p<0.0004)S**	
CD		1031		592		1770		989		1149	
CV%		**10.3**		**6.81**		**17.38**		**12.33**		**12.62**	
D/S		22-06-2023				23-06-2023		29-06-2023			
D/P		22-07-2023				19-07-2023		20-07-2023			
Local Check Name		Chandra				PDKV KISAN		SYE-2001			

Table No. 5a.2 (Contd).: Grain Yield (kg/ha) in AVT 2 - IM, Zone 2 to 6, Kharif 2023

Entry No	IET No	ZONE V- CENTRAL		ZONE VI -WESTERN							
		Zone V (6)		Maharashtra 2				Maharashtra 2 (2)		Maharashtra (4)	
		Mean		Karjat		Shirgaon		Mean		Mean	
3901	29257 (R)	4425		4283		4105	8	4194		3983	
3902	29284 (R)	4841		4399		3944	9	4172		4446	
3903	28523	4383		3770		3302		3536		4092	
3904	29833	4861	10	4238		3848	10	4043		4541	
3905	29301 (R)	4828		4283		3352		3818		4537	
3906	29290 (R)	4877	9	5362	5	3432		4397	9	4730	8
3907	NDR 359 (NC)	5284	7	6329	2	3639		4984	4	5182	6
3908	29743	5676	5	5700	4	4679	3	5190	3	5991	2 *
3909	29742	5780	4	4732	9	4166	7	4449	8	5115	7
3910	29002 (R)	6267	2 *	4521	10	4875	2	4698	5	5560	4
3911	PR 121 (ZC)	4901	8	4786	8	4358	6	4572	7	4646	9
3912	29014 (R)	5597	6	6487	1	4575	4	5531	2 * #	5852	3 *
3913	29741	6508	1 * #	6032	3	5427	1	5730	1 * #	6147	1 * #
3914	HRI 174 (HC)	5798	3 *	4791	7	4536	5	4664	6	5461	5
3917	Local Check (LC)	4725		4804	6	3619		4212	10	4634	10
Exp. Mean		**5250**		**4968**		**4124**		**4546**		**4994**	
F Value		**12.51(p<0.0001)S**		**7.16(p<0.0001)S**		**7.07(p<0.0001)S**		**9.50(p<0.0001)S**		**11.92(p<0.0001)S**	
CD		500		840		652		543		543	
CV%		**5.7**		**10.11**		**9.46**		**7.15**		**6.50**	
D/S				24-06-2023		20-06-2023					
D/P				18-07-2023		18-07-2023					
Local Check Name				Karjat-5		Ratnagiri 6					

Table No. 5a.2 (Contd).: Grain Yield (kg/ha) in AVT 2 - IM, Zone 2 to 6, Kharif 2023

Entry No	IET No	ZONE VI -WESTERN								Overall Mean (21)	
		Gujarat				Gujarat (2)		Zone VI (4)			
		Navasari		Nawagam		Mean		Mean			
3901	29257 (R)	5371	5	7184	8	6278	8	5236	9	4950	
3902	29284 (R)	3860		4807		4334		4253		5165	9
3903	28523	3712		6644		5178		4357		4753	
3904	29833	3946		7184	8	5565		4804		5329	7
3905	29301 (R)	3956		3789		3873		3845		4719	
3906	29290 (R)	5181	9	7153		6167	9	5282	8	5120	
3907	NDR 359 (NC)	5109	10	7785	6	6447	7	5716	6	5319	8
3908	29743	5681	2	9275	2	7478	2 *	6334	2 * #	5982	5 *
3909	29742	5369	6	8187	5	6778	5	5614	7	5627	6 *
3910	29002 (R)	5348	7	9198	3	7273	3 *	5986	4	6124	2 *
3911	PR 121 (ZC)	5250	8	5285		5268		4920		5026	
3912	29014 (R)	5384	4	7639	7	6512	6	6021	3	5992	3 *
3913	29741	5769	1	9792	1	7781	1 * #	6755	1 * #	6443	1 * #
3914	HRI 174 (HC)	5673	3	8488	4	7081	4	5872	5	5987	4 *
3917	Local Check (LC)	4996		7176	10	6086	10	5149	10	5125	10
Exp. Mean		**4974**		**7306**		**6140**		**5343**		**5444**	
F Value		**6.16(p<0.0001)S**		**23.30(p<0.0001)S**		**21.76(p<0.0001)S**		**27.03(p<0.0001)S**		**48.19(p<0.0001)S**	
CD		881		962		679		436		212	
CV%		**10.59**		**7.87**		**6.61**		**4.88**		**2.32**	
D/S		20-06-2023		21-06-2023							
D/P		15-07-2023		08-02-2023							
Local Check Name		GNR-5		GAR 13							

Table No. 5a.2 (Contd).: Grain Yield (kg/ha) in AVT 2 - IM, (Trials not considered) Zone 2 to 6, Kharif 2023

Entry No	IET No	Trials not considered							
		Uttarakhand		Odisha		West Bengal			
		@Pantnagar		@ICAR-NRRI (Cuttack)		@Malda		@Bankura	
3901	29257 (R)	1010	10	6315		4556	9	7556	
3902	29284 (R)	636		6422	9	4722	5	8858	6
3903	28523	888		5480		4278		8782	7
3904	29833	484		7602	2	4861	4	9318	2
3905	29301 (R)	78		6730	5	4389		7249	
3906	29290 (R)	736		5266		4472		7862	10
3907	NDR 359 (NC)	1628	9	5456		5111	2	7632	
3908	29743	3197	5	7720	1	4417		9165	4
3909	29742	3480	1	6900	4	5000	3	10008	1
3910	29002 (R)	3424	2	6646	7	4611	7	7709	
3911	PR 121 (ZC)	2538	8	6331	10	4278		7556	
3912	29014 (R)	3334	3	7279	3	4611	7	8015	9
3913	29741	3247	4	6541	8	5417	1	9165	4
3914	HRI 174 (HC)	2923	6	6654	6	4611	7	9318	2
3917	Local Check (LC)	2811	7	5691		4528	10	8031	8
Exp. Mean		**2028**		**6469**		**4657**		**8415**	
F Value		**23.25(p<0.0001)S**		**1.27(p<0.2789)NS**		**1.13(p<0.3767)NS**		**0.94(p<0.5417)NS**	
CD		717		**NS**		**NS**		**NS**	
CV%		**21.14**		**17.11**		**11.56**		**18.51**	
D/S		24-06-2023		07-03-2023		25-07-2023		14-07-2023	
D/P		15-07-2023		22-07-2023		14-08-2023		08-04-2023	
Local Check Name		Pant Dhan4		Tapaswini		Bhupesh		Kunti	

Table No. 5a.2 (Contd).: Grain Yield (kg/ha) in AVT 2 - IM, (Trials not considered) Zone 2 to 6, Kharif 2023

Entry No	IET No	Trials not considered									
		Uttar Pradesh 2				Assam		Tripura		Chattisgarh	
		@Masodha		@Gorakpur		@Gerua		@Arundatinagar		@Jagadalpur	
3901	29257 (R)	6506	1	3294	5	3268		3189	9	6285	
3902	29284 (R)	6069	6	3742	3	3789	10	3088		5867	
3903	28523	5237		3241	7	3591		3626	2	5479	
3904	29833	5346		3188	10	3872	8	3412	4	8041	1
3905	29301 (R)	4637		3874	2	2695		3366	6	7169	3
3906	29290 (R)	5851	7	3241	7	3836	9	3549	3	5951	
3907	NDR 359 (NC)	6116	5	2451		3557		3123		6736	7
3908	29743	6301	3	2925		4440	4	3292	8	7127	4
3909	29742	6454	2	2714		4555	2	3186	10	6715	8
3910	29002 (R)	6219	4	3926	1	4492	3	3092		7723	2
3911	PR 121 (ZC)	5262		3188	10	3182		2941		6765	6
3912	29014 (R)	5646	8	3215	9	3922	7	3156		5447	
3913	29741	4738		3241	7	4891	1	4018	1	6651	10
3914	HRI 174 (HC)	5616	9	2767		4188	6	3319	7	6696	9
3917	Local Check (LC)	5565	10	3742	3	4224	5	3407	5	6911	5
Exp. Mean		**5704**		**3250**		**3900**		**3318**		**6638**	
F Value		**21.03(p<0.0001)S**		**5.30(p<0.0001)S**		**5.59(p<0.0001)S**		**2.65(p<0.0117)S**		**0.56(p<0.8870)NS**	
CD		346		516		686		525		**NS**	
CV%		**3.63**		**9.49**		**10.52**		**9.45**		**26.1**	
D/S		24-06-2023		26-06-2023		45084		07-07-2023		07-05-2023	
D/P		31-07-2023		23-07-2023		24-08-2023		08-04-2023		29-07-2023	
Local Check Name		NDR 2064		Samba Sub-1		CR Dhan 801		Hakuchuk-2 (3917)		IGKVR 1244	

Table No.5a.2 (Contd): Grain Yield (kg/ha) in AVT 2 - IM, Zone 7, Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN											
		Andhra Pradesh				Andhra Pradesh (2)		Telangana					
		Maruteru		Ragolu		Mean		Rajendranagar		Warangal		Jagtial	
3901	29257 (R)	6187	8	7702	5	6945	4	5326		5647		7879	
3902	29284 (R)	6467	5	7095	8	6781	7	5754		5374		8347	
3903	28523	6033		6861	10	6447		7146	5	5544		7543	
3904	29833	6552	4	7179	7	6866	5	7917	3	6686	6	9101	6
3905	29301 (R)	7267	1	6409		6838	6	7057	7	5018		7219	
3906	29290 (R)	6611	2	6758		6685	9	6668	9	6280	9	8962	8
3907	NDR 359 (NC)	5118		8218	1	6668	10	6927	8	5547		9288	5
3908	29743	6293	6	8052	3	7173	1	7114	6	8536	1	10093	2
3909	29742	6150	9	6853		6502		7265	4	6941	5	9727	3
3910	29002 (R)	6091		7298	6	6695	8	5699		5853	10	10435	1
3911	PR 121 (ZC)	4212		6429		5321		5275		3984		8564	10
3912	29014 (R)	5873		8103	2	6988	3	6023		6518	7	8793	9
3913	29741	6260	7	7984	4	7122	2	9538	1	7842	2	9312	4
3914	HRI 174 (HC)	6122	10	6952	9	6537		8536	2	7404	3	8982	7
3915	30757	6571	3	6671		6621		6039		7328	4	7567	
3916	Gangavati Sona (RP)	6027		6222		6125		5877		6440	8	5403	
3917	Local Check (LC)	6019		6750		6385		6076	10	5809		5762	
Exp. Mean		**6109**		**7149**		**6629**		**6720**		**6279**		**8411**	
F Value		**4.51(p<0.0001)S**		**3.25(p<0.0018)S**		**3.18(p<0.0021)S**		**9.07(p<0.0001)S**		**9.37(p<0.0001)S**		**20.83(p<0.0001)S**	
CD		878		986		661		1061		1004		826	
CV%		**8.64**		**8.29**		**5.99**		**9.5**		**9.61**		**5.91**	
D/S		15-07-2023		27-06-2023				20-06-2023		19-06-2023		20-06-2023	
D/P		24-08-2023		25-07-2023				15-07-2023		10-07-2023		19-07-2023	
Local Check Name		MTU 1239		MTU 1239				RNR 11718		WGL-14		JGL 11470	

Table No. 5a.2 (Contd): Grain Yield (kg/ha) in AVT 2 - IM, Zone 7, Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN											
		Telangana (3)		Tamil Nadu				Tamil Nadu (2)		Kerala (1)		Karnataka	
		Mean		Aduthurai		Coimbatore		Mean		Pattambi		Mandya	
3901	29257 (R)	6284		6891	5	5345	7	6118	6	5800		6125	10
3902	29284 (R)	6492		5560		4502		5031		6791	4 #	7433	1
3903	28523	6744		5910	9	3716		4813		7062	3 #	5664	
3904	29833	7901	5 *	6022	8	6547	1	6285	4	6560	7	6523	9
3905	29301 (R)	6431		5882	10	5158	8	5520		7280	2 #	7034	5
3906	29290 (R)	7303	7	6331	7	3424		4878		6102		5768	
3907	NDR 359 (NC)	7254	8	6415	6	4861		5638	10	6791	4	5896	
3908	29743	8581	2 *	5546		6278	4	5912	7	6538	8	7213	4
3909	29742	7978	4 *	8011	3	4997	10	6504	3 #	7680	1 #	6876	6
3910	29002 (R)	7329	6	8347	2	5024	9	6686	2 #	6644	6	5528	
3911	PR 121 (ZC)	5941		8515	1	4024		6270	5	6267	9	5532	
3912	29014 (R)	7111	9	5490		4613		5052		6231	10	6732	7
3913	29741	8897	1 * #	4983		6363	3	5673	9	6058		7216	3
3914	HRI 174 (HC)	8307	3	5322		5704	6	5513		5849		7236	2
3915	30757	6978	10	7311	4	6262	5	6787	1 #	5449		5234	
3916	Gangavati Sona (RP)	5907		5014		6417	2	5716	8	5444		5006	
3917	Local Check (LC)	5882		5266		4122		4694		5955		6542	8
Exp. Mean		**7137**		**6283**		**5139**		**5711**		**6382**		**6327**	
F Value		**2.21(p<0.0001)S**		**20.31(p<0.0001)S**		**3.36(p<0.0014)S**		**4.34(p<0.0002)S**		**4.05(p<0.0003)S**		**11.60(p<0.0001)S**	
CD		559		565		1504		874		910		641	
CV%		**4.71**		**5.41**		**17.59**		**9.2**		**8.58**		**6.09**	
D/S				16-09-2023		23-06-2023				17-07-2023		26-06-2023	
D/P				25-10-2023		17-07-2023				10-08-2023		25-07-2023	
Local Check Name				ADT 54		CO 50				SWETHA		BR-2655	

Table No. 5a.2 (Contd): Grain Yield (kg/ha) in AVT 2 - IM, Zone 7, Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN									
		Karnataka				Karnataka (3)		Pudhucherry (1)		Zone VII (12)	
		Mugad		Gangavathi		Mean		Kurumbapet		Mean	
3901	29257 (R)	5910	8	7949	7	6661	9 *	5926		6391	
3902	29284 (R)	5498		7500	10	6810	5 *	8889	3 #	6601	10 *
3903	28523	6452	5	5732		5949		8912	2 #	6381	
3904	29833	5776	9	7860	8	6720	6 *	9561	1 * #	7190	2 * #
3905	29301 (R)	5327		7124		6495	*	6431	10	6434	
3906	29290 (R)	6995	3	8995	2	7253	3 * #	7947	6 #	6737	6 *
3907	NDR 359 (NC)	4814		5914		5541		4938		6227	
3908	29743	5991	7	9485	1	7563	1 * #	8682	5 #	7485	1 * #
3909	29742	6782	4	8218	6	7292	2 * #	6431	10	7161	3 * #
3910	29002 (R)	6173	6	8442	5	6714	7 *	6431	10	6830	5 *
3911	PR 121 (ZC)	3752		7618	9	5634		4341		5709	
3912	29014 (R)	7744	1	6758		7078	4 * #	6431	10	6609	9 *
3913	29741	5725	10	7146		6696	8 *	6914	8	7112	4 * #
3914	HRI 174 (HC)	7001	2	5621		6619	10	5444		6681	8
3915	30757	4388		8614	3	6079		8889	3 #	6694	7 *
3916	Gangavati Sona (RP)	4079		8540	4	5875		5926		5866	
3917	Local Check (LC)	4134		6403		5693		7901	7	5895	
Exp. Mean		**5679**		**7525**		**6510**		**7058**		**6588**	
F Value		**6.99(p<0.0001)S**		**22.26(p<0.0001)S**		**15.31(p<0.0001)S**		**6.78(p<0.0001)S**		**18.20(p<0.0001)S**	
CD		1235		675		441		1638		319	
CV%		**13.08**		**5.39**		**4.07**		**13.95**		**2.91**	
D/S		45023		27-07-2023				10-03-2023			
D/P				22-08-2023				11-02-2023			
Local Check Name		MGD-101		BPT 5204				CO (R) 52			

Table No. 5a.2 (Contd): Grain Yield (kg/ha) in AVT 2 - IM, (Trials not considered) Zone 7, Kharif 2023

Entry No	IET No	Trials not considered			
		@Brahmawar		@Karaikal	
3901	29257 (R)	4239	9	6190	5
3902	29284 (R)	4344	6	6111	8
3903	28523	2795		6111	8
3904	29833	4378	4	6032	10
3905	29301 (R)	4241	8	5873	
3906	29290 (R)	4553	3	5714	
3907	NDR 359 (NC)	2795		5476	
3908	29743	2677		5714	
3909	29742	2980		6190	5
3910	29002 (R)	4367	5	6349	3
3911	PR 121 (ZC)	3984		5873	
3912	29014 (R)	4319	7	6190	5
3913	29741	3947		5873	
3914	HRI 174 (HC)	4069		6111	8
3915	30757	4589	2	6905	1
3916	Gangavati Sona (RP)	4226	10	6032	10
3917	Local Check (LC)	4721	1	6508	2
Exp. Mean		**3954**		**6074**	
F Value		**18.85(p<0.0001)S**		**1.08(p<0.4116)NS**	
CD		432		**NS**	
CV%		**6.57**		**9.05**	
D/S		19-06-2023		09-07-2023	
D/P		22-07-2023		10-10-2023	
Local Check Name		Sahyadri Brahma		KKL R(2)	

Table No.5a.3 : Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 – IM, Zone -2 to 6 Kharif 2023

Entry No	IET No	ZONE II - NORTHERN											
		Haryana (1)			Jammu Kashmir (1)			Uttar Pradesh (1)			Zone II (3)		
		Kaul			Chatha			Nagina			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3901	29257 (R)	102	106	285	109	89	295	108	91	243	106	95	274
3902	29284 (R)	106	119	298	117	95	295	122	84	260	115	99	284
3903	28523	101	105	256	112	104	301	115	105	182	109	105	246
3904	29833	111	97	283				121	100	282	116	98	282
3905	29301 (R)	113	100	260				92	87	205	103	94	232
3906	29290 (R)	102	104	311	112	111	303	113	102	231	109	106	282
3907	NDR 359 (NC)	97	99	267	106	93	310	111	96	313	105	96	297
3908	29743	96	111	320	107	99	303	102	104	198	102	105	274
3909	29742	101	111	324	112	92	300	95	97	254	103	100	293
3910	29002 (R)	93	115	306	106	111	299	104	86	183	101	104	262
3911	PR 121 (ZC)	100	80	272	109	71	284	95	109	241	101	87	266
3912	29014 (R)	96	111	339	133	97	297	95	97	259	108	102	299
3913	29741	94	117	325	106	110	323	94	105	319	98	111	322
3914	HRI 174 (HC)	100	108	346	108	94	311	100	95	321	102	99	326
3917	Local Check (LC)	98	109	304	110	117	297	105	99	241	104	108	281
Exp. Mean		**101**	**106**	**300**	**111**	**99**	**301**	**105**	**97**	**249**	**105**	**100**	**281**

Table No.5a.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 – IM, Zone -2 to 6 Kharif 2023

Entry No	IET No	ZONE III - EASTERN														
		Odisha						Odisha (2)			Bihar					
		Bhubaneswar			Jeypore			Mean			Bikramganj			Sabour		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3901	29257 (R)	105	112	397	103	90	291	104	101	344	101	118	333	107	118	255
3902	29284 (R)	108	118	399	108	92	247	108	105	323	99	126	331	108	497	269
3903	28523	100	111	387	106	96	314	103	103	351	96	125	358	99	121	245
3904	29833	113	104	319	106	91	267	110	98	293	109	108	371	118	116	231
3905	29301 (R)	121	105	398	113	91	357	117	98	377	116	111	342	99	105	336
3906	29290 (R)	108	95	362	103	91	255	106	93	308	94	104	364	98	97	255
3907	NDR 359 (NC)	101	93	358	103	89	320	102	91	339	97	119	346	97	104	299
3908	29743	106	107	374	105	90	337	105	98	356	96	113	366	102	110	307
3909	29742	103	108	325	105	89	237	104	98	281	95	116	370	103	120	288
3910	29002 (R)	102	104	349	102	93	329	102	98	339	103	120	383	98	118	309
3911	PR 121 (ZC)	119	102	332	113	94	255	116	98	293	108	115	332	116	108	245
3912	29014 (R)	101	110	357	101	92	279	101	101	318	100	105	390	98	115	315
3913	29741	105	112	393	103	89	295	104	101	344	100	109	373	97	114	1202
3914	HRI 174 (HC)	105	110	392	105	85	406	105	97	399	95	123	392	101	114	277
3917	Local Check (LC)	115	123	373	106	83	295	110	103	334	97	110	341	112	101	282
Exp. Mean		**107**	**108**	**368**	**105**	**90**	**299**	**106**	**99**	**333**	**101**	**115**	**359**	**104**	**137**	**341**

Table No. 5a.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 – IM, Zone -2 to 6 Kharif 2023

Entry No	IET No	ZONE III - EASTERN												ZONE IV - NORTH EASTERN		
		Bihar (2)			Jharkhand (1)			West Bengal (1)			Zone III (6)			Assam (1)		
		Mean			Ranchi			Chinsurah			Mean			Titabar		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3901	29257 (R)	104	118	294	114	92	277	104	126	242	106	109	299	118	114	274
3902	29284 (R)	104	312	300	112	97	166	112	124	308	108	176	287	123	113	250
3903	28523	98	123	302	102	96	260	104	125	220	101	112	297	120	120	276
3904	29833	114	112	301	115	89	207	114	110	330	113	103	288	128	99	258
3905	29301 (R)	108	108	339	114	86	168	114	119	242	113	103	307	131	113	280
3906	29290 (R)	96	100	310	103	92	172	112	118	253	103	99	277	123	107	271
3907	NDR 359 (NC)	97	112	323	104	89	206	106	107	231	101	100	293	115	107	261
3908	29743	99	111	337	104	92	220	106	116	352	103	105	326	117	117	282
3909	29742	99	118	329	107	97	237	107	116	220	103	108	279	116	116	259
3910	29002 (R)	100	119	346	99	96	193	108	117	363	102	108	321	116	117	259
3911	PR 121 (ZC)	112	111	289	115	94	203	118	128	220	115	107	265	129	106	247
3912	29014 (R)	99	110	352	104	97	219	105	115	275	101	106	306	116	115	269
3913	29741	99	112	788	103	98	218	106	116	341	102	106	470	116	108	263
3914	HRI 174 (HC)	98	118	335	104	102	281	108	118	275	103	109	337	116	122	255
3917	Local Check (LC)	104	105	312	98	100	266	109	117	209	106	106	294	115	130	260
Exp. Mean		**102**	**126**	**350**	**106**	**94**	**220**	**109**	**118**	**272**	**105**	**110**	**310**	**120**	**114**	**264**

Table No. 5a.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 – IM, Zone -2 to 6 Kharif 2023

Entry No	IET No	ZONE IV - NORTH EASTERN						ZONE V- CENTRAL								
		Tripura (1)			Zone IV(2)			Madhya Pradesh (1)			Chattisgarh					
		Lembucherra			Mean			Waraseoni			Raipur			Ambikapur		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3901	29257 (R)	89	110	317	103	112	295	95	112	263	99	113	204	113	77	188
3902	29284 (R)	73	118	225	98	116	238	100	123	264	109	126	172	102	96	198
3903	28523	82	103	208	101	112	242	97	127	245	103	110	163	103	92	182
3904	29833	83	102	275	106	100	267	98	132	254	107	107	197	126	88	219
3905	29301 (R)	98	97	358	115	105	319	116	114	317	103	102	219	127	87	216
3906	29290 (R)	82	93	258	103	100	265	98	128	269	105	115	208	128	83	184
3907	NDR 359 (NC)	73	98	300	94	102	281	102	129	328	117	102	182	110	83	190
3908	29743	73	104	292	95	110	287	99	127	290	102	116	186	116	90	205
3909	29742	77	110	267	97	113	263	99	121	258	99	113	182	121	86	199
3910	29002 (R)	71	115	283	93	116	271	107	137	251	102	121	182	108	88	216
3911	PR 121 (ZC)	100	103	283	114	105	265	110	132	305	104	96	208	116	71	197
3912	29014 (R)	72	111	333	94	113	301	111	123	239	104	112	191	110	79	187
3913	29741	83	108	242	100	108	252	99	128	295	100	128	178	115	93	203
3914	HRI 174 (HC)	73	103	242	95	113	248	107	147	316	102	115	205	118	79	216
3917	Local Check (LC)	71	107	250	93	119	255	97	134	329	104	119	210	104	81	200
Exp. Mean		**80**	**105**	**276**	**100**	**110**	**270**	**102**	**128**	**282**	**104**	**113**	**193**	**114**	**85**	**200**

Table No. 5a.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 – IM, Zone -2 to 6 Kharif 2023

Entry No	IET No	ZONE V- CENTRAL														
		Chattisgarh			Chattisgarh (3)			Maharashtra 1						Maharashtra 1(2)		
		Bilaspur			Mean			Sakoli			Sindewahi			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3901	29257 (R)	106	108		106	99	196	95	115	209	99	127	332	97	121	271
3902	29284 (R)	112	116		108	113	185	101	122	284	98	115	221	100	119	253
3903	28523	106	112		104	105	172	94	127	214	104	124	255	99	126	234
3904	29833	112	101		115	99	208	101	116	277	102	124	417	102	120	347
3905	29301 (R)	118	88		116	92	218	109	112	243	114	130	286	112	121	265
3906	29290 (R)	105	102		113	100	196	95	124	303	97	117	303	96	120	303
3907	NDR 359 (NC)	99	102		108	96	186	93	97	315	94	136	224	93	117	269
3908	29743	104	106		107	104	196	95	116	325	94	123	292	95	120	308
3909	29742	106	100		108	100	191	98	113	311	99	132	332	98	123	321
3910	29002 (R)	97	110		102	107	199	96	124	325	92	129	308	94	127	316
3911	PR 121 (ZC)	106	92		109	86	202	99	96	272	96	119	254	98	107	263
3912	29014 (R)	99	111		104	101	189	93	124	317	92	128	263	93	126	290
3913	29741	101	112		105	111	191	95	123	329	94	132	294	95	128	312
3914	HRI 174 (HC)	104	109		108	101	210	93	125	326	94	123	272	94	124	299
3917	Local Check (LC)	92	104		100	101	205	105	113	289	103	104	456	104	109	373
Exp. Mean		**104**	**105**		**108**	**101**	**196**	**98**	**116**	**289**	**98**	**124**	**300**	**98**	**120**	**295**

Table No.5a.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 – IM, Zone -2 to 6 Kharif 2023

Entry No	IET No	Zone V (6)			ZONE VI -WESTERN											
					Maharashtra 2						Maharashtra 2 (2)			Maharashtra (4)		
		Mean			Karjat			Shirgaon			Mean			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3901	29257 (R)	101	109	239	96	134	222	99	115	152	98	124	187	97	123	229
3902	29284 (R)	104	116	228	97	140	232	102	117	153	99	128	193	100	123	223
3903	28523	101	115	212	96	133	217	90	117	153	93	125	185	96	125	210
3904	29833	108	111	273	96	136	217	102	105	151	99	121	184	100	120	265
3905	29301 (R)	115	105	256	99	129	242	114	112	111	106	120	177	109	121	221
3906	29290 (R)	105	111	254	97	124	239	96	98	166	97	111	203	96	116	253
3907	NDR 359 (NC)	102	108	248	96	125	307	94	110	124	95	117	215	94	117	242
3908	29743	102	113	260	96	129	271	95	114	205	95	122	238	95	121	273
3909	29742	104	111	256	99	133	234	102	115	175	100	124	205	99	123	263
3910	29002 (R)	100	118	256	92	134	239	93	121	155	92	127	197	93	127	257
3911	PR 121 (ZC)	105	101	247	93	125	273	92	111	134	92	118	203	95	113	233
3912	29014 (R)	102	113	239	96	135	293	93	112	195	95	124	244	94	125	267
3913	29741	101	119	260	96	136	284	91	115	157	94	125	220	94	126	266
3914	HRI 174 (HC)	103	116	267	97	129	269	94	108	165	95	118	217	95	121	258
3917	Local Check (LC)	101	109	297	96	120	258	96	103	156	96	111	207	100	110	290
Exp. Mean		**103**	**112**	**253**	**96**	**131**	**253**	**97**	**111**	**157**	**96**	**121**	**205**	**97**	**121**	**250**

Table No. 5a.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 – IM, Zone -2 to 6 Kharif 2023

Entry No	IET No	ZONE VI -WESTERN												Overall Mean (21)		
		Gujarat						Gujarat (2)			Zone VI (4)					
		Navasari			Nawagam			Mean			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3901	29257 (R)	98	111	251	106	109	292	102	110	272	100	117	229	103	109	266
3902	29284 (R)	104	123	259	107	122	272	105	122	266	102	125	229	106	132	255
3903	28523	98	98	246	110	113	283	104	106	264	99	115	225	102	113	248
3904	29833	109	101	250	112	113	289	110	107	269	105	114	227	109	107	268
3905	29301 (R)	115	101	249	123	104	271	119	103	260	112	112	218	112	105	268
3906	29290 (R)	92	106	252	101	110	292	96	108	272	96	110	237	103	106	263
3907	NDR 359 (NC)	89	120	266	103	114	295	96	117	280	96	117	248	100	105	272
3908	29743	98	123	303	103	121	303	100	122	303	98	122	270	101	111	287
3909	29742	94	119	243	114	116	288	104	117	265	102	120	235	102	110	265
3910	29002 (R)	86	120	256	108	117	301	97	118	279	95	123	238	99	114	274
3911	PR 121 (ZC)	96	124	299	99	110	271	98	117	285	95	118	244	106	104	256
3912	29014 (R)	87	124	254	101	116	289	94	120	272	94	122	258	100	111	278
3913	29741	86	139	251	104	119	303	95	129	277	94	127	249	99	115	329
3914	HRI 174 (HC)	87	135	252	109	114	292	98	125	272	97	121	244	101	112	291
3917	Local Check (LC)	88	121	267	105	105	289	97	113	278	96	112	242	101	109	279
Exp. Mean		**95**	**118**	**260**	**107**	**114**	**289**	**101**	**116**	**274**	**99**	**118**	**240**	**103**	**111**	**273**

Table No. 5a.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 – IM, (Trials not considered) Zone -2 to 6 Kharif 2023

Entry No	IET No	Trials not considered											
		Uttarakhand			Odisha			West Bengal					
		@Pantnagar			@ICAR-NRRI (Cuttack)			@Malda			@Bankura		
		PAN	DFF	PH	PAN	DFF	PH	PAN	PH	PAN	DFF	PH	PAN
3901	29257 (R)	101	119	294	98	123	243	71	105		116	104	482
3902	29284 (R)	111	128	343	99	133	211	73	120		118	113	276
3903	28523	101	119	303	99	122	215	71	105		117	119	379
3904	29833	115	101	332	102	122	231	70	105		120	102	232
3905	29301 (R)	120	100	319	114	124	291	73	105		125	104	397
3906	29290 (R)	109	112	337	94	114	248	71	105		124	102	452
3907	NDR 359 (NC)	95	101	322	89	113	252	70	91		119	103	305
3908	29743	98	117	315	95	120	260	74	105		116	112	470
3909	29742	101	125	313	95	123	226	70	100		108	103	413
3910	29002 (R)	93	119	330	89	124	209	71	103		115	98	513
3911	PR 121 (ZC)	96	91	343	116	124	216	74	110		125	125	420
3912	29014 (R)	94	120	298	89	123	179	76	105		111	107	449
3913	29741	96	112	295	88	124	201	74	95		119	112	463
3914	HRI 174 (HC)	98	112	311	94	117	194	77	110		107	106	408
3917	Local Check (LC)	93	111	279	94	111	249	68	92		127	101	483
Exp. Mean		**102**	**112**	**316**	**97**	**121**	**228**	**72**	**104**		**118**	**107**	**410**

Table No. 5a.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 – IM, (Trials not considered) Zone -2 to 6 Kharif 2023

Entry No	IET No	Trials not considered														
		Uttar Pradesh 2						Assam			Tripura			Chhattisgarh		
		@Masodha			@Gorakpur			@Gerua			@Arundatinagar			@Jagadalpur		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3901	29257 (R)	96	87	313	94	133	237	117	107	241	72	112	234	106	83	273
3902	29284 (R)	109	102	251	106	141	240	113	113	240	74	116	305	105	87	257
3903	28523	97	120	248	92	133	212	116	108	230	71	136	314	102	82	220
3904	29833	98	92	274	110	126	225	117	103	233	65	149	260	104	76	281
3905	29301 (R)	97	86	246	101	134	255	124	94	272	66	120	220	110	69	277
3906	29290 (R)	98	96	275	103	119	262	117	99	258	66	137	218	106	78	280
3907	NDR 359 (NC)	98	93	287	83	131	258	113	98	241	88	123	274	101	71	254
3908	29743	99	103	303	93	130	244	113	105	252	74	117	250	103	83	275
3909	29742	88	103	300	93	134	207	113	106	262	69	125	241	104	83	313
3910	29002 (R)	94	110	284	93	128	207	111	103	261	69	129	267	99	79	226
3911	PR 121 (ZC)	109	92	245	95	132	218	125	103	242	69	117	254	104	61	316
3912	29014 (R)	95	86	263	93	126	225	109	104	254	74	113	272	97	77	220
3913	29741	111	89	247	91	129	248	116	102	260	74	116	266	99	83	235
3914	HRI 174 (HC)	107	82	233	95	124	243	111	102	251	70	122	239	104	85	278
3917	Local Check (LC)	102	123	255	107	106	194	111	94	246	74	129	224	103	84	252
Exp. Mean		**100**	**98**	**268**	**97**	**128**	**232**	**115**	**103**	**250**	**72**	**124**	**256**	**103**	**79**	**264**

Table No. 5a.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 – IM, Zone -7 Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN																	
		Andhra Pradesh						Andhra Pradesh (2)			Telangana								
		Maruteru			Ragolu			Mean			Rajendranagar			Warangal			Jagtial		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3901	29257 (R)	107	122	297	93	130	268	100	126	282	105	99	500	101	127	395	107	133	397
3902	29284 (R)	106	134	308	97	143	229	102	139	268	104	105	533	110	150	389	114	142	384
3903	28523	109	123	308	92	142	324	101	133	316	95	101	678	101	144	394	106	146	384
3904	29833	114	122	330	103	119	231	109	120	281	107	100	522	111	133	394	114	135	394
3905	29301 (R)	122	109	330	115	131	223	119	120	276	109	97	722	120	126	386	100	125	403
3906	29290 (R)	107	113	319	93	126	243	100	120	281	100	98	500	111	129	396	119	123	404
3907	NDR 359 (NC)	93	104	319	89	118	228	91	111	273	99	95	600	98	124	397	102	115	434
3908	29743	108	122	352	90	132	335	99	127	344	96	98	644	101	131	384	107	128	408
3909	29742	100	123	308	94	128	226	97	125	267	92	102	511	102	139	370	107	125	372
3910	29002 (R)	95	123	297	85	157	223	90	140	260	92	100	444	97	140	394	98	124	382
3911	PR 121 (ZC)	90	111	308	86	121	309	88	116	308	98	96	500	98	124	373	99	121	375
3912	29014 (R)	97	123	308	85	129	249	91	126	278	92	97	522	99	129	377	106	123	384
3913	29741	95	121	264	80	135	268	87	128	266	99	107	500	98	141	391	103	139	356
3914	HRI 174 (HC)	104	123	319	91	138	295	98	130	307	101	106	589	101	134	395	106	125	416
3915	30757	97	116	308	95	119	240	96	117	274	103	99	478	103	125	392	109	121	392
3916	Gangavati Sona (RP)	95	122	341	97	118	310	96	120	326	103	102	533	105	128	380	108	122	407
3917	Local Check (LC)	111	112	363	108	126	295	109	119	329	108	99	467	105	126	389	120	120	402
Exp. Mean		**103**	**119**	**316**	**94**	**130**	**264**	**98**	**125**	**290**	**100**	**100**	**544**	**104**	**132**	**388**	**108**	**127**	**394**

Table No. 5a.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 – IM, Zone -7 Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN																	
		Telangana (3)			Tamil Nadu						Tamil Nadu (2)			Kerala (1)			Karnataka		
		Mean			Aduthurai			Coimbatore			Mean			Pattambi			Mandya		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3901	29257 (R)	105	120	431	101	78	431	100	105	314	101	91	372	99	104	231	103	103	419
3902	29284 (R)	109	133	436	101	85	434	103	121	255	102	103	344	96	116	416	103	107	329
3903	28523	101	130	485	105	95	460	98	117	207	102	106	334	101	112	338	105	98	397
3904	29833	111	123	437	105	95	445	103	115	261	104	105	353	99	99	267	109	163	340
3905	29301 (R)	110	116	504	103	101	422	111	113	270	107	107	346	101	114	309	110	97	419
3906	29290 (R)	110	117	433	108	101	424	98	110	197	103	106	310	99	97	280	107	100	397
3907	NDR 359 (NC)	100	111	477	101	79	349	98	104	214	99	92	281	99	97	256	108	83	329
3908	29743	102	119	479	106	92	424	106	111	297	106	102	361	98	97	316	108	102	351
3909	29742	100	122	418	107	93	620	102	108	271	104	101	446	99	99	278	108	102	351
3910	29002 (R)	96	121	407	105	91	672	96	104	281	101	97	476	102	97	327	104	103	363
3911	PR 121 (ZC)	99	114	416	106	65	651	100	103	251	103	84	451	99	80	373	111	97	295
3912	29014 (R)	99	116	428	105	91	420	97	97	246	101	94	333	98	99	307	105	99	363
3913	29741	100	129	416	100	93	309	102	111	348	101	102	328	111	102	271	105	108	351
3914	HRI 174 (HC)	103	122	467	100	86	424	104	111	279	102	98	351	102	94	276	108	102	374
3915	30757	105	115	420	105	82	415	103	104	220	104	93	317	99	97	229	109	100	329
3916	Gangavati Sona (RP)	105	117	440	104	89	518	104	76	351	104	82	434	101	101	200	111	97	329
3917	Local Check (LC)	111	115	419	106	101	427	111	123	306	108	112	366	101	111	269	119	124	408
Exp. Mean		**104**	**120**	**442**	**104**	**89**	**461**	**102**	**108**	**269**	**103**	**98**	**365**	**100**	**101**	**291**	**108**	**105**	**361**

Table No. 5a.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 – IM, Zone -7 Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN																	
		Karnataka						Karnataka (3)			Pudhucherry			Pudhucherry (1)			Zone VII (12)		
		Mugad			Gangavathi			Mean			Kurumbapet			Mean			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3901	29257 (R)	93	68	368	98	112	325	98	94	371	98	100	410	98	100	410	100	107	363
3902	29284 (R)	95	70	299	97	116	324	98	97	317	96	99	433	96	99	433	102	116	361
3903	28523	91	63	301	98	127	284	98	96	327	99	100	400	99	100	400	100	114	373
3904	29833	96	62	349	100	113	334	102	113	341	97	99	413	97	99	413	105	113	357
3905	29301 (R)	99	55	329	102	115	307	104	89	352	105	101	470	105	101	470	108	107	383
3906	29290 (R)	93	55	344	98	114	293	99	90	345	103	95	390	103	95	390	103	105	349
3907	NDR 359 (NC)	95	58	305	98	104	313	100	82	315	105	96	370	105	96	370	99	98	343
3908	29743	98	61	372	99	116	351	101	93	358	105	95	447	105	95	447	102	107	390
3909	29742	96	60	359	97	117	289	100	93	333	93	95	413	93	95	413	100	107	364
3910	29002 (R)	90	59	317	93	119	404	96	94	361	97	82	380	97	82	380	96	108	374
3911	PR 121 (ZC)	104	55	259	98	114	363	104	89	305	101	72	360	101	72	360	99	96	368
3912	29014 (R)	90	63	332	95	115	312	97	92	336	98	89	433	98	89	433	97	104	354
3913	29741	89	65	281	97	121	275	97	98	302	98	98	410	98	98	410	98	112	335
3914	HRI 174 (HC)	95	65	345	97	119	366	100	95	362	98	95	367	98	95	367	101	108	370
3915	30757	95	62	276	101	99	308	102	87	304	93	88	413	93	88	413	101	101	333
3916	Gangavati Sona (RP)	95	57	253	101	112	287	102	89	290	97	99	370	97	99	370	102	102	356
3917	Local Check (LC)	88	71	238	107	86	363	105	94	336	104	106	447	104	106	447	107	109	364
Exp. Mean		**94**	**62**	**313**	**98**	**113**	**323**	**100**	**93**	**333**	**99**	**95**	**407**	**99**	**95**	**407**	**101**	**107**	**361**

Table No. 5a.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 – IM, (Trials not considered) Zone -7 Kharif 2023

Entry No	IET No	Trials not considered					
		Karnataka			Pudhucherry		
		@Brahmawar			@Karaikal		
		DFF	PH	PAN	DFF	PH	PAN
3901	29257 (R)	113	83	330	99	132	383
3902	29284 (R)	116	85	381	98	129	335
3903	28523	112	82	349	97	136	342
3904	29833	120	75	330	100	128	409
3905	29301 (R)	99	80	344	98	131	363
3906	29290 (R)	105	77	361	100	123	344
3907	NDR 359 (NC)	106	77	351	99	113	325
3908	29743	105	77	355	97	117	290
3909	29742	116	76	379	96	125	279
3910	29002 (R)	113	80	358	94	109	382
3911	PR 121 (ZC)	115	79	362	99	107	290
3912	29014 (R)	107	84	390	95	120	374
3913	29741	110	87	350	98	124	309
3914	HRI 174 (HC)	104	86	321	100	122	363
3915	30757	120	79	349	100	119	300
3916	Gangavati Sona (RP)	124	73	359	99	120	348
3917	Local Check (LC)	110	83	368	99	128	435
Exp. Mean		**112**	**80**	**355**	**98**	**123**	**345**

Table No. 5a.4 : Grain quality characteristics of entries in AVT 2-IM, kharif 2023

Entry No.	Designation/ IET No.	Hull	Mill	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
3901	29257	79.0	69.0	54.5	6.41	1.96	3.27	LS	VOC	4.0	22.90	48
3902	29284	80.6	72.1	61.7	5.13	1.96	2.61	MS	A	4.0	23.58	22
3903	28523	78.5	70.7	64.4	5.28	1.98	2.66	MS	VOC	4.0	26.16	22
3904	29833	80.5	72.8	63.1	6.21	2.24	2.77	LB	OC	4.0	25.54	42
3905	29301	78.0	69.1	47.2	5.17	2.27	2.27	SB	VOC	5.0	25.93	22
3906	29290	78.9	68.8	24.5	5.21	2.50	2.08	SB	OC	7.0	26.16	22
3907	NDR 359 (NC)	79.4	72.8	64.1	6.42	2.46	2.60	LB	OC	4.0	24.46	32
3908	29743	81.3	72.7	51.5	6.15	2.34	2.62	LB	OC	5.0	24.34	35
3909	29742	80.3	73.2	60.7	6.20	2.33	2.66	LB	VOC	4	23.73	43
3910	29002	80.8	68.8	32.3	6.24	2.37	2.63	LB	OC	4.0	28.3	22
3911	Jaya (ZC)	79.8	69.5	55.4	5.55	2.56	2.16	SB	VOC	7.0	26.28	22
3912	29014	82.5	69.1	47.9	7.44	2.05	3.62	LS	VOC	4.0	23.17	43
3913	29741	81.4	73.8	59.4	5.7	2.26	2.52	MS	VOC	4.0	23.58	44
3914	HRI 174	81.7	72.8	58.2	6.17	2.29	2.69	LB	VOC	4.0	25.54	50
3915	30757	79.0	69.8	61.5	5.21	1.87	2.78	MS	VOC	4.0	22.08	46
3916	Gangavati Sona	80.1	72.0	65.3	5.14	1.84	2.79	MS	VOC	4.0	22.32	52
3917	Local Check	77.6	70.7	69.4	5.41	2.10	2.57	MS	VOC	3.0	26.34	22

HULL: Hulling (%); MILL: Milling (%); HRR: Head Rice Recovery (%); KL: Kernel Length(mm); KB: Kernel Breadth(mm); L/B: Length and breadth ratio; Grain Chalk: Grain Chalkiness; VOC: Very occasionally present; A: Absent ASV: Alkali Spreading Value; AC: Amylose Content(%); GC: Gel Consistency; LB: Long Bold; SB: Short Bold; LS: Long Slender; MS: Medium Slender; SS: Short Slender.

Table No.5b.1: Composition of entries in Advance Variety Trial 1- Irrigated Medium (AVT 1 – IM), Kharif 2023.

Entry No.	IET No.	Designation	Cross Combination	GT	Zones	Trait
2nd year of testing:						
4001	30771	JGL 38206	JGL 24423 / MTU 365-32-1-1) / MTU 1121	LB		
4002	30772	TRC GTS 739-B-B-4-1	Gomati / Tripura Sharat	LS		
4003	30762	Pusa 5358-3-1-1-1-1-1	MTU 1010 / ET 2-12	MS		
4004	29859 (R)	RP 6488-MAID-1-180-119-1-1-1-1	Krishna Hamsa / IRBB60 // Krishna Hamsa / Tetep /// Krishna Hamsa / DSB2	LS		
4005	29264 (R)	KJT-2010-3	KJT2 / RP BIO -226			
4006	30798	TTBDR 106-2-4	Malbhog / Aghoni	MS		
4007	30794	PRNP 10027	PRNP 101 / PRNP 127	SB		
4008	30790	NVSR 624	GNR-4 / GNR-2			
4009	**NDR 359 (NC)**					
4010	30604	***Indam 200-055***	***Hybrid***	LB		
4011	30603	***RNE-0456***	***Hybrid***	LS		
4012	30819	PNPG 114	PNP 115 / PNP 310	SB		
4013	30602	***ADVRH-191788***	***Hybrid***	LS		
4014	30613	***CRHR-169***	***Hybrid***	LB		
4015	30617	***CRHR-175***	***Hybrid***	LB		
4016	30608	***MEPH-170***	***Hybrid***	LS		
4017	30600	***RRX-3484***	***Hybrid***	LB		
4018	30614	***PHI-22108***	***Hybrid***	LB		
4019	30605	***RNE-0463***	***Hybrid***	LS		
4020	**PR-121 (Northern), CR Dhan 300 (Eastern &North Eastern), Karma Mahsuri (Central), Akshyadhan (Western), Jaya (Southern), - Zonal,**					
4021	30620	***PHI-22109***	***Hybrid***	LB		
4022	29616	***MALI-484***	***Hybrid***	LB		
4023	**HRI 174 (HC)**					

Entry No.	IET No.	Designation	Cross Combination	GT	Zones	Trait
4024	**Local Check (LC)**					
1st year of testing (NILs):						
4025	32047	RP 6747-19484-1-1	WGL 14 / ISM // WGL14 / RP Patho-1 /// WGL 14 / Rathuheenati // WGL 14 / RP 5925-24 //// WGL 14 / RP 5925-23 // WGL 14 / IR 96321-1447-561-B-1 ///// WGL 14 / IR 81896-96-B-B-195 // WGL 14 / IR 74371-46-1-1-13 ///// WGL-14 / RP Patho-2// WGL 14 / RP Patho-3		VII	BB
4026	32048	RP 6747-19483-1-1	WGL 14 / ISM // WGL14 / RP Patho-1 /// WGL 14 / Rathuheenati // WGL 14 / RP 5925-24 //// WGL 14 / RP 5925-23 // WGL 14 / IR 96321-1447-561-B-1 ///// WGL 14 / IR 81896-96-B-B-195 // WGL 14 / IR 74371-46-1-1-13 ///// WGL-14 / RP Patho-2// WGL 14 / RP Patho-3		VII	BB+Bl
4027	**WGL 14 (Recurrent Parent)**				VII	-
4028	32049	RP 6743-RAF-0208-IJ-9	Jaya*2 / Isogenic line of MTU 1010	SB	II, III, IV, V, VI, VII	BB+Bl +Yield
4029	32050	RP 6741-RAF-2607-IJ-2	Jaya*2 / Isogenic line of MTU 1010	LB	II, III, IV, V, VI, VII	BB+Bl +Yield
4030	32051	RP 6742-RAF-909-IJ-4	Jaya*2 / Isogenic line of MTU 1010	LB	II, III, IV, V, VI, VII	BB+Bl +Yield
4031	**Jaya (Recurrent parent)**			LB	II, III, IV, V, VI, VII	-

Table No. 5b.2 : Grain Yield (kg/ha) in AVT 1 - IM, Zone 2, Kharif 2023

Entry No	IET No	ZONE II NORTHERN						ZONE II (3)	
		Haryana (1)		Jammu Kashmir (1)		Uttar Pradesh (1)			
		Kaul		Chatha		Nagina			
4002	30772	5800		3793		4940	4 * #	4844	10
4004	29859	5067		3667		2971		3902	
4005	29264	5200		3700		6042	1 * #	4981	8
4009	NDR 359 (NC)	6044	10	4269		3211		4508	
4010	30604	7089	5 #	3951		4804	5 * #	5281	5
4011	30603	7222	4 #	4489	9	5445	3 * #	5719	2 * #
4012	30819	4800		3467		4645	6 * #	4304	
4013	30602	6267	8	4387	10	3197		4617	
4016	30608	7956	1 * #	5260	3	5611	2 * #	6276	1 * #
4018	30614	7556	3 #	5511	2	3843	8	5637	3 #
4020	Zonal Check (ZC)	5444		5122	5	3778	9	4781	
4021	30620	7711	2 * #	5711	1	3287		5570	4 #
4023	HRI 174 (HC)	6244	9	5067	6	3492		4934	9
4024	Local Check (LC)	6956	6 #	5178	4	3592	10	5242	6
4028	32049	6044	10.5	5022	7	3380		4815	
4029	32050	5356		4556	8	3202		4371	
4030	32051	5467				3254		4361	
4031	Jaya (RP)	6311	7			4062	7 #	5187	7
Exp. Mean		**6252**		**4572**		**4042**		**4963**	
F Value		**13.99(p<0.0001)S**		**3.65(p<0.0010)S**		**31.35(p<0.0001)S**		**13.61(p<0.0001)S**	
CD		706		1025		468		444	
CV%		**6.81**		**13.44**		**6.98**		**5.39**	
D/S		02-07-2023		10-07-2023		30-06-2023			
D/P		31-07-2023		31-07-2023		29-07-2023			
Local Check Name		HKR 128		SJR-5		NDR 6093			

Table No. 5b.2 (Cond).: Grain Yield (kg/ha) in AVT 1 - IM, (Trial Not Considered) Zone 2, Kharif 2023

Entry No	IET No	Trial not considered	
		Uttarakhand	
		@Pantnagar	
4002	30772	1159	
4004	29859	2216	2
4005	29264	1234	
4009	NDR 359 (NC)	1781	7
4010	30604	1188	
4011	30603	1738	9
4012	30819	2239	1
4013	30602	2004	3
4016	30608	1573	10
4018	30614	1758	8
4020	Zonal Check (ZC)	1896	5
4021	30620	1249	
4023	HRI 174 (HC)	589	
4024	Local Check (LC)	1499	
4028	32049	1850	6
4029	32050	1954	4
4030	32051	745	
4031	Jaya (RP)	1275	
Exp. Mean		**1553**	
F Value		**2.95(p<0.0029)S**	
CD		754	
CV%		**29.28**	
D/S		03-07-2023	
D/P		21-07-2023	
Local Check Name		Pant Dhan4	

Table No. 5b.2: Grain Yield (kg/ha) in AVT 1 - IM, Zone 3, Kharif 2023

Entry No	IET No	ZONE III - EASTERN									
		Odisha								Odisha (4)	
		Bhubaneswar		ICAR-NRRI (Cuttack)		Jeypore		Chiplima		Mean	
4001	30771	3391		5574		5674	4	5392	7	5008	
4002	30772	5057		6439		4718		5626	5	5460	8
4003	30762	4226		5799		4340		4715		4770	
4004	29859 (R)	4754		5338		5774	3	5415	6	5320	
4005	29264 (R)	4343		6101		4639		4865		4987	
4008	30790	4613		6322		5057	7	4421		5103	
4009	NDR 359 (NC)	5808		4835		3854		3660		4539	
4010	30604	6128	8	5226		5906	2	5910	3	5793	5 *
4011	30603	5724		7097	4	3572		4925		5330	9
4012	30819	7582	2	6760		3766		3189		5324	10
4013	30602	6111	9	7033	7	2192		5229	10	5141	
4014	30613	6859	5	7281	3	2263		2381		4696	
4015	30617	6880	4	6913	8	4863		5303	8	5990	3 *
4016	30608	6929	3	7462	1	5025	8	4337		5938	4 *
4017	30600	3811		7039	6	6177	1	5135		5541	7
4019	30605	6372	7	7387	2	5025	8	3950		5684	6
4020	PR-121 (ZC)	5357		6885	9	3822		4360		5106	
4021	30620	7690	1	7060	5	5425	5	5999	2	6544	1 * #
4023	HRI 174 (HC)	5852	10	6876	10	5023	10	6443	1	6049	2 *
4024	Local Check (LC)	4263		6616		5102	6	5275	9	5314	
4028	32049	4519		5920		3683		3053		4294	
4029	32050	3310		5999		3761		4547		4404	
4030	32051	5330		6042		3951		5887	4	5303	
4031	Jaya (Recurrent parent)	6781	6	5685		3120		4547		5033	
Exp. Mean		**5487**		**6404**		**4447**		**4774**		**5278**	
F Value		**33.88(p<0.0001)S**		**3.79(p<0.0001)S**		**18.56(p<0.0001)S**		**7.38(p<0.0001)S**		**14.10(p<0.0001)S**	
CD		601		1050		681		1036		401	
CV%		**6.66**		**9.98**		**9.31**		**13.2**		**4.62**	
D/S		04-07-2023		03-07-2023		10-07-2023		27-07-2023			
D/P		17-08-2023		22-07-2023		09-08-2023		08-09-2023			
Local Check Name		Hiranmayee		Tapaswini		Kalinga Dhan 1203		Lalat			

Table No. 5b.2 (Contd).: Grain Yield (kg/ha) in AVT 1 - IM, Zone 3, Kharif 2023

Entry No	IET No	ZONE III - EASTERN									
		Bihar				Bihar (2)		Jharkhand (1)		West Bengal (1)		Zone 3(8)	
		Bikramganj		Sabour		Mean		Ranchi		Chinsurah		Mean	
4001	30771	5872		4876	6	5374	10 *	3556		7480		5227	
4002	30772	6221	9	4194		5208	*	3933		7358		5443	*
4003	30762	6102		4374	10	5238	*	4400		8394	9 #	5294	
4004	29859 (R)	5875		4189		5032	*	4578	*	6494		5302	
4005	29264 (R)	5833		3623		4728		4556	*	7243		5150	
4008	30790	5253		3792		4523		4244		7717		5177	
4009	NDR 359 (NC)	5034		3784		4409		3111		7710		4725	
4010	30604	6758	5	4370		5564	7 * #	5178	5 *	8791	4 #	6033	3 * #
4011	30603	6758	5	5174	2	5966	3 * #	5733	1 * #	8774	5 #	5970	6 *
4012	30819	7938	1	4857	7	6398	1 * #	4778	6 *	8747	7 #	5952	7 *
4013	30602	5875		4902	4	5389	9 *	4689	9 *	7730		5470	*
4014	30613	7352	2	4635	8	5994	2 * #	5267	3 * #	9407	1 * #	5681	8 *
4015	30617	7271	3	4322		5797	4 * #	5733	1 * #	8770	6 #	6257	1 * #
4016	30608	6451	7	5038	3	5745	5 * #	4733	7 *	7893	10	5984	5 * #
4017	30600	5482		5664	1	5573	6 * #	3844		7561		5589	10 *
4019	30605	7237	4	3871		5554	8 * #	5244	4 * #	8946	3 #	6004	4 * #
4020	PR-121 (ZC)	6208	10	1789		3999		4000		7710		5016	
4021	30620	4833		4901	5	4867		4711	8 *	9268	2 #	6236	2 * #
4023	HRI 174 (HC)	5672		4310		4991	*	4667	10 *	6474		5665	9 *
4024	Local Check (LC)	5424		3547		4486		3778		5965		4996	
4028	32049	5315		4533	9	4924		3889		6762		4709	
4029	32050	5529		3339		4434		3489		6768		4593	
4030	32051	6365	8	4178		5272	*	3778		7514		5381	*
4031	Jaya (Recurrent parent)	4958		4237		4598		4022		8669	8 #	5252	
Exp. Mean		**6067**		**4271**		**5169**		**4413**		**7839**		**5463**	
F Value		**8.62(p<0.0001)S**		**9.46(p<0.0001)S**		**11.25(p<0.0001)S**		**14.51(p<0.0001)S**		**3.61(p<0.0001)S**		**18.22(p<0.0001)S**	
CD		785		696		490		511		1655		313	
CV%		**7.87**		**9.92**		**5.76**		**7.05**		**12.84**		**3.48**	
D/S		07-07-2023		04-07-2023				29-06-2023		03-07-2023			
D/P		04-08-2023		01-08-2023				19-07-2023		03-08-2023			
Local Check Name		R. Sweta		Rajendra Sweta				BVD-203		PRATIKSHYA			

Table No. 5b.2 (Contd).: Grain Yield (kg/ha) in AVT 1 - IM, (Trials not considered)
Zone 3, Kharif 2023

Entry No	IET No	Trial was not considered					
		West Bengal		Uttar Pradesh			
		@Malda		@Masodha		@Gorakpur	
4001	30771	6133		4010		4772	8
4002	30772	6475	6	4937		3385	
4003	30762	6000		2128		4795	7
4004	29859 (R)	6542	4	5592	7	3590	
4005	29264 (R)	6542	4	5183		3595	
4008	30790	5750		4351		3436	
4009	NDR 359 (NC)	6458	7	2941		5028	4
4010	30604			5101		4105	
4011	30603	6667	1	5592	7	4949	6
4012	30819			5191		5128	2
4013	30602			5445	10	4410	
4014	30613			5674	5	5144	1
4015	30617			4465		5000	5
4016	30608			4037		4444	10
4017	30600			3846		3359	
4019	30605			4828		3590	
4020	PR-121 (ZC)			6219	1	4759	9
4021	30620			6105	2	4333	
4023	HRI 174 (HC)	5833		5947	3	3372	
4024	Local Check (LC)	6583	3	5483	9	3641	
4028	32049	6650	2	5674	5	4287	
4029	32050	6292	9	5237		4051	
4030	32051	6250	10	5865	4	5092	3
4031	Jaya (Recurrent parent)	6350	8	4866		4438	
Exp. Mean		**6323**		**4946**		**4279**	
F Value		**0.75(p<0.7158)NS**		**67.64(p<0.0001)S**		**45.11(p<0.0001)S**	
CD		**NS**		332		263	
CV%		**10**		**4.08**		**3.73**	
D/S		21-07-2023		02-07-2023		08-06-2023	
D/P		17-08-2023		02-08-2023		20-07-2023	
Local Check Name		Bhupesh		NDR 2064		CO-51	

Table No. 5b.2 : Grain Yield (kg/ha) in AVT 1 - IM, Zone 4, Kharif 2023

Entry No	IET No	ZONE IV - NORTH EASTERN					
		Assam (1)		Tripura (1)		Zone IV (2)	
		Titabar		Lembucherra		Mean	
4004	29859 (R)	5754	9	7217	3 #	6486	5 #
4005	29264 (R)	5554		4283		4919	
4006	30798	5105		6600	7 #	5853	9
4007	30794	5431		3475		4453	
4009	NDR 359 (NC)	6480	2	6867	5 #	6674	4 #
4010	30604	6568	1	6950	4 #	6759	3 #
4011	30603	6206	5	6567	9 #	6387	6 #
4012	30819	5832	8	6592	8 #	6212	7 #
4013	30602	6306	4	7650	2 #	6978	1 #
4020	PR-121 (ZC)	5626		4183		4905	
4021	30620	5700	10	8125	1 * #	6913	2 #
4023	HRI 174 (HC)	6337	3	4425		5381	
4024	Local Check (LC)	5845	7	5158	10	5502	10
4028	32049	4331		4267		4299	
4029	32050	5467		6758	6 #	6113	8 #
4030	32051	6140	6	4183		5162	
4031	Jaya (Recurrent parent)	5379		4575		4977	
Exp. Mean		**5768**		**5757**		**5763**	
F Value		**5.73(p<0.0001)S**		**22.42(p<0.0001)S**		**17.09(p<0.0001)S**	
CD		639		853		579	
CV%		**6.66**		**8.9**		**6.04**	
D/S		12-07-2023		24-07-2023			
D/P		09-08-2023		15-08-2023			
Local Check Name		Numali					

Table No. 5b.2 (Contd).: Grain Yield (kg/ha) in AVT 1 - IM, (Trials not considered) Zone 4, Kharif 2023

Entry No	IET No	Trial not considered	
		Assam	
		@Gerua	
4004	29859 (R)	4198	7
4005	29264 (R)	3741	
4006	30798	4025	9
4007	30794	3030	
4009	NDR 359 (NC)	2948	
4010	30604	4398	6
4011	30603	5243	3
4012	30819	4997	4
4013	30602	5281	2
4020	PR-121 (ZC)	4164	8
4021	30620	5341	1
4023	HRI 174 (HC)	3669	
4024	Local Check (LC)	4907	5
4028	32049	3678	
4029	32050	3235	
4030	32051	2474	
4031	Jaya (Recurrent parent)	3915	10
Exp. Mean		**4073**	
F Value		**3.08(p<0.0027)S**	
CD		1369	
CV%		**20.21**	
D/S		14-07-2023	
D/P		24-08-2023	
Local Check Name		CR Dhan 801	

Table No. 5b.2 : Grain Yield (kg/ha) in AVT 1 - IM, Zone 5, Kharif 2023

Entry No	IET No	ZONE V- CENTRAL													
		Chattisgarh				Chattisgarh (2)		Maharshtra				Maharshtra (2)		Zone V (4)	
		Raipur		Jagadalpur		Mean		Sakoli		Sindewahi		Mean		Mean	
4004	29859 (R)	5967		6281		6124		5467		4231	9	4849		5487	
4005	29264 (R)	6177	10	7547		6862	10	4689		3598		4144		5503	
4009	NDR 359 (NC)	5592		8113	6	6853		6744	3	4007		5376	8	6114	9
4010	30604	6850	4	7706	10	7278	7	5578	9	5169	3	5374	9	6326	8
4011	30603	7140	2	8265	5	7703	1 *	6911	2	4190	10	5551	6	6627	3
4012	30819	6477	7	8304	3	7391	6	5078		6031	1	5555	5	6473	7
4013	30602	7073	3	7417		7245	8	6567	5	5019	5	5793	3	6519	6
4020	PR-121 (ZC)	5267		8034	8	6651		5978	8	4141		5060	10	5855	
4021	30620	7257	1	7556		7407	5	7433	1	5041	4	6237	1 *	6822	1 *
4023	HRI 174 (HC)	6598	6	8301	4	7450	4	6556	6	4861	6	5709	4	6579	4
4024	Local Check (LC)	4377		8007	9	6192		4733		4332	7	4533		5362	
4028	32049	6395	8	8770	1	7583	3 *	6689	4	4315	8	5502	7	6542	5
4029	32050	6018		7469		6744		5533	10	3232		4383		5563	
4030	32051	6263	9	8086	7	7175	9	6522	7	5818	2	6170	2 *	6672	2 *
4031	Jaya (Recurrent parent)	6685	5	8536	2	7611	2 *	4911		3813		4362		5986	10
Exp. Mean		**6276**		**7893**		**7084**		**5959**		**4520**		**5240**		**6162**	
F Value		**3.44(p<0.0001)S**		**2.22(p<0.0310)S**		**3.86(p<0.0009)S**		**4.69(p<0.0002)S**		**6.03(p<0.0001)S**		**6.89(p<0.0001)S**		**6.83(p<0.0001)S**	
CD		1122		1226		711		1120		882		686		531	
CV%		**10.69**		**9.29**		**6**		**11.24**		**11.66**		**7.83**		**5.16**	
D/S		07-05-2023		02-07-2023				29-06-2023		04-07-2023					
D/P		27-07-2023		27-07-2023				19-07-2023		22-07-2023					
Local Check Name		IGKVR 1244		IGKVR 1244				PDKV KISAN		SYE-2001					

Table No. 5b.2 (Contd).: Grain Yield (kg/ha) in AVT 1 - IM, (Trial Not Considered) Zone 5, Kharif 2023

Entry No	IET No	Trial not considered	
		Madhya Pradesh	
		@Waraseoni	
4004	29859 (R)	4404	4
4005	29264 (R)	3851	7
4009	NDR 359 (NC)	3738	9
4010	30604	4653	1
4011	30603	3436	
4012	30819	3258	
4013	30602	4082	5
4020	PR-121 (ZC)	3818	8
4021	30620	3922	6
4023	HRI 174 (HC)	4458	2
4024	Local Check (LC)	3282	
4028	32049	4407	3
4029	32050	2849	
4030	32051	3142	
4031	Jaya (Recurrent parent)	3609	10
Exp. Mean		**3794**	
F Value		**5.15(p<0.0001)S**	
CD		646	
CV%		**10.18**	
D/S		30-06-2023	
D/P		21-07-2023	
Local Check Name		JR 206	

Table No. 5b.2 : Grain Yield (kg/ha) in AVT 1 - IM, Zone 6, Kharif 2023

Entry No	IET No	ZONE VI -WESTERN									
		Maharashtra (1)		Gujarat				Gujarat (2)		Zone VI (3)	
		Karjat		Navasari		Nawagam		Mean		Mean	
4004	29859 (R)	5148		5160	9	5917		5539	10	5408	
4005	29264 (R)	6939	6	5620	5	5043		5332		5867	8
4009	NDR 359 (NC)	6113				4530		4530		5322	
4010	30604	7766	3	5365	7	7635	2	6500	2 #	6922	2 #
4011	30603	8610	1	5989	2	6612	7	6301	6 #	7070	1 #
4012	30819	6602	8	5980	3	7389	4	6685	1 #	6657	4
4013	30602	6694	7	4737	10	6098	10	5418		5843	9
4020	PR-121 (ZC)	6265	10	5384	6	7458	3	6421	3 #	6369	6
4021	30620	7930	2	5999	1	6779	6	6389	4 #	6903	3 #
4022	29616	7019	5	5840	4	6256	9	6048	7 #	6372	5
4023	HRI 174 (HC)	7160	4	4713		6010		5362		5961	7
4024	Local Check (LC)	5199		4683		7142	5	5913	8	5675	
4028	32049	4975		4082		6375	8	5229		5144	
4029	32050	4754		4067		8658	1	6363	5 #	5826	10
4030	32051	6422	9	4530		4815		4673		5256	
4031	Jaya (Recurrent parent)	5170		5185	8	5963		5574	9	5439	
Exp. Mean		**6423**		**5156**		**6417**		**5767**		**6002**	
F Value		**3.32(p<0.0020)S**		**5.57(p<0.0001)S**		**9.94(p<0.0001)S**		**9.49(p<0.0001)S**		**4.74(p<0.0001)S**	
CD		1714		785		949		596		802	
CV%		**16.00**		**9.11**		**8.87**		**6.20**		**8.01**	
D/S		27-06-2023		03-07-2023		07-04-2023					
D/P		22-07-2023		02-08-2023		08-05-2023					
Local Check Name		Karjat-5		GNR-5		GAR 13					

Table No. 5b.2 : Grain Yield (kg/ha) in AVT 1 - IM, Zone 7, Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN													
		Andhra Pradesh				Andhra Pradesh (2)		Telangana						Telangana (3)	
		Maruteru		Ragolu		Mean		Rajendranagar		Warangal		Jagtial		Mean	
4004	29859 (R)	5489	8	5484		5487		5411		6469		8094		6658	
4005	29264 (R)	4176		6329	10	5253		5312		6481		8210		6668	
4009	NDR 359 (NC)	5120	9	5611		5366		5104		6922	7	9059	8	7028	9
4010	30604	7266	1	6234		6750	3	6863	1	5536		11116	3	7838	5
4011	30603	6614	2	8032	1	7323	1 * #	6518	3	9958	2	11628	2	9368	2 * #
4012	30819	6433	3	6825	6	6629	5	6576	2	7834	3	10575	4	8328	3 *
4013	30602	6273	4	7095	4	6684	4	5591	10	6078		10167	6	7279	6
4020	PR-121 (ZC)	5096	10	6659	8	5878	9	4634		6751	10	8466	10	6617	
4021	30620	6221	5	7425	2	6823	2	5915	7	10581	1	12898	1	9798	1 * #
4023	HRI 174 (HC)	6022	6	7060	5	6541	6	6188	5	7337	5	10385	5	7970	4
4024	Local Check (LC)	6008	7	6726	7	6367	7	6486	4	6177		9023	9	7229	7
4025	32047	4622		7266	3	5944	8	6063	6	4577		9468	7	6703	
4026	32048	4772		6599	9	5686	10	5673	9	6904	8	8406		6994	10
4027	WGL 14 (Recurrent Parent)	5057		5333		5195		5795	8	7266	6	8337		7133	8
4028	32049	4758		5591		5175		3960		6506		8378		6281	
4029	32050	4653		5742		5198		3718		6756	9	8225		6233	
4030	32051	4368		5869		5119		4177		7505	4	8221		6634	
4031	Jaya (Recurrent parent)	4991		5484		5238		4891		6353		7580		6275	
Exp. Mean		**5441**		**6409**		**5925**		**5493**		**7000**		**9346**		**7280**	
F Value		**7.97(p<0.0001)S**		**4.58(p<0.0001)S**		**10.54(p<0.0001)S**		**4.59(p<0.0001)S**		**8.56(p<0.0001)S**		**15.57(p<0.0001)S**		**20.79(p<0.0001)S**	
CD		874		1035		627		1196		1308		1011		612	
CV%		**9.68**		**9.73**		**6.38**		**13.13**		**11.26**		**6.52**		**5.07**	
D/S		15-07-2023		04-07-2023				20-07-2023		26-06-2023		26-06-2023			
D/P		24-08-2023		26-07-2023				02-08-2023		24-07-2023		21-07-2023			
Local Check Name		MTU 1239		MTU 1210				RNR 11718		WGL-14		JGL 11470			

Table No. 5b.2 (Contd).: Grain Yield (kg/ha) in AVT 1 - IM, Zone 7, Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN									
		Tamil Nadu				Tamil Nadu (2)		Kerala (1)		Karnataka	
		Adhuturai		Coimbatore		Mean		Pattambi		Mandya	
4004	29859 (R)	5014		5558	10	5286	9	5521		6898	4
4005	29264 (R)	5140	8	5135		5138	10	6872	2 #	5901	
4009	NDR 359 (NC)	3796		4985		4391		5495		6168	
4010	30604	4790		6931	3	5861	7	7210	1 * #	6667	5
4011	30603	7367	1	7182	1	7275	1 * #	5495		7639	1
4012	30819	4524		5575	9	5050		5527		7440	2
4013	30602	6975	2	5872	8	6424	4 #	5865	4	7375	3
4020	PR-121 (ZC)	3978		4261		4120		6188	3	6410	8
4021	30620	6359	3	6848	4	6604	2 #	5808	8	6382	9
4023	HRI 174 (HC)	5056	10	6129	6	5593	8	5849	6	6179	
4024	Local Check (LC)	6078	4	5996	7	6037	6	5857	5	6573	6
4025	32047	5532	7	4408		4970		5490		5452	
4026	32048	4902		4391		4647		5815	7	4957	
4027	WGL 14 (Recurrent Parent)	5980	6	6939	2	6460	3 #	5807	9	5324	
4028	32049	5014		4441		4728		5491		4979	
4029	32050	5126	9	4607		4867		5805	10	5164	
4030	32051	5994	5	6426	5	6210	5	5456		6382	9
4031	Jaya (Recurrent parent)	5028		4526		4777		5501		6478	7
Exp. Mean		**5370**		**5567**		**5468**		**5836**		**6243**	
F Value		**22.83(p<0.0001)S**		**4.77(p<0.0001)S**		**9.74(p<0.0001)S**		**2.58(p<0.0001)S**		**8.30(p<0.0001)S**	
CD		538		1279		766		826		804	
CV%		**6.03**		**13.84**		**8.45**		**8.53**		**7.76**	
D/S		16-09-2023		28-06-20023				17-07-2023		26-06-2023	
D/P		25-10-2023		25-07-2023				10-08-2023		25-07-2023	
Local Check Name		ADT 54		CO 52				SWETHA		BR-2655	

Table No. 5b.2 (Contd).: Grain Yield (kg/ha) in AVT 1 - IM, Zone 7, Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN								
		Karnataka				Karnataka (3)		Puducherry (1)		Zone VII (12)
		Mugad		Gangavathi		Mean		Kurumbapet		
4004	29859 (R)	7103	6	6991	4	6997	5 * #	7957	7	6332	8
4005	29264 (R)	4987		6792	6	5893	10	5527		5905	
4009	NDR 359 (NC)	5284		4894		5449		8304	6	5895	
4010	30604	8172	4	7475	1	7438	2 * #	9606	3 #	7322	3 * #
4011	30603	8965	1	7016	3	7873	1 * #	9606	3 #	8002	1 * #
4012	30819	7015	8	6979	5	7145	4 * #	4890		6683	6 *
4013	30602	6484	10	7060	2	6973	6 * #	5729		6714	5 *
4020	PR-121 (ZC)	6308		5182		5967	9	9491	5	6119	
4021	30620	8628	2	6695	7	7235	3 * #	4688		7371	2 * #
4023	HRI 174 (HC)	8236	3	4515		6310	8	7813	8	6731	4
4024	Local Check (LC)	4805		5723	10	5700		6944	9	6366	7
4025	32047	5126		5344		5307		10735	1 #	6174	
4026	32048	7431	5	5203		5864		10185	2 #	6270	9
4027	WGL 14 (Recurrent Parent)	6857	9	5429		5870		6916	10	6253	10
4028	32049	5501		5821	9	5434		4630		5423	
4029	32050	5670		5612		5482		5671		5562	
4030	32051	6276		4916		5858		5006		5883	
4031	Jaya (Recurrent parent)	7080	7	6219	8	6592	7	5237		5781	
Exp. Mean		**6663**		**5993**		**6299**		**7163**		**6377**	
F Value		**7.69(p<0.0001)S**		**16.54(p<0.0001)S**		**18.01(p<0.0001)S**		**11.86(p<0.0001)S**		**39.88(p<0.0001)S**
CD		1307		615		509		1665		289
CV%		**11.82**		**6.18**		**4.87**		**14.01**		**2.73**
D/S		13-07-2023		27-07-2023				03-10-2023		
D/P				24-08-2023				04-11-2023		
Local Check Name		MGD-101		BPT 5204				CO (R) 52		

Table No. 5b.2 (Contd).: Grain Yield (kg/ha) in AVT 1 - IM, (Trials not considered) Zone 7, Kharif 2023

Entry No	IET No	Trials not considered			
		Karnataka		Pondicherry	
		@Brahmawar		@Karaikal	
4004	29859 (R)	3741	7	6111	9
4005	29264 (R)	3085		6349	5
4009	NDR 359 (NC)	3846	6	6349	5
4010	30604	4258	2	5556	
4011	30603	3642	10	5952	
4012	30819	2917		6587	2
4013	30602	3368		6270	7
4020	PR-121 (ZC)	3715	8	5952	
4021	30620	2902		6349	5
4023	HRI 174 (HC)	3195		6230	8
4024	Local Check (LC)	4295	1	6032	
4025	32047	4003	4	5556	
4026	32048	3460		5714	
4027	WGL 14 (Recurrent Parent)	2685		6587	2
4028	32049	3358		6667	1
4029	32050	3676	9	5714	
4030	32051	3856	5	6111	9.5
4031	Jaya (Recurrent parent)	4046	3	5952	
Exp. Mean		**3558**		**6113**	
F Value		**9.86(p<0.0001)S**		**0.98(p<0.5011)NS**	
CD		408		**NS**	
CV%		**6.91**		**10.55**	
D/S		19-06-2023		19-09-202.	
D/P		17-07-2023		01-11-2023	
Local Check Name		Sahyadri Brahma		KKL R(2)	

Table No. 5b.3 : Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – IM, Zone -2 Kharif 2023

Entry No	IET No	ZONE II NORTHERN									ZONE II (3)		
		Haryana (1)			Jammu Kashmir (1)			Uttar Pradesh (1)					
		Kaul			Chatha			Nagina					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4002	30772	99	93	265	99	109	295	101	88	232	100	97	264
4004	29859	103	93	269	104	104	323	101	99	264	103	99	286
4005	29264	106	103	279	108	110	306	105	108	321	106	107	302
4009	NDR 359 (NC)	97	104	285	102	104	311	101	100	331	100	103	309
4010	30604	108	104	297	98	98	296	109	97	326	105	100	306
4011	30603	100	102	333	99	100	311	101	102	290	100	101	311
4012	30819	106	91	248	108	102	290	109	99	244	107	97	261
4013	30602	100	95	286	95	102	313	104	47	266	100	82	289
4016	30608	87	102	294	90	103	337	93	108	296	90	104	309
4018	30614	96	99	330	95	85	347	96	102	236	96	96	304
4020	Zonal Check (ZC)	100	83	270	91	90	309	90	98	276	94	90	285
4021	30620	98	106	284	99	110	335	98	107	255	98	108	291
4023	HRI 174 (HC)	102	104	288	106	102	333	99	107	269	102	104	297
4024	Local Check (LC)	99	101	305	110	119	339	94	101	318	101	107	321
4028	32049	98	80	268	93	84	323	96	102	245	96	89	279
4029	32050	99	92	265	99	98	309	105	104	324	101	98	299
4030	32051	105	94	275				112	98	249	108	96	262
4031	Jaya (RP)	97	91	264				102	104	322	99	98	293
Exp. Mean		**100**	**97**	**284**	**100**	**101**	**317**	**101**	**98**	**281**	**100**	**99**	**293**

Table No. 5b.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – IM, (Trial not considered) Zone -2, Kharif 2023

Entry No	IET No	Trial not considered		
		Uttarakhand (0)		
		@Pantnagar		
		DFF	PH	PAN
4002	30772	95	120	270
4004	29859	97	109	249
4005	29264	103	114	262
4009	NDR 359 (NC)	94	101	257
4010	30604	106	122	243
4011	30603	95	112	267
4012	30819	96	114	240
4013	30602	96	107	258
4016	30608	85	127	223
4018	30614	90	99	289
4020	Zonal Check (ZC)	86	97	255
4021	30620	93	113	227
4023	HRI 174 (HC)	95	113	253
4024	Local Check (LC)	94	105	273
4028	32049	85	99	228
4029	32050	93	105	220
4030	32051	107	110	220
4031	Jaya (RP)	85	107	242
Exp. Mean		**94**	**110**	**249**

Table No. 5b.3 : Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – IM, Zone -3 Kharif 2023

Entry No	IET No	ZONE III - EASTERN														
		Odisha												Odisha (4)		
		Bhubaneswar			ICAR-NRRI (Cuttack)			Jeypore			Chiplima			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4001	30771	105	103	368	91	114	224	111	90	360	127	96	211	109	101	291
4002	30772	97	112	404	95	115	350	111	87	467	122	86	244	107	100	366
4003	30762	121	110	380	93	116	206	112	86	329	134	90	209	115	101	281
4004	29859 (R)	101	100	410	93	114	249	108	78	342	126	90	243	107	95	311
4005	29264 (R)	105	101	309	102	127	282	107	91	404	128	98	238	110	104	308
4008	30790	100	110	407	87	117	248	104	77	340	117	93	208	102	99	301
4009	NDR 359 (NC)	97	96	458	93	116	215	110	78	343	117	78	244	104	92	315
4010	30604	106	132	391	98	138	264	107	99	401	116	91	247	107	115	326
4011	30603	106	107	321	95	128	228	119	83	371	125	82	206	111	100	282
4012	30819	106	105	395	101	108	218	111	81	344	105	75	180	106	92	284
4013	30602	103	119	419	96	123	258	114	83	471	127	75	232	110	100	345
4014	30613	108	112	317	105	125	209	106	87	450	124	96	226	111	105	300
4015	30617	108	123	414	104	123	234	106	90	389	115	80	200	108	104	309
4016	30608	108	109	425	93	127	246	112	85	406	116	91	208	107	103	321
4017	30600	106	118	397	94	126	321	109	82	448	119	81	247	107	102	353
4019	30605	109	111	399	96	112	228	111	82	413	122	88	239	110	98	320
4020	PR-121 (ZC)	121	107	429	115	127	230	118	91	333	132	101	200	122	106	298
4021	30620	101	115	411	94	124	182	102	90	362	122	84	216	105	103	293
4023	HRI 174 (HC)	106	120	485	95	120	271	109	87	316	125	80	254	109	102	331
4024	Local Check (LC)	97	91	405	96	117	284	112	85	420	105	79	198	103	93	327
4028	32049	100	105	377	91	103	269	106	76	386	104	77	192	100	90	306
4029	32050	108	111	347	91	102	230	107	87	324	114	79	187	105	95	272
4030	32051	101	100	413	98	117	204	116	86	458	115	84	203	107	97	319
4031	Jaya (Recurrent parent)	122	115	421	97	120	200	106	78	395	110	85	214	109	99	308
Exp. Mean		**106**	**110**	**396**	**96**	**119**	**244**	**110**	**85**	**386**	**120**	**86**	**219**	**108**	**100**	**311**

Table No. 5b.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – IM, Zone -3 Kharif 2023

Entry No	IET No	ZONE III - EASTERN																	
		Bihar						Bihar (2)			Jharkhand (1)			West Bengal (1)			Zone 3(8)		
		Bikramganj			Sabour			Mean			Ranchi			Chinsurah			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4001	30771	95	116	369	91	106	208	93	111	289	86	94	134	97	103	297	100	103	271
4002	30772	95	120	391	101	108	275	98	114	333	92	95	185	96	115	308	101	105	328
4003	30762	99	118	361	103	109	254	101	114	308	92	101	120	98	108	319	106	105	272
4004	29859 (R)	101	106	385	103	103	305	102	104	345	93	89	189	100	112	264	103	99	299
4005	29264 (R)	95	118	364	111	114	243	103	116	304	102	97	162	104	122	264	107	109	283
4008	30790	94	112	354	104	101	336	99	106	345	92	93	162	101	115	286	100	102	293
4009	NDR 359 (NC)	91	113	352	92	98	239	92	105	295	95	96	172	97	116	319	99	99	293
4010	30604	95	126	347	106	117	278	101	121	313	98	109	165	112	137	341	105	119	305
4011	30603	92	113	354	104	106	268	98	109	311	98	96	193	101	120	319	105	104	283
4012	30819	95	117	361	110	105	290	103	111	325	97	95	151	106	117	319	104	100	282
4013	30602	96	118	343	104	109	270	100	113	307	97	101	186	101	119	286	105	106	308
4014	30613	97	108	412	112	104	308	105	106	360	110	96	160	106	119	363	109	106	306
4015	30617	96	114	353	111	105	304	104	109	329	110	57	152	95	119	308	106	101	294
4016	30608	88	121	375	100	108	324	94	114	350	90	105	135	114	124	286	103	109	301
4017	30600	85	118	366	98	112	253	92	115	310	91	95	209	94	118	220	100	106	308
4019	30605	92	116	389	105	105	252	98	111	320	103	89	181	101	114	308	105	102	301
4020	PR-121 (ZC)	102	107	340	110	106	228	106	106	284	103	96	170	110	142	253	114	110	273
4021	30620	93	115	368	99	121	253	96	118	311	91	100	153	96	119	352	100	108	287
4023	HRI 174 (HC)	91	117	327	102	116	213	97	116	270	94	107	172	95	126	220	102	109	282
4024	Local Check (LC)	94	95	362	105	89	224	100	92	293	91	105	191	109	122	220	101	98	288
4028	32049	92	109	364	88	100	210	90	104	287	95	88	164	95	106	242	96	95	275
4029	32050	95	112	366	103	109	190	99	110	278	91	98	220	95	120	242	101	102	263
4030	32051	95	102	391	102	106	231	99	104	311	104	89	149	102	113	286	104	100	292
4031	Jaya (Recurrent parent)	98	105	378	87	106	243	93	105	311	98	95	161	95	109	319	102	102	291
Exp. Mean		**95**	**113**	**366**	**102**	**107**	**258**	**98**	**110**	**312**	**96**	**95**	**168**	**101**	**118**	**289**	**103**	**104**	**291**

Table No. 5b.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – IM, (Trials not considered) Zone -3, Kharif 2023

Entry No	IET No	Trial was not considered								
		West Bengal			Uttar Pradesh					
		@Malda			@Masodha			@Gorakpur		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4001	30771	78	100		105	92	233	83	122	302
4002	30772	80	88		121	96	242	91	120	311
4003	30762	78	103		115	105	195	85	119	312
4004	29859 (R)	77	110		91	84	274	94	124	234
4005	29264 (R)	79	100		97	105	266	103	125	309
4008	30790	79	100		104	95	231	86	123	265
4009	NDR 359 (NC)	80	103		113	82	217	87	121	220
4010	30604				107	86	260	85	144	201
4011	30603	81	102		99	102	286	91	126	328
4012	30819				103	88	254	94	126	289
4013	30602				103	96	284	85	123	301
4014	30613				96	82	281	108	121	242
4015	30617				124	80	188	108	122	239
4016	30608				104	92	247	83	123	327
4017	30600				115	85	219	83	124	308
4019	30605				104	96	243	91	117	281
4020	PR-121 (ZC)				97	96	295	111	121	228
4021	30620				102	105	299	90	125	216
4023	HRI 174 (HC)	77	100		103	101	298	91	124	233
4024	Local Check (LC)	77	110		101	116	267	79	124	287
4028	32049	82	100		109	81	284	84	117	246
4029	32050	77	100		103	92	256	86	126	200
4030	32051	80	126		103	89	294	104	127	263
4031	Jaya (Recurrent parent)	78	105		113	86	247	92	114	247
Exp. Mean		**79**	**103**		**105**	**93**	**257**	**91**	**123**	**266**

Table No. 5b.3 : Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – IM, Zone -4 Kharif 2023

Entry No	IET No	ZONE IV - NORTH EASTERN								
		Assam (1)			Tripura (1)			Zone IV(2)		
		Titabar			Lembucherra			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4004	29859 (R)	106	111	283	82	110	275	94	111	279
4005	29264 (R)	115	111	259	86	111	283	101	111	271
4006	30798	121	115	268	88	111	333	104	113	301
4007	30794	109	111	251	87	103	267	98	107	259
4009	NDR 359 (NC)	105	109	274	89	94	292	97	101	283
4010	30604	110	116	286	85	104	283	98	110	285
4011	30603	110	115	277	93	119	267	102	117	272
4012	30819	107	118	280	85	90	367	96	104	323
4013	30602	108	116	298	81	121	283	94	119	291
4020	PR-121 (ZC)	120	120	279	87	103	233	104	111	256
4021	30620	106	111	271	84	109	292	95	110	282
4023	HRI 174 (HC)	107	121	297	69	111	317	88	116	307
4024	Local Check (LC)	111	133	268	95	110	300	103	121	284
4028	32049	99	93	306	80	95	292	90	94	299
4029	32050	105	95	263	83	117	208	94	106	236
4030	32051	112	101	259	83	109	275	97	105	267
4031	Jaya (Recurrent parent)	99	93	274	81	103	333	90	98	304
Exp. Mean		**109**	**111**	**276**	**84**	**107**	**288**	**97**	**109**	**282**

Table No. 5b.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – IM, (Trial not considered), Zone -4 Kharif 2023

Entry No	IET No	Trial not considered		
		Assam		
		@Gerua		
		DFF	PH	PAN
4004	29859 (R)	107	100	249
4005	29264 (R)	110	102	240
4006	30798	111	101	243
4007	30794	105	96	216
4009	NDR 359 (NC)	101	101	218
4010	30604	103	107	210
4011	30603	105	100	225
4012	30819	107	101	225
4013	30602	103	98	253
4020	PR-121 (ZC)	117	104	224
4021	30620	103	100	216
4023	HRI 174 (HC)	103	103	204
4024	Local Check (LC)	105	91	190
4028	32049	101	89	190
4029	32050	103	96	168
4030	32051	103	102	173
4031	Jaya (Recurrent parent)	101	99	206
Exp. Mean		**105**	**99**	**215**

Table No. 5b.3 : Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – IM, Zone -5 Kharif 2023

Entry No	IET No	ZONE V- CENTRAL																				
		Chattisgarh						Chattisgarh (2)			Maharshtra						Maharshtra (2)			Zone V (4)		
		Raipur			Jagadalpur			Mean			Sakoli			Sindewahi			Mean			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4004	29859 (R)	94	111	223	103	72	260	98	91	242	95	97	297	94	123	205	95	110	251	96	101	246
4005	29264 (R)	101	119	210	108	74	235	104	96	223	100	122	243	108	123	179	104	123	211	104	110	217
4009	NDR 359 (NC)	93	111	220	101	68	183	97	89	202	90	110	310	93	123	224	91	117	267	94	103	234
4010	30604	96	118	201	103	79	208	100	99	205	91	127	250	97	128	204	94	128	227	97	113	216
4011	30603	96	119	225	110	89	243	103	104	234	94	114	318	101	125	157	98	120	238	101	112	236
4012	30819	100	112	208	104	66	250	102	89	229	101	117	258	100	125	202	101	121	230	101	105	229
4013	30602	92	110	218	103	69	229	98	89	224	92	118	317	96	124	314	94	121	316	96	105	270
4020	PR-121 (ZC)	96	103	234	101	60	241	99	81	238	98	96	309	100	125	216	99	110	263	99	96	250
4021	30620	90	116	226	101	75	254	96	95	240	91	125	318	92	125	170	92	125	244	94	110	242
4023	HRI 174 (HC)	92	120	223	104	79	244	98	99	234	93	128	310	96	124	198	95	126	254	96	113	244
4024	Local Check (LC)	105	122	207	103	78	233	104	100	220	103	111	202	98	94	298	101	103	250	102	101	235
4028	32049	91	108	207	100	89	176	96	98	192	93	112	316	94	124	211	94	118	263	95	108	227
4029	32050	91	119	225	103	71	187	97	95	206	93	121	272	99	123	172	96	122	222	97	108	214
4030	32051	98	120	193	106	72	231	102	96	212	101	124	311	98	129	276	99	126	293	101	111	253
4031	Jaya (Recurrent parent)	92	119	229	103	69	259	98	94	244	95	114	272	97	123	297	96	119	284	97	106	264
Exp. Mean		**95**	**115**	**217**	**104**	**74**	**229**	**99**	**94**	**223**	**95**	**116**	**287**	**98**	**123**	**222**	**96**	**119**	**254**	**98**	**107**	**238**

Table No. 5b.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – IM, (Trial not considered) Zone -5, Kharif 2023

Entry No	IET No	Trial not considered		
		Madhya Pradesh		
		@Waraseoni		
		DFF	PH	PAN
4004	29859 (R)	101	115	319
4005	29264 (R)	100	127	259
4009	NDR 359 (NC)	99	124	243
4010	30604	98	109	388
4011	30603	88	111	246
4012	30819	100	122	314
4013	30602	99	131	289
4020	PR-121 (ZC)	99	122	296
4021	30620	99	98	331
4023	HRI 174 (HC)	97	124	277
4024	Local Check (LC)	97	124	314
4028	32049	99	137	268
4029	32050	91	105	236
4030	32051	100	115	340
4031	Jaya (Recurrent parent)	96	126	265
Exp. Mean		**98**	**119**	**292**

Table No. 5b.3 : Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – IM, Zone -6 Kharif 2023

Entry No	IET No	ZONE VI -WESTERN														
		Maharashtra (1)			Gujarat						Gujarat (2)			Zone VI(3)		
		Karjat			Navasari			Nawagam			Mean			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4004	29859 (R)	97	126	304	89	120	297	95	107	283	92	114	290	94	118	294
4005	29264 (R)	97	145	341	98	122	269	112	122	277	105	122	273	102	129	295
4009	NDR 359 (NC)	96	127	320				97	106	278	97	106	278	97	116	299
4010	30604	96	153	313	88	136	277	104	131	293	96	134	285	96	140	294
4011	30603	96	132	342	93	124	273	103	121	289	98	122	281	97	126	301
4012	30819	96	138	326	90	124	258	103	117	294	96	121	276	96	127	292
4013	30602	97	140	317	93	122	265	99	135	287	96	129	276	96	132	290
4020	PR-121 (ZC)	97	149	330	94	135	304	101	132	282	97	134	293	97	139	305
4021	30620	97	143	315	92	121	290	94	121	287	93	121	288	94	128	297
4022	29616	96	138	318	94	128	247	99	122	287	97	125	267	96	129	284
4023	HRI 174 (HC)	97	139	311	92	124	273	101	119	287	96	121	280	97	127	290
4024	Local Check (LC)	97	132	325	88	127	281	104	106	297	96	116	289	96	122	301
4028	32049	95	123	241	88	108	251	99	98	292	93	103	271	94	110	261
4029	32050	96	140	244	89	122	276	103	113	303	96	117	289	96	125	274
4030	32051	96	140	337	99	116	258	101	114	278	100	115	268	98	123	291
4031	Jaya (Recurrent parent)	95	130	264	88	120	282	100	113	286	94	116	284	94	121	277
Exp. Mean		**96**	**137**	**309**	**92**	**123**	**273**	**101**	**117**	**287**	**96**	**120**	**280**	**96**	**126**	**291**

Table No. 5b.3 : Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – IM, Zone -7 Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN																			
		Andhra Pradesh						Andhra Pradesh (2)			Telangana									Telangana (3)		
		Maruteru			Ragolu			Mean			Rajendranagar			Warangal			Jagtial			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4004	29859 (R)	94	113	330	91	126	268	93	119	299	105	86	400	101	112	366	103	109	396	103	102	387
4005	29264 (R)	109	122	319	101	125	281	105	123	300	113	96	389	108	123	403	111	121	375	111	113	389
4009	NDR 359 (NC)	92	114	363	101	121	302	97	117	333	106	86	378	98	118	381	102	109	332	102	104	363
4010	30604	112	123	308	100	133	251	106	128	280	104	102	344	105	134	377	110	132	319	106	123	347
4011	30603	95	114	341	89	125	281	92	120	311	108	89	311	101	114	353	104	112	347	105	105	337
4012	30819	94	118	352	99	127	335	97	123	344	105	88	333	101	123	381	105	115	344	104	108	353
4013	30602	96	108	286	90	128	291	93	118	289	109	91	422	101	123	376	100	115	354	103	110	384
4020	PR-121 (ZC)	92	110	308	87	103	265	89	107	286	105	82	356	95	124	374	104	111	410	101	105	380
4021	30620	95	120	286	86	131	216	91	126	251	107	91	378	98	120	376	100	120	319	102	110	358
4023	HRI 174 (HC)	93	119	330	91	119	265	92	119	297	109	95	400	99	133	382	102	111	388	103	113	390
4024	Local Check (LC)	110	115	374	104	121	288	107	118	331	110	91	400	104	123	385	105	114	402	106	110	396
4025	32047	105	122	330	95	111	291	100	116	311	111	90	444	100	109	403	105	117	409	105	105	419
4026	32048	96	114	341	99	109	307	97	111	324	112	90	433	102	118	380	108	116	350	107	108	388
4027	WGL 14 (Recurrent Parent)	96	117	297	105	114	237	101	115	267	111	94	333	104	119	386	95	111	395	103	108	372
4028	32049	91	103	297	81	106	268	86	105	283	100	82	389	91	109	396	99	120	355	97	104	380
4029	32050	93	113	308	83	121	203	88	117	256	105	87	333	95	128	389	108	113	350	103	109	357
4030	32051	93	111	319	100	115	226	96	113	272	112	86	311	107	123	383	100	113	386	107	108	360
4031	Jaya (Recurrent parent)	91	112	275	86	110	224	89	111	250	105	94	367	95	119	377	118	118	359	106	110	368
Exp. Mean		**97**	**115**	**320**	**94**	**119**	**267**	**95**	**117**	**293**	**107**	**90**	**373**	**100**	**121**	**382**	**105**	**115**	**366**	**104**	**109**	**374**

Table No. 5b.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – IM, Zone -7 Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN														
		Tamil Nadu						Tamil Nadu (2)			Kerala (1)			Karnataka		
		Adhuturai			Coimbatore			Mean			Pattambi			Mandya		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4004	29859 (R)	102	83	402	100	87	261	101	85	332	102	94	479	109	99	385
4005	29264 (R)	102	205	410	110	107	353	106	156	382	99	101	518	121	105	329
4009	NDR 359 (NC)	104	75	422	101	97	271	103	86	346	98	95	514	109	99	340
4010	30604	101	95	468	100	98	311	101	96	390	111	95	515	103	108	340
4011	30603	102	95	537	109	106	291	106	100	414	102	97	461	113	98	317
4012	30819	106	95	445	108	98	272	107	96	359	99	96	525	117	98	272
4013	30602	104	86	465	104	106	340	104	96	402	101	94	507	112	104	374
4020	PR-121 (ZC)	105	81	358	103	97	320	104	89	339	101	93	470	115	102	329
4021	30620	102	97	439	104	107	331	103	102	385	99	95	476	104	99	283
4023	HRI 174 (HC)	103	91	411	101	98	337	102	94	374	96	100	421	109	102	397
4024	Local Check (LC)	102	110	468	113	117	335	107	114	402	101	99	505	116	125	363
4025	32047	102	95	542	107	109	366	105	102	454	102	98	530	115	98	363
4026	32048	104	89	414	108	109	316	106	99	365	103	98	561	121	104	397
4027	WGL 14 (Recurrent Parent)	105	93	464	111	117	347	108	105	405	103	91	485	116	97	374
4028	32049	105	93	402	100	92	258	102	93	330	99	101	508	108	96	329
4029	32050	101	95	448	99	111	296	100	103	372	99	93	501	107	102	317
4030	32051	100	97	424	111	106	230	106	102	327	98	90	527	116	98	374
4031	Jaya (Recurrent parent)	102	67	426	102	96	250	102	81	338	99	94	486	113	99	374
Exp. Mean		**103**	**97**	**441**	**105**	**103**	**305**	**104**	**100**	**373**	**101**	**96**	**499**	**112**	**102**	**348**

Table No. 5b.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – IM, Zone -7 Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN														
		Karnataka						Karnataka (3)			Puducherry (1)			Zone VII (12)		
		Mugad			Gangavathi			Mean			Krumbapet					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4004	29859 (R)	96	76	23	101	112	431	102	96	408	94	80	440	100	98	378
4005	29264 (R)	108	77	24	105	122	385	111	101	357	99	104	420	107	117	380
4009	NDR 359 (NC)	99	64	22	98	101	424	102	88	382	97	82	400	100	97	375
4010	30604	91	80	22	98	120	324	97	103	332	91	81	340	102	108	354
4011	30603	98	67	23	106	108	301	105	91	309	98	93	457	102	102	363
4012	30819	101	67	20	104	112	377	107	92	324	93	80	390	103	101	366
4013	30602	97	65	20	102	120	322	104	96	348	95	80	363	101	102	373
4020	PR-121 (ZC)	99	65	22	100	111	323	105	92	326	98	72	387	100	96	354
4021	30620	94	71	22	99	117	300	99	96	292	97	95	460	99	105	351
4023	HRI 174 (HC)	95	65	20	104	114	389	103	93	393	95	75	363	100	102	371
4024	Local Check (LC)	87	74	22	106	89	333	103	96	348	99	100	463	105	106	392
4025	32047	100	70	20	105	111	301	107	93	332	100	101	487	104	103	406
4026	32048	105	68	18	105	120	427	110	97	412	92	84	410	104	102	394
4027	WGL 14 (Recurrent Parent)	101	77	20	100	116	304	105	97	339	90	87	410	103	103	367
4028	32049	95	63	22	100	110	349	101	90	339	95	79	430	97	96	362
4029	32050	98	71	22	104	115	328	103	96	322	91	93	390	98	103	351
4030	32051	99	66	21	103	124	430	106	96	402	95	91	410	103	102	365
4031	Jaya (Recurrent parent)	95	64	20	100	118	344	103	93	359	96	76	400	100	97	353
Exp. Mean		**98**	**69**	**21**	**102**	**113**	**355**	**104**	**95**	**351**	**95**	**86**	**412**	**102**	**102**	**370**

Table No. 5b.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – IM, (Trials not considered) Zone -7, Kharif 2023

Entry No	IET No	Trials not considered					
		Karnataka			Puducherry		
		@Brahmawar			@Karaikal		
		DFF	PH	PAN	DFF	PH	PAN
4004	29859 (R)	101	87	386	92	105	356
4005	29264 (R)	89	81	399	101	111	386
4009	NDR 359 (NC)	92	98	383	98	120	350
4010	30604	98	97	370	97	80	324
4011	30603	104	84	362	99	117	341
4012	30819	97	82	364	88	108	407
4013	30602	103	93	389	99	103	408
4020	PR-121 (ZC)	97	96	394	100	124	336
4021	30620	93	91	397	91	110	381
4023	HRI 174 (HC)	103	93	374	100	63	357
4024	Local Check (LC)	112	83	374	100	126	417
4025	32047	100	92	391	87	117	326
4026	32048	101	98	365	101	99	354
4027	WGL 14 (Recurrent Parent)	97	94	388	91	118	377
4028	32049	99	102	383	99	120	357
4029	32050	103	99	374	95	85	364
4030	32051	98	97	362	98	108	417
4031	Jaya (Recurrent parent)	98	101	356	91	61	379
Exp. Mean		**99**	**92**	**378**	**96**	**104**	**369**

Table No. 5b.4 : Grain quality characteristics of entries in AVT 1-IM, kharif 2023

Entry No.	Designation / IET No.	HULL	MILL	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
4001	**IET** - 30771	74.8	63.0	48.6	5.52	2.11	2.61	MS	VOC	4.0	22.70	22
4002	30772	78.8	68.3	63.3	6.34	1.95	3.25	LS	A	4.0	20.88	55
4003	30762	78.2	69.7	66.8	5.74	2.02	2.84	MS	VOC	4.0	23.52	55
4004	29859	78.4	66.5	55.4	6.54	2.10	3.11	LS	VOC	4.0	24.58	28
4005	29264	78.2	66.6	47.6	6.41	2.19	2.92	LB	VOC	4.0	24.02	63
4006	30798	77.1	67.7	60.6	5.34	2.37	2.25	SB	VOC	7.0	24.90	22
4007	30794	77.9	69.7	59.4	5.27	2.01	2.62	MS	VOC	4.0	20.35	39
4008	30790	78.1	67.9	50.1	5.93	2.27	2.61	MS	VOC	4.0	26.75	43
4009	**NDR -359 (NC)**	78.1	66.2	58.3	6.14	2.31	2.65	LB	OC	4.0	24.64	46
4010	30604	81.5	70.4	41.0	6.09	2.21	2.75	LB	VOC	5.0	24.55	22
4011	30603	79.9	67.4	46.3	6.69	2.10	3.18	LS	VOC	6.0	22.61	26
4012	30819	77.4	64.3	46.1	5.11	2.07	2.46	SB	VOC	4.0	24.81	63
4013	30602	80.0	63.6	32.8	6.32	2.06	3.06	LS	VOC	4.0	22.61	49
4014	30613	79.0	69.5	53.2	6.25	2.23	2.80	LB	A	5.0	25.87	47
4015	30617	80.4	69.8	58.4	6.37	2.19	2.90	LB	A	5.0	26.89	46
4016	30608	78.6	65.7	54.5	6.38	2.00	3.19	LS	VOC	4.0	24.34	59
4017	30600	81.7	70.2	64.0	6.25	2.20	2.84	LB	VOC	5.0	23.02	76
4018	30614	78.8	68.4	52.6	6.12	2.23	2.74	LB	A	4.0	26.04	44
4019	30605	81.0	69.1	57.9	6.37	2.07	3.07	LS	VOC	5.0	21.97	25
4020	**JAYA (ZC)**	77.4	64.1	58.0	5.48	2.38	2.32	SB	VOC	7.0	24.40	22
4021	30620	76.0	59.6	14.5	6.13	2.24	2.73	LB	VOC	4.0	23.32	46
4022	29616	76.8	65.2	34.7	5.53	2.44	2.26	SB	VOC	4.0	24.81	41
4023	**HRI -174**	79.9	65.5	56.4	6.17	2.19	2.81	LB	VOC	5.0	26.19	61
4024	**L.C**	77.4	68.0	61.4	5.07	2.07	2.44	SB	VOC	4.0	26.66	22
4025	32047	80.0	68.3	13.9	4.70	1.86	2.52	MS	VOC	4.0	26.13	22
4026	32048	81.2	69.4	30.3	4.34	1.74	2.49	SB	A	4.0	26.19	43
4027	WGL- 14(RP)	80.7	69.8	59.2	4.86	1.80	2.70	MS	A	5.0	22.90	22
4028	32049	80.2	68.3	39.8	5.46	2.42	2.25	SB	VOC	7.0	25.34	22
4029	32050	78.1	63.8	35.7	6.26	2.32	2.69	LB	VOC	7.0	25.43	22
4030	32051	79.7	68.0	40.0	5.30	2.37	2.27	SB	VOC	7.0	26.22	22
4031	**JAYA (RP)**	78.6	67.0	56.3	5.34	2.39	2.23	SB	VOC	7.0	24.43	22

HULL: Hulling (%); MILL: Milling (%); HRR: Head Rice Recovery (%); KL: Kernel Length(mm); KB: Kernel Breadth(mm); L/B: Length and breadth ratio; Grain Chalk: Grain Chalkiness; VOC: Very occasionally present; A: Absent ASV: Alkali Spreading Value; AC: Amylose Content(%); GC: Gel Consistency; LB: Long Bold; SB: Short Bold; LS: Long Slender; MS: Medium Slender; SS: Short Slender.

Table No.5c.1 : Composition of entries in Initial Variety Trial – Irrigated Medium (IVT– IM), Kharif 2023.

Entry No.	IET No.	Designation	Cross Combination	GT
1st year of testing:				
4101	31616	AD 19748	AD 07302 / CO 50	MS
4102	31617	BPT 3227	(RP Bio 226 / IRGC 23385) / (Nidhi / MTU 1081)	LS
4103	30684	CR 3842-62-5-1-1-1	Gontra Bidhan / CR Dhan203	
4104	31618	OROI-5-IR 86256-6-2-2-2	IR 68703-AC-24-1/ Swarba-Sub 1*2	MS
4105	31619	BRR 2140	IET 22238 / IET21519	MS
4106	31620	CB 20164	I.W. Ponni / CO 52	MS
4107	31621	Pusa 2085-36-9-5-7	Pusa 3039-3 / Pusa Samba 1853	LS
4108	31622	RP 6744-19408-1-1	Krishna Hamsa / IRBB60 // Krishna Hamsa / Tetep /// Krishna Hamsa / IR 96321-1447-561-B-1 // Krishna Hamsa / IR 81896-96-B-B-195 //// Krishna Hamsa / IR 74371-46-1-1-13 // Krishna Hamsa / DSB 2	MS
4109	31623	ORJ 1311		
4110	31624	JGL 37088	JGL30865 / JGL24423	LS
4111	31625	KJT-23-2	RPW 6-17 / RP4-14	LS
4112	31626	KNM 12510	RNR 15048 / JGL 11727 // JGL 17004	SS
4113	31627	PAU 6231-49-1-4-1-1(RYT 3955)	PAU 3739-3-3-1-2 / PAU 3842-59-7-1-1	
4114	31628	MTU 1413 (MTU 625-30-4-2)	MTU 1064/ JGL 11118	MS
4115	**NDR 359 (NC)**			
4116	31629	NVSR 1065	GAR-13 / Gurjari	LB
4117	31630	CR 3504-19-2-2-1-1-1	IR 36 / Birupa	LB
4118	31631	UPR 4631-1-1-1-1	Pant Dhan 23 / MT4253	LS
4119	31632	RGL 7032 (MTU RM 403-8-1-1-2)	MTU 1226 / RP Bio 226	MS
4120	31633	CR 4409 -1-1-1-1-1-1	CR 3511-3-2-2-5-1-1-2 / CR 3561-3-2-1-1-1-1	MB
4121	31634	R 2282-556-1-312-1	R1244-1246-1-608-1 / Indira sugandhit Dhan-1	MS
4122	31635	RNR 31755	IR 10A 155 / MTU 1010	LS
4123	31636	BKR 455	Lalat / Pusa 1176	SB
4124	31637	BRR 0252	Rajendra Mahsuri / IRBB58	MS
4125	31638	HURS 23-9-IR 11A282	IR04A427 / BR 29 (AGGRi Alliance)	LS
4126	31639	WGL 1752	BPT 5204 / RNR 15048	LS
4127	31640	AD 19538	CO 50 / AD 09494	MS
4128	31641	OR 2658-1	IR 72 / OR 1920-3	MS
4129	31642	CB 20117	CO 52 / Improved Samba Mashuri	MS
4130	31643	BRR 2128	Rajendra Sweta / Sita	MB
4131	**PR 121 (Northern), CR Dhan 300 (Eastern & North Eastern), Karma Mahsuri (Central), Akshayadhan (Western), Jaya (Southern)-- ZC**			
4132	31644	Shri Ram Super 7700	SRPG 806 / SPG 18	
4133	31645	Pusa 2084-38-1-4-1	Pusa 3039-9-3 / Pusa 1853-12-192	LS
4134	31646	CR 4396-184-4-2	Lalat MAS*3 / CR Dhan 801	MB
4135	31647	RP 6460-C3-312	166S-Swarna / O. nivara // 148S-Swarna/ O.nivara	MS
4136	31648	CRAC 3994-2-2	Doubled Haploid of CR Dhan 701	LS
4137	31649	NLR 3802	(BPT 5204 / IR 36) / BPT 5204	LS
4138	31650	RP 6528-RMS-2-24-44-66	Improved Samba Mahsuri *2 // Habataki / ST 12	MS
4139	31651	MTU 1412 (MTU 2578-5-2-1-1-1)	MTU 1156 / MTU 1081	MS
4140	31652	TRC 2023-52-IR18A1042	IR10N237 / IR11N202	LS

Entry No.	IET No.	Designation	Cross Combination	GT
4141	31653	JGL 38935	JGL 25960 / IRTON 270	LS
4142	31654	CR 4379-4-3-1-1-5-1	CR Dhan 307 / MTU 1010	MB
4143	31655	RGL 7028	BPT 5204 / NLR 145	MS
4144	31656	UPR 4626-2-1-1-1	UPR 3330-9-1-2 / UPR 3411-1-1-1	LS
4145	31657	IR 127607-4-B-B-B-1	IR 92132-1991-1-1-1-1-1 / 3* Nanhi	LS
4146	31658	SHUATS Dhan 10-IR 18A1926	IR 110611-B-B-B-25-1 / IR09A224	LS
4147	31659	R 2299-3671-1-254-1	Karma Mahsuri / Bamaleshwari	MS
4148	31660	RNR 34979	KKP 9 / KTL-8-5-12 / IR-64	LS
4149	31661	CR 4456- 8-3-2-1	NDR 359 / IR 127072-1-11-2-55	LS
4150	31662	NDR BARC -6		
4151	31663	HKR 15-32	PR 114 / HKR 47	LS
4152	31664	CR 4396-3-16--1	Lalat MAS / CR Dhan 801 // 3* Lalat MAS	LS
4153	31665	PAU 7669-44 (RYT 4133)	PR 121 / PAU 3835-36-6-3-3-4 (3303) // PR 121	
4154	31666	NPT 1059-9	JR 201 / NPT 116 / JR 201	MS
4155	31667	CRAC 3998-221-2	Doubled Haploid of 27P63	MB
4156	31668	BRR 0277	Rajendra Mahsuri / IRBB58	MS
4157	31669	RP 6533-RMS-9-21-33-45	Swarna*2 / Improved Samba Mahsuri	Ms
4158	30888	R 2370-496-1-278-1	R 1706-309-1-171-1 / IR 64	
4159	31670	CR 3785-1-1-1-1-4-1	Surendra / Ratna	MB
4160	31671	RP 6532-27-18-6-3	Swarna*2 / Improved Samba Mahsuri	MS
4161	31672	NVSR 1219	Gurjari / IET 23448	MS
4162	31673	RP 6346-14-24-63-85	Samba Mahsuri*3 / ST 12	MS
4163	31674	Pusa 5544-16-4-2-1-1-3	PRR 70 / NPT-33	MB
4164	**Local Check (LC)**			

Table No. 5c.2 : Grain Yield (kg/ha) in IVT – IM, Kharif 2023

Entry No	IET No	ZONE II - NORTHERN				ZONE III-EASTERN							
		Uttar Pradesh (1)		Zone II (1)		Odisha							
		Nagina		Mean		Bhubaneswar		ICAR-NRRI (Cuttack)		Jeypore		Chiplima	
4101	31616	4262		4262		6672		5384		2844		6122	2
4102	31617	4608		4608		5873		5325		3383		3782	
4103	30684	4668		4668		7098	10	4671		5111		4776	
4104	31618	4661		4661		6304		5423	10	5811	10	5474	9
4105	31619	5126		5126		4299		5260		6358	7	4968	
4106	31620	3850		3850		6095		4937		4303		3801	
4107	31621	2952		2952		5005		3916		2989		5519	8
4108	31622	4860		4860		5886		4371		4039		5910	4
4109	31623	4076		4076		7077		4016		3900		5622	6
4110	31624	5293		5293		5899		3060		4028		4038	
4111	31625	6609	7 *	6609	7 *	5479		3754		2319		3846	
4112	31626	6017	10 *	6017	10 *	6032		4297		2597		5308	
4113	31627	4654		4654		5860		3983		2892		4244	
4114	31628	4628		4628		7011		5222		4447		4923	
4115	NDR 359 (NC)	4495		4495		6381		5338		5158		5096	
4116	31629	5858	*	5858	*	5212		4164		2533		5321	
4117	31630	6642	6 *	6642	6 *	7537	2	5584	8	3781		4904	
4118	31631	5027		5027		6024		4235		4742		5013	
4119	31632	4475		4475		7516	3	5684	6	4489		4840	
4120	31633	6961	3 *	6961	3 *	6423		5719	5	5056		5641	5
4121	31634	4116		4116		7413	5	5017		4486		4910	
4122	31635	6662	5 *	6662	5 *	7799	1	3002		4033		3859	
4123	31636	5625	*	5625	*	6442		4506		4117		5032	
4124	31637	7473	1 *	7473	1 *	5926		4621		3631		5526	7
4125	31638	5366		5366		7421	4	5655	7	4622		5474	9
4126	31639	4827		4827		6894		5814	3	2817		4692	
4127	31640	4043		4043		7016		4408		6219	8	5917	3
4128	31641	3870		3870		7108	9	5763	4	5019		4615	
4129	31642	5053		5053		7272	7	3354		5808		5141	
4130	31643	4295		4295		6852		6959	1 *	6483	6	4962	
4131	Zonal Check	4408		4408				5289		2764		4712	
4132	31644	5738	*	5738	*	5899		4397		2822		4071	
4133	31645	5319		5319		4868		3252		4436		4667	
4134	31646	5964	*	5964	*	6508		4706		3650		4487	
4135	31647	5512		5512		3810		1284		2447		4359	
4136	31648	6569	8 *	6569	8 *	7053		3363		3286		3744	
4137	31649	6689	4 *	6689	4 *	7135	8	5541	9	2800		4064	
4138	31650	4215		4215		5892		4775		2631		4288	
4139	31651	4388		4388		6235		4940		2372		4410	
4140	31652	5279		5279		6114		4290		5703		4769	
4141	31653	4701		4701		6614		4421		6578	5	5064	
4142	31654	5618	*	5618	*	6611		4183		5433		5410	
4143	31655	4069		4069		6960		6092	2	5850	9	5340	
4144	31656	4594		4594		6085		4598		6967	3	4429	
4145	31657	6004	*	6004	*	7360	6	4743		2822		4782	
4146	31658	4435		4435		7011		3289		5322		5179	
4147	31659	7420	2 *	7420	2 *	6857		5217		5308		5058	
4148	31660	5705	*	5705	*	6905		4768		2514		4801	
4149	31661	4980		4980		5823		4487		6633	4	4000	
4150	31662	5711	*	5711	*	6534		3216		3092		3878	
4151	31663	4475		4475		4550		4908		2353		4199	
4152	31664	5086		5086		5394		4613		3250		4712	
4153	31665	5532		5532		5331		3705		4300		4308	
4154	31666	4448		4448		5712		4754		7331	1	4090	
4155	31667	5313		5313		6418		3687		3908		3442	
4156	31668	5851	*	5851	*	5667				4083		5340	
4157	31669	4069		4069		5175		5217		3994		4641	
4158	30888	5386		5386		6870		4503		2647		6942	1
4159	31670	4847		4847		5958		4721		4844		5353	
4160	31671	4109		4109		5376		4721		5481		5147	
4161	31672	5718	*	5718	*	6138		3613		7183	2	5026	
4162	31673	6117	9 *	6117	9 *	5608		4285		3989		3949	
4163	31674	4694		4694		4754		3951		3947		3910	
4164	Local Check	4920		4920		6108		4712		4844		4776	
Exp. Mean		**5140**		**5140**		**6241**		**4566**		**4275**		**4791**	
F Value		**16.46(p<0.0001)S**		**16.46(p<0.0001)S**		**3.47(p<0.0001)S**		**7.68(p<0.0001)S**		**8.67(p<0.0001)S**		**5.25(p<0.0001)S**	
CD		666		666		1310		922		1305		834	
CV%		**6.49**		**6.49**		**10.50**		**10.10**		**15.27**		**8.71**	
D/S		23-06-2023				19-07-2023		03-07-2023		18-07-2023		04-07-2023	
D/P		19-07-2023				22-08-2023		29-07-2023		18-08-2023		25-08-2023	
Local Check Name		NDR 359				Gobinda		Tapaswini		Kalinga Dhan 1203		Pratikshya	

Table No. 5c.2 (Contd).: Grain Yield (kg/ha) in IVT – IM, Kharif 2023

Entry No	IET No	ZONE III-EASTERN											
		Odisha (4)		Bihar				Bihar (2)		Jharkhand (1)		West Bengal	
		Mean		Bikramganj		Sabour		Mean		Ranchi		Chinsurah	
4101	31616	5256		5707		5308	10	5508		3025		6324	
4102	31617	4591		4438		4070		4254		4620		5394	
4103	30684	5414		3870		3097		3484		5638		6042	
4104	31618	5753	5	6004		5268		5636	9	4675		6845	
4105	31619	5221		7355	2	3500		5428		6325	4 *	7009	
4106	31620	4784		4015		3953		3984		3025		6324	
4107	31621	4357		6016		3947		4982		3520		5952	
4108	31622	5052		6806	6	3868		5337		1513		5655	
4109	31623	5154		4836		3867		4352		5638		7217	
4110	31624	4256		3908		3253		3581		4125		4836	
4111	31625	3850		5423		3843		4633		4263		4769	
4112	31626	4559		6395		4343		5369		5720	10 *	6808	
4113	31627	4245		6080		3734		4907		3025		6124	
4114	31628	5401		6232		4054		5143		3438		7024	
4115	NDR 359 (NC)	5493		4097		3301		3699		2750		4189	
4116	31629	4308		4735		2946		3841		3575		5804	
4117	31630	5452		6793	7	5333	9	6063	5 *	3850		7738	6
4118	31631	5004		5366		3959		4663		6875	2 *	5171	
4119	31632	5632	8	5783		5258		5521		4125		7083	
4120	31633	5710	6	6723	9	5338	8	6031	6 *	5775	8 *	6875	
4121	31634	5457		6237		3750		4994		3575		7314	
4122	31635	4673		5972		2782		4377		3438		5729	
4123	31636	5024		4047		2642		3345		4538		7068	
4124	31637	4926		7071	4	4508		5790	7 *	3575		7723	7
4125	31638	5793	4	6774	8	3652		5213		5913	6 *	7269	
4126	31639	5054		5802		5434	6	5618	10	6050	5 *	7790	5
4127	31640	5890	3	5372		5263		5318		4620		7374	
4128	31641	5626	9	7071	4	6255	2	6663	1 *	3713		7850	4
4129	31642	5394		5126		4322		4724		3300		7016	
4130	31643	6314	1 *	6717	10	5698	4	6208	3 *	3575		7560	8
4131	Zonal Check	4255		6427		3677		5052		3988		6637	
4132	31644	4297		3908		4403		4156		2475		6533	
4133	31645	4306		5650		4054		4852		2888		6548	
4134	31646	4838		5710		4846		5278		4125		6696	
4135	31647	2975		4085		2792		3439		4950		4152	
4136	31648	4362		3378		2922		3150		3575		4754	
4137	31649	4885		7102	3	5795	3	6449	2 *	2888		6064	
4138	31650	4397		5164		5028		5096		2613		7068	
4139	31651	4489		4766		5434	6	5100		4675		6577	
4140	31652	5219		4956		2812		3884		2338		8237	2
4141	31653	5669	7	5758		2877		4318		2998		5313	
4142	31654	5409		3889		4383		4136		3025		6324	
4143	31655	6061	2 *	5638		6530	1	6084	4 *	2750		8036	3
4144	31656	5520		4116		2983		3550		5720	10 *	4182	
4145	31657	4927		5316		3032		4174		3438		7068	
4146	31658	5200		5259		2691		3975		3713		5074	
4147	31659	5610	10	6326		5153		5740	8	6875	2 *	6771	
4148	31660	4747		5852		3205		4529		3025		4970	
4149	31661	5236		5568		2893		4231		5500		6860	
4150	31662	4180		4937		2979		3958		1238		4479	
4151	31663	4003		5145		3300		4223		2888		6726	
4152	31664	4492		3586		5645	5	4616		2750		6287	
4153	31665	4411		7399	1	2731		5065		4125		5030	
4154	31666	5472		5972		3263		4618		2475		6570	
4155	31667	4364		3485		2508		2997		8525	1 *	7299	
4156	31668	5030		4009		4472		4241		5775	8 *	7500	9
4157	31669	4757		4823		4639		4731		3025		4353	
4158	30888	5241		4066		5162		4614		5775	8 *	6920	
4159	31670	5219		1963		3419		2691		3163		5848	
4160	31671	5181		4646		5191		4919		4125		6079	
4161	31672	5490		3965		4886		4426		3163		7381	10
4162	31673	4458		4729		3713		4221		3163		8594	1
4163	31674	4141		4249		3661		3955		4675		7068	
4164	Local Check	5110		5372		3673		4523		4813		5521	
Exp. Mean		**4962**		**5281**		**4083**		**4682**		**4047**		**6397**	
F Value		**10.80(p<0.0001)S**		**6.62(p<0.0001)S**		**14.63(p<0.0001)S**		**12.14(p<0.0001)S**		**20.74(p<0.0001)S**		**9.17(p<0.0001)S**	
CD		529		1257		755		698		851		1020	
CV%		**5.34**		**11.91**		**9.25**		**7.46**		**10.52**		**7.98**	
D/S				02-07-2023		23-06-2023				24-06-2023		03-07-2023	
D/P				05-08-2023		13-07-2023				24-08-2023		07-08-2023	
Local Check Name				Sabour Shree		Rajendra Sweta				BVD-203		PRATIKSHYA	

Table No. 5c.2 (Contd).: Grain Yield (kg/ha) in IVT – IM, Kharif 2023

Entry No	IET No	ZONE III-EASTERN									
		West Bengal				West Bengal (3)		Uttar Pradesh 2(1)		Uttar Pradesh (2)		Zone III(11)	
		Malda		Bankura		Mean		Gorakpur		Mean		Mean	
4101	31616	4917	10	6446	10	5896		5093	9	4678		5258	*
4102	31617	4250		5009		4884		4658		4633		4618	
4103	30684	4500		4453		4998		4099		4384		4850	
4104	31618	5833	2	6261		6313	4	5155	5	4908		5732	2 *
4105	31619	4083		5203		5432		4037		4582		5309	*
4106	31620	4375		8025	1	6241	5	3602		3726		4769	
4107	31621	5083	6	4462		5166		5280	2	4116		4699	
4108	31622	4000		4647		4767		4099		4480		4618	
4109	31623	4167		6305		5896		5093	9	4585		5249	*
4110	31624	4292		4859		4662		5031		5162		4303	
4111	31625	5000	8	4718		4829		4907		5758	4 *	4393	
4112	31626	4083		5829		5573		4161		5089		5052	
4113	31627	4000		4347		4824		4845		4750		4467	
4114	31628	4250		4462		5245		5155	5	4892		5111	
4115	NDR 359 (NC)	5417	5	5767		5124		4907		4701		4764	
4116	31629	4500		4656		4987		4099		4979		4322	
4117	31630	4083		6746	6	6189	7	3602		5122		5450	10 *
4118	31631	5000	8	6049		5407		4161		4594		5145	
4119	31632	4667		6420		6057		4224		4350		5463	9 *
4120	31633	4750		6226		5950		3665		5313	7	5654	4 *
4121	31634	4083		4559		5319		3602		3859		4995	
4122	31635	4917	10	4400		5015		4099		5381	6	4548	
4123	31636	4167		4383		5206		3665		4645		4601	
4124	31637	4583		6843	5	6383	2	4534		6004	1 *	5322	*
4125	31638	4667		6526	8	6154	9	3292		4329		5570	6 *
4126	31639	5500	4	5353		6214	6	3727		4277		5443	*
4127	31640	5583	3	4321		5759		4534		4289		5512	7 *
4128	31641	6083	1	7989	2	7307	1 *	3851		3861		5938	1 *
4129	31642	4333		5573		5641		3478		4266		4975	
4130	31643	4333		4841		5578		3478		3887		5587	5 *
4131	Zonal Check	5000	8	6279		5972		3851		4130		4862	
4132	31644	4150		7240	4	5974		4472		5105		4579	
4133	31645	4750		5776		5691		3540		4430		4584	
4134	31646	4250		4594		5180		3602		4783		4834	
4135	31647	4625		4727		4501		4720		5116		3814	
4136	31648	4517		6455	9	5242		3789		5179		4258	
4137	31649	4500		4674		5079		5217	3	5953	2 *	5071	
4138	31650	4417		4912		5466		3789		4002		4598	
4139	31651	4708		7760	3	6348	3	3727		4058		5055	
4140	31652	4000		5467		5901		3416		4348		4737	
4141	31653	4500		5459		5091		3540		4121		4829	
4142	31654	4542		5573		5480		3540		4579		4810	
4143	31655	4583		5847		6155	8	5031		4550		5696	3 *
4144	31656	4250		6631	7	5021		3975		4285		4903	
4145	31657	4333		4621		5341		3602		4803		4647	
4146	31658	4417		5256		4916		5093	9	4764		4755	
4147	31659	4500		4242		5171		4099		5760	3 *	5491	8 *
4148	31660	4583		4365		4639		4907		5306	8	4536	
4149	31661	4417		5494		5590		4907		4944		5144	
4150	31662	4333		5053		4622		4348		5030		4008	
4151	31663	3833		5732		5430		5093	9	4784		4430	
4152	31664	4167		5229		5228		5217	3	5152		4623	
4153	31665	4500		4259		4596		5031		5282	9	4611	
4154	31666	4317		4683		5190		5093	9	4771		4933	
4155	31667	4250		5212		5587		4161		4737		4809	
4156	31668	4833		6129		6154	9	3727		4789		5154	
4157	31669	3833		4744		4310		4845		4457		4481	
4158	30888	4667		4868		5485		3851		4619		5116	
4159	31670	4667		4744		5086		3913		4380		4418	
4160	31671	4000		5406		5162		4286		4198		4951	
4161	31672	4333		5882		5865		4348		5033		5083	
4162	31673	4750		5009		6118		5031		5574	5	4802	
4163	31674	4250		4771		5363		4037		4366		4479	
4164	Local Check	4250		4947		4906		5528	1	5224	10	4959	
Exp. Mean		**4524**		**5433**		**5451**		**4304**		**4722**		**4903**	
F Value		**1.94(p<0.0046)S**		**7.74(p<0.0001)S**		**9.46(p<0.0001)S**		**4.60(p<0.0001)S**		**7.09(p<0.0001)S**		**18.10(p<0.0001)S**	
CD		913		957		523		816		529		289	
CV%		**10.10**		**8.82**		**4.80**		**9.48**		**6.00**		**2.95**	
D/S		13-07-2023		21-07-2023				21-06-2023					
D/P		11-08-2023		28-08-2023				16-07-2023					
Local Check Name		Bhupesh		Kunti				Samba sub-1					

Table No. 5c.2 (Contd).: Grain Yield (kg/ha) in IVT – IM, Kharif 2023

Entry No	IET No	ZONE IV - NORTH EASTERN				ZONE-V – CENTRAL					
		Assam (1)		Zone IV(1)		Chattisgarh					
		Titabar		Mean		Raipur		Ambikapur		Jagadalpur	
4101	31616	5457		5457		5295		4487		5697	
4102	31617	2643		2643		6302	6	136		3757	
4103	30684	4741		4741		5158		4754		5296	
4104	31618	4043		4043		4549		4113		5592	
4105	31619	3921		3921		4427		4113		4275	
4106	31620	4166		4166		4232		4487		3942	
4107	31621	4806		4806		3711		524		3828	
4108	31622	4867		4867		6297	7	4006		4401	
4109	31623	6092	3	6092	3	5618		4167		6077	
4110	31624	4517		4517		5556		4380		5485	
4111	31625	4248		4248		5903		4808		5381	
4112	31626	5870	9	5870	9	5313		4167		6071	
4113	31627	4763		4763		7079	2	4006		4873	
4114	31628	4505		4505		4670		4167		6003	
4115	NDR 359 (NC)	5828	10	5828	10	5096		4701		6829	7
4116	31629	4433		4433		4862		4060		4115	
4117	31630	6043	4	6043	4	5838		5021	7	5576	
4118	31631	6005	6	6005	6	5846		4167		5547	
4119	31632	4166		4166		4506		267		6341	
4120	31633	6249	1	6249	1	4944		4327		6296	
4121	31634	4054		4054		3993		4274		5684	
4122	31635	4302		4302		4979		4594		5251	
4123	31636	4783		4783		3321		4434		4209	
4124	31637	4557		4557		4852		4434		6826	8
4125	31638	5960	7	5960	7	8295	1	4380		7451	4
4126	31639	5663		5663		5390		4434		6696	10
4127	31640	6130	2	6130	2	5122		7372	2	5697	
4128	31641	5345		5345		6250	8	198		7161	5
4129	31642	4776		4776		5722		694		4977	
4130	31643	5536		5536		6771	3	8360	1	7637	2
4131	Zonal Check	5191		5191		4370		4220		5993	
4132	31644	4656		4656		6411	5	5502	4	5098	
4133	31645	4498		4498		4874		4113		4626	
4134	31646	5261		5261		4775		4220		4541	
4135	31647	2605		2605		1660		887		3861	
4136	31648	5464		5464		4297		4599		7458	3
4137	31649	4808		4808		5460		4113		7666	1
4138	31650	5543		5543		5143		4541		3997	
4139	31651	5384		5384		4685		4410		5785	
4140	31652	5021		5021		4925		4647		5843	
4141	31653	4854		4854		5729		5502	4	6654	
4142	31654	5326		5326		4414		4968	9	4935	
4143	31655	5635		5635		6089		588		6751	9
4144	31656	4530		4530		4114		4754		3730	
4145	31657	5226		5226		5487		4167		4336	
4146	31658	4771		4771		6109	10	4060		5472	
4147	31659	4525		4525		5357		5609	3	6569	
4148	31660	3638		3638		5426		4808		4479	
4149	31661	5033		5033		5357		5395	6	6208	
4150	31662	5132		5132		4488		4434		4063	
4151	31663	5600		5600		5556		4060		5615	
4152	31664	4736		4736		5326		4113		4186	
4153	31665	4042		4042		5295		4220		3971	
4154	31666	5187		5187		4827		4968	9	5684	
4155	31667	6006	5	6006	5	4492		4434		5124	
4156	31668	5093		5093		6698	4	4647		6940	6
4157	31669	4820		4820		5382		4380		4512	
4158	30888	5256		5256		5424		5005	8	5052	
4159	31670	5268		5268		4692		4541		4206	
4160	31671	4927		4927		4575		4220		4535	
4161	31672	4860		4860		6164	9	4647		5319	
4162	31673	4349		4349		5447		4647		4157	
4163	31674	5903	8	5903	8	4526		588		5378	
4164	Local Check	5128		5128		4427		4541		6338	
Exp. Mean		**4949**		**4949**		**5186**		**4103**		**5407**	
F Value		**3.14(p<0.0001)S**		**3.14(p<0.0001)S**		**3.94(p<0.0001)S**		**28.80(p<0.0001)S**		**2.25(p<0.0008)S**	
CD		1186		1186		1353		808		2029	
CV%		**12.00**		**12.00**		**13.05**		**9.86**		**18.78**	
D/S		05-07-2023				30-06-2023		30-06-2023		06-07-2023	
D/P		05-08-2023				28-07-2023		17-08-2023		27-07-2023	
Local Check Name		Numali				IGKV R 1244		MTU-1010		IGKVR 1244	

Table No. 5c.2 (Contd).: Grain Yield (kg/ha) in IVT – IM, Kharif 2023

Entry No	IET No	ZONE-V – CENTRAL									
		Chattisgarh (3)		Maharashtra 1				Maharashtra 1(2)		Zone V (5)	
		Mean		Sakoli		Sindewahi		Mean		Mean	
4101	31616	5160		3850		3374		3612		4541	
4102	31617	3398		5550		2777		4164		3704	
4103	30684	5069		4550		2571		3561		4466	
4104	31618	4751		2650		5369		4010		4455	
4105	31619	4272		3300		2756		3028		3774	
4106	31620	4220		3700		4311		4006		4134	
4107	31621	2688		4200		4233		4217		3299	
4108	31622	4901		3100		5866	4	4483		4734	
4109	31623	5287		3950		3665		3808		4695	
4110	31624	5140		3650		3608		3629		4536	
4111	31625	5364		5100		5021		5061		5243	
4112	31626	5184		3250		3061		3156		4372	
4113	31627	5319		5650	10	3345		4498		4991	
4114	31628	4947		4350		3111		3731		4460	
4115	NDR 359 (NC)	5542	10	4800		5412	8	5106		5368	9
4116	31629	4346		3300		4155		3728		4098	
4117	31630	5478		4600		5412	8	5006		5289	
4118	31631	5187		3050		5199		4125		4762	
4119	31632	3705		3050		4737		3894		3780	
4120	31633	5189		4150		6392	2	5271	9	5222	
4121	31634	4650		5200		5156		5178		4861	
4122	31635	4941		4850		3835		4343		4702	
4123	31636	3988		6650	2	2734		4692		4270	
4124	31637	5371		5450		4311		4881		5175	
4125	31638	6709	2 *	4200		5739	5	4970		6013	2 *
4126	31639	5507		5650	10	5256		5453	6	5485	7
4127	31640	6064	4	4100		5234		4667		5505	6
4128	31641	4536		5150		6158	3	5654	4	4983	
4129	31642	3798		4750		3714		4232		3971	
4130	31643	7589	1 *	6650	2	3814		5232	10	6646	1 *
4131	Zonal Check	4861		4400		4368		4384		4670	
4132	31644	5670	8	4400		4759		4580		5234	
4133	31645	4538		3350		4759		4055		4344	
4134	31646	4512		4850		3743		4297		4426	
4135	31647	2136		6500	5	2884		4692		3158	
4136	31648	5451		3200		4318		3759		4774	
4137	31649	5746	7	5200		4808		5004		5449	8
4138	31650	4560		5000		5284		5142		4793	
4139	31651	4960		4650		4801		4726		4866	
4140	31652	5138		5630		4084		4857		5026	
4141	31653	5962	5	3500		3196		3348		4916	
4142	31654	4772		5150		4808		4979		4855	
4143	31655	4476		4150		6705	1	5428	8	4857	
4144	31656	4199		3200		3089		3145		3777	
4145	31657	4663		4450		3317		3884		4351	
4146	31658	5214		4200		4482		4341		4865	
4147	31659	5845	6	6600	4	5043		5822	1	5836	3
4148	31660	4904		5600		4332		4966		4929	
4149	31661	5653	9	5200		5661	6	5431	7	5564	4
4150	31662	4328		3400		4283		3842		4134	
4151	31663	5077		6000	7	3374		4687		4921	
4152	31664	4542		3400		3509		3455		4107	
4153	31665	4495		4700		4425		4563		4522	
4154	31666	5160		3700		3885		3793		4613	
4155	31667	4683		4900		5185		5043		4827	
4156	31668	6095	3	4300		5128		4714		5543	5
4157	31669	4758		4850		5398	10	5124		4904	
4158	30888	5160		5900	8	5099		5500	5	5296	
4159	31670	4480		7100	1	4389		5745	2	4986	
4160	31671	4443		4900		4361		4631		4518	
4161	31672	5377		5650	10	4283		4967		5213	
4162	31673	4750		4350		3814		4082		4483	
4163	31674	3497		5450		4588		5019		4106	
4164	Local Check	5102		6050	6	5433	7	5742	3	5358	10
Exp. Mean		**4899**		**4630**		**4405**		**4518**		**4746**	
F Value		**9.07(p<0.0001)S**		**5.27(p<0.0001)S**		**8.77(p<0.0001)S**		**7.82(p<0.0001)S**		**10.24(p<0.0001)S**	
CD		780		1280		916		709		548	
CV%		**7.97**		**13.83**		**10.40**		**7.85**		**5.78**	
D/S				29-06-2023		28-06-2023					
D/P				01-08-2023		17-07-2023					
Local Check Name				PDKV KISAN		SYE-2001					

Table No. 5c.2 (Contd).: Grain Yield (kg/ha) in IVT – IM, Kharif 2023

Entry No	IET No	ZONE VI - WESTERN							
		Maharashtra 2 (1)		Maharashtra (3)		Gujarat			Gujarat (2)
		Karjat		Mean		Navasari		Nawagam	Mean
4101	31616	6799	4	4674		4419		4309	4364
4102	31617	5744		4690		4461		4519	4490
4103	30684	2214		3112		5241		4630	4936
4104	31618	5724		4581		5642		5636	5639
4105	31619	5346		3801		6083		5852	5968
4106	31620	4367		4126		3638		4654	4146
4107	31621	3974		4136		5060		6333	5697
4108	31622	4576		4514		4951		7994	4 6473
4109	31623	5218		4278		4882		6265	5574
4110	31624	4308		3855		5684		6778	6231
4111	31625	4077		4733		4693		5086	4890
4112	31626	4382		3564		4841		7531	9 6186
4113	31627	4137		4377		6015		5747	5881
4114	31628	5392		4284		3816		4685	4251
4115	NDR 359 (NC)	7076	3	5763	2	5908		6302	6105
4116	31629	3037		3497		5324		5463	5394
4117	31630	5156		5056		6262	10	5642	5952
4118	31631	4543		4264		4825		6253	5539
4119	31632	7089	2	4959		3121		4438	3780
4120	31633	5927	10	5490	6	4744		6926	5835
4121	31634	3838		4731		5519		6025	5772
4122	31635	4521		4402		5072		4877	4975
4123	31636	3206		4197		4476		5883	5180
4124	31637	6139	8	5300		4922		8000	3 6461
4125	31638	5705		5215		5118		7099	6109
4126	31639	5260		5389	9	4124		7086	5605
4127	31640	6543	5	5292		4242		2185	3214
4128	31641	7754	1	6354	1	5531		3519	4525
4129	31642	2626		3697		3018		5562	4290
4130	31643	5911		5458	7	6818	2	3346	5082
4131	Zonal Check	3660		4143		5342		5099	5221
4132	31644	4963		4707		6792	3	7315	7054 3
4133	31645	5027		4379		6060		6914	6487 10
4134	31646	5225		4606		6516	8	6963	6740 5
4135	31647	3056		4147		3980		2006	2993
4136	31648	4280		3933		6489	9	4846	5668
4137	31649	4975		4994		6103		5790	5947
4138	31650	3831		4705		6596	6	5525	6061
4139	31651	6340	7	5264		5792		7704	6 6748 4
4140	31652	2367		4027		5479		6543	6011
4141	31653	3146		3281		5332		8093	2 6713 6
4142	31654	5149		5036		7044	1	5691	6368
4143	31655	6051	9	5635	3	5641		4784	5213
4144	31656	3368		3219		6041		5037	5539
4145	31657	5153		4307		5753		5642	5698
4146	31658	4077		4253		5562		6228	5895
4147	31659	5242		5628	4	6728	4	6648	6688 7
4148	31660	3928		4620		6677	5	5691	6184
4149	31661	4943		5268		5904		8444	1 7174 1
4150	31662	3279		3654		5003		5093	5048
4151	31663	4659		4678		5892		7340	10 6616 8
4152	31664	4467		3792		5556		7543	8 6550 9
4153	31665	5297		4807		5549		4327	4938
4154	31666	4921		4169		5063		7191	6127
4155	31667	3864		4650		5123		5309	5216
4156	31668	3830		4419		4892		7944	5 6418
4157	31669	3038		4429		4559		7241	5900
4158	30888	4893		5297		6161		6525	6343
4159	31670	4453		5314		5857		3833	4845
4160	31671	5782		5014		3759		4975	4367
4161	31672	5464		5132		6527	7	7654	7 7091 2
4162	31673	2845		3670		5509		6296	5903
4163	31674	6440	6	5493	5	5022		6481	5752
4164	Local Check	4872		5452	8	5532		7056	6294
Exp. Mean		**4742**		**4592**		**5348**		**5912**	**5630**
F Value		**6.26(p<0.0001)S**		**7.92(p<0.0001)S**		**4.54(p<0.0001)S**		**6.79(p<0.0001)S**	**6.92(p<0.0001)S**
CD		1364		692		1186		1495	969
CV%		**14.39**		**7.54**		**11.10**		**12.65**	**8.61**
D/S		17-06-2023				15-06-2023		16-06-2023	
D/P		14-07-2023				12-07-2023		02-08-2023	
Local Check Name		Karjat-5				GNR-5		GAR 13	

Table No. 5c.2 (Contd).: Grain Yield (kg/ha) in IVT – IM, Kharif 2023

Entry No	IET No	Zone VI(3)		ZONE VII – SOUTHERN									
				Andhra Pradesh				Andhra Pradesh (2)		Telangana			
		Mean		Maruteru		Ragolu		Mean		Rajendranagar		Warangal	
4101	31616	5176		6242		6206	6	6224	5	6217		3669	
4102	31617	4908		5152		5051		5102		6350		6348	10
4103	30684	4028		5568		5980	10	5774		5988		4421	
4104	31618	5667		6182		6528	2	6355	3	5544		8715	2
4105	31619	5760		5667		4547		5107		4133		5455	
4106	31620	4220		5303		4649		4976		5825		3443	
4107	31621	5122		5644		4927		5286		4551		5770	
4108	31622	5840		5167		4401		4784		4403		8467	3
4109	31623	5455		5220		4971		5096		4608		5146	
4110	31624	5590		5568		4846		5207		5826		5894	
4111	31625	4619		5152		4649		4901		5791		4615	
4112	31626	5585		6364		4898		5631		4942		5061	
4113	31627	5300		6250		5000		5625		6990	7	6865	9
4114	31628	4631		6439		4094		5267		6449		5356	
4115	NDR 359 (NC)	6429	4	5636		4627		5132		6794		9190	1
4116	31629	4608		4955		5497		5226		6844		3958	
4117	31630	5687		5545		6404	4	5975		6671		5714	
4118	31631	5207		5265		4503		4884		5663		5759	
4119	31632	4883		6561		4627		5594		6425		4126	
4120	31633	5866		5470		6053	8	5762		5153		6962	8
4121	31634	5127		6030		5124		5577		5866		4486	
4122	31635	4823		7568	2	4598		6083	8	5709		5588	
4123	31636	4522		5576		4649		5113		7711	1	5715	
4124	31637	6354	6	7205	5	4898		6052	9	4939		5179	
4125	31638	5974		6576		5950		6263	4	7268	2	6113	
4126	31639	5490		6591	10	6696	1	6644	1	6178		3986	
4127	31640	4323		6894	7	4452		5673		6437		3414	
4128	31641	5601		6061		4678		5370		6423		3305	
4129	31642	3735		6439		4072		5256		6301		3763	
4130	31643	5358		7159	6	4576		5868		7136	4	5056	
4131	Zonal Check	4700		5341		6506	3	5924		4872		5330	
4132	31644	6357	5	6152		4620		5386		5389		8118	4
4133	31645	6000	9	6197		4050		5124		5218		4148	
4134	31646	6235	7	5758		4145		4952		5912		4762	
4135	31647	3014		4144		4020		4082		6083		3976	
4136	31648	5205		4364		4576		4470		5675		3872	
4137	31649	5623		6629	9	4649		5639		5406		4054	
4138	31650	5317		6841	8	4145		5493		5343		7442	5
4139	31651	6612	1	6076		4196		5136		6908	9	5484	
4140	31652	4796		6197		5424		5811		7239	3	5095	
4141	31653	5524		5121		5402		5262		5148		5153	
4142	31654	5961		5318		4349		4834		6849	10	6061	
4143	31655	5492		7348	4	4525		5937		6330		5337	
4144	31656	4815		4886		4949		4918		5219		4913	
4145	31657	5516		5629		4649		5139		5135		3727	
4146	31658	5289		5682		4401		5042		5790		4117	
4147	31659	6206	8	6432		4554		5493		4505		4022	
4148	31660	5432		6000		6404	4	6202	6	5591		4728	
4149	31661	6430	3	6591	10	4196		5394		5626		4654	
4150	31662	4458		5727		6192	7	5960		5595		3356	
4151	31663	5964		6288		4401		5345		6923	8	3819	
4152	31664	5855		5530		4159		4845		4610		3576	
4153	31665	5058		5742		4927		5335		4710		4330	
4154	31666	5725		6212		5885		6049	10	4509		6245	
4155	31667	4765		5129		6031	9	5580		5897		3559	
4156	31668	5555		6129				6129	7	5141		5683	
4157	31669	4946		7621	1	4430		6026				3948	
4158	30888	5860		7424	3	5804		6614	2	7091	5	5827	
4159	31670	4714		4985		4444		4715		6047		3316	
4160	31671	4839		5295		4094		4695		5745		5751	
4161	31672	6548	2	6030		4949		5490		5447		7348	6
4162	31673	4883		5402		5029		5216		6153		3981	
4163	31674	5981	10	4962		4101		4532		5824		4200	
4164	Local Check	5820		6038		5950		5994		7034	6	6977	7
Exp. Mean		**5334**		**5917**		**4957**		**5446**		**5843**		**5132**	
F Value		**5.72(p<0.0001)S**		**3.78(p<0.0001)S**		**5.39(p<0.0001)S**		**3.78(p<0.0001)S**		**3.95(p<0.0001)S**		**11.30(p<0.0001)S**	
CD		830		1085		905		773		1175		1166	
CV%		**7.79**		**9.18**		**9.13**		**7.11**		**10.06**		**11.37**	
D/S				15-07-2023		27-06-2023				20-06-2023		19-06-2023	
D/P				23-08-2023		24-07-2023				19-07-2023		11-07-2023	
Local Check Name				MTU 1239		MTU 1239				RNR 11718		WGL 14	

Table No. 5c.2 (Contd).: Grain Yield (kg/ha) in IVT – IM, Kharif 2023

Entry No	IET No	ZONE VII – SOUTHERN									
		Telangana		Telangana (3)		Tamil Nadu				Tamil Nadu (2)	
		Jagtial		Mean		Aduthurai		Coimbatore		Mean	
4101	31616	7173		5686		8407	2	5885		7146	4 *
4102	31617	4361		5686		4387		5361		4874	
4103	30684	6532		5647		6303	10	4984		5644	
4104	31618	6797		7019	7	6184		5749		5967	10
4105	31619	6738		5442		3961		5574		4768	
4106	31620	3604		4291		4387		5571		4979	
4107	31621	4695		5005		4536		4470		4503	
4108	31622	9180	3	7350	2	4216		5516		4866	
4109	31623	7540		5765		4089		3372		3731	
4110	31624	8813	6	6844	10	4216		4150		4183	
4111	31625	6247		5551		4280		3698		3989	
4112	31626	8500	10	6168		8475	1	6474	9	7475	2 *
4113	31627	6692		6849	8	4302		3604		3953	
4114	31628	5746		5850		4532		4009		4271	
4115	NDR 359 (NC)	8096		8027	1	4514		3848		4181	
4116	31629	6544		5782		4600		4283		4442	
4117	31630	7638		6674		4089		4878		4484	
4118	31631	7246		6223		4557		4556		4557	
4119	31632	7291		5947		5920		6387		6154	9
4120	31633	7920		6678		4864		4943		4904	
4121	31634	8130		6161		4408		4018		4213	
4122	31635	7615		6304		4536		3757		4147	
4123	31636	8024		7150	5	4749		4171		4460	
4124	31637	8901	5	6340		6278		4288		5283	
4125	31638	8205		7195	4	7700	6	6943	2	7322	3 *
4126	31639	9321	2	6495		4898		5641		5270	
4127	31640	4389		4747		8267	3	6881	5	7574	1 *
4128	31641	6227		5318		7112	7	5968		6540	7
4129	31642	4129		4731		5494		4376		4935	
4130	31643	6992		6395		4642		6892	3	5767	
4131	Zonal Check	7018		5740				5085		5085	
4132	31644	6531		6679		6133		4578		5356	
4133	31645	5279		4882		5963		4354		5159	
4134	31646	8213		6296		5792		5801		5797	
4135	31647	1763		3941		4387		3842		4115	
4136	31648	5885		5144		4983		3485		4234	
4137	31649	6234		5231		5111		4766		4939	
4138	31650	7749		6845	9	3991		4625		4308	
4139	31651	6385		6259		4216		5628		4922	
4140	31652	8749	7	7028	6	4429		3652		4041	
4141	31653	8068		6123		4161		4250		4206	
4142	31654	7394		6768		4813		5095		4954	
4143	31655	6138		5935		6410	9	7006	1	6708	6 *
4144	31656	8591	9	6241		5920		4102		5011	
4145	31657	8397		5753		3918		6658	8	5288	
4146	31658	8258		6055		7751	5	3759		5755	
4147	31659	9708	1	6078		5750		6710	6	6230	8
4148	31660	8636	8	6318		5366		4758		5062	
4149	31661	8053		6111		4514		5807		5161	
4150	31662	6612		5188		3663		5389		4526	
4151	31663	7149		5964		3978		3938		3958	
4152	31664	7902		5363		7836	4	6432	10	7134	5 *
4153	31665	6305		5115		3833		3745		3789	
4154	31666	7625		6126		4557		6070		5314	
4155	31667	5893		5116		4800		3861		4331	
4156	31668	7939		6254		4600		4143		4372	
4157	31669	6785		5367		3961		3525		3743	
4158	30888	8957	4	7292	3	4344		4095		4220	
4159	31670	7358		5574		4770		4799		4785	
4160	31671	5648		5715		7070	8	3319		5195	
4161	31672	7701		6832		5068		6045		5557	
4162	31673	5162		5099		4225		4131		4178	
4163	31674	6060		5361		4344		6667	7	5506	
4164	Local Check	5419		6477		4834		6891	4	5863	
Exp. Mean		**7013**		**5994**		**5149**		**4957**		**5053**	
F Value		**7.39(p<0.0001)S**		**7.65(p<0.0001)S**		**18.60(p<0.0001)S**		**5.47(p<0.0001)S**		**11.29(p<0.0001)S**	
CD		1553		794		810		1316		805	
CV%		**11.08**		**6.63**		**7.87**		**13.29**		**7.97**	
D/S		19-06-2023				16-09-2023		16-06-2023			
D/P		15-07-2023				25-10-2023		10-07-2023			
Local Check Name		JGL 11470				ADT 54		CO (R) 50			

Table No. 5c.2 (Contd).: Grain Yield (kg/ha) in IVT – IM, Kharif 2023

Entry No	IET No	ZONE VII – SOUTHERN									
		Kerala (1)		Karnataka				Karnataka (2)		Pudhucherry	
		Pattambi		Mandya		Gangavathi		Mean		Kurumbapet	
4101	31616	7899		6029		4788		5409		6000	
4102	31617	6733		5472		2705		4089		9750	4
4103	30684	6966		5613		3974		4794		7000	
4104	31618	7667		7341	1	6038	6	6690	2	8056	
4105	31619	5833		6379		6417	4	6398	4	6278	
4106	31620	6100		5778		5019		5399		9167	10
4107	31621	7900		5429		4378		4904		12583	1
4108	31622	7067		6679	5	5000		5840		8056	
4109	31623	6833		4700		4897		4799		8167	
4110	31624	6900		5594		3603		4599		4111	
4111	31625	7900		5637		4051		4844		6000	
4112	31626	7133		5674		5128		5401		4000	
4113	31627	8000	9	5362		3955		4659		5444	
4114	31628	7133		6391	10	5256		5824		8000	
4115	NDR 359 (NC)	5433		6287		4048		5168		8000	
4116	31629	6337		6556	6	3917		5237		6111	
4117	31630	7151		6054		4737		5396		8056	
4118	31631	6450		6538	7	4946		5742		8000	
4119	31632	7166		5135		5801	8	5468		5000	
4120	31633	5960		6109		5631		5870		6000	
4121	31634	7670		5913		5590		5752		6056	
4122	31635	6416		3824		3753		3789		9625	6
4123	31636	6080		5116		3519		4318		8611	
4124	31637	10866	1 *	5637		4167		4902		3389	
4125	31638	6100		6170		5936	7	6053	8	8056	
4126	31639	6351		6011		5567		5789		7000	
4127	31640	8150	8	5692		6119	5	5906	10	4167	
4128	31641	9132	4 *	7028	4	7106	1	7067	1 *	9056	
4129	31642	6466		5570		6833	3	6202	6	9611	7
4130	31643	5900		5962		5304		5633		6000	
4131	Zonal Check	7550		6250				6250	5	4000	
4132	31644	8466	6	5876		4776		5326		6000	
4133	31645	6100		6036		5667	10	5852		6778	
4134	31646	9766	3 *	6446	8	4667		5557		7000	
4135	31647	7618		3131		3378		3255		7667	
4136	31648	6333		4075		3423		3749		4000	
4137	31649	9799	2 *	5270		4269		4770		8000	
4138	31650	7833		4988		3718		4353		4167	
4139	31651	5833		5025		4064		4545		4278	
4140	31652	6267		6311		6846	2	6579	3	7000	
4141	31653	5899		5031		4788		4910		7000	
4142	31654	7966	10	5025		3962		4494		9583	8
4143	31655	8166	7	5686		4308		4997		9722	5
4144	31656	7317		4694		3699		4197		8056	
4145	31657	7166		5705		4494		5100		4444	
4146	31658	7033		5420		5026		5223		7167	
4147	31659	7894		6397	9	4442		5420		5667	
4148	31660	8999	5 *	5294		5064		5179		7944	
4149	31661	6166		6109		4885		5497		4000	
4150	31662	5314		5165		3135		4150		8000	
4151	31663	6319		4945		4199		4572		4333	
4152	31664	5733		5000		4224		4612		10347	2
4153	31665	6176		5092		3942		4517		6167	
4154	31666	6305		4933		5785	9	5359		4056	
4155	31667	5819		5509		4657		5083		7056	
4156	31668	6271		5662		4244		4953		8000	
4157	31669	6694		4908		3288		4098		6000	
4158	30888	6912		5919		3968		4944		5000	
4159	31670	6481		5729		4718		5224		4000	
4160	31671	7100		5214		3622		4418		9514	9
4161	31672	6505		5760		3955		4858		9944	3
4162	31673	6705		4657		4801		4729		8000	
4163	31674	7305		7328	2	4859		6094	7	6000	
4164	Local Check	6776		7114	3	4865		5990	9	6528	
Exp. Mean		**7036**		**5647**		**4665**		**5168**		**6887**	
F Value		**4.87(p<0.0001)S**		**6.72(p<0.0001)S**		**7.35(p<0.0001)S**		**9.10(p<0.0001)S**		**10.46(p<0.0001)S**	
CD		1393		839		987		702		1741	
CV%		**9.91**		**7.43**		**10.59**		**6.80**		**12.65**	
D/S		24-06-2023		26-06-2023		03-08-2023				03-10-2023	
D/P		14-07-2023		24-07-2023		08-09-2023				02-11-2023	
Local Check Name		SWETHA		BR-2655		BPT 5204				CO (R) 52	

Table No. 5c.2 (Contd).: Grain Yield (kg/ha) in IVT – IM, Kharif 2023

Entry No	IET No	ZONE VII – SOUTHERN						Overall Mean (33)	
		Pudhucherry		Pudhucherry (2)		Zone VII(12)			
		Karaikal		Mean		Mean			
4101	31616	5714		5857		6186	8	5455	
4102	31617	6905	2	8328	3	5715		4845	
4103	30684	5952		6476		5773		5044	
4104	31618	6548		7302		6779	1 *	5830	5 *
4105	31619	6190		6234		5598		5175	
4106	31620	6071		7619	7	5410		4810	
4107	31621	6190		9387	1 *	5923		4921	
4108	31622	6905	2	7481	9	6255	5	5357	
4109	31623	5595		6881		5428		5239	
4110	31624	6190		5151		5476		4918	
4111	31625	5714		5857		5311		4939	
4112	31626	5476		4738		6010		5400	
4113	31627	6821	6	6133		5774		5112	
4114	31628	6869	4	7435		5856		5207	
4115	NDR 359 (NC)	6310		7155		6065		5504	
4116	31629	6845	5	6478		5537		4806	
4117	31630	6786	8	7421		6144		5754	7
4118	31631	5476		6738		5747		5334	
4119	31632	6786	8	5893		5935		5258	
4120	31633	8571	1	7286		6136		5841	3 *
4121	31634	5357		5707		5721		5196	
4122	31635	4643		7134		5636		5049	
4123	31636	5595		7103		5793		5013	
4124	31637	5833		4611		5965		5669	10
4125	31638	5238		6647		6688	2 *	6086	1 *
4126	31639	5952		6476		6183	9	5711	9
4127	31640	6429		5298		5941		5533	
4128	31641	5952		7504	8	6504	3	5888	2 *
4129	31642	6429		8020	4	5790		5003	
4130	31643	6548		6274		6014		5841	3 *
4131	Zonal Check	5952		4976		5790		5119	
4132	31644	5357		5679		6000		5394	
4133	31645	5238		6008		5419		5000	
4134	31646	5119		6060		6115		5413	
4135	31647	5000		6334		4584		3937	
4136	31648	4452		4226		4594		4651	
4137	31649	5119		6560		5776		5476	
4138	31650	5000		4584		5487		5033	
4139	31651	5238		4758		5278		5239	
4140	31652	6667	10	6834		6156	10	5327	
4141	31653			7000		5456		5120	
4142	31654	5833		7708	6	6021		5402	
4143	31655	5179		7451	10	6346	4	5736	8
4144	31656	5833		6945		5682		4987	
4145	31657	4762		4603		5390		5010	
4146	31658	5476		6322		5823		5199	
4147	31659	5714		5691		5983		5816	6 *
4148	31660	4762		6353		6129		5264	
4149	31661	4762		4381		5447		5426	
4150	31662	5476		6738		5302		4624	
4151	31663	5000		4667		5108		4927	
4152	31664	6786	8	8567	2 *	6011		5179	
4153	31665	5476		5822		5037		4804	
4154	31666	5357		4707		5628		5202	
4155	31667	4048		5552		5188		4997	
4156	31668	4690		6345		5682		5463	
4157	31669	6190		6095		5214		4840	
4158	30888	5952		5476		5941		5523	
4159	31670	4202		4101		5071		4807	
4160	31671	5119		7317		5624		5094	
4161	31672	5619		7782	5	6198	7	5654	
4162	31673	4405		6203		5221		4939	
4163	31674	4881		5441		5544		4996	
4164	Local Check	6012		6270		6203	6	5554	
Exp. Mean		**5723**		**6315**		**5746**		**5233**	
F Value		**2.55(p<0.0001)S**		**7.30(p<0.0001)S**		**12.13(p<0.0001)S**		**26.78(p<0.0001)S**	
CD		1516		1182		351		203	
CV%		**13.25**		**9.36**		**3.05**		**1.94**	
D/S		06-09-2023							
D/P		05-10-2023							
Local Check Name		KKL R(2)							

Table No. 5c.2 (Contd).: Grain Yield (kg/ha) in IVT – IM, (Trials not considered), Kharif 2023

Entry No	IET No	Trials not considered							
		Uttarakhand		Haryana		Uttar Pradesh 2		Assam	
		@Pantnagar		@Kaul		@Masodha		@Gerua	
4101	31616	146						6079	
4102	31617	498		2900		4229		2871	
4103	30684	2919		6700	7	5346		3297	
4104	31618	1411		5500				6147	
4105	31619	818		5200		3737		3762	
4106	31620	74						5307	
4107	31621	1804		4200				6812	4
4108	31622	2807		6100		5064		2782	
4109	31623	2787		6500		5426		4663	
4110	31624	2538		4600		4727		3911	
4111	31625	516		3000		4588		3347	
4112	31626	2209		3900		5126		5287	
4113	31627	2022		5600		6283	5	6051	
4114	31628	281		4600		4202		5653	
4115	NDR 359 (NC)	2232		6500		6017	7	4366	
4116	31629	3270	8	6700	7	5725		5109	
4117	31630	2784		7300	3	5445		5238	
4118	31631	2818		6500		4801		5109	
4119	31632	66				4574		4782	
4120	31633	826		4600				6821	3
4121	31634	1318		6100		5652		3614	
4122	31635	2094		6500		4953		6267	
4123	31636	3458	5	8000	1	5632		5149	
4124	31637	763		5700		5851	10	3822	
4125	31638	2551		6200				6495	8
4126	31639	1224		7100	4	5379		6020	
4127	31640	69							
4128	31641	153		4400		4242		5861	
4129	31642	191		3700				4901	
4130	31643	1270		4700				5426	
4131	Zonal Check	2486		5100				5129	
4132	31644	3340	7	5100		5572		3693	
4133	31645	1541		5300		5691		7475	1
4134	31646	1581		4100		6403	2	6277	10
4135	31647	261		4000		5618		3550	
4136	31648	2963	10	6300		5652		3455	
4137	31649	1645		3600		5146		6535	7
4138	31650	3933	1 *	6900	5	5585		4258	
4139	31651	381		4500		4023		6069	
4140	31652	3487	4	7600	2	5366		5297	
4141	31653	3423	6	5900		5372		6970	2
4142	31654	2619		6600	9	6017	7	3723	
4143	31655	286		3800				5396	
4144	31656	2823		5700		5685		3386	
4145	31657	2224		6200		5984	9	3634	
4146	31658	2629		5300		5465		3525	
4147	31659	728		6600	9	5685		3594	
4148	31660	2991	9	6300		5399		6089	
4149	31661	2121		6100		5339		5277	
4150	31662	2075		5800		5459		5588	
4151	31663	2371		5700		5725		6356	9
4152	31664	1584		5200		5638		6594	6
4153	31665	3494	2	5400		5193		5960	
4154	31666	2740		6900	5 *	6503	1	6653	5
4155	31667	2611		5400		5239		2723	
4156	31668	2349		6000		6190	6	4386	
4157	31669	2819		3500		5372		3851	
4158	30888	1914		4800		6363	3	4970	
4159	31670	2859		4700		5339		6277	10
4160	31671	182		6100				4308	
4161	31672	3491	3	5500		6316	4	2990	
4162	31673	2699		6200		5432		5099	
4163	31674	614		3700				4772	
4164	Local Check	2476		5800		5166		5436	
Exp. Mean		**1901**		**5475**		**5391**		**4988**	
F Value		**6.78(p<0.0001)S**		**Single Replication**		**16.92(p<0.0001)S**		**2.52(p<0.0002)S**	
CD		1253				423		2263	
CV%		**32.99**				**3.91**		**22.69**	
D/S		14-06-2023		02-07-2023		02-07-2023		08-07-2023	
D/P		12-07-2023		03-08-2023		09-08-2023		25-08-2023	
Local Check Name		Pant Dhan 4		HKR 128		NDR 2064		CR Dhan 801	

Table No. 5c.2 (Contd).: Grain Yield (kg/ha) in IVT – IM, (Trials not considered), Kharif 2023

Entry No	IET No	Trials not considered							
		Tripura		Maharashtra 2		Karnataka			
		@Lembucherra		@Shirgaon		@Mugad		@Brahmawar	
4101	31616	2695		3210		6761		3407	
4102	31617	1621		2892		5317		3723	
4103	30684	1699		3583		5709		4225	3
4104	31618	2246		3008		6531		4639	1
4105	31619	1660		2492		5388		4199	4
4106	31620	2871		2578		5055		3628	
4107	31621	2500		2858		4814		4177	6
4108	31622	4121	10	3089		6524		4045	9
4109	31623	3047		3759	6	5788		3299	
4110	31624	2695		3258		8599	5	3230	
4111	31625	1973		2680		6166		3940	
4112	31626	4355	9	2663		6972		3138	
4113	31627	4863	3	3504		6273		3140	
4114	31628	2715		2979		6535		3502	
4115	NDR 359 (NC)	3711		3945	4	5974		4038	10
4116	31629	2715		3652		7108		4243	2
4117	31630	3027		3000		4813		3496	
4118	31631	3867		3265		5274		3388	
4119	31632	2871		3591		9348	1	3331	
4120	31633	3613		3172		8074	7	3233	
4121	31634	2676		2252		4086		3302	
4122	31635	2773		2477		4118		3249	
4123	31636	4414	7	3239		5150		3265	
4124	31637	4395	8	2258		6074		3289	
4125	31638	4723	5	3284		7268	10	3142	
4126	31639	3105		3303		8391	6	3207	
4127	31640	3105		3720	9	8625	4	2701	
4128	31641	3066		3023		5876		3402	
4129	31642	2695		2195		7117		3271	
4130	31643	3594		3191		7120		3291	
4131	Zonal Check	3281		2943		6902		3233	
4132	31644	3184		2786		5603		3214	
4133	31645	2969		3443		6813		3213	
4134	31646	3457		3144		5147		2947	
4135	31647	859		2040		3264		3176	
4136	31648	3301		2525		4256		3040	
4137	31649	2285		3295		6625		4076	8
4138	31650	3262		3886	5	4615		3255	
4139	31651	1270		3708	10	7769	9	2589	
4140	31652	4043		2545		4481		3360	
4141	31653	3770		2898		3642		3205	
4142	31654	3223		2388		8741	3	3003	
4143	31655	5582	2	3741	7	6218		3309	
4144	31656	2344		2009		4099		3282	
4145	31657	3320		2140		4449		3343	
4146	31658	3496		3314		5627		3195	
4147	31659	4785	4	4093	1	6114		3223	
4148	31660	3203		3468		4656		3302	
4149	31661	2891		3129		4933		3186	
4150	31662	2871		2460		8768	2	2943	
4151	31663	3379		3733	8	5078		3549	
4152	31664	6168	1	3294		6908		3061	
4153	31665	2656		2970		6447		4180	5
4154	31666	3379		2703		7994	8	3222	
4155	31667	1484		2587		5772		3486	
4156	31668	3203		2850		5999		3230	
4157	31669	2031		2386		4534		3565	
4158	30888	2500		4009	2	6297		3336	
4159	31670	4473	6	2801		6207		3155	
4160	31671	2559		2085		6205		3002	
4161	31672	3730		2449		5498		3559	
4162	31673	1113		2602		3176		3313	
4163	31674	3086		3227		7123		3099	
4164	Local Check	2461		3981	3	4899		4155	7
Exp. Mean		**3110**		**3027**		**6027**		**3408**	
F Value		**19.77(p<0.0001)S**		**5.51(p<0.0001)S**		**1.97(p<0.0040)S**		**3.55(p<0.0001)S**	
CD		639		673		2842		605	
CV%		**10.28**		**11.12**		**23.60**		**8.88**	
D/S		11-07-2023		16-06-2023		12-07-2023		12-06-2023	
D/P		03-08-2023		18-07-2023				08-07-2023	
Local Check Name		Gomati		Ratnagiri 6		MGD-101		Sahyadri Brahma	

Table No. 5c.3 : Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – IM, Kharif 2023

Entry No	IET No	ZONE II-NORTHERN						ZONE III-EASTERN											
		Uttar Pradesh (1)			Zone II(1)			Odisha											
		Nagina			Mean			Bhubaneswar			ICAR-NRRI (Cuttack)			Jeypore			Chiplima		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4101	31616	141	99	251	141	99	251	113	111	256	119	132	266	113	93	291	129	112	183
4102	31617	140	87	252	140	87	252	115	97	288	118	112	256	111	69	238	127	101	157
4103	30684	102	94	294	102	94	294	99	110	284	102	115	275	119	95	365	117	102	194
4104	31618	126	83	295	126	83	295	110	107	245	105	106	185	116	88	318	117	90	216
4105	31619	126	100	202	126	100	202	105	125	199	110	153	204	117	104	295	124	125	145
4106	31620	137	96	326	137	96	326	114	100	262	117	117	275	117	81	466	131	101	170
4107	31621	119	101	327	119	101	327	111	95	300	111	105	238	116	70	265	119	100	251
4108	31622	100	106	225	100	106	225	98	86	279	95	110	281	116	65	379	115	101	243
4109	31623	96	104	269	96	104	269	92	103	300	102	98	273	103	76	211	113	91	224
4110	31624	95	101	226	95	101	226	91	93	255	93	97	230	111	75	308	114	80	169
4111	31625	126	77	240	126	77	240	98	87	251	97	92	290	117	66	312	111	75	249
4112	31626	118	95	227	118	95	227	100	100	238	91	94	203	118	69	298	113	102	263
4113	31627	107	92	296	107	92	296	101	93	337	101	97	198	113	74	285	117	76	191
4114	31628	125	98	310	125	98	310	116	94	268	118	112	209	117	82	346	111	103	156
4115	NDR 359 (NC)	107	99	270	107	99	270	98	97	335	91	99	196	112	69	248	114	93	179
4116	31629	98	103	321	98	103	321	97	105	342	96	101	201	115	72	281	125	107	176
4117	31630	111	119	315	111	119	315	102	120	255	101	117	205	109	82	249	128	121	211
4118	31631	102	107	242	102	107	242	99	93	340	93	96	321	116	69	322	116	97	258
4119	31632	140	99	314	140	99	314	117	110	305	120	122	208	117	88	302	127	110	167
4120	31633	121	104	303	121	104	303	101	120	385	109	125	284	117	85	382	122	115	173
4121	31634	116	109	300	116	109	300	100	102	377	107	100	339	111	76	375	114	90	253
4122	31635	95	90	333	95	90	333	93	100	372	95	86	224	114	69	365	115	86	219
4123	31636	124	114	333	124	114	333	97	120	295	93	113	326	117	82	295	117	95	233
4124	31637	118	102	219	118	102	219	101	97	285	111	100	196	114	70	315	124	92	230
4125	31638	114	96	324	114	96	324	103	117	374	106	114	275	115	90	335	130	110	190
4126	31639	127	97	282	127	97	282	105	109	250	97	114	215	117	74	307	114	101	175
4127	31640	135	93	272	135	93	272	114	115	257	116	125	252	116	90	352	131	110	194
4128	31641	132	99	238	132	99	238	109	110	349	118	119	254	115	87	329	129	103	232
4129	31642	135	104	240	135	104	240	117	100	319	110	110	266	116	85	329	131	102	217
4130	31643	127	87	228	127	87	228	112	92	269	114	121	207	116	82	279	122	100	170
4131	Zonal Check	108	84	282	108	84	282				118	122	271	119	88	235	131	103	164
4132	31644	111	100	260	111	100	260	99	90	283	101	99	223	113	68	278	118	91	175
4133	31645	130	89	238	130	89	238	109	102	238	116	99	179	114	72	271	125	96	220
4134	31646	117	93	280	117	93	280	98	100	179	101	97	255	114	73	298	114	94	218
4135	31647	115	91	314	115	91	314	91	90	168	104	90	228	110	69	238	112	81	180
4136	31648	95	113	245	95	113	245	89	95	271	93	106	200	108	85	228	113	100	212
4137	31649	114	86	297	114	86	297	100	83	326	109	93	267	119	65	285	123	81	203
4138	31650	111	97	300	111	97	300	97	87	283	112	101	214	114	71	265	112	82	170
4139	31651	126	100	180	126	100	180	104	85	225	112	91	278	119	68	316	122	81	231
4140	31652	97	99	264	97	99	264	95	122	319	91	134	215	117	110	281	121	114	187
4141	31653	100	103	256	100	103	256	92	102	289	92	105	206	115	82	322	122	87	261
4142	31654	110	89	227	110	89	227	102	103	310	109	103	197	120	84	261	116	98	160
4143	31655	135	100	286	135	100	286	108	93	269	113	107	275	116	73	241	132	101	209
4144	31656	99	108	240	99	108	240	90	112	295	109	111	177	108	88	323	125	111	201
4145	31657	96	119	321	96	119	321	95	122	337	99	116	200	112	93	444	119	113	173
4146	31658	103	92	271	103	92	271	97	96	322	102	105	207	111	74	449	121	95	150
4147	31659	115	106	319	115	106	319	100	123	340	106	126	203	115	86	347	119	110	193
4148	31660	96	114	259	96	114	259	87	100	349	89	102	204	111	87	350	117	90	231
4149	31661	104	101	230	104	101	230	92	107	329	94	108	181	111	85	368	117	99	193
4150	31662	94	109	278	94	109	278	89	96	218	94	99	240	117	75	312	119	67	207
4151	31663	96	88	251	96	88	251	91	99	192	93	98	269	119	71	372	114	89	256
4152	31664	118	100	320	118	100	320	100	87	253	95	98	265	114	72	465	114	84	236
4153	31665	110	97	326	110	97	326	93	89	254	92	97	242	110	67	265	113	77	231
4154	31666	99	109	315	99	109	315	92	88	203	89	102	199	116	78	369	117	93	187
4155	31667	98	115	260	98	115	260	92	118	227	91	110	266	117	75	275	114	90	180
4156	31668	123	95	315	123	95	315	99	82	227				119	68	335	124	91	210
4157	31669	111	92	320	111	92	320	98	88	238	108	90	230	112	77	265	117	87	197
4158	30888	118	108	280	118	108	280	93	100	234	95	110	219	113	78	330	113	100	219
4159	31670	105	129	305	105	129	305	97	112	271	101	116	234	110	89	312	114	118	220
4160	31671	126	95	184	126	95	184	104	84	234	110	100	185	115	77	433	122	99	156
4161	31672	110	114	329	110	114	329	92	95	244	94	98	243	113	76	332	113	92	217
4162	31673	111	98	331	111	98	331	93	85	254	93	98	254	118	69	358	113	78	170
4163	31674	136	98	280	136	98	280	100	95	255	114	104	231	113	78	271	126	90	162
4164	Local Check	111	115	320	111	115	320	104	112	265	96	100	241	118	74	241	117	90	182
Exp. Mean		**114**	**100**	**277**	**114**	**100**	**277**	**100**	**101**	**279**	**103**	**107**	**235**	**114**	**78**	**315**	**119**	**96**	**201**

Table No. 5c.3 (Contd):Days to 50% flowering, Plant Height (cm)& Panicles/m2 in IVT– IM, Kharif 2023

Entry No	IET No	ZONE III-EASTERN																	
		Odisha (4)			Bihar						Bihar (2)			Jharkhand (1)			West Bengal		
		Mean			Bikramganj			Sabour			Mean			Ranchi			Chinsurah		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4101	31616	118	112	249	127	124	318	126	130	283	127	127	300	107	65	99	119	135	264
4102	31617	118	95	234	127	115	340	121	108	265	124	111	303	117	61	109	115	126	248
4103	30684	109	105	279	106	107	296	95	131	210	100	119	253	103	70	139	107	133	248
4104	31618	112	98	241	111	112	323	111	123	265	111	118	294	109	61	127	113	119	314
4105	31619	114	127	211	111	140	297	118	156	206	114	148	251	102	77	107	111	162	347
4106	31620	120	100	293	132	105	315	124	120	278	128	112	296	111	83	160	116	118	281
4107	31621	114	92	263	130	105	291	110	118	221	120	111	256	124	74	139	116	122	264
4108	31622	106	91	295	106	124	410	99	118	325	102	121	367	104	55	101	100	114	264
4109	31623	103	92	252	106	103	313	85	121	241	96	112	277	102	71	170	97	112	330
4110	31624	102	86	240	106	98	321	105	104	203	105	101	262	112	53	86	94	112	231
4111	31625	106	80	275	108	94	325	112	110	287	110	102	306	120	48	119	106	104	264
4112	31626	106	91	250	109	112	343	108	115	338	109	114	341	119	64	114	110	112	347
4113	31627	108	85	252	106	108	347	100	111	195	103	109	271	113	50	98	108	111	264
4114	31628	115	98	245	127	114	309	122	117	265	124	116	287	120	63	125	109	130	347
4115	NDR 359 (NC)	104	89	239	104	109	359	94	107	181	99	108	270	111	67	105	106	119	198
4116	31629	108	96	250	106	103	326	88	128	225	97	115	276	113	61	132	100	121	248
4117	31630	110	110	230	109	107	379	103	141	292	106	124	335	122	72	73	108	144	363
4118	31631	106	89	310	106	103	365	95	116	203	101	109	284	110	56	104	100	101	215
4119	31632	120	107	245	130	107	313	134	132	283	132	120	298	122	80	105	112	129	330
4120	31633	112	111	306	108	99	322	118	136	238	113	117	280	110	61	123	109	148	314
4121	31634	108	92	336	109	99	355	111	102	260	110	100	308	115	68	100	109	115	396
4122	31635	104	85	295	104	131	361	88	105	199	96	118	280	104	53	106	99	116	330
4123	31636	106	102	287	103	124	328	96	127	194	100	125	261	120	61	186	103	132	281
4124	31637	112	90	256	111	100	348	111	120	303	111	110	326	101	66	121	110	120	380
4125	31638	113	108	293	109	116	352	86	123	235	97	119	293	104	59	142	105	137	330
4126	31639	108	99	236	111	114	349	112	129	287	111	121	318	105	63	140	110	141	347
4127	31640	119	110	263	127	117	362	98	129	305	112	123	333	113	65	123	102	133	330
4128	31641	118	105	291	127	113	356	121	128	270	124	121	313	112	61	142	107	133	446
4129	31642	118	99	282	127	106	318	134	118	265	131	112	292	111	69	84	114	128	380
4130	31643	116	99	231	108	113	337	119	142	303	113	127	320	112	67	141	118	120	380
4131	Zonal Check	122	104	223	125	130	388	127	128	237	126	129	313	109	59	120	108	138	297
4132	31644	108	87	240	104	113	300	100	119	315	102	116	307	114	52	86	107	120	248
4133	31645	116	92	227	113	112	291	115	116	318	114	114	304	105	52	93	108	122	363
4134	31646	107	91	237	113	96	326	107	131	238	110	113	282	107	66	138	108	114	347
4135	31647	104	82	203	106	138	304	114	120	213	110	129	259	109	68	109	117	112	330
4136	31648	101	96	228	106	128	365	95	120	207	100	124	286	112	62	121	104	135	264
4137	31649	113	81	270	122	110	368	114	111	288	118	111	328	110	48	136	111	100	281
4138	31650	109	85	233	106	115	321	98	116	215	102	115	268	115	59	84	108	110	281
4139	31651	114	81	262	109	89	370	117	109	362	113	99	366	115	68	175	118	120	380
4140	31652	106	120	250	106	153	354	94	151	180	100	152	267	112	78	88	101	152	413
4141	31653	105	94	269	109	104	331	95	112	223	102	108	277	107	59	103	103	124	198
4142	31654	111	97	232	104	100	293	103	114	205	104	107	249	104	67	64	100	125	248
4143	31655	117	94	249	103	114	225	125	121	312	114	117	268	110	58	90	104	116	413
4144	31656	108	106	249	106	129	310	84	124	223	95	127	266	114	66	73	100	136	248
4145	31657	106	111	288	106	117	335	85	121	245	96	119	290	106	73	115	109	128	330
4146	31658	107	92	282	104	102	330	98	110	278	101	106	304	106	55	90	100	132	330
4147	31659	110	111	270	104	110	368	109	154	284	107	132	326	107	71	125	109	145	314
4148	31660	101	95	283	106	112	365	85	107	368	95	109	366	109	61	109	96	115	281
4149	31661	104	100	268	104	133	360	97	120	160	101	126	260	108	65	147	104	131	264
4150	31662	105	84	244	106	92	319	86	106	208	96	99	264	115	60	117	113	126	231
4151	31663	104	89	272	104	128	337	87	110	258	96	119	297	106	58	88	102	113	248
4152	31664	106	85	304	106	94	224	111	117	308	108	105	266	105	54	111	101	116	264
4153	31665	102	83	248	106	95	281	97	102	194	102	98	237	105	60	111	107	100	248
4154	31666	104	90	239	127	117	375	94	117	293	111	117	334	104	54	96	102	108	215
4155	31667	103	98	237	106	132	349	94	144	157	100	138	253	110	72	84	101	137	347
4156	31668	114	80	257	104	117	388	110	106	283	107	111	335	106	51	146	116	110	380
4157	31669	109	85	232	103	98	326	111	99	242	107	98	284	110	78	112	107	120	264
4158	30888	103	97	250	113	111	392	108	122	233	110	116	312	108	68	109	108	126	248
4159	31670	105	109	259	106	108	262	100	132	210	103	120	236	111	63	87	102	145	231
4160	31671	113	90	252	106	91	383	120	112	248	113	101	315	105	64	89	120	112	264
4161	31672	103	90	259	106	96	378	108	123	228	107	109	303	110	56	96	107	122	363
4162	31673	104	83	259	109	102	345	97	108	235	103	105	290	101	55	81	106	119	429
4163	31674	113	91	230	106	101	304	135	120	272	120	110	288	104	66	88	113	121	314
4164	Local Check	109	94	232	106	105	312	109	101	240	108	103	276	105	64	124	108	141	264
Exp. Mean		**109**	**96**	**257**	**111**	**111**	**333**	**106**	**120**	**251**	**108**	**115**	**292**	**110**	**63**	**113**	**107**	**124**	**303**

Table No. 5c.3(Contd): Days to 50% flowering, Plant Height (cm) &Panicles/m2 in IVT– IM, Kharif 2023

Entry No	IET No	ZONE III-EASTERN																	
		West Bengal						West Bengal (3)			Uttar Pradesh 2(1)			Uttar Pradesh (2)			Zone III(11)		
		Malda			Bankura			Mean			Gorakpur			Mean			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4101	31616	94	147	13	105	115	457	106	132	245	124	123	235	133	111	243	116	117	242
4102	31617	90	102	10	115	109	347	106	112	201	113	121	309	126	104	281	115	102	233
4103	30684	84	120	14	107	120	369	99	124	210	87	120	298	94	107	296	102	111	244
4104	31618	89	117	11	115	103	441	106	113	255	113	125	273	119	104	284	110	105	247
4105	31619	91	128	13	107	142	363	103	144	241	111	156	261	118	128	231	109	133	221
4106	31620	93	121	10	121	107	479	110	115	256	125	125	260	131	111	293	118	107	268
4107	31621	87	104	8	112	96	438	105	107	237	108	128	319	113	114	323	113	101	248
4108	31622	80	123	8	109	97	440	96	111	237	90	118	244	95	112	234	101	101	270
4109	31623	81	95	10	109	100	319	96	102	220	83	119	252	89	112	260	97	99	240
4110	31624	79	102	10	112	100	473	95	105	238	83	114	252	89	107	239	100	93	230
4111	31625	81	134	12	104	93	428	97	110	235	114	125	254	120	101	247	106	94	254
4112	31626	89	119	13	110	96	416	103	109	258	109	126	255	113	110	241	107	101	257
4113	31627	89	109	8	107	100	369	101	107	213	100	117	244	103	104	270	105	95	230
4114	31628	93	118	13	127	100	413	110	116	258	111	116	240	118	107	275	115	105	245
4115	NDR 359 (NC)	82	113	8	106	112	435	98	115	214	89	113	233	98	106	252	101	100	225
4116	31629	89	122	9	112	125	450	100	123	235	86	116	228	92	110	274	102	106	238
4117	31630	90	157	7	112	129	380	103	143	250	100	140	218	106	130	266	108	121	239
4118	31631	82	104	12	110	92	336	97	99	187	87	114	244	95	111	243	101	95	247
4119	31632	93	127	10	104	114	334	103	123	225	122	122	263	131	111	289	118	113	238
4120	31633	86	117	11	112	123	346	102	129	224	112	124	328	117	114	315	109	114	264
4121	31634	90	125	12	109	100	352	103	113	253	105	126	231	111	117	266	107	100	277
4122	31635	83	102	11	112	93	423	98	104	255	84	120	245	89	105	289	99	96	259
4123	31636	82	115	12	102	114	270	96	120	187	91	125	247	107	120	290	102	110	242
4124	31637	85	104	10	109	92	357	101	105	249	109	128	244	114	115	231	108	99	253
4125	31638	92	138	13	111	113	461	103	129	268	95	138	214	104	117	269	105	114	265
4126	31639	87	132	12	109	122	363	102	132	241	112	133	251	119	115	267	107	112	245
4127	31640	94	132	7	117	125	352	104	130	230	119	129	303	127	111	287	113	115	258
4128	31641	95	143	11	112	108	335	105	128	264	114	123	230	123	111	234	114	112	268
4129	31642	96	136	11	121	118	451	110	127	280	117	121	249	126	113	245	118	108	262
4130	31643	91	123	13	109	102	330	106	115	241	112	136	258	120	111	243	112	109	244
4131	Zonal Check	90	146	10	127	113	413	108	132	240	111	135	237	110	110	259	116	116	237
4132	31644	87	104	8	102	102	289	99	109	181	101	122	274	106	111	267	104	98	225
4133	31645	89	130	6	117	120	415	105	124	261	111	125	269	120	107	254	111	104	242
4134	31646	83	112	10	107	95	471	99	107	276	105	134	238	111	113	259	105	101	247
4135	31647	83	100	9	102	104	375	101	105	238	97	116	245	106	103	280	104	99	218
4136	31648	79	113	7	105	109	286	96	119	186	85	132	252	90	122	248	99	108	219
4137	31649	89	98	9	112	94	361	104	97	217	103	118	226	108	102	261	110	91	250
4138	31650	81	105	9	112	103	281	100	106	190	100	119	225	105	108	263	105	97	213
4139	31651	93	98	9	112	100	444	108	106	278	112	100	262	119	100	221	112	92	277
4140	31652	82	130	7	107	143	455	96	142	291	87	120	276	92	110	270	101	128	252
4141	31653	85	102	9	107	105	428	98	110	211	85	123	294	93	113	275	101	100	242
4142	31654	82	108	7	101	117	282	94	117	179	95	111	274	102	100	251	103	103	209
4143	31655	92	112	9	109	92	450	101	107	291	118	121	302	126	110	294	112	101	254
4144	31656	92	110	13	101	113	462	98	120	241	84	117	233	91	112	237	101	111	232
4145	31657	81	121	10	108	117	454	99	122	264	83	133	229	90	126	275	100	114	261
4146	31658	82	110	8	111	98	424	97	113	254	90	122	217	96	107	244	102	100	255
4147	31659	87	149	9	109	125	342	102	140	221	99	135	246	107	121	282	106	121	252
4148	31660	77	102	10	104	102	292	92	106	194	83	128	293	89	121	276	97	100	259
4149	31661	87	121	7	104	106	355	98	119	209	90	127	260	97	114	245	101	109	238
4150	31662	81	103	9	102	109	450	99	113	230	83	119	268	89	114	273	100	96	234
4151	31663	85	105	11	102	107	396	96	108	218	87	121	227	92	105	239	99	100	241
4152	31664	83	125	7	107	82	638	97	108	303	107	126	267	112	113	294	104	96	276
4153	31665	81	105	13	102	87	457	97	97	239	96	124	214	103	110	270	100	91	228
4154	31666	82	105	11	99	104	314	94	106	180	89	116	237	94	113	276	101	98	227
4155	31667	83	137	7	105	123	450	96	132	268	86	132	185	92	124	222	100	115	230
4156	31668	87	108	11	117	91	428	107	103	273	93	121	250	108	108	282	107	94	265
4157	31669	92	103	12	107	104	359	102	109	212	95	124	173	103	108	247	105	97	220
4158	30888	85	123	10	101	119	405	98	123	221	104	114	222	111	111	251	104	106	238
4159	31670	83	124	9	109	110	444	98	126	228	95	144	290	100	137	298	102	115	233
4160	31671	93	117	13	112	94	402	108	108	226	118	124	266	122	109	225	111	98	243
4161	31672	81	109	11	101	113	476	96	115	283	100	125	252	105	119	290	102	100	258
4162	31673	76	100	11	102	102	462	95	107	301	95	118	240	103	108	285	100	94	258
4163	31674	86	107	8	107	113	457	102	114	259	112	122	242	124	110	261	110	101	236
4164	Local Check	85	100	12	118	119	400	104	120	225	112	127	329	111	121	324	107	103	237
Exp. Mean		**86**	**117**	**10**	**109**	**108**	**399**	**101**	**116**	**237**	**100**	**124**	**253**	**107**	**112**	**265**	**106**	**104**	**245**

Table No.5c.3(Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT– IM, Kharif 2023

Entry No	IET No	ZONE IV- NORTH EAS			Zone IV(1)			ZONE-V – CENTRAL								
		Assam (1)						Chattisgarh								
		Titabar			Mean			Raipur			Ambikapur			Jagadalpur		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4101	31616	137	115	258	137	115	258	117	125	204	127	105	227	117	74	317
4102	31617	137	94	255	137	94	255	117	102	167	121	83	162	118	76	247
4103	30684	116	118	256	116	118	256	95	112	199	133	95	164	101	81	304
4104	31618	135	113	275	135	113	275	108	114	203	109	87	210	116	78	293
4105	31619	126	132	240	126	132	240	108	152	206	117	106	177	109	92	302
4106	31620	144	93	263	144	93	263	123	102	207	122	76	170	118	67	263
4107	31621	122	99	246	122	99	246	112	92	211	123	74	242	116	61	239
4108	31622	113	97	261	113	97	261	98	104	192	118	83	206	102	72	265
4109	31623	114	104	261	114	104	261	93	114	201	109	85	190	95	78	285
4110	31624	114	95	262	114	95	262	91	122	210	109	88	196	93	73	230
4111	31625	115	91	285	115	91	285	106	101	218	117	65	203	109	78	228
4112	31626	126	108	268	126	108	268	108	112	205	118	91	231	118	75	227
4113	31627	116	93	264	116	93	264	105	104	213	126	77	200	108	70	202
4114	31628	137	102	269	137	102	269	118	113	195	121	87	199	117	72	262
4115	NDR 359 (NC)	116	95	256	116	95	256	99	112	201	117	85	178	104	69	256
4116	31629	114	101	251	114	101	251	96	104	188	117	88	197	102	72	224
4117	31630	116	113	244	116	113	244	98	122	197	118	110	199	99	86	198
4118	31631	115	120	244	115	120	244	98	111	199	118	79	237	103	67	199
4119	31632	143	106	249	143	106	249	121	111	217	122	89	173	119	78	234
4120	31633	127	119	283	127	119	283	108	121	203	124	101	195	112	84	264
4121	31634	126	102	275	126	102	275	102	113	207	123	86	234	107	70	291
4122	31635	114	99	259	114	99	259	91	112	195	106	79	237	94	73	235
4123	31636	114	115	242	114	115	242	94	131	191	109	88	163	98	75	268
4124	31637	126	99	267	126	99	267	105	102	187	123	78	249	107	71	251
4125	31638	119	121	279	119	121	279	104	131	202	126	99	214	107	79	270
4126	31639	127	104	277	127	104	277	107	131	199	124	95	182	111	82	258
4127	31640	139	114	239	139	114	239	117	126	197	127	108	218	114	75	273
4128	31641	138	105	264	138	105	264	112	131	214	123	92	214	118	72	330
4129	31642	134	105	281	134	105	281	111	113	214	127	84	132	114	66	278
4130	31643	127	109	238	127	109	238	114	121	210	124	83	166	113	76	246
4131	Zonal Check	129	104	268	129	104	268	99	102	196	109	73	212	105	69	235
4132	31644	119	103	263	119	103	263	103	112	201	119	82	204	108	67	274
4133	31645	122	100	247	122	100	247	115	94	204	123	78	234	116	65	214
4134	31646	118	99	252	118	99	252	106	103	199	123	83	179	111	68	199
4135	31647	115	109	237	115	109	237	99	112	207	109	84	193	102	69	301
4136	31648	114	139	270	114	139	270	91	123	209	116	102	205	93	81	233
4137	31649	123	93	254	123	93	254	104	102	195	117	74	207	112	88	274
4138	31650	118	96	230	118	96	230	102	101	210	118	46	176	105	68	263
4139	31651	136	92	250	136	92	250	111	91	202	128	74	192	114	62	262
4140	31652	116	139	254	116	139	254	97	140	198	116	120	207	101	72	279
4141	31653	114	111	265	114	111	265	93	110	196	115	95	219	104	70	228
4142	31654	118	103	244	118	103	244	99	94	179	119	82	192	101	73	216
4143	31655	135	98	259	135	98	259	117	103	203	121	81	221	119	67	261
4144	31656	114	116	282	114	116	282	91	140	204	106	113	207	92	81	256
4145	31657	116	112	264	116	112	264	92	130	208	108	102	230	96	86	232
4146	31658	116	97	257	116	97	257	95	114	213	109	88	198	102	71	220
4147	31659	126	117	251	126	117	251	103	141	199	118	107	218	102	94	283
4148	31660	114	102	237	114	102	237	91	121	207	106	96	197	97	73	275
4149	31661	115	123	288	115	123	288	95	124	197	106	108	237	102	76	238
4150	31662	115	110	248	115	110	248	96	101	191	117	87	187	98	73	182
4151	31663	116	107	263	116	107	263	93	113	216	118	90	238	96	70	259
4152	31664	117	95	264	117	95	264	107	102	207	124	74	214	110	62	242
4153	31665	113	95	264	113	95	264	99	93	208	118	70	205	105	60	204
4154	31666	116	99	279	116	99	279	95	104	196	107	84	206	96	71	245
4155	31667	114	117	238	114	117	238	94	122	209	116	107	173	97	89	248
4156	31668	118	97	261	118	97	261	107	101	174	128	74	199	106	72	231
4157	31669	126	89	236	126	89	236	98	94	201	118	75	192	106	88	197
4158	30888	120	116	267	120	116	267	102	121	217	118	101	244	107	78	229
4159	31670	116	117	234	116	117	234	97	121	204	107	108	174	101	91	229
4160	31671	129	103	257	129	103	257	107	74	189	125	84	195	109	68	264
4161	31672	116	95	286	116	95	286	100	112	209	117	89	255	107	76	315
4162	31673	115	99	262	115	99	262	97	101	202	109	81	229	103	89	212
4163	31674	127	103	245	127	103	245	118	101	201	123	74	185	119	70	249
4164	Local Check	112	120	285	112	120	285	104	122	189	106	85	202	102	89	229
Exp. Mean		**121**	**106**	**259**	**121**	**106**	**259**	**103**	**113**	**201**	**117**	**88**	**203**	**106**	**75**	**250**

Table No.5c.3(Contd):Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – IM, Kharif 2023

Entry No	IET No	ZONE-V – CENTRAL														
		Chattisgarh (3)			Maharashtra 1						Maharashtra 1(2)			Zone V (5)		
		Mean			Sakoli			Sindewahi			Mean			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4101	31616	120	101	249	108	94	290	115	104	202	111	99	246	117	100	248
4102	31617	119	87	192	105	115	384	115	92	256	110	103	320	115	94	243
4103	30684	110	96	222	87	113	292	90	104	207	88	109	250	101	101	233
4104	31618	111	93	235	95	94	225	113	109	235	104	101	230	108	96	233
4105	31619	111	117	228	92	114	277	107	140	198	99	127	237	106	121	232
4106	31620	121	82	213	100	105	245	115	101	341	107	103	293	115	90	245
4107	31621	117	75	231	94	113	280	83	104	288	88	109	284	105	89	252
4108	31622	106	86	221	104	86	246	92	115	220	98	101	233	102	92	226
4109	31623	99	92	225	92	118	285	87	93	274	89	105	279	95	98	247
4110	31624	98	94	212	96	128	191	90	102	222	93	115	206	96	103	210
4111	31625	110	81	216	94	86	320	114	87	309	104	87	314	108	83	255
4112	31626	114	93	221	98	93	205	104	94	255	101	94	230	109	93	224
4113	31627	113	84	205	106	96	314	106	103	351	106	100	332	110	90	256
4114	31628	119	91	218	89	113	198	105	106	223	97	110	211	110	98	215
4115	NDR 359 (NC)	107	89	212	92	128	180	93	96	201	92	112	190	101	98	203
4116	31629	105	88	203	100	93	253	90	84	246	95	89	249	101	88	221
4117	31630	105	106	198	98	113	266	94	135	240	96	124	253	101	113	220
4118	31631	106	86	212	96	114	271	94	103	323	95	109	297	101	95	246
4119	31632	121	92	208	101	123	231	115	120	219	108	122	225	115	104	215
4120	31633	114	102	221	98	83	227	107	128	272	102	106	250	109	103	232
4121	31634	110	90	244	94	110	332	101	94	320	97	102	326	105	95	277
4122	31635	97	88	222	122	118	240	84	97	384	103	108	312	99	96	258
4123	31636	100	98	207	93	94	365	89	102	261	91	98	313	96	98	249
4124	31637	111	84	229	96	111	285	102	111	269	99	111	277	106	95	248
4125	31638	112	103	228	92	95	248	101	118	307	96	107	277	106	105	248
4126	31639	114	102	213	90	117	263	103	121	198	96	119	231	107	109	220
4127	31640	119	103	229	103	95	247	109	106	257	106	101	252	114	102	238
4128	31641	117	98	253	100	125	310	114	124	323	107	124	316	113	109	278
4129	31642	117	88	208	94	112	270	106	106	262	100	109	266	110	96	231
4130	31643	117	93	207	94	128	328	115	118	301	104	123	314	112	105	250
4131	Zonal Check	104	81	214	92	137	308	104	84	273	98	110	290	102	93	245
4132	31644	110	87	226	107	125	240	104	102	207	105	114	224	108	98	225
4133	31645	118	79	217	98	135	294	108	116	399	103	126	346	112	98	269
4134	31646	113	85	192	94	123	234	102	95	275	98	109	255	107	94	217
4135	31647	103	88	234	103	97	349	94	92	281	98	94	315	101	91	266
4136	31648	100	102	215	98	124	273	85	106	224	91	115	248	96	107	228
4137	31649	111	88	225	94	93	293	104	99	223	99	96	258	106	91	238
4138	31650	108	72	216	105	95	311	102	100	245	103	98	278	106	82	241
4139	31651	117	75	218	92	103	291	108	96	247	100	100	269	110	85	239
4140	31652	105	111	228	89	115	310	92	110	223	90	112	266	99	112	243
4141	31653	104	92	214	103	97	285	119	112	248	111	104	267	106	97	235
4142	31654	106	83	196	100	94	279	93	95	223	96	94	251	102	87	218
4143	31655	119	84	228	105	124	251	108	113	210	106	119	231	114	98	229
4144	31656	96	111	222	104	115	141	85	124	285	94	120	213	95	114	218
4145	31657	98	106	223	96	106	254	88	122	238	92	114	246	96	109	232
4146	31658	102	91	210	93	98	230	88	101	302	90	99	266	97	94	233
4147	31659	107	114	233	94	106	310	100	122	201	97	114	256	103	114	242
4148	31660	98	97	226	91	113	298	88	109	239	89	111	268	94	103	243
4149	31661	101	102	224	88	124	261	99	112	287	93	118	274	98	109	244
4150	31662	103	87	187	91	134	294	90	114	224	90	124	259	98	102	215
4151	31663	102	91	238	96	94	305	88	101	239	92	98	272	98	94	251
4152	31664	113	79	221	93	126	208	104	94	263	98	110	235	107	91	227
4153	31665	107	75	205	90	130	242	98	118	268	94	124	255	102	94	225
4154	31666	99	86	216	111	87	223	92	99	262	101	93	243	100	89	226
4155	31667	102	106	210	95	116	271	87	124	238	91	120	254	97	112	228
4156	31668	113	83	201	103	109	259	97	101	251	100	105	255	108	91	223
4157	31669	107	86	196	96	116	294	97	90	294	96	103	294	103	93	235
4158	30888	109	100	230	101	124	313	100	126	291	100	125	302	105	110	258
4159	31670	101	107	202	91	123	348	95	116	219	93	119	283	98	112	235
4160	31671	114	75	216	111	135	284	106	87	275	108	111	279	111	90	241
4161	31672	108	93	260	104	113	279	97	104	270	100	109	274	105	99	266
4162	31673	103	90	214	100	118	225	96	97	295	98	108	260	101	97	232
4163	31674	120	82	211	94	125	325	79	110	344	86	118	334	106	96	260
4164	Local Check	104	99	207	104	97	333	102	90	285	103	94	309	103	97	247
Exp. Mean		**109**	**92**	**218**	**97**	**111**	**273**	**99**	**106**	**262**	**98**	**109**	**268**	**104**	**98**	**238**

Table No.5c.3 (Contd):Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT– IM, Kharif 2023

Entry No	IET No	ZONE VI – WESTERN														
		Maharashtra 2 (1)			Maharashtra (3)			Gujarat						Gujarat (2)		
		Karjat			Mean			Navasari			Nawagam			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4101	31616	119	150	335	114	116	276	96	124	294	110	128	279	103	126	286
4102	31617	112	122	292	110	110	311	114	124	250	113	108	287	114	116	268
4103	30684	97	121	215	91	113	238	94	114	267	105	114	287	100	114	277
4104	31618	112	133	237	106	112	232	110	124	249	114	108	284	112	116	266
4105	31619	102	158	271	100	137	248	105	170	299	109	116	293	107	143	296
4106	31620	120	136	230	111	114	272	119	124	307	114	109	272	117	116	289
4107	31621	107	119	231	94	112	266	105	107	268	103	104	291	104	105	279
4108	31622	97	125	229	97	109	231	89	121	289	99	99	306	94	110	297
4109	31623	97	119	247	92	110	269	95	112	262	95	100	295	95	106	278
4110	31624	94	133	246	93	121	220	91	115	307	94	95	281	93	105	294
4111	31625	109	105	221	105	93	283	111	105	277	109	103	289	110	104	283
4112	31626	105	123	232	102	103	231	109	129	250	110	106	276	109	117	263
4113	31627	97	116	234	103	105	299	97	110	244	109	101	280	103	105	262
4114	31628	110	124	248	101	114	223	116	121	273	107	100	272	111	111	272
4115	NDR 359 (NC)	95	120	282	93	114	221	92	117	332	101	103	270	97	110	301
4116	31629	94	123	204	94	100	234	93	118	278	104	112	273	98	115	275
4117	31630	97	140	240	96	129	248	105	148	299	110	127	275	107	137	287
4118	31631	97	113	243	95	110	279	94	111	244	109	101	268	101	106	256
4119	31632	116	137	308	111	127	253	119	133	283	110	122	276	115	128	279
4120	31633	110	147	278	105	119	259	110	131	288	117	130	274	113	131	281
4121	31634	97	123	214	97	109	289	97	114	226	112	119	271	104	116	249
4122	31635	94	123	227	100	113	284	90	108	261	96	98	278	93	103	269
4123	31636	96	138	232	92	111	286	92	123	237	94	124	279	93	123	258
4124	31637	107	126	276	101	116	276	109	124	234	113	107	274	111	116	254
4125	31638	98	140	271	97	118	275	103	132	253	116	130	271	110	131	262
4126	31639	110	128	260	101	122	240	110	125	265	111	123	271	110	124	268
4127	31640	117	135	316	109	112	273	119	123	318	110	121	271	114	122	294
4128	31641	116	138	318	110	129	317	113	134	273	116	118	270	115	126	272
4129	31642	116	126	194	105	115	242	106	121	281	120	112	280	113	116	280
4130	31643	105	131	277	104	126	302	113	136	284	108	109	273	111	122	278
4131	Zonal Check	98	140	210	98	120	263	101	152	295	108	124	276	104	138	285
4132	31644	105	116	251	105	114	233	106	135	301	108	103	271	107	119	286
4133	31645	97	126	249	101	126	314	111	130	281	108	106	266	109	118	273
4134	31646	97	118	237	97	112	249	101	121	287	112	104	278	106	112	282
4135	31647	99	116	231	98	102	287	98	115	269	99	115	278	98	115	273
4136	31648	94	130	250	92	120	249	89	132	246	107	107	270	98	119	258
4137	31649	99	107	234	99	100	250	106	112	280	103	95	284	104	104	282
4138	31650	97	114	199	101	103	251	99	113	238	101	107	271	100	110	255
4139	31651	101	108	262	100	102	267	110	111	264	108	95	273	109	103	268
4140	31652	97	162	213	92	129	248	95	160	255	99	142	269	97	151	262
4141	31653	97	113	200	106	107	244	91	112	300	104	108	286	97	110	293
4142	31654	101	122	236	98	103	246	97	118	288	99	103	275	98	111	281
4143	31655	112	125	279	108	121	247	115	123	262	108	111	265	111	117	263
4144	31656	94	149	212	94	129	213	91	141	227	95	116	267	93	128	247
4145	31657	95	139	251	93	122	247	91	129	240	103	112	271	97	121	255
4146	31658	97	116	233	92	105	255	96	123	267	98	111	275	97	117	271
4147	31659	97	145	247	97	125	253	104	158	261	110	122	271	107	140	266
4148	31660	97	122	215	92	115	251	92	125	262	93	108	270	92	117	266
4149	31661	97	138	260	95	124	269	97	137	297	104	115	268	101	126	282
4150	31662	94	121	228	91	123	248	94	130	278	99	103	282	96	117	280
4151	31663	97	124	251	93	106	265	94	113	227	102	110	285	98	112	256
4152	31664	109	124	230	102	115	233	110	125	232	106	101	277	108	113	254
4153	31665	97	105	249	95	118	253	95	110	251	100	88	284	97	99	267
4154	31666	97	122	248	100	103	244	102	117	277	105	106	277	103	111	277
4155	31667	97	135	225	93	125	245	98	154	295	99	112	281	98	133	288
4156	31668	97	106	217	99	105	242	93	124	273	96	93	280	94	109	276
4157	31669	97	108	202	96	105	263	100	144	299	108	90	281	104	117	290
4158	30888	97	126	238	99	125	280	108	146	259	106	117	289	107	131	274
4159	31670	97	148	245	94	129	271	101	117	257	105	115	275	103	116	266
4160	31671	113	124	261	110	115	273	106	127	295	110	100	265	108	113	280
4161	31672	98	119	250	99	112	266	103	119	224	106	113	267	104	116	246
4162	31673	98	108	195	98	108	238	101	131	246	109	101	271	105	116	258
4163	31674	115	121	316	96	119	328	116	131	262	108	105	275	112	118	268
4164	Local Check	97	118	261	101	102	293	100	138	271	104	102	302	102	120	287
Exp. Mean		**102**	**126**	**245**	**99**	**114**	**260**	**102**	**126**	**270**	**106**	**109**	**277**	**104**	**118**	**273**

Table No.5c.3 (Contd): Days to 50% flowering, Plant Height (cm) &Panicles/m2 in IVT– IM, Kharif 2023

Entry No	IET No	Zone VI(3)			ZONE VII – SOUTHERN											
					Andhra Pradesh						Andhra Pradesh (2)			Telangana		
		Mean			Maruteru			Ragolu			Mean			Rajendranagar		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4101	31616	108	134	302	123	139	330	112	136	255	117	138	292	116	109	533
4102	31617	113	118	276	120	117	363	112	147	261	116	132	312	110	90	583
4103	30684	99	116	257	98	122	330	89	145	258	93	134	294	85	97	550
4104	31618	112	121	257	107	123	330	106	137	289	106	130	310	108	93	600
4105	31619	105	148	287	111	160	330	107	173	344	109	167	337	92	119	400
4106	31620	118	123	270	124	120	347	113	129	256	118	125	301	109	89	550
4107	31621	105	110	263	106	120	347	103	125	297	104	123	322	100	87	600
4108	31622	95	115	275	95	115	347	86	129	248	90	122	297	85	93	383
4109	31623	96	110	268	92	122	380	85	133	306	88	127	343	87	92	467
4110	31624	93	114	278	86	115	363	83	129	208	84	122	286	80	92	483
4111	31625	109	105	263	98	107	330	100	113	354	99	110	342	100	86	667
4112	31626	108	119	253	102	123	297	106	132	356	104	127	327	100	95	567
4113	31627	101	109	253	96	113	330	99	130	198	97	121	264	89	92	433
4114	31628	111	115	264	123	128	314	114	144	215	118	136	264	103	95	650
4115	NDR 359 (NC)	96	113	295	94	104	297	90	133	243	92	119	270	89	99	500
4116	31629	97	117	251	95	117	330	89	128	261	92	122	296	85	98	550
4117	31630	104	138	271	112	149	363	94	158	223	103	153	293	87	112	600
4118	31631	100	108	251	98	119	347	90	114	274	94	116	310	89	91	700
4119	31632	115	131	289	115	123	347	113	138	255	114	130	301	112	99	483
4120	31633	112	136	280	106	147	330	108	164	340	107	155	335	103	115	533
4121	31634	102	119	237	102	122	330	103	122	329	102	122	329	94	96	683
4122	31635	93	109	255	115	120	330	85	135	316	100	128	323	85	85	583
4123	31636	94	128	249	92	132	297	86	150	249	89	141	273	85	104	683
4124	31637	109	119	261	111	123	363	106	123	306	108	123	335	95	95	517
4125	31638	106	134	265	102	118	297	96	154	343	99	136	320	95	105	500
4126	31639	110	125	265	102	133	380	107	151	213	105	142	296	97	111	550
4127	31640	115	126	301	122	144	314	113	138	241	118	141	277	103	109	500
4128	31641	115	130	287	112	133	330	112	144	317	112	139	324	106	104	533
4129	31642	114	120	251	125	123	363	111	141	345	118	132	354	100	103	567
4130	31643	109	125	278	112	125	363	115	138	310	113	132	337	103	102	517
4131	Zonal Check	102	139	260	89	104	314	88	133	281	88	118	297	91	95	433
4132	31644	106	118	274	97	126	347	102	135	183	99	130	265	90	95	500
4133	31645	105	120	265	107	121	330	107	132	254	107	127	292	100	91	517
4134	31646	103	114	267	99	122	330	106	142	273	102	132	301	97	95	483
4135	31647	99	116	259	88	121	363	90	122	182	89	121	272	79	98	383
4136	31648	97	123	255	91	120	347	86	156	341	88	138	344	85	100	367
4137	31649	102	105	266	105	112	347	106	120	221	105	116	284	100	82	533
4138	31650	99	111	236	99	112	347	102	128	212	100	120	279	97	90	483
4139	31651	106	105	266	112	113	314	113	128	256	113	121	285	107	80	650
4140	31652	97	155	246	96	153	347	91	170	281	93	161	314	93	102	433
4141	31653	97	111	262	91	118	330	86	141	318	88	129	324	89	96	550
4142	31654	99	114	266	96	126	281	94	140	272	95	133	276	89	94	600
4143	31655	111	120	269	120	122	314	113	121	307	116	121	310	97	100	583
4144	31656	93	135	235	92	123	330	76	143	267	84	133	298	87	114	467
4145	31657	96	127	254	97	131	314	86	146	324	91	138	319	95	112	517
4146	31658	97	117	258	95	116	330	95	135	307	95	126	319	97	90	583
4147	31659	103	142	260	104	155	330	97	164	279	100	160	305	92	118	583
4148	31660	94	118	249	93	120	347	80	124	298	87	122	322	87	97	600
4149	31661	99	130	275	94	139	347	90	145	302	92	142	324	92	104	650
4150	31662	95	118	263	86	124	363	80	152	246	83	138	305	85	91	533
4151	31663	98	116	254	97	122	297	90	136	224	93	129	261	87	87	567
4152	31664	108	116	246	99	122	363	105	120	233	102	121	298	100	88	617
4153	31665	97	101	261	92	119	380	92	109	297	92	114	338	90	86	567
4154	31666	101	115	267	92	112	314	90	129	234	91	121	274	92	91	583
4155	31667	98	134	267	92	128	347	71	170	292	81	149	319	95	108	567
4156	31668	95	108	257	95	116	347		.		95	116	347	85	83	517
4157	31669	102	114	261	97	111	330	99	129	271	98	120	300		.	
4158	30888	103	130	262	104	123	330	103	137	307	103	130	319	94	101	450
4159	31670	101	127	259	95	131	347	91	159	258	93	145	302	100	105	600
4160	31671	109	117	274	90	121	330	115	118	258	102	120	294	131	93	433
4161	31672	102	117	247	94	120	330	94	146	248	94	133	289	104	97	517
4162	31673	102	113	237	91	116	363	93	130	248	92	123	305	94	85	450
4163	31674	113	119	284	112	110	380	114	135	221	113	123	300	103	88	583
4164	Local Check	100	120	278	111	115	363	111	130	248	111	122	305	100	93	583
Exp. Mean		**103**	**121**	**264**	**101**	**123**	**337**	**98**	**137**	**272**	**100**	**130**	**305**	**95**	**97**	**539**

Table No.5c.3 (Contd):Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT– IM, Kharif 2023

Entry No	IET No	ZONE VII – SOUTHERN														
		Telangana						Telangana (3)			Tamil Nadu					
		Warangal			Jagtial			Mean			Aduthurai			Coimbatore		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4101	31616	123	138	422	122	65	403	120	104	453	102	116	518	124	123	302
4102	31617	113	117	422	122	107	394	115	105	467	116	97	430	120	105	261
4103	30684	97	140	443	101	128	370	94	122	454	104	88	480	104	104	267
4104	31618	115	131	396	120	121	433	114	115	476	103	102	568	118	107	307
4105	31619	97	165	406	113	162	383	100	148	396	101	125	405	115	142	329
4106	31620	124	123	434	122	104	381	118	105	455	102	106	413	121	112	325
4107	31621	102	118	398	113	111	444	105	105	481	104	87	471	113	100	286
4108	31622	95	126	414	97	99	370	92	106	389	100	92	373	100	95	258
4109	31623	95	113	426	99	107	378	94	104	424	105	88	304	93	86	203
4110	31624	115	123	446	93	109	431	96	108	453	107	102	303	101	86	236
4111	31625	105	114	419	110	107	403	105	102	496	106	65	306	108	94	199
4112	31626	106	128	419	113	118	385	106	114	457	113	81	588	104	94	311
4113	31627	100	123	370	112	104	370	100	106	391	106	89	364	107	84	218
4114	31628	118	131	378	122	114	381	114	113	469	119	105	377	112	103	289
4115	NDR 359 (NC)	101	126	401	102	109	416	97	111	439	111	93	361	110	95	222
4116	31629	97	128	416	100	119	411	94	115	459	109	90	353	98	110	231
4117	31630	104	159	413	109	140	392	100	137	468	105	97	309	95	117	250
4118	31631	99	124	406	101	103	400	96	106	502	105	95	316	106	96	253
4119	31632	123	141	408	132	112	387	122	117	426	104	103	473	120	110	319
4120	31633	113	147	411	113	142	376	110	134	440	111	118	455	116	123	232
4121	31634	112	134	429	109	111	436	105	113	516	105	86	356	104	95	211
4122	31635	95	129	393	91	109	431	90	108	469	105	70	370	91	80	220
4123	31636	97	133	413	97	136	400	93	125	499	101	79	328	97	100	306
4124	31637	113	133	398	113	111	398	107	113	438	106	81	469	103	88	208
4125	31638	95	136	401	108	135	420	99	125	440	101	112	576	119	118	343
4126	31639	111	136	391	109	127	378	105	124	440	100	85	463	107	97	265
4127	31640	122	143	383	123	127	400	116	126	428	104	119	615	113	118	408
4128	31641	96	123	408	121	120	387	107	115	443	100	95	497	121	106	353
4129	31642	121	129	401	118	115	420	113	115	463	103	101	433	109	103	275
4130	31643	114	128	389	119	131	387	112	120	431	106	91	368	116	112	311
4131	Zonal Check	96	124	375	96	125	361	94	114	390		.		106	94	239
4132	31644	102	131	373	113	109	356	101	112	410	101	79	438	105	86	278
4133	31645	111	127	380	116	110	387	109	109	428	109	76	478	113	100	211
4134	31646	110	133	378	111	116	416	106	115	426	105	93	472	105	95	283
4135	31647	99	123	378	104	112	392	94	111	384	105	81	298	102	85	189
4136	31648	90	133	378	94	122	376	90	118	374	106	85	461	93	96	199
4137	31649	110	113	378	113	100	381	108	98	431	101	80	468	111	95	265
4138	31650	104	129	373	109	94	374	103	104	410	100	84	476	103	90	223
4139	31651	97	119	381	121	97	440	108	98	490	110	82	416	118	84	379
4140	31652	97	166	371	104	161	385	98	143	397	107	122	503	105	118	230
4141	31653	97	123	380	98	116	409	94	112	446	105	84	363	92	95	261
4142	31654	103	121	396	104	112	304	98	109	433	107	79	423	96	106	266
4143	31655	119	128	396	120	113	453	112	114	478	107	86	568	112	101	341
4144	31656	93	154	389	94	129	400	91	132	419	107	105	536	96	96	275
4145	31657	94	133	381	96	128	416	95	124	438	106	92	418	101	111	336
4146	31658	99	124	399	104	111	385	100	108	456	105	86	627	103	98	196
4147	31659	104	141	376	110	146	359	102	135	439	106	85	511	105	102	278
4148	31660	92	130	399	91	120	392	90	116	464	105	96	413	102	91	243
4149	31661	101	152	386	101	125	418	98	127	485	104	93	428	108	122	340
4150	31662	87	128	381	94	114	370	89	111	428	108	77	402	97	103	277
4151	31663	97	124	383	100	114	396	95	108	448	106	73	343	103	84	313
4152	31664	110	134	371	113	108	411	107	110	466	101	86	614	108	89	388
4153	31665	97	109	370	103	96	362	97	97	433	106	74	319	101	85	203
4154	31666	97	118	386	97	104	372	95	104	447	103	75	345	97	96	286
4155	31667	92	139	375	97	128	422	94	125	455	109	83	328	97	93	165
4156	31668	107	107	380	104	103	378	99	97	425	109	72	312	104	84	323
4157	31669	102	108	361	109	96	348	105	102	354	101	109	332	103	79	330
4158	30888	108	123	389	108	136	429	103	120	423	100	91	430	101	99	283
4159	31670	98	150	375	101	136	381	99	130	452	102	112	273	104	115	315
4160	31671	121	112	363	116	105	376	123	103	391	105	97	499	104	95	281
4161	31672	106	124	371	104	113	348	104	111	412	106	94	453	99	95	319
4162	31673	101	118	323	104	92	370	99	98	381	106	89	313	105	83	360
4163	31674	116	118	376	118	110	414	112	105	458	105	85	339	118	113	277
4164	Local Check	109	133	399	122	105	414	110	110	465	107	114	455	111	121	346
Exp. Mean		**104**	**129**	**393**	**108**	**116**	**393**	**102**	**114**	**441**	**105**	**91**	**424**	**106**	**100**	**276**

Table No.5c.3 (Contd):Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT– IM, Kharif 2023

Entry No	IET No	ZONE VII – SOUTHERN														
		Tamil Nadu (2)			Kerala (1)			Karnataka						Karnataka (2)		
		Mean			Pattambi			Mandya			Gangavathi			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4101	31616	113	119	410	91	108	313	115	114	323	112	107	250	113	111	287
4102	31617	118	101	346	90	101	290	126	92	323	121	85	175	123	88	249
4103	30684	104	96	373	93	102	150	105	99	357	104	110	256	105	104	306
4104	31618	110	104	437	93	91	213	119	102	357	106	99	290	112	100	323
4105	31619	108	133	367	94	118	197	109	124	306	108	126	277	108	125	292
4106	31620	111	109	369	92	101	223	119	103	323	109	98	242	114	101	282
4107	31621	108	93	378	91	96	180	120	97	357	118	85	237	119	91	297
4108	31622	100	93	315	93	84	163	106	98	306	108	90	276	107	94	291
4109	31623	99	87	253	93	82	213	98	92	323	100	95	219	99	93	271
4110	31624	104	94	270	93	83	213	102	92	323	103	89	221	103	90	272
4111	31625	107	79	252	94	72	187	116	85	323	106	93	283	111	89	303
4112	31626	108	87	449	91	100	150	108	94	306	111	80	249	109	87	278
4113	31627	106	86	291	94	104	127	119	95	340	109	86	268	114	90	304
4114	31628	115	104	333	93	108	250	118	95	323	116	94	265	117	94	294
4115	NDR 359 (NC)	110	94	292	94	97	137	109	91	323	100	89	338	104	90	331
4116	31629	103	100	292	92	77	217	101	99	323	108	92	238	104	95	281
4117	31630	100	107	279	94	107	193	103	104	323	106	119	317	104	112	320
4118	31631	105	96	284	94	90	223	105	100	323	104	89	305	104	95	314
4119	31632	112	106	396	92	98	253	123	106	323	119	103	270	121	104	296
4120	31633	113	120	344	90	103	243	116	102	340	112	100	287	114	101	314
4121	31634	104	90	283	94	87	263	105	94	323	106	90	255	105	92	289
4122	31635	98	75	295	90	118	173	90	87	306	98	98	287	94	92	297
4123	31636	99	89	317	93	69	390	100	100	357	99	106	336	99	103	347
4124	31637	104	84	338	90	103	267	106	94	340	105	83	268	105	89	304
4125	31638	110	115	459	92	94	163	116	115	289	111	106	304	114	110	296
4126	31639	103	91	364	92	94	173	107	102	323	109	98	229	108	100	276
4127	31640	108	119	512	90	117	373	119	110	306	111	102	268	115	106	287
4128	31641	110	100	425	88	106	323	117	104	323	114	105	259	115	105	291
4129	31642	106	102	354	93	107	200	111	103	323	113	106	277	112	104	300
4130	31643	111	102	340	89	104	143	118	102	340	112	97	225	115	99	283
4131	Zonal Check	106	94	239	95	80	187	111	101	323		.		111	101	323
4132	31644	103	82	358	90	68	320	110	87	289	106	90	220	108	89	255
4133	31645	111	88	345	89	106	287	122	101	323	118	91	237	120	96	280
4134	31646	105	94	378	92	96	193	111	94	323	113	79	273	112	87	298
4135	31647	103	83	243	88	77	200	104	91	323	104	93	255	104	92	289
4136	31648	99	91	330	93	109	300	93	100	340	98	104	225	95	102	283
4137	31649	106	87	367	94	85	167	111	80	323	106	77	225	108	78	274
4138	31650	101	87	350	93	86	220	108	80	306	107	82	238	107	81	272
4139	31651	114	83	397	91	96	207	112	79	357	111	82	242	111	80	300
4140	31652	106	120	366	91	92	100	106	135	306	105	131	229	105	133	268
4141	31653	98	89	312	89	93	237	99	93	340	100	101	241	99	97	291
4142	31654	101	93	344	90	110	313	103	85	323	103	96	242	103	90	282
4143	31655	109	93	454	95	114	300	118	90	272	110	87	268	114	89	270
4144	31656	101	100	405	94	90	397	97	104	340	97	106	255	97	105	297
4145	31657	103	101	377	95	107	277	102	103	306	100	108	237	101	106	272
4146	31658	104	92	411	94	103	240	103	91	323	106	94	246	104	92	284
4147	31659	105	93	394	91	81	397	103	216	323	100	115	313	102	166	318
4148	31660	104	93	328	88	94	447	100	89	340	99	102	267	99	96	303
4149	31661	106	107	384	93	94	320	106	108	306	105	108	246	105	108	276
4150	31662	102	90	339	92	100	261	106	96	340	105	96	229	105	96	285
4151	31663	104	79	328	91	98	367	102	177	340	101	90	242	101	134	291
4152	31664	104	87	501	93	102	332	119	91	306	112	80	225	115	85	266
4153	31665	103	79	261	91	98	412	115	85	323	103	77	255	109	81	289
4154	31666	100	85	316	93	93	434	108	87	306	98	97	295	103	92	301
4155	31667	103	88	247	90	110	373	104	107	306	99	117	294	101	112	300
4156	31668	107	78	317	93	106	438	111	85	323	107	86	273	109	85	298
4157	31669	102	94	331	94	107	407	107	77	323	107	80	211	107	78	267
4158	30888	100	95	357	94	97	456	104	100	323	98	101	209	101	100	266
4159	31670	103	113	294	94	120	350	106	102	323	99	111	237	102	106	280
4160	31671	104	96	390	92	109	423	108	90	306	107	87	209	107	89	258
4161	31672	102	94	386	91	101	434	100	91	323	100	94	310	100	92	317
4162	31673	105	86	336	88	83	397	98	84	357	97	89	247	98	87	302
4163	31674	111	99	308	91	112	459	122	101	323	119	91	245	120	96	284
4164	Local Check	109	117	400	91	132	420	115	131	306	119	76	229	117	103	268
Exp. Mean		**105**	**96**	**348**	**92**	**98**	**276**	**109**	**100**	**323**	**106**	**96**	**256**	**108**	**98**	**290**

Table No.5c.3 (Contd): Days to 50% flowering, Plant Height (cm) &Panicles/m2 in IVT– IM, Kharif 2023

Entry No	IET No	ZONE VII – SOUTHERN												Overall Mean (33)		
		Puducherry						Puducherry (2)			Zone VII(12)					
		Kurumbapet			Karaikal			Mean			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4101	31616	114	124	315	101	134	231	107	129	273	113	118	349	115	116	288
4102	31617	123	93	415	100	123	384	111	108	400	114	106	358	116	103	285
4103	30684	111	112	315	95	125	321	103	118	318	99	114	341	101	111	281
4104	31618	109	95	280	101	131	432	105	113	356	108	111	375	110	107	294
4105	31619	121	126	345	100	156	444	111	141	394	105	141	347	108	135	275
4106	31620	112	102	395	98	129	334	105	115	365	112	110	352	117	106	297
4107	31621	115	95	345	91	125	395	103	110	370	106	104	363	109	101	294
4108	31622	107	81	230	83	117	368	95	99	299	96	101	311	99	101	277
4109	31623	104	85	465	94	101	329	99	93	397	95	100	334	97	100	279
4110	31624	115	84	330	93	118	365	104	101	347	97	102	327	98	100	267
4111	31625	108	68	395	97	103	281	102	85	338	104	92	345	107	92	289
4112	31626	111	78	330	99	117	331	105	98	330	105	103	357	107	102	288
4113	31627	111	77	295	101	113	299	106	95	297	103	101	301	105	97	265
4114	31628	123	97	395	93	153	341	108	125	368	113	114	348	114	108	282
4115	NDR 359 (NC)	112	78	360	94	127	312	103	103	336	100	103	326	101	102	267
4116	31629	114	99	580	95	133	333	105	116	457	98	107	354	100	104	282
4117	31630	108	119	430	96	142	300	102	131	365	101	127	343	104	123	279
4118	31631	115	88	350	100	114	240	108	101	295	100	102	345	101	100	283
4119	31632	118	136	445	98	130	303	108	133	374	114	116	355	117	114	284
4120	31633	112	105	365	93	127	384	103	116	375	108	124	358	110	118	297
4121	31634	108	76	525	89	117	333	98	96	429	102	102	373	105	102	309
4122	31635	105	103	245	93	120	250	99	111	247	95	104	325	97	100	285
4123	31636	111	100	445	93	126	370	102	113	407	96	111	381	99	110	297
4124	31637	104	86	260	100	155	391	102	120	326	104	106	349	107	103	287
4125	31638	117	100	460	101	133	368	109	117	414	104	119	372	105	116	304
4126	31639	106	98	345	95	125	333	100	111	339	103	113	337	107	112	278
4127	31640	121	113	375	97	126	397	109	119	386	111	122	382	114	116	304
4128	31641	115	106	365	101	138	375	108	122	370	108	115	372	113	114	308
4129	31642	111	104	280	91	146	360	101	125	320	108	115	353	114	110	290
4130	31643	113	102	430	93	124	409	103	113	420	109	113	349	111	111	286
4131	Zonal Check	106	96	415	101	110	300	103	103	357	98	106	323	106	110	272
4132	31644	105	82	445	96	129	334	100	105	389	101	101	340	104	101	274
4133	31645	120	100	280	84	125	320	102	113	300	108	107	334	110	105	281
4134	31646	105	85	280	84	102	378	94	94	329	103	104	340	105	102	279
4135	31647	101	81	330	96	115	293	99	98	311	96	100	299	101	100	262
4136	31648	132	93	360	95	131	231	114	112	295	96	112	327	98	112	265
4137	31649	112	86	315	97	116	368	105	101	342	105	95	333	108	94	281
4138	31650	103	89	345	94	135	380	98	112	362	101	100	331	104	97	266
4139	31651	108	80	398	91	122	411	99	101	404	107	97	371	111	94	301
4140	31652	106	119	545	99	160	339	102	139	442	100	136	339	100	130	282
4141	31653	106	86	500		.		106	86	500	95	104	357	100	103	283
4142	31654	103	93	380	93	135	245	98	114	312	98	108	337	101	103	264
4143	31655	110	96	415	95	115	399	102	106	407	109	106	385	112	104	300
4144	31656	117	83	365	91	143	341	104	113	353	95	116	363	97	115	280
4145	31657	111	98	315	83	138	320	97	118	317	97	117	346	98	116	289
4146	31658	108	88	350	93	135	281	100	112	315	100	106	356	100	102	289
4147	31659	104	99	460	92	136	260	98	117	360	100	130	372	104	124	297
4148	31660	105	87	330	84	109	266	94	98	298	94	105	362	95	104	292
4149	31661	114	104	420	100	137	304	107	121	362	100	119	372	101	115	292
4150	31662	106	92	625	97	130	391	101	111	508	95	109	368	98	104	284
4151	31663	110	78	260	91	106	340	100	92	300	98	107	339	99	103	280
4152	31664	115	86	445	92	118	358	103	102	402	105	102	388	106	99	308
4153	31665	124	66	545	94	81	272	109	73	408	100	90	359	101	92	282
4154	31666	105	76	280	100	116	392	102	96	336	97	99	352	100	99	280
4155	31667	103	100	410	91	133	255	97	117	333	95	118	344	98	117	276
4156	31668	105	80	410	91	112	280	98	96	345	101	94	362	105	95	293
4157	31669	107	84	312	97	123	366	102	103	339	102	100	326	104	99	266
4158	30888	103	88	345	84	121	346	94	105	346	100	110	358	103	111	289
4159	31670	105	109	315	92	142	257	98	126	286	99	124	336	101	119	275
4160	31671	100	78	280	84	123	393	92	101	336	106	102	346	110	100	281
4161	31672	110	97	300	100	107	328	105	102	314	100	106	357	102	104	297
4162	31673	100	79	430	99	112	236	99	95	333	98	97	341	100	97	285
4163	31674	119	100	310	99	122	392	109	111	351	111	107	360	112	104	291
4164	Local Check	105	92	445	101	153	421	103	122	433	108	116	386	107	109	300
Exp. Mean		**110**	**93**	**376**	**94**	**125**	**335**	**102**	**109**	**357**	**102**	**109**	**350**	**105**	**107**	**285**

Table No.5c.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – IM, (Trials not considered) Kharif 2023

Entry No	IET No	Trial not considered											
		Uttarakhand (0) @Pantnagar			Haryana (0) @Kaul			Uttar Pradesh @Masodha			Assam @Gerua		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4101	31616	133	99	300				125	96		129	107	245
4102	31617	128	116	267	114	84	255	107	96	222	124	83	282
4103	30684	96	105	261	87	109	302	105	96	244	113	110	246
4104	31618	125	116	225	112	85	297	117	99		122	104	270
4105	31619	122	155	270	112	121	290	119	111	234	122	131	281
4106	31620	132	99	334				128	96		129	99	275
4107	31621	111	115	299	108	86	267	117	110		122	97	277
4108	31622	99	115	305	96	98	282	110	96	239	113	104	257
4109	31623	91	103	279	84	106	341	103	102	273	111	97	270
4110	31624	91	102	251	88	89	273	100	96	281	109	103	277
4111	31625	121	100	315	114	70	248	114	89	254	111	83	280
4112	31626	114	117	311	106	92	257	111	98	241	113	101	265
4113	31627	105	107	288	103	70	317	102	86	282	113	94	261
4114	31628	129	100	248	108	84	268	105	96	251	131	99	257
4115	NDR 359 (NC)	95	100	228	95	96	321	103	96	291	109	95	249
4116	31629	91	112	340	84	114	309	103	107	261	114	106	262
4117	31630	104	140	347	98	126	317	107	112	253	120	120	243
4118	31631	96	105	262	91	93	308	106	79	233	113	93	265
4119	31632	132	103	232				101	96	238	127	106	234
4120	31633	124	122	331	106	103	272	118	102		122	111	263
4121	31634	118	102	265	102	80	285	109	99	276	113	103	282
4122	31635	91	99	344	88	68	299	100	89	258	111	103	271
4123	31636	91	116	316	85	117	352	111	101	270	109	109	271
4124	31637	125	110	314	105	79	275	108	105	287	129	88	273
4125	31638	105	123	296	102	100	324	117	98		113	109	285
4126	31639	121	109	250	102	99	311	113	94	271	122	106	247
4127	31640	132	108	281		.		123	96			.	
4128	31641	132	105	252	109	101	288	111	92	234	129	102	267
4129	31642	130	99	289	114	86	266	123	103		129	97	288
4130	31643	122	119	301	111	96	271	126	HR		122	108	237
4131	Zonal Check	101	100	307	100	71	280	125	102		122	106	235
4132	31644	110	113	235	102	90	276	97	98	269	115	92	231
4133	31645	109	114	303	111	92	278	107	106	282	120	104	279
4134	31646	110	114	262	103	85	258	101	108	291	115	99	271
4135	31647	112	106	367	101	94	254	104	96	301	103	95	256
4136	31648	95	114	284	90	99	281	100	102	291	109	106	259
4137	31649	112	104	246	110	65	254	105	96	291	113	89	286
4138	31650	108	100	298	92	97	318	107	83	281	113	93	252
4139	31651	121	85	275	92	71	256	115	79	208	122	84	259
4140	31652	97	142	287	100	143	293	102	89	293	111	127	257
4141	31653	95	115	282	86	104	286	101	96	271	109	106	268
4142	31654	108	108	293	84	93	289	107	109	282	111	104	240
4143	31655	132	104	285	114	95	245	118	105		122	99	252
4144	31656	91	115	262	85	114	285	103	106	312	109	113	239
4145	31657	90	124	296	84	106	296	96	105	295	109	110	259
4146	31658	98	103	324	93	90	276	95	97	263	111	93	273
4147	31659	117	125	332	105	95	338	109	112	265	113	115	253
4148	31660	92	110	305	84	104	290	101	96	241	106	104	262
4149	31661	97	123	306	94	107	299	102	98	280	109	109	278
4150	31662	93	102	303	88	105	294	101	96	268	109	107	242
4151	31663	94	106	303	91	95	299	104	96	300	111	101	256
4152	31664	110	108	288	106	74	269	105	96	284	114	95	267
4153	31665	102	94	301	99	82	274	101	76	272	116	85	265
4154	31666	99	99	218	93	96	295	102	82	309	109	103	236
4155	31667	94	135	262	92	116	296	103	105	260	109	109	258
4156	31668	100	100	315	98	83	312	103	94	269	122	94	264
4157	31669	109	97	283	98	75	277	102	87	253	122	86	276
4158	30888	114	126	325	103	94	268	95	106	307	113	110	248
4159	31670	101	142	300	92	139	286	95	115	252	111	117	243
4160	31671	131	102	219	110	85	292	116	102		129	94	252
4161	31672	108	116	311	100	98	273	91	96	303	111	97	275
4162	31673	104	110	262	97	91	290	103	82	267	109	90	250
4163	31674	124	116	339	110	81	255	118	109		122	96	226
4164	Local Check	97	107	346	100	91	290	102	126	282	113	102	276
Exp. Mean		**109**	**111**	**289**	**99**	**94**	**287**	**107**	**98**	**269**	**116**	**102**	**260**

Table No.5c.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – IM, (Trials not considered) Kharif 2023

Entry No	IET No	Trial not considered											
		Tripura (0)			Maharashtra 2			Karnataka					
		@Lembucherra			@Shirgaon			@Mugad			@Brahmawar		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4101	31616	110	105	263	113	113	176	102	70	283	102	72	363
4102	31617	106	85	363	110	101	178	110	55	277	103	71	346
4103	30684	74	130	250	94	121	121	97	63	352	78	84	330
4104	31618	95	110	300	112	132	121	104	61	259	104	78	368
4105	31619	108	126	338	110	131	107	98	92	351	102	99	380
4106	31620	104	93	338	117	123	124	104	64	322	104	80	378
4107	31621	99	98	425	114	102	66	97	58	339	103	67	358
4108	31622	82	104	325	94	96	130	102	52	371	108	71	340
4109	31623	72	102	213	92	106	135	82	50	346	102	71	379
4110	31624	77	103	263	90	105	130	83	68	286	86	71	373
4111	31625	77	78	275	114	106	121	101	65	269	97	66	345
4112	31626	78	96	350	109	113	108	102	65	259	97	68	355
4113	31627	83	107	325	106	105	124	102	67	280	102	67	358
4114	31628	114	108	350	112	108	140	101	56	236	105	63	318
4115	NDR 359 (NC)	71	96	350	95	111	79	91	59	232	101	66	325
4116	31629	71	100	313	94	111	177	83	57	277	102	77	345
4117	31630	104	110	338	98	128	108	102	65	300	96	89	346
4118	31631	85	88	325	94	111	184	92	52	348	113	75	339
4119	31632	126	108	363	117	122	141	100	72	291	107	73	345
4120	31633	98	106	338	107	113	147	104	67	292	102	84	328
4121	31634	85	102	350	102	102	140	91	49	270	110	72	346
4122	31635	85	95	388	91	111	160	81	55	280	107	61	365
4123	31636	79	110	388	92	119	152	87	66	308	102	57	338
4124	31637	103	100	388	106	107	158	92	60	250	99	71	333
4125	31638	96	105	338	102	133	99	95	67	315	102	72	355
4126	31639	98	105	300	107	115	187	105	69	284	97	81	319
4127	31640	104	100	338	91	115	179	102	78	430	116	83	358
4128	31641	111	105	375	113	118	133	101	53	308	119	77	346
4129	31642	102	106	388	106	119	162	104	55	236	121	76	337
4130	31643	107	107	375	117	117	127	101	61	421	104	82	325
4131	Zonal Check	107	89	300	99	111	150	101	61	310	104	72	346
4132	31644	79	98	213	107	110	128	91	55	278	98	74	323
4133	31645	111	98	350	115	123	171	99	74	251	103	63	321
4134	31646	93	93	313	106	98	131	105	58	288	93	67	348
4135	31647	101	89	275	103	121	170	87	66	328	97	62	347
4136	31648	75	101	250	89	122	113	87	98	232	104	71	346
4137	31649	99	79	300	107	91	139	94	50	298	102	64	326
4138	31650	105	94	313	98	104	139	89	49	283	103	64	369
4139	31651	102	90	350	108	89	163	99	64	276	103	67	355
4140	31652	73	135	313	96	146	94	95	71	263	97	89	366
4141	31653	89	98	325	92	99	89	88	57	290	104	69	326
4142	31654	82	122	300	98	96	135	100	62	354	111	76	359
4143	31655	96	108	300	110	103	135	93	61	311	105	62	346
4144	31656	72	111	275	90	111	107	82	65	313	103	79	376
4145	31657	71	102	250	92	119	75	87	60	240	107	76	376
4146	31658	80	105	250	94	114	150	90	69	317	87	74	346
4147	31659	97	124	300	106	119	176	86	71	248	100	89	344
4148	31660	80	97	338	92	108	136	84	56	333	101	69	356
4149	31661	77	105	350	96	114	97	86	62	197	110	74	365
4150	31662	75	107	350	96	108	113	82	64	318	107	63	345
4151	31663	75	94	375	92	111	132	89	55	281	103	66	378
4152	31664	92	98	338	105	103	122	99	61	315	99	65	346
4153	31665	82	86	313	97	106	157	104	50	333	103	62	331
4154	31666	88	90	250	96	96	106	86	67	338	98	67	349
4155	31667	80	104	300	92	128	102	93	69	241	102	65	361
4156	31668	99	99	350	97	93	176	99	50	259	100	67	375
4157	31669	89	76	238	102	91	142	97	50	222	102	65	379
4158	30888	89	106	288	99	110	159	92	70	278	101	64	366
4159	31670	93	136	325	97	114	157	92	66	241	103	79	348
4160	31671	112	82	275	109	102	106	103	56	257	98	67	338
4161	31672	75	101	225	100	103	145	104	56	297	103	63	367
4162	31673	74	82	363	97	106	134	91	53	278	102	66	346
4163	31674	99	94	375	115	107	81	100	59	284	103	65	368
4164	Local Check	97	105	325	111	100	177	108	59	236	110	74	366
Exp. Mean		**91**	**101**	**318**	**102**	**111**	**135**	**95**	**62**	**291**	**102**	**71**	**350**

ADVANCE VARIETY TRIAL 2 & 1-IRRIGATED LATE

(AVT 2 & AVT 1-L)

Locations: **31** **Test Entries: 53**

Checks: **Swarna (National), Pusa 44 (Northern), NDR 8002 (Eastern & Central), Ranjeet (North-Eastern), Salivahana (Western), Pushyami (Southern) and Local check** **Table:6a**

Advance Variety Trial 2 & 1-Late (AVT 2 & AVT 1-L) was constituted with 53 test entries including seven checks Swarna (National), Pusa 44 (Northern), NDR 8002 (Eastern & Central), Ranjeet (North-Eastern), Salivahana (Western), Pushyami (Southern), and Local check. The 45 test entries included three entries in the third year of testing and 16 entries in the second year of testing. The trial was sent to 31 locations and data was received from 24 locations.

Therefore, data from the remaining seven centers was not considered for analysis. The data about yield, days to 50% flowering, plant height, panicles/m2, and quality are presented in Tables. 6a.2, 6a.3 and 6a.4,

Zone-wise performance of the entries

Zone II

The trial was constituted of 33 entries *viz*., three entries in the third year of testing, three entries in the second year of testing, and four checks. The trial was conducted at one location viz., Nagina (Uttar Pradesh). Data from Nagina (5.06% CV) was utilized for further analysis. The zonal grain yield of entries ranged from 2447 Kg/ha (IET 28524) to 5202 Kg/ha (IET 28017) days to 50% flowering ranged from 99 days (IET 320 53, IET 30829) to 135 days (IET 30844). Among the checks, zonal check, Pusa 44 recorded the highest yield 4618 kg/ha. None of the test entries performed better than the best check in zone II.

Zone III

The trial was constituted of 45 entries *viz*., three entries in the third year of testing, ten entries in the second year of testing, and four checks. The trial was conducted at seven locations while data from Masodha (CV 3.1) was not considered due to low CV. Data from the remaining six centers, in Zone III was considered for further analysis. The zonal grain yield of entries ranged from 6969 Kg/ha (hybrid check PA6444) to 4531 Kg/ha (IET 32071) and days to 50% flowering ranged from 94 days (IET 32062) to 112 days (IET 29935). Among the checks, the hybrid check, PA6444 recorded the highest grain yield of 6969 Kg/ha while none of the test entries recorded required yield advantage over the best check in zone III.

Zone IV

The trial was constituted of eighteen entries *viz*., three entries in the third year of testing, ten entries in the second year of testing, and four checks. The trial was conducted at two locations viz., Titabar and Lembucherra. The zonal grain yield of entries ranged from 6722 Kg/ha (IET 30882) to 3897 Kg/ha (IET 30835) and days to 50% flowering ranged from 84 days (IET PA6444) to 115 days (zonal check Pusa 44). The hybrid entry IET 30882 CRHR 166 (hybrid) (CRMS 32 A/CRL 123-122-21) in the second year of testing yielded (6722 kg/ha) superior to hybrid check (PA6444 with 5452 kg/ha), national check Swarna (5441 kg/ha), zonal check, Pusa 44 (5487 kg/ha), local check (5174 kg/ha). The flowering duration of the entry IET 30882 with a mean DFF of 94 days. It is promoted to the third year of testing in zone IV and is proposed to shift the entry to mid-early duration.

The entry IET 28524 [(RP 6330-179-3-9-1) MTU 1121/ Vijetha (6366 kg/ha)] in the third year of testing, yielded superior to national check Swarna (5441 kg/ha), zonal check, Pusa 44 (5487 kg/ha), local check (5174 kg/ha) as well as the hybrid check (IET PA6444 with 5452 kg/ha). But flowering duration is witha mean DFF of 97 days. Hence, it cannot be considered for late trial. The zonal grain yield of entries ranged from 6722 Kg/ha (IET 30882) to 3738 Kg/ha (DRR Dhan 58) and days to 50% flowering ranged from 84 days (PA 6444) to 115 days (Pusa 44).

Performance of promising entries in AVT-1&2 latetrials in Zone IV during Kharif 2023

IET No.	Grain yield/ days to 50% flowering DFF	Percentage of yield advantage over the best check %BC	Remarks
Entry in the third year of testing			
IET 28524 [(RP 6330-179-3-9-1) MTU 1121/ Vijetha (6366 kg/ha)]	6366 kg/ha 97	16.01	A shift is suggested in the mid-early
Entry in the second year of testing			
IET 30882 CRHR 166 (hybrid) (CRMS 32 A/ CRL 123-122-21)	6722 kg/ha 94	22.5	A shift is suggested in the mid-early Promoted to third year of testing
Pusa 44 Zonal Check Best check	5487 kg/ha 115		
Swarna (NC)	5441 kg/ha 99		
PA 6444 (HC)	5452 kg/ha 84		
Local check (LC)	5174 kg/ha 110		
CD	800		

Zone V

The trial was constituted of 24 entries *viz*., three entries in the third year of testing, three entries in the second year of testing, and four check. The trial was conducted at three locations namely Raipur, Jagadalpur, and Waraseoni. Data from two locations, Jagadalpur (CV 21.23, F-1,46) and Waraseoni (CV-13.2 and F- 15.14) were not considered for analysis due to high CV and low F value. So, data from one center Raipur was only considered for analysis. The zonal grain yield of entries ranged from 6612 Kg/ha (IET 32064) to 3381 Kg/ha (IET 32071) and days to 50% flowering ranged from 91 days (IET 32071) to 121 days (IET 29935). Among the checks, zonal check Pusa 44 recorded the highest grain yield of 6332 Kg/ha. The three hybrid entries in the second year of testing IET 30864 (6571 kg/ha), VNR 233 hybrid, IET 30844 (6120 kg/ha) MEPH-173 hybrid, IET 30882 (6095 kg/ha) CRHR 166 hybrid (CRMS 32A/ CRL123-122-21) yielded superior to the hybrid check PA444 hybrid check (5614 kg/ha) however did not yield over the best check. Hence none of the entries are promoted.

Zone VI

The trial was constituted of six entries *viz*., three entries in the third year of testing, three entries in the second year of testing, and four checks. The trial was sent to four locations viz., Karjat, Vadagaon, Navasari, and Padagaon. The data from Padagaon was not considered due to the high F value. Data from three locations viz. Karjat, Vadagaon, and Navasari are considered for analysis. The zonal grain yield of entries ranged from 6770 Kg/ha (Pusa 44, zonal check) to 5184 Kg/ha (IET 29935) and days to 50% flowering ranged from 99 days (PA 6444) to 111 days (IET 29891). Among the checks, the zonal check Pusa 44 recorded the highest grain yield of 6770 Kg/ha, while none of the test entries performed over the best check and hence not promoted.

Zone VII

The trial was constituted of 37 entries *viz*., three entries in the third year of testing, five entries in the second year of testing and four checks. The trial was sent to seven locations viz., Maruteru, Ragulu, Nellore, Aduturai, Sirsi, Kurumbapet and Ponnampet. One location, Ponnampet was not considered for analysis due to low yield or CV. Data from the remaining six locations was considered for further analysis. The zonal grain yield of entries ranged from 6566 Kg/ha (Swarna) to 4320 Kg/ha (IET 30877) and days to 50% flowering ranged from 101 days (IET 32062) to 118 days (local check). The best check was zonal check Pusa 44 with a yield of 6234 kg/ha. The entries in the second year of testing viz. IET 29935 (5863 kg/ha) with mean DFF 113 days, and IET 28524 (5830 kg/ha) with mean DFF 105 daysyielded significantly superior to the hybrid check PA 6447 (5197 kg/ha) but not over the national check Swarna (5759 kg/ha). So, none of the entries are promoted in zone VII.

Performance of IET No. 29935, 28524 and 29891during three years of testing (2021-2023) in late trial

There are three inbreds which have completed 3 years of testing (2021 to 2023) in late duration trials namely IET No. 29935, 28524 and 29891.

IET 29935 (MTU 1377), a derivative of the cross MTU 1075 / MTU 1001 could not show yield consistency across 3 years. In the 1st year, it failed to show yield gain over the best check in the zones except zone 7 (6741* kg/ha) and states. In 2nd year, it registered significant yield improvement over the best check in Tamil Nadu state (7139*kg/ha) in zone 7. In 3rd year it exhibited significant yield gain over the best check in a different state (AP: 5842* kg/ha) in the same zone.*It**is discontinued due to inconsistent yield across 3 years.*

IET 28524 (RP 6330-179-3-9-), derived from the cross MTU 1121 / Vijetha recorded yield superiority in zone V (5884 *kg/ha) and in Maharashtra state (5895*kg/ha) during 2nd year. In 3rd year it excelled the best check significantly in another zone (zone IV: 6366 * kg/ha) and in Assam state (5306 *kg/ha) over the best check. In the 1st year, it could not record a significant yield advantage in zones and states. Hence it is discontinued.

IET 29891 (MTU 1376) derived from the cross MTU 2077 / WGL 3962 significantly outperformed the best varietal check in zone 7 for two years *ie.*,1st year (7949*kg/ha) and 2nd year (8160* kg/ha). In the 1st year it could not outyield the best inbred check in all the states of all zones tested. In 2nd year the entry excelled significantly in yield performance in AP (9879* kg/ha) in zone 7 (8160* kg/ha), Maharashtra (5633* kg/ha) in zone 6 (5512* kg/ha) and Maharashtra (5532*kg/ha) in zone 5 respectively. In the 3rd year it failed to show yield superiority in zones and states. ***It is discontinued as the performance has been erratic across different zones and states for the past three years.***

Performance of IET No. 29935, 28524 and 29891during three years of testing (2021-2023) in late trial

IET N0.	Year	Overall yield (Kg/ha)	Significant yield superiority over BVC	Zone (states)	Yield (kg/ha)	Significant yield superiority over BVC	States (Locations)	Yield (kg/ha)	Significant yield superiority over BVC	
29935 (MTU 1377)	**2021**	5556	-	ZIII(4)	4684	-	OD(2L)	5039	-	Discontinued
							BI(3L)	4956	-	
							JH(1L)	3851	-	
							UP (1)	3989	-	
				ZV(1)	4893	-	CH(1L)	4893	-	
				ZVI(1)	4036	-	GU(1L)	4036	-	
				ZVII(5)	6741	*	TE(1L)	7866	-	
							TN(1L)	7321	-	
							KA(1L)	4558	-	
							AP (3L)	5898	-	
							PUD (1L)	9747	-	
	2022	-	-	ZII(1)	4392	-	RA(1L)	4392	-	
				ZIII(4)	5515	-	OD(2L)	6399	-	
							BI(2L)	5916	-	
							WB(1)	5161	-	
							JH (1)	3300	-	
				ZVII (5)	7084	-	AP(3)	6787	-	
							TE(1)	6557	-	
							TN(1L)	7139	*	
							KA(1L)	6609	-	
							PU(L)	8924	-	
				ZIV(1)	5147	-	AS(1L)	5147	-	
				ZVI(2)	3852	-	GU(1L)	3411	-	
							MA (2L)	4073	-	

IET N0.	Year	Overall yield (Kg/ha)	Significant yield superiority over BVC	Zone (states)	Yield (kg/ha)	Significant yield superiority over BVC	States (Locations)	Yield (kg/ha)	Significant yield superiority over BVC	
				ZV(2)	5478	-	CH(2L)	5271	-	
							MA(1L)	5892	-	
	2023	-	-	ZII(1)	2578	-	UP(1L)	2578	-	
				ZIII(3)	5966	-	OD(3L)	7111	-	
							BI(2L)	3940	-	
							WB(1L)	6583	-	
				ZIV(2)	4973	-	AS(1L)	4071	-	
							TR(1L)	5875	-	
				ZV(1)	5519	-	CH(1L)	5519	-	
				ZVI(2)	5184	-	MH(2L)	5506	-	
							GU(1)	4541		
				ZVII(3)	7863	-	AP(3)	5842	*	
							TN(1)	5108	-	
							KA (1L)	5000	-	
							PUD(1)	7545	-	
28524 RP 6330-179-3-9-1	**2021**	5360	-	ZIII(3)	5239		OD(3)	5580	-	Discontinued
							BI (3)	4808	-	
							JH (1L)	6655		
							WB(2L)	4668	-	
				ZIV(2)	4890	-	AS(1L)	3653	-	
							TR(1L)	6127		
				ZV(2)	4986	-	CH(2L)	5406	-	
							MA(1L)	4146	-	
				ZVI (2)	5268	-	MA(2L)	4377	-	
							GU(1L)	6821	-	
				ZVII(4)	5930	*	AP(3L)	5524	-	
							TE (1L)	5297		
							KA(1)	6679	-	
							PUD(1)	7031	-	
	2022	6345	-	ZII(1)	4146	-	RA(1L)	4146	-	
				ZIII(4)	5606		OD(2L)	5611	-	
							BI (2L)	6799	-	
							JH (1L)	3569	-	
							WB(2L)	5426		
				ZVII(4)	7085	-	AP(3L)	8875	-	
							TE (1L)	5127	-	
							TN(1L)	4583	-	
							KA (1L)	5147	-	
							PUD(1L)	8113	-	
				ZIV(1)	5080	-	AS(1L)	5080	-	
				ZVI(2)	4043	-	MA(2L)	4022	-	

IET N0.	Year	Overall yield (Kg/ha)	Significant yield superiority over BVC	Zone (states)	Yield (kg/ha)	Significant yield superiority over BVC	States (Locations)	Yield (kg/ha)	Significant yield superiority over BVC	
							GU(1L)	4084	-	
				ZV(2)	5884	*	CH(2L)	5879	-	
							MA(1L)	5895	*	
	2023	-	-	ZII (1)	2447	-	UP(1L)	2447	-	
				ZIII(3)	6431	-	OD(3L)	7088	-	
							BI (2L)	5266	-	
							WB(1L)	6792	-	
				ZIV(2)	6366	*	AS(1L)	5306	*	
							TR(1L)	7425	-	
				ZV(1)	6023	-	CH(1L)	6023	-	
				ZVI(2)	6525	-	MH(2L)	6846	-	
							GU(1L)	5882	-	
				ZVII(4)	5830	-	AP(3L)	5126	-	
							TN (1L)	4570		
							KA(1L)	7043	-	
							PUD(1L)	7989	-	
IET 29891 MTU 1376	**2021**	5851	-	ZIII(4)	4725	-	OD(2L)	5663	-	Discontinued
							BI (3L)	4341	-	
							JH(1L)	4735	-	
							UP(1L)	3989	-	
				ZV(1)	4433	-	CH(1L)	4433	-	
				ZVI(1)	6060	-	GU(1L)	6060	-	
				ZVII(5)	7949	*	TE(1L)	9710	-	
							TN(1L)	6399	-	
							KA(1L)	6090	-	
							AP (3L)	6384	-	
							PUD (1L	8696	-	
	2022	5679	-	ZIII(4)	5205	-	OD(2L)	5580	-	
							BI (2L)	5433	-	
							JH(1L)	3422	-	
							WB(1L)	5494	-	
				ZII (1)	4037	-	RA(1L)	4037	-	
				ZVII(5)	8160	*	TE(1L)	5971	-	
							TN(1L)	4861	-	
							KA(1L)	7833	-	
							AP (3L)	9879	*	
							PUD (1L)	8818	-	
				ZIV(1)	5013	-	AS(1L)	5013	-	
				ZVI (2)	5512	*	MH(2L)	5633	*	
							GU(1L)	5269	-	
				ZV (2)	5679	-	CH(2L)	5753	-	
							MH(1L)	5532	*	
	2023	-	-	ZII (1)	2987	-	UP(1L)	2987	-	
				ZIII (3)	5825	-	OD(3L)	6876	-	
							BI (2L)	3954	-	
							WB(1L)	6417	-	

IET N0.	Year	Overall yield (Kg/ha)	Significant yield superiority over BVC	Zone (states)	Yield (kg/ha)	Significant yield superiority over BVC	States (Locations)	Yield (kg/ha)	Significant yield superiority over BVC	
				ZIV (2)	4558	-	AS(1L)	4632	-	
							TR(1L)	4483	-	
				ZV (1)	5869	-	CH(1L)	5869	-	
				ZVI(2)	6039	-	MH(2L)	5966	-	
							GU(1L)	6186	-	
				ZVII(4)	5240	-	PUD(1L)	5411	-	
							TN(1L)	4973	-	
							KA(1L)	4321	-	
							AP (3L)	5579	-	

INITIAL VARIETY TRIAL –LATE
(IVT – LATE)

Locations: 31 **Test Entries: 59**

Checks: Swarna(National); Zonal checks - Pusa 44(Northern), NDR 8002(Eastern & Central), Ranjeet(North Eastern), Salivahana(Western), Pushyami(Southern); CRHR 702(Hybrid check); MRP 5222(Hybrid Observational Check); Local Check(LC). **Table: 6a**

IVT-Late trial constituted with 64 entries including checks was sent to 30 locations across zones II, III, IV, V, VI, and VII. The test entries included 52 inbreds and 7 hybrids. Swarna served as the national check, while NDR 8002 in Eastern and Central, Ranjeet in North Eastern, Salivahana in Western and Pushyami in Southern as zonal checks, CRHR 702 as hybrid check, MRP 5222 as a hybrid observational check and a local check.

Overall performance of entries

The overall mean grain yield ranged from 4406 kg/ha (IET 31696) to 6443 kg/ha (IET 31714) while days to 50% flowering ranged from 96 days (IET 31698) to 122 days (IET 31675 and IET 31678). Among the inbred checks, the national check (Swarna), topped in yield (5883 kg/ha) followed by the zonal check (5508 kg/ha) and local check (5409 kg/ha). Among the hybrid checks, HOC (MRP 5222) showed a superior yield (6034 kg/ha) compared to the HC, CRHR702 (5315 kg/ha). The data on yield, flowering duration, plant height, and panicles/m^2 were presented in tables 6a.2 and 6a.3 ***None of the inbredsoutyielded significantly over the best check (Swarna) and therefore not promoted to AVT-1-L. Among hybrids IET 31686 (5820 * kg/ha) and 31723 (5924*kg/ha) although recorded significant yield gain over the hybrid check (CRHR 702), they could not outyield the best inbred check (Swarna) ; while IET Nos. 31688, 31710, and 31700 didn't exhibit significant yield gain over both hybrid (CRHR 702) and best inbred check (Swarna). Two hybrids, IET 31709 (6221* kg/ha) and 31714 (6443 * kg/ha) outperformed significantly over the hybrid check (CRHR 702) and the best inbred check (Swarna) and therefore promoted to AVT-1-L***

S.N	IET No/Designation	Yield kg/ha/ DFF	Remarks
1	31714 (Hybrid) *PHI-23104*	**6443*#** **113**	Promoted to AVT-1-L
2	31709 (Hybrid) *PAN 21039*	**6221*#** **107**	Promoted to AVT-1-L
	NC (Swarna)	**5883** **113**	
	Zonal Check (ZC)	5508 115	
	HC (CRHR 702)	5315 109	
	HOC (MRP 5222))	6034 112	
	Local Check (LC)	5409 113	
	CD	293	

Zone-wise performance of entries

Zone II:

The trial was sent to 3 locations (Pantnagar, Kaul, and Nagina). The data was not received from Pantnagar and Kaul. Therefore, only one location data (Nagina) was used for data analysis. No inbred and hybrids performed significantly than the best inbred check and hybrid check. Since entries were evaluated in a single location (Nagina) and single state (UP*), retesting* of the entries has to be done for one more year in the same zone.

Zone III:

The trial was sent to 10 locations (BBN, CTK, JYP, RAN, BKG, SBR, CHN, PNB, MLD and MSD).The data was received from eight locations- Bhubaneswar, Jeypore, Bikramganj,Sabour, Chinsurah, Pundibhari, Malda, and Masodha. The data was not received from NRRI Cuttack and Ranital. The data from Masodha was not considered for analysis due to low CV (<5%). In this zone, ***two inbredsie., IET No 31715 (6267* kg/ha) and 31731 (6176* kg/ha) showed superior performance than the best check (NC-5738 Kg/ha) and promoted to AVT-1-L.Six hybrids could not exhibit significant yield superiority over both hybrid check (CRHR 702) and the best inbred check (Swarna) while another hybrid (IET 31723) although outperformed the best inbred check (Swarna), could not excel hybrid check (***CRHR 702***).***

Performance of entries in Zone III

S.N	IET No/Designation	Mean GY (kg/ha)/	Remarks
1	IET 31715 OROI-12-IR 88250-20-1-1-3	6267* 110	Promoted to AVT-1-L
2	IET 31731 CR 4455-197-4-2-1	6176* 110	Promoted to AVT-1-L
	Swarna (NC)	**5738** **117**	
	Zonal Check (ZC) NDR 8002	5647 119	
	Hybrid Check (HC) CRHR 702	6088 113	
	HOC MRP 5222	6371 114	
	Local Check (LC)	5657 117	
	CD	432	

Zone IV

The trial was sent to 3 locations (Titabar, Gerua (Assam), and Lembucherra (Tripura)). The data was received from two locations- Gerua and Lembucherra. The data was not received from Titabar. In this zone, ***two inbreds IET 31689 (7110* kg/ha) and IET 31733 (7491* Kg/ha). showed significant yield superiority over the best check (NC-5919 Kg/ha***). Among the hybrids, IET 31688, 31723, and 31700 were inferior to HC (CRHR 702) and the best inbred check (Swarna) while IET Nos. 31709 (6290$^{\#}$ kg/ha), and 31710 (5917$^{\#}$ kg/ha) showed yield gain significantly over HC (CRHR 702) but not on the best inbred check (Swarna). ***Two hybrids, IET 31686 (7066*# Kg/ha) and IET 31714 (6835$^{*\#}$ Kg/ha) exhibited superior performance over the best hybrid check (CRHR 702) and best inbred check (Swarna)*** as mentioned below.

Performance of entries in Zone IV

S.N	IET No/Designation	Mean GY (kg/ha)/	Remarks
1	IET 31733 SVMM11	7491* 113	Promoted AVT-1-L
2	IET 31689 RGL 7030 (MTU RM 403-15-1-1-1)	7110* 117	Promoted to AVT-1-L
3	IET 31714 (H) *PHI-23104*	6835*# 102	Shift to IVT-M
4	IET 31686 (H) *PAN 21514*	7066*# 104	Promoted to AVT-1-L
	Swarna (NC)	**5919**	

S.N	IET No/Designation	Mean GY (kg/ha)/	Remarks
		97	
	Zonal Check (ZC) Ranjeet	5152 112	
	Hybrid Check (HC) CRHR 702	4896 92	
	Hybrid observational Check (HOC) MRP 5222	7045 97	
	Local Check (LC)	4007 92	
	CD	859	

Zone V:

The data was sent to 3 locations (Raipur, Jagadalpur, Waraseoni). The data was received from two locations- Raipur and Jagdalpur. The data was not received Waraseoni. None of the inbreds and hybrid entries in this zone performed significantly higher yield than the best inbred check (Swarna) 6468 Kg/ha) as well as the hybrid check (5379 Kg/ha).

Zone VI:

The trial was sent to 4 locations (Karjat, Vadagaon, Pondaghat and Navsari). The data was received from all four locations - Karjat, Vadagaon, Pondaghat and Navsari. In this zone, four hybridentries, IET Nos31714, 31709, 31686 and 31700 performed significantly superior to the hybrid check (CRHR 702) and best inbred check.

Performance of entries in Zone VI

S.N	IET No/Designation	Mean GY (kg/ha)/	Remarks
1	IET 31714 (H) *PHI-23104*	6260*# 113	Promoted to AVT-1-L
2	IET 31709 (H) *PAN 21039*	6259*# 108	Promoted to AVT-1-L
3	IET 31686 (H) *PAN 21514*	6144*# 106	Promoted to AVT-1-L
4	IET 31700 (H) *PAN 2440*	6039*# 101	Shift to IVT-M
	Swarna (NC)	**5436** **112**	
	Zonal Check (ZC) Salivahana (Western)	5277 115	
	Hybrid Check (HC)- Best check CRHR 702	5493 109	

S.N	IET No/Designation	Mean GY (kg/ha)/	Remarks
	Hybrid observational Check (HOC) MRP 5222	5095 113	
	Local Check (LC)	5117 109	
	CD	533	

Zone VII:

The trial was sent to 7 locations (Maruteru, Ragolu, Nellore, Aduthurai, Mugad, Ponnampet and Sirsi). The data was received from 6 locations - Maruteru, Ragolu, Nellore, Aduthurai, Ponnampet and Sirsi. The data of Ponnampet and Sirsi was not considered for analysis due to low mean yield (<4000 Kg/ha). The data was not received from Mugad. In this zone, ***four inbred entries ie., IET Nos 31678 (6752* kg/ha), 31680 (6628* kg/ha), 31693 (6647* kg/ha) and 31726 (6632* kg/ha) showed significant yield superiority over the best check (NC-5897 Kg/ha) and two hybrids IET*** *31714* ***(7276 *#) and IET 31709 (6725$^{*\#}$kg/ha) outyielded the hybrid check (4298Kg/ha) and best inbred check (Swarna, 5897 kg/ha).***Other hybrids namely IET 31688 and 31700 failed to show yield gain over hybrid check and best inbred check; IET 31686 (5689$^{\#}$ kg/ha), 31710 (5186 $^{\#}$ kg/ha) and 31723 (6584$^{\#}$ kg/ha) recorded significant yield gain only over the hybrid check (CRHR 702) and not on best inbred check (Swarna).

Performance of entries in Zone VII

S.N	IET No/Designation	Mean GY (kg/ha)/	Remarks
1	IET 31714 (H) *PHI-23104*	7276*$^{\#}$ 108	Promoted to AVT-1-L
2	IET 31709 (H) *PAN 21039*	6725$^{*\#}$ 106	Promoted to AVT-1-L
3	IET 31678 Pusa 2082-40-3-19-1	6752* 116	Promoted to AVT-1-L
4	IET 31693 NLR 4021	6647* 116	Promoted to AVT-1-L
5	IET 31726 CR 3856-44-22-2-1-11-4-2-4-1	6632* 107	Promoted to AVT-1-L
6	IET 31680 KJT 23-21-41	6628* 109	Promoted to AVT-1-L
	Swarna (NC)	**5897** **112**	
	Zonal Check (ZC) Pushyami (Southern)	5872 112	
	Hybrid Check (HC) **CRHR 702**	**4298** **107**	
	Hybrid observational Check (HOC) MRP 5222	5493 110	
	Local Check (LC)	5650 122	
	CD	698	

List of promising entries in IVT-L

Overall/Zones	Number of promoted entries	Entries promoted
Overall	02	IET 31714 (Hybrid) & 31709 (Hybrid)
Zone-II	-	-
Zone III	2	IET 31715 & IET 31731
Zone IV	3	IET 31733, 31689, IET 31686 (H) Shifts: IET 31714 (H) to IVT-IM
Zone-V	-	-
Zone- VI	3	IET 31714 (H), IET 31709 (H), IET 31686 (H) Shifts: IET 31700 (H) to IVT-IM
Zone VII	6	IET 31714 (H), IET 31709 (H), IET 31678, IET 31693, IET 31726, IET 31680

Table No.6a.1 : Composition of entries in Advance Variety Trial 2 & 1- Late (AVT 2 & 1 – L), Kharif 2023.

Entry No.	IET No.	Designation	Cross Combination	GT	Zones	Trait
3rd year of testing:						
4201	29935	MTU 1377	MTU 1075 / MTU 1001	LS		
4202	28524	RP 6330-179-3-9-1	MTU 1121 / Vijetha	MS		
4203	29891	MTU 1376	MTU 2077 / WGL 3962	SB		
2nd year of testing:						
4204	30860	CR 3988-6-3-1-1	Pooja / AC.38687	MS		
4205	30851	CN 1317-557-5-6-BNKR 42-2-5-1 (BNKR 121)	Vikramarya / Mahsuri	LS		
4206	30841	R 2404-346-1-164-1	Bamaleshwari / Swarna	LS		
4207	30869	BRR 0225	Rajendra Mahsuri-1 / RGL 7004	LB		
4208	**Swarna (NC)**					
4209	30835	Bangabandhu - 1 Plus	Bangabandhu-1 / MTU 1010	MS		
4210	30877	CR 4350-7-5-1-17	CRL22R / MTU 1071	LB		
4211	30888	R 2370-496-1-278-1	R 1706-309-1-171-1 / IR 64	MS		
4212	**Pusa 44 (Northern), NDR 8002 (Eastern and Central), Ranjeet (North Eastern), Salivahana (Western), Pushyami (Southern)—ZC**					
4213	30846	BRR 2110	Improved White Ponni / Kalajoha	MS		
4214	30868	CR 3562-2-1-1-1-1-1	Surendra / N 22	MS		
4215	**PA 6444 (HC)**					
4216	30831	AD 18158	CR 1009 / IET 23130	SB		
4217	30864	***VNR – 233***	***Hybrid***	LS		
4218	30844	***MEPH-173***	***Hybrid***	LS		
4219	30882	***CRHR 166 (Hybrid)***	***CRMS 32A / CRL 123-122-21***	LS		
4220	**DRR Dhan 58**					
4221	**Local Check (LC)**					
2nd year of testing(NILs):						
4222	30827	CSR 389-16-22	Pusa 44 / FL 478*3 // Pusa 44 / IRBB	LS	II, III, VII	Salinity

Entry No.	IET No.	Designation	Cross Combination	GT	Zones	Trait
			60*3			(ISTVT) + BB
4223	30826	Pusa 1988-15-7-44-98-67	Pusa 44 *4 / Robin	LB	II, III, VII	Herbicide
1st year of testing(NILs):						
4224	29546 (R)	Pusa 5417-15-11-9-54-17	Pusa 44 / IR 64-Pup-1-F // Pusa 44 *2	LB	II, III, VII	LPT
4225	32052	CSR 389-16-19-15	Pusa 44 / FL 478*3 / Pusa 44 / IRBB 60*	LS	II, III, VII	Saltol+ BB
2nd year of testing(NIL):						
4226	30828	Pusa 3039-16-4-2-5	Pusa 44 / *2 Pusa 1790	LS	II, III, VII	BB+Bl
1st year of testing(NIL):						
4227	29558 (R)	Pusa 5417-15-11-9-50-27	Pusa 44 / IR 64-Pup-1-F // Pusa 44 *2	LB	II, III, VII	LPT
2nd year of testing(NIL):						
4228	28017	Pusa 1823-12-62	Pusa 44 / IR 81896-B-B-142 // Pusa 44 * 3	LS	II, III, VII	Only Yield
1st year of testing(NIL):						
4229	32053	CSR 389-16-23-42	Pusa 44 / FL 478*3 / Pusa 44 / IRBB 60*	LS	II, III, VII	Saltol+ BB
2nd year of testing(NILs):						
4230	30829	Pusa 1988-15-7-44-98-15	Pusa 44*4 / Robin	LS	II, III, VII	Herbicide
4231	28018	Pusa 1823-12-82	Pusa 44 / IR 81896-B-B-142 // Pusa 44 * 3	LS	II, III, VII	Only Yield
4232	30830	CSR 389-16-6	Pusa 44 / FL 478*3 // Pusa 44 / IRBB 60*3	LS	II, III, VII	Salinity (ISTVT) + BB
4233	**Pusa 44 (RP)**			LS		
1st year of testing(NIL):						
4234	32054	RP 6749-RMS-7-17-27-41	Improved Samba Mahsuri *2 / Abhaya / Aganni	MS	III, V, VII	BB + GM
4235	32055	RP 6750-RMS-2-23-67-91	Improved Samba Mahsuri *2 // FL 478 / Swarna	MS	III, V, VII	Bb + Salinity + LSP
4236	32056	RP 6751-RMS-1-13-34-42	Improved Samba Mahsuri *2 // RP bio-patho -1 / FL 478	MS	III, V, VII	BB +Bl+ Salinity
4237	32057	RP 6289-RMS-45-9-23-83	Improved Samba Mahsuri *2 // RP 2068	MS	III, V, VII	BB+BPH
4238	32058	RP 6752-RMS-3-25-94-22	Improved Samba Mahsuri *2 // Swarna Sub 1	MS	III, V, VII	BB + Sub
4239	32059	RP 6753-RMS-4-52-77-81	Improved Samba Mahsuri *2 // Swarna Sub 1 /APO	MS	III, V, VII	BB + Sub+Drt
4240	32060	RP 6754-RMS-23-65-78-90	Improved Samba Mahsuri *2 // RP 2068 / Swarna	MS	III, V, VII	BB+BPH +Low P
4241	32061	RP 6755-RMS-1-23-65-83	Improved Samba Mahsuri *2 // RP bio-patho -1 / Swarna Sub-1	MS	III, V, VII	BB +Bl+ Sub
4242	32062	RP 6756-RMS-29-43-64-82	Improved Samba Mahsuri *2 // RP bio-patho -1 / RP 2068	MS	III, V, VII	BB +Bl+ BPH
4243	32063	RP 6757-RMS-22-17-34-17	Improved Samba Mahsuri *2 // RP bio-patho -1 / RP 2068 / Swarna	MS	III, V, VII	BB +Bl+ BPH + Low P

Entry No.	IET No.	Designation	Cross Combination	GT	Zones	Trait
4244	**Improved Samba Mahsuri (RP)**			MS	III, V, VII	-
4245	32064	RP 6533-RMS-3-45-9-18	Swarna *2 / Improved Samba Mahsuri	MS	III, V, VII	BB +Bl
4246	32065	RP 6532-RMS-14-25-3-45	Swarna *2 / Improved Samba Mahsuri	MS	III, V, VII	BB
4247	32066	RP 6532-RMS-13-15-6-24	Swarna *2 / Improved Samba Mahsuri	MS	III, V, VII	BB
4248	32067	RP 6533-RMS-1-12-19-28	Swarna *2 / Improved Samba Mahsuri	MS	III, V, VII	BB +Bl
4249	**Swarna (RP)**			SB	III, V, VII	-
4250	32068	RP 6477-Patho-5-4-5	Samba Mahsuri * 2 / C101LAC / Tetep	MS	III, V, VII	Bl
4251	32069	RP 6284-Patho 6-1-2	Samba Mahsuri * 3 / C101LAC / C101A51 / Tetep	LS	III, V, VII	Bl
4252	32070	RP 6477-Patho-5-4-4	Samba Mahsuri * 2 / C101LAC / Tetep	MS	III, V, VII	Bl
4253	32071	RP 6284-Patho6-1-1	Samba Mahsuri * 3 / C101LAC / C101A51 / Tetep	LS	III, V, VII	Bl
4254	**Samba Mahsuri (RP)**			MS	III, V, VII	-

Table No. 6a.2 :Grain Yield (kg/ha) in AVT 2 & 1 - LATE, Zone 2, Kharif 2023

Entry No	IET No	ZONE II NORTHERN	
		Uttar Pradesh (1)	
		Nagina	
4201	29935	2578	
4202	28524	2447	
4203	29891	2987	
4208	Swarna (NC)	3928	
4212	Pusa 44 (ZC)	4618	6
4215	PA 6444 (HC)	3966	
4217	30864	4397	10 #
4218	30844	3342	
4219	30882	3644	
4220	DRR Dhan 58	4285	
4221	Local Check (LC)	3958	
4222	30827	3721	
4223	30826	4294	
4224	29546 (R)	4299	
4225	32052	4656	5 #
4226	30828	4569	7 #
4227	29558	4926	3 #
4228	28017	5202	1 * #
4229	32053	4520	8 #
4230	30829	4403	9 #
4231	28018	4288	
4232	30830	4875	4 #
4233	Pusa 44 (RP)	5098	2 * #
Exp. Mean		**4130**	
F Value		**37.80(p<0.0001)S**	
CD		**344**	
CV%		**5.06**	
D/S		07-11-2023	
D/P		08-08-2023	
Local Check Name		Pusa -44	

Table No. 6a.2 (Contd) :Grain Yield (kg/ha) in AVT 2 & 1 - LATE, Zone 3, Kharif 2023

Entry No	IET No	ZONE III - EASTERN							
		Odisha						Odisha (3)	
		Bhubaneswar		ICAR-NRRI (Cuttack)		Jeypore		Mean	
4201	29935	6374	7	6880	2	8078		7111	9
4202	28524	6758	5	6319		8187	10	7088	10
4203	29891	5044		6605	5	8978	7	6876	
4207	30869	7318	2	6923	1	8512	8	7584	2
4208	Swarna (NC)	7028	3	6661	4	9234	6	7641	1
4212	Pusa 44 (ZC)	6287	8	6770	3	9509	4	7522	3
4215	PA 6444 (HC)	6096	10	6390	9	9740	1	7409	4
4217	30864	5244		6602	6	9582	3	7143	7
4218	30844	7348	1	6497	8	7920		7255	5
4219	30882	6483	6	6507	7	8372	9	7121	8
4220	DRR Dhan 58	5195		4940		9645	2	6593	
4221	Local Check (LC)	5909		6352	10	9476	5	7246	6
4222	30827	5452		6029		4193		5225	
4223	30826	5449		4766		4435		4883	
4224	29546 (R)	5632		4933		6618		5728	
4225	32052	5409		6269		6444		6041	
4226	30828	7013	4	5924		5754		6230	
4227	29558	5895		5651		3671		5072	
4228	28017	5683		5063		5034		5260	
4229	32053	5333		6296		4620		5416	
4230	30829	5385		5033		4205		4874	
4231	28018	5453		5523		6571		5849	
4232	30830	4909		4985		4144		4679	
4233	Pusa 44 (RP)	4040		5067		6657		5255	
4234	32054	5134		5370		4572		5025	
4235	32055	4692		5559		5246		5166	
4236	32056	4623		4538		7312		5491	
4237	32057	5278				7132		6205	
4238	32058	4415				6383		5399	
4239	32059	4693		4568		5068		4776	
4240	32060	4976				4468		4722	
4241	32061	5442		4635		4654		4910	
4242	32062	6267	9			3035		4651	
4243	32063	4108		4984		5299		4797	
4244	Improved Samba Mahsuri (RP)	5019				3201		4110	
4245	32064					6134		6134	
4246	32065	5692				7008		6350	
4247	32066	5889				7289		6589	
4248	32067	5278				6111		5695	
4249	Swarna (RP)					3065		3065	
4250	32068	5692		5091		3799		4861	
4251	32069	5227		4647		6844		5573	
4252	32070	5200		5237		3763		4733	
4253	32071	5205		4454		3281		4313	
4254	Samba Mahsuri (RP)	5837		5469		5168		5491	
Exp. Mean		**5568**		**5644**		**6187**		**5759**	
F Value		**3.84(p<0.0001)S**		**3.03(p<0.0001)S**		**27.99(p<0.0001)S**		**19.81(p<0.0001)S**	
CD		1105		1264		1076		674	
CV%		**12.22**		**13.74**		**10.72**		**7.22**	
D/S		27-06-2023		07-04-2023		07-08-2023			
D/P		28-07-2023		31-07-2023		08-08-2023			
Local Check Name		Kalinga Dhan 1501		CR DHAN 404		Hasanta			

Table No. 6a.2 (Contd).:Grain Yield (kg/ha) in AVT 2 & 1 - LATE, Zone 3, Kharif 2023

Entry No	IET No	ZONE III - EASTERN									
		Bihar				Bihar (2)		West Bengal (1)		Zone III(6)	
		Bikramganj		Sabour		Mean		Malda		Mean	
4201	29935	5943		1936		3940		6583	9	5966	
4202	28524	5788		4744	7	5266		6792	6	6431	9
4203	29891	3878		4029		3954		6417		5825	
4207	30869	6232		4208		5220		6458		6609	5
4208	Swarna (NC)	6350		4920	6	5635	6	6250		6741	3
4212	Pusa 44 (ZC)	6692	9	4250		5471		5750		6543	6
4215	PA 6444 (HC)	7609	1	5144	4	6377	3	6833	5	6969	1
4217	30864	6958	4	4080		5519		6375		6474	7
4218	30844	6886	6	4186		5536	10	5833		6445	8
4219	30882	7565	2	5926	1	6746	1	5583		6739	4
4220	DRR Dhan 58	5929		3622		4776		5542		5812	
4221	Local Check (LC)	6984	3	5821	2	6403	2	6250		6799	2
4222	30827	6911	5	3833		5372		5583		5334	
4223	30826	6251		4013		5132		6917	4	5305	
4224	29546 (R)	6235		4450		5343		7000	3	5811	
4225	32052	6871	7	4385		5628	7	6333		5952	
4226	30828	6265		4365		5315		6250		5929	
4227	29558	6209		4651	10	5430		5917		5332	
4228	28017	6372	10	4721	8	5547	9	5542		5403	
4229	32053	6190		3837		5014		7500	1 *	5629	
4230	30829	5811		3737		4774		6583	9	5126	
4231	28018	6136		5654	3	5895	5	5833		5862	
4232	30830	5682		4154		4918		5750		4937	
4233	Pusa 44 (RP)	5022		5048	5	5035		7417	2 *	5542	
4234	32054	6785	8	4378		5582	8	6083		5387	
4235	32055	5157		4199		4678		6417		5212	
4236	32056	4899				4899		5792		5433	
4237	32057	5261		4414		4838		5833		5584	
4238	32058	4557		3506		4032		6250		5022	
4239	32059	4660		3163		3912		5667		4637	
4240	32060	5788		4115		4952		5750		5019	
4241	32061	4596		3917		4257		6042		4881	
4242	32062	4444		4535		4490		6083		4873	
4243	32063	5542		4126		4834		5250		4885	
4244	Improved Samba Mahsuri (RP)	5676		3679		4678		5583		4632	
4245	32064	6268				6268	4	5375		5926	
4246	32065	6159		3987		5073		6417		5853	
4247	32066			4048		4048		6667	8	5973	10
4248	32067			3798		3798		6750	7	5484	
4249	Swarna (RP)							6333		4699	
4250	32068	5387		4429		4908		5917		5053	
4251	32069	2876		4058		3467		6000		4942	
4252	32070	5690		4404		5047		6417		5119	
4253	32071	4010		4484		4247		5750		4531	
4254	Samba Mahsuri (RP)	6066		4699	9	5383		5958		5533	
Exp. Mean		**5824**		**4277**		**5037**		**6169**		**5604**	
F Value		**13.91(p<0.0001)S**		**5.67(p<0.0001)S**		**11.29(p<0.0001)S**		**1.58(p<0.00450)S**		**13.76(p<0.0001)S**	
CD		742		800		600		1157		488	
CV%		**7.85**		**11.51**		**7.34**		**11.56**		**5.37**	
D/S		16-07-2023		07-12-2023				13-07-2023			
D/P		08-09-2023		08-12-2023				13-08-2023			
Local Check Name		Rajendra Mahsuri		Rajendra Mahsuri-1				Raidip			

Table No. 6a.2 (Contd).:Grain Yield (kg/ha) in AVT 2 & 1 - LATE, (Trial Not Considered), Zone 3, Kharif 2023

Entry No	IET No	Trial not considered	
		ZONE III - EASTERN	
		West Bengal	
		@Masodha	
4201	29935	5682	
4202	28524	5284	
4203	29891	6105	2
4207	30869	5687	
4208	Swarna (NC)	6023	4
4212	Pusa 44 (ZC)	5251	
4215	PA 6444 (HC)	6127	1
4217	30864	5387	
4218	30844	5286	
4219	30882	4995	
4220	DRR Dhan 58	5655	
4221	Local Check (LC)	5052	
4222	30827	4468	
4223	30826	5698	10
4224	29546 (R)	5175	
4225	32052	5019	
4226	30828	5783	9
4227	29558	5559	
4228	28017	5286	
4229	32053	5306	
4230	30829	4896	
4231	28018	5832	8
4232	30830	5262	
4233	Pusa 44 (RP)	4615	
4234	32054	5276	
4235	32055	4861	
4236	32056	5922	5
4237	32057	4433	
4238	32058	5316	
4239	32059	4885	
4240	32060	5306	
4241	32061	6105	2
4242	32062	4422	
4243	32063	5199	
4244	Improved Samba Mahsuri (RP)	5436	
4245	32064	4506	
4246	32065	5322	
4247	32066	4509	
4248	32067	5215	
4249	Swarna (RP)	5693	
4250	32068	5848	6
4251	32069	5316	
4252	32070	4812	
4253	32071	4697	
4254	Samba Mahsuri (RP)	5837	7
Exp. Mean		**5297**	
F Value		**24.66(p<0.0001)S**	
CD		266	
CV%		**3.1**	
D/S		07-11-2023	
D/P		16-08-2023	
Local Check Name		Sambha Mahsuri-Sub 1	

Table No. 6a.2 (Contd) :Grain Yield (kg/ha) in AVT 2 & 1 - LATE, Zone 4, Kharif 2023

Entry No	IET No	ZONE IV - NORTH EASTERN					
		Assam (1)		Tripura (1)		Zone IV (2)	
		Titabar		Lembucherra		Mean	
4201	29935	4071		5875	10	4973	
4202	28524	5306	7 *	7425	3 #	6366	2 * #
4203	29891	4632	10	4483		4558	
4204	30860	4172		4850		4511	
4205	30851	5525	5 *	5792		5659	6
4206	30841	4013		6400	7	5207	
4208	Swarna (NC)	3839		7042	5	5441	9
4209	30835	3535		4258		3897	
4211	30888	5166	8 *	7333	4 #	6250	3
4212	Pusa 44 (zc)	3006		7967	2	5487	7
4213	30846	5715	2 *	6500	6	6108	5
4214	30868	5660	3 *	5100		5380	10
4215	PA 6444 (HC)	5546	4	5358		5452	8
4217	30864	5381	6 *	4675		5028	
4218	30844	5896	1 *	6367	8	6132	4
4219	30882	4876	9 *	8567	1 #	6722	1 * #
4220	DRR Dhan 58	3734		3742		3738	
4221	Local Check (LC)	4264		6083	9	5174	
Exp. Mean		**4686**		**5990**		**5338**	
F Value		**16.70(p<0.0001)S**		**8.51(p<0.0001)S**		**7.92(p<0.0001)S**	
CD		592		1290		800	
CV%		**7.62**		**12.98**		**9.03**	
D/S		08-03-2023		20-07-2023			
D/P		25-08-2025		08-11-2023			
Local Check Name		Ranjit		Khowai			

Table No. 6a.2 (Contd) :Grain Yield (kg/ha) in AVT 2 & 1 - LATE, Zone 5, Kharif 2023

Entry No	IET No	ZONE V- CENTRAL			
		Chattisgarh (1)		Zone V(1)	
		Raipur		Maen	
4201	29935	5519		5519	
4202	28524	6023	7	6023	7
4203	29891	5869	8	5869	8
4208	Swarna (NC)	5572	10	5572	10
4212	Pusa 44 (ZC)	6332	4	6332	4
4215	PA 6444 (HC)	5614	9	5614	9
4217	30864	6571	2 #	6571	2 #
4218	30844	6120	5 #	6120	5 #
4219	30882	6095	6 #	6095	6 #
4220	DRR Dhan 58	6570	3 #	6570	3 #
4221	Local Check (LC)	5565		5565	
4234	32054	5161		5161	
4235	32055	4274		4274	
4236	32056	4541		4541	
4237	32057	4704		4704	
4238	32058	4447		4447	
4239	32059	4538		4538	
4240	32060	4099		4099	
4241	32061	4250		4250	
4242	32062	4566		4566	
4243	32063	3728		3728	
4244	Improved Samba Mahsuri (RP)	4309		4309	
4245	32064	6612	1 #	6612	1 #
4246	32065	4777		4777	
4247	32066	4446		4446	
4248	32067	4613		4613	
4249	Swarna (RP)				
4250	32068	4356		4356	
4251	32069	3571		3571	
4252	32070	4474		4474	
4253	32071	3381		3381	
4254	Samba Mahsuri (RP)	5418		5418	
Exp. Mean		**5036**		**5036**	
F Value		**32.85(p<0.0001)S**		**32.85(p<0.0001)S**	
CD		444		444	
CV%		**5.40**		**5.40**	
D/S		07-10-2023			
D/P		45024			
Local Check Name		Chhattisgarh Dhan 1919			

Table No. 6a.2 (Contd).:Grain Yield (kg/ha) in AVT 2 & 1 - LATE, (Trial Not Considered) Zone 5, Kharif 2023

Entry No	IET No	Trial not considered			
		Madhya Pradesh (0)		Chattisgarh	
		@Waraseoni		@Jagadalpur	
4201	29935	4198	9	5951	
4202	28524	4641	7	6736	
4203	29891	4659	6	7127	5
4208	Swarna (NC)	4733	5	6715	
4212	Pusa 44 (ZC)	5992	1	7723	2
4215	PA 6444 (HC)	3791		6765	9
4217	30864	3921		5447	
4218	30844	4095		6651	
4219	30882	5555	2	6696	
4220	DRR Dhan 58	2323		6911	7
4221	Local Check (LC)	2840		6999	6
4234	32054	3810		6454	
4235	32055	3154		5668	
4236	32056	3293		5108	
4237	32057	5139	3	7535	3
4238	32058	4151	10	6887	8
4239	32059	2646		4999	
4240	32060	2173		6763	10
4241	32061	2572		5414	
4242	32062	4789	4	6112	
4243	32063	2103		6048	
4244	Improved Samba Mahsuri (RP)	2194		5016	
4245	32064			6285	
4246	32065	2226		5867	
4247	32066	2212		5479	
4248	32067	3053		8041	1
4249	Swarna (RP)			7169	4
4250	32068	3487		4945	
4251	32069	3090		5138	
4252	32070	3801		4904	
4253	32071	3874		5037	
4254	Samba Mahsuri (RP)	4271	8	5040	
Exp. Mean		**3626**		**6176**	
F Value		**15.14(p<0.0001)S**		**1.46(p<0.0001)S**	
CD		782		2140	
CV%		**13.20**		**21.23**	
D/S		07-07-2023		15-07-2023	
D/P		25-07-2023		45054	
Local Check Name		MTU7029		CG 1919	

Table No. 6a.2 (Contd) :Grain Yield (kg/ha) in AVT 2 & 1 - LATE, Zone 6, Kharif 2023

Entry No	IET No	ZONE VI -WESTERN									
		Maharashtra				Maharashtra (2)		Gujarat (1)		Zone VI (3)	
		Karjat		Vadagaon		Mean		Navasari		Mean	
4201	29935	4965	10	6047	7	5506	9	4541	10	5184	
4202	28524	7589	1	6103	6	6846	3	5882	6	6525	3
4203	29891	5324	8	6607	5	5966	6	6186	1	6039	4
4208	Swarna (NC)	5675	7	5842	8	5759	8	6091	2	5869	6
4212	Pusa 44 (ZC)	7338	4	6979	2	7159	2	5992	4	6770	1
4215	PA 6444 (HC)	7407	3	7325	1	7366	1	5028	9	6587	2
4217	30864	6053	5	6628	4	6341	4	4124		5602	9
4218	30844	5718	6	5098	9	5408	10	6066	3	5627	8
4219	30882	4591		6974	3	5783	7	5777	7	5781	7
4220	DRR Dhan 58	7461	2	4859		6160	5	5316	8	5879	5
4221	Local Check (LC)	5220	9	4940	10	5080		5923	5	5361	10
Exp. Mean		**6122**		**6127**		**6125**		**5539**		**5929**	
F Value		**8.27(p<0.0001)S**		**9.57(p<0.0001)S**		**10.60(p<0.0001)S**		**2.39(p<0.00409)S**		**3.76(p<0.0044)S**	
CD		1063		761		614		1312		713	
CV%		**10.19**		**7.29**		**5.89**		**13.9**		**7.06**	
D/S		07-04-2023		07-04-2023				07-06-2023			
D/P		29-07-2023		31-07-2023				31-07-2023			
Local Check Name		Karjat-2		KJT-2				Masuri			

Table No. 6a.2 (Contd).:Grain Yield (kg/ha) in AVT 2 & 1 - LATE, (Trial Not Considered), Zone 6 Kharif 2023

Entry No	IET No	Trial not considered	
		Maharashtra	
		@Padagaon	
4201	29935	1864	
4202	28524	3238	6
4203	29891	2141	10
4208	Swarna (NC)	3287	5
4212	Pusa 44 (ZC)	2588	8
4215	PA 6444 (HC)	6768	1
4217	30864	3079	7
4218	30844	2303	9
4219	30882	3602	4
4220	DRR Dhan 58	5208	2
4221	Local Check (LC)	3619	3
Exp. Mean		**3427**	
F Value		**48.25(p<0.0001)S**	
CD		563	
CV%		**9.64**	
D/S		07-08-2023	
D/P		30-07-2023	
Local Check Name		Karjat-2	

Table No. 6a.2 (Contd) :Grain Yield (kg/ha) in AVT 2 & 1 - LATE, Zone 7, Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN							
		Andhra Pradesh						Andhra Pradesh (3)	
		Maruteru		Ragolu		Nellore		Mean	
4201	29935	5627	7	5032		6868	1	5842	3 * #
4202	28524	3476		6405	9	5496	9	5126	
4203	29891	5172		4865		6699	2	5579	7 #
4208	Swarna (NC)	5403				5583	8	5493	
4210	30877	4198				4276		4237	
4212	Pusa 44 (ZC)	5399		5361		5327		5362	
4215	PA 6444 (HC)	5601	10	5175		4989		5255	
4216	30831	4474		5000		5779	6	5084	
4217	30864	4506		4933		4820		4753	
4218	30844	5578		4552		6514	3	5548	9
4219	30882	5359		6421	8	3813		5198	
4220	DRR Dhan 58	5645	5	7698	1	4020		5788	4 #
4221	Local Check (LC)	5001		5833		5153		5329	
4222	30827	5633	6	6619	6	5964	4	6072	1 * #
4223	30826	5621	8	4452		4020		4698	
4224	29546 (R)	5284		6163	10	5251		5566	8
4225	32052	6200	1	6532	7	5234		5989	2 * #
4226	30828	4399		5175		3676		4417	
4227	29558	5111		5627		4080		4939	
4228	28017	5496		4778		4935		5070	
4229	32053	5229		6698	5	5065		5664	6 #
4230	30829	5620	9	4702		3339		4554	
4231	28018	5358		5841		4178		5126	
4232	30830	4121		7337	2	4188		5215	
4233	Pusa 44 (RP)	5499		4837		4314		4883	
4234	32054	5221		4563		3214		4333	
4235	32055	5465		6710	3	4172		5449	
4236	32056	5367		4770		3932		4690	
4237	32057	6193	2	4563		5882	5 #	5546	10
4238	32058	4471		4504		3540		4172	
4239	32059	5420		4401		3617		4479	
4240	32060	5536		4504		2881		4307	
4241	32061	5402		4754		3426		4527	
4242	32062	3421		6151		2729		4100	
4243	32063	5552		4540		3181		4424	
4244	Improved Samba Mahsuri (RP)	5543		4222		3464		4410	
4245	32064	4570						4570	
4246	32065	5990	3	3827		5425	10	5081	
4247	32066	5433		4635		5637	7 #	5235	
4248	32067	3554		6706	4	2968		4409	
4249	Swarna (RP)	5679	4					5679	5 #
4250	32068	4510		4635		2898		4014	
4251	32069	4035		4702		4303		4347	
4252	32070	3707		4579		4183		4156	
4253	32071	3504		4504		2647		3552	
4254	Samba Mahsuri (RP)	5472		5044		3306		4607	
Exp. Mean		**5066**		**5294**		**4431**		**4932**	
F Value		**7.79(p<0.0001)S**		**17.16(p<0.0001)S**		**42.61(p<0.0001)S**		**28.52(p<0.0001)S**	
CD		743		634		473		313	
CV%		**9.04**		**7.38**		**6.57**		**3.92**	
D/S		16-07-2023		45023		29-8-2023			
D/P		21-08-2023		28-07-2023		10-07-2023			
Local Check Name		MTU1061		RGL 2537		NLR 4001			

Table No. 6a.2 (Contd) :Grain Yield (kg/ha) in AVT 2 & 1 - LATE, Zone 7, Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN							
		Tamil Nadu (1)		Karnataka (1)		Puducherry (1)		Zone VII(6)	
		Aduthurai		Sirsi		Kurumbapet		Mean	
4201	29935	5108	2	5000		7545	8 #	5863	6 #
4202	28524	4570		7043	#	7989	6 #	5830	7 #
4203	29891	4973	7	4321		5411		5240	
4208	Swarna (NC)	5054	3	6964		5791		5759	10
4210	30877	4866		1579		6679	#	4320	
4212	Pusa 44 (ZC)	5645	1	7050		8623	4	6234	3
4215	PA 6444 (HC)	4597		5493		5326		5197	
4216	30831	5000	5	2507		7101	#	4977	
4217	30864	4570		7557	9 #	6214		5433	
4218	30844	5027	4	2307		7989	6 #	5328	
4219	30882	4892	9	5607		5770		5310	
4220	DRR Dhan 58	4126		6371	#	9722	1 * #	6264	2 #
4221	Local Check (LC)	4892	9	6786		7101		5794	8
4222	30827	4046		6343	#	7101	#	5951	5 #
4223	30826	4516		5657		5770		5006	
4224	29546 (R)	4247		6771	#	5326		5507	
4225	32052	4099		6779	#	7545	8 #	6065	4 #
4226	30828	4220		7136	#	8031	5 #	5440	
4227	29558	4328		6736	#	6658	#	5423	
4228	28017	4086		7221	#	5326		5307	
4229	32053	4677		5979		6235		5647	#
4230	30829	4099		6900	#	6214		5146	
4231	28018	4247		7264	#	5580		5411	
4232	30830	4946	8	6171		6489	#	5542	#
4233	Pusa 44 (RP)	4597		6457	#	5791		5249	
4234	32054	4489		5114		4819		4570	
4235	32055	4290		2529		6679	#	4974	
4236	32056	4839		6486	#	6298		5282	
4237	32057	4261				5347		5249	
4238	32058	4140		5807		6214		4779	
4239	32059	4163		7621	8 #	7101	#	5387	
4240	32060	4140		6607	#	6214		4980	
4241	32061	4086				8877	2 #	5309	
4242	32062	4718		8264	4 * #	8835	3 #	5686	#
4243	32063	4328		5279		7313	10 #	5032	
4244	Improved Samba Mahsuri (RP)	4167		8036	5 * #	5326		5126	
4245	32064	4570		6907	#	5854		5475	
4246	32065	4409		6336	#	6214		5367	
4247	32066	5000	5	7771	6 * #	6256		5789	9 #
4248	32067	4651		9607	2 * #	5389		5479	
4249	Swarna (RP)	4435		9514	3 * #	6636	#	6566	1 * #
4250	32068	4382		11014	1 * #	5136		5429	
4251	32069	4099		7743	7 #	4079		4827	
4252	32070	4140		6786	#	5305		4783	
4253	32071	4220		7357	10 #	6658	#	4815	
4254	Samba Mahsuri (RP)	4489		1393		7059	#	4461	
Exp. Mean		**4510**		**6322**		**6499**		**5361**	
F Value		**3.75(p<0.0001)S**		**61.29(p<0.0001)S**		**9.00(p<0.0001)S**		**17.43(p<0.0001)S**	
CD		528		702		1090		319	
CV%		**7.22**		**6.84**		**10.34**		**3.67**	
D/S		29-08-2023		07-05-2023		08-03-2023			
D/P		10-05-2023		08-03-2023		09-07-2023			
Local Check Name		ADT 51				CR-1009 sub-I			

Table No. 6a.2 (Contd).:Grain Yield (kg/ha) in AVT 2 & 1 - LATE, (Trial Not Considered), Zone 7, Kharif 2023

Entry No	IET No	Trial not considered Karnataka @Ponnampet	
4201	29935	5614	1
4202	28524	4386	
4203	29891	4568	9
4208	Swarna (NC)	4220	
4210	30877	4043	
4212	Pusa 44 (ZC)	4719	6
4215	PA 6444 (HC)	5377	4
4216	30831	5572	2
4217	30864	4399	
4218	30844	5343	5
4219	30882	3826	
4220	DRR Dhan 58	2070	
4221	Local Check (LC)	4599	8
4222	30827	3792	
4223	30826	3401	
4224	29546 (R)	4623	7
4225	32052	4258	
4226	30828	3466	
4227	29558	4425	10
4228	28017	4058	
4229	32053	3829	
4230	30829	2691	
4231	28018	4275	
4232	30830	4128	
4233	Pusa 44 (RP)	4145	
4234	32054	3287	
4235	32055	1611	
4236	32056	2751	
4237	32057	4145	
4238	32058	2973	
4239	32059	2374	
4240	32060	1853	
4241	32061	3249	
4242	32062	4087	
4243	32063	3331	
4244	Improved Samba Mahsuri (RP)	1857	
4245	32064		
4246	32065	4350	
4247	32066	3937	
4248	32067	3826	
4249	Swarna (RP)		
4250	32068	2355	
4251	32069	5418	3
4252	32070	3051	
4253	32071	3029	
4254	Samba Mahsuri (RP)	2326	
Exp. Mean		**3765**	
F Value		**17.22(p<0.0001)S**	
CD		700	
CV%		**11.46**	
D/S		13-07-2023	
D/P		25-08-2023	
Local Check Name		Tunga	

Table No. 6a.3 : Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 & 1 - LATE, Zone - 2,Kharif 2023

Entry No	IET No	ZONE II NORTHERN		
		Uttar Pradesh (1)		
		Nagina		
		DFF	PH	PAN
4201	29935	131	82	250
4202	28524	125	73	201
4203	29891	132	82	224
4208	Swarna (NC)	123	64	254
4212	Pusa 44 (ZC)	109	71	210
4215	PA 6444 (HC)	106	83	207
4217	30864	113	96	274
4218	30844	135	74	291
4219	30882	124	86	292
4220	DRR Dhan 58	121	73	211
4221	Local Check (LC)	115	72	248
4222	30827	127	80	228
4223	30826	100	78	245
4224	29546 (R)	104	83	266
4225	32052	112	79	225
4226	30828	101	70	228
4227	29558	111	82	229
4228	28017	112	73	214
4229	32053	99	80	232
4230	30829	99	80	212
4231	28018	110	84	266
4232	30830	112	71	291
4233	Pusa 44 (RP)	111	70	249
Exp. Mean		**114**	**78**	**241**

Table No. 6a.3 (Contd) : Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 & 1 - LATE, Zone -3,Kharif 2023

Entry No	IET No	ZONE III - EASTERN											
		Odisha									Odisha (3)		
		Bhubaneswar			ICAR-NRRI (Cuttack)			JEYPORE			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4201	29935	114	132	315	113	124	308	123	92	444	117	116	356
4202	28524	105	125	425	106	126	330	113	94	412	108	115	389
4203	29891	119	110	323	116	117	363	129	99	409	121	109	365
4207	30869	100	126	374	103	141	275	121	104	426	108	124	358
4208	Swarna (NC)	106	95	404	107	102	352	121	73	445	111	90	400
4212	Pusa 44 (ZC)	102	100	400	109	119	319	110	82	445	107	100	388
4215	PA 6444 (HC)	92	115	283	94	124	330	110	93	412	99	111	342
4217	30864	103	125	314	105	141	297	109	103	333	106	123	315
4218	30844	89	115	349	107	123	330	125	84	410	107	107	363
4219	30882	103	114	311	103	124	297	115	98	521	107	112	376
4220	DRR Dhan 58	102	105	251	103	115	297	111	74	457	105	98	335
4221	Local Check (LC)	118	117	340	112	99	286	110	94	309	113	103	311
4222	30827	93	88	249	98	113	297	105	69	363	99	90	303
4223	30826	93	90	292	97	93	341	103	70	339	98	84	324
4224	29546 (R)	93	100	303	95	109	363	106	72	346	98	94	337
4225	32052	101	88	367	96	98	330	108	69	393	102	85	363
4226	30828	95	87	414	92	100	308	103	65	333	97	84	352
4227	29558	95	90	356	95	101	308	106	67	344	99	86	336
4228	28017	101	81	337	96	99	220	107	67	423	101	82	327
4229	32053	93	90	320	93	98	319	107	68	349	98	85	329
4230	30829	93	93	355	94	101	319	105	73	337	97	89	337
4231	28018	101	95	318	95	102	319	111	77	333	102	91	323
4232	30830	95	87	326	93	95	286	108	65	317	99	82	310
4233	Pusa 44 (RP)	95	95	232	95	93	242	105	66	458	98	85	311
4234	32054	96	100	303	99	110	374	111	72	432	102	94	370
4235	32055	102	100	350	105	111	407	111	74	344	106	95	367
4236	32056	105	90	312	110	96	330	122	63	557	112	83	400
4237	32057	93	110	340				111	82	322	102	96	331
4238	32058	94	96	317				104	76	462	99	86	389
4239	32059	106	80	384	104	105	242	114	70	381	108	85	336
4240	32060	103	110	287				111	79	346	107	95	317
4241	32061	102	100	365	105	117	341	115	78	465	107	98	390
4242	32062	88	110	400				98	75	392	93	93	396
4243	32063	96	95	334	98	108	352	112	72	355	102	91	347
4244	Improved Samba Mahsuri (RP)	102	100	346				113	68	351	107	84	348
4245	32064							106	105	341	106	105	341
4246	32065	105	115	398				124	78	404	115	97	401
4247	32066	93	90	404				124	73	319	109	82	362
4248	32067	93	90	300				109	77	346	101	84	323
4249	Swarna (RP)							109	95	403	109	95	403
4250	32068	95	95	378	93	107	341	109	80	365	99	94	361
4251	32069	88	105	405	86	101	330	109	69	329	94	92	355
4252	32070	97	103	306	92	117	352	106	74	460	98	98	373
4253	32071	89	95	310	84	104	330	107	68	342	93	89	327
4254	Samba Mahsuri (RP)	100	95	411	97	106	396	114	65	565	104	89	457
Exp. Mean		**99**	**101**	**340**	**100**	**110**	**321**	**111**	**78**	**392**	**104**	**95**	**354**

Table No. 6a.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 & 1 - LATE, Zone -3,Kharif 2023

Entry No	IET No	ZONE III - EASTERN														
		Bihar						Bihar (2)			West Bengal (1)			Zone III(6)		
		Bikramganj			Sabour			Mean			Malda			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4201	29935	111	108	354		91	168	111	99	261	98	105		112	109	318
4202	28524	112	103	354	110	93	292	111	98	323	93	105		106	107	362
4203	29891	121	110	340	88	95	282	105	102	311	95	110		111	107	343
4207	30869	103	112	317	106	108	298	105	110	308	94	119		105	118	338
4208	Swarna (NC)	108	85	353	111	77	261	110	81	307	90	98		107	88	363
4212	Pusa 44 (ZC)	109	104	388	106	87	285	107	95	336	91	102		104	99	367
4215	PA 6444 (HC)	104	116	357	95	102	239	100	109	298	87	107		97	109	324
4217	30864	105	105	355	108	119	233	107	112	294	95	126		104	120	306
4218	30844	110	105	407	111	91	282	111	98	345	96	104		107	104	356
4219	30882	101	111	330	108	99	247	105	105	288	89	105		103	108	341
4220	DRR Dhan 58	101	94	382	112	79	280	107	86	331	86	104		103	95	334
4221	Local Check (LC)	111	108	375	112	98	271	111	103	323	86	103		108	103	316
4222	30827	103	90	433	102	86	251	103	88	342	94	105		99	92	319
4223	30826	101	87	340	102	77	290	102	82	315	88	88		97	84	320
4224	29546 (R)	98	88	315	102	91	216	100	90	266	88	106		97	94	309
4225	32052	103	90	322	105	84	235	104	87	279	91	100		101	88	329
4226	30828	105	92	411	106	81	282	106	86	347	87	95		98	87	350
4227	29558	103	94	368	102	86	251	103	90	309	90	95		99	89	325
4228	28017	103	84	351	102	83	249	103	84	300	92	92		100	84	316
4229	32053	105	84	377	102	86	250	104	85	314	91	88		99	86	323
4230	30829	103	81	407	102	92	262	103	86	334	92	88		98	88	336
4231	28018	105	91	373	105	81	236	105	86	304	84	100		100	91	316
4232	30830	103	94	325	103	84	226	103	89	275	90	100		99	88	296
4233	Pusa 44 (RP)	102	83	319	101	86	254	102	84	287	90	100		98	87	301
4234	32054	103	95	468	105	83	294	104	89	381	89	96		101	93	374
4235	32055	105	84	437	111	83	253	108	84	345	90	92		104	91	358
4236	32056	113	80	358				113	80	358	92	93		108	84	389
4237	32057	108	110	369	101	100	260	105	105	315	85	92		100	99	323
4238	32058	108	111	342	102	87	248	105	99	295	86	95		99	93	342
4239	32059	110	87	372	108	78	241	109	83	307	87	94		105	86	324
4240	32060	97	102	337	106	91	232	102	97	284	85	106		100	98	301
4241	32061	109	97	388	111	87	258	110	92	323	91	95		106	96	364
4242	32062	103	102	353	96	94	255	100	98	304	87	104		94	97	350
4243	32063	105	107	328	111	85	299	108	96	314	94	100		103	94	334
4244	Improved Samba Mahsuri (RP)	108	89	475	111	82	278	110	86	377	90	100		105	88	362
4245	32064	110	88	244				110	88	244	92	100		103	98	292
4246	32065	105	98	329	112	84	243	109	91	286	87	105		107	96	344
4247	32066				102	82	218	102	82	218	84	105		101	88	314
4248	32067				102	87	228	102	87	228	93	100		99	89	291
4249	Swarna (RP)										88	100		98	97	403
4250	32068	109	94	422	104	85	314	107	89	368	87	98		100	93	364
4251	32069	104	93	320	99	85	247	102	89	284	86	88		95	90	326
4252	32070	110	92	327	103	90	255	107	91	291	95	96		101	95	340
4253	32071	103	87	347	96	91	240	100	89	294	97	103		96	91	314
4254	Samba Mahsuri (RP)	105	92	475	104	83	298	105	87	386	84	108		101	91	429
Exp. Mean		**106**	**96**	**365**	**105**	**88**	**257**	**105**	**92**	**309**	**90**	**100**		**102**	**95**	**337**

Table No. 6a.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 & 1 - LATE, (Trial Not Considered), Zone -3,Kharif 2023

Entry No	IET No	Trial not considered West Bengal @Masodha		
		DFF	PH	PAN
4201	29935	110	89	287
4202	28524	110	79	234
4203	29891	106	79	283
4207	30869	113	91	285
4208	Swarna (NC)	110	83	253
4212	Pusa 44 (ZC)	108	96	265
4215	PA 6444 (HC)	108	89	274
4217	30864	85	86	260
4218	30844	112	87	258
4219	30882	108	85	233
4220	DRR Dhan 58	115	86	288
4221	Local Check (LC)	111	82	258
4222	30827	107	92	267
4223	30826	110	84	285
4224	29546 (R)	114	84	254
4225	32052	110	79	232
4226	30828	108	89	244
4227	29558	110	97	252
4228	28017	108	101	256
4229	32053	113	96	254
4230	30829	112	102	243
4231	28018	105	79	257
4232	30830	114	89	265
4233	Pusa 44 (RP)	114	96	251
4234	32054	114	87	257
4235	32055	113	96	256
4236	32056	102	92	288
4237	32057	117	82	233
4238	32058	113	76	287
4239	32059	115	89	257
4240	32060	116	95	255
4241	32061	106	102	286
4242	32062	112	96	231
4243	32063	78	85	274
4244	Improved Samba Mahsuri (RP)	111	96	262
4245	32064	117	76	266
4246	32065	113	87	254
4247	32066	80	79	255
4248	32067	105	76	255
4249	Swarna (RP)	112	92	256
4250	32068	112	102	261
4251	32069	110	94	285
4252	32070	107	93	277
4253	32071	112	85	249
4254	Samba Mahsuri (RP)	106	94	289
Exp. Mean		**109**	**89**	**262**

Table No. 6a.3 (Contd) : Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 & 1 - LATE, Zone -4,Kharif 2023

Entry No	IET No	ZONE IV - NORTH EASTERN								
		Assam (1)			Tripura (1)			Zone IV (2)		
		Titabar			Lembucherra			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4201	29935	112	101	237	113	104	308	113	102	273
4202	28524	99	103	263	94	118	342	97	111	302
4203	29891	108	104	253	113	98	367	110	101	310
4204	30860	100	97	250	110	108	383	105	103	317
4205	30851	97	96	249	91	110	300	94	103	275
4206	30841	103	94	274	95	107	350	99	100	312
4208	Swarna (NC)	104	83	290	95	113	333	99	98	312
4209	30835	107	103	276	94	89	333	101	96	305
4211	30888	95	102	268	75	112	267	85	107	267
4212	Pusa 44 (zc)	108	101	273	122	105	333	115	103	303
4213	30846	106	95	257	112	91	317	109	93	287
4214	30868	104	96	258	94	101	275	99	99	266
4215	PA 6444 (HC)	98	102	280	69	111	300	84	107	290
4217	30864	103	106	278	92	108	375	98	107	327
4218	30844	104	94	247	94	109	275	99	102	261
4219	30882	104	100	254	84	109	308	94	105	281
4220	DRR Dhan 58	100	87	264	90	93	283	95	90	274
4221	Local Check (LC)	119	108	256	101	110	292	110	109	274
Exp. Mean		**104**	**99**	**263**	**97**	**105**	**319**	**100**	**102**	**291**

Table No. 6a.3 (Contd) : Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 & 1 - LATE, Zone -5,Kharif 2023

Entry No	IET No	ZONE V- CENTRAL					
		Chattisgarh (1)			Zone V(1)		
		Raipur			Maen		
		DFF	PH	PAN	DFF	PH	PAN
4201	29935	121	99	225	121	99	225
4202	28524	112	104	208	112	104	208
4203	29891	122	109	225	122	109	225
4208	Swarna (NC)	116	87	226	116	87	226
4212	Pusa 44 (zc)	115	98	226	115	98	226
4215	PA 6444 (HC)	100	107	193	100	107	193
4217	30864	114	114	210	114	114	210
4218	30844	116	98	169	116	98	169
4219	30882	110	105	224	110	105	224
4220	DRR Dhan 58	109	90	220	109	90	220
4221	Local Check (LC)	102	85	197	102	85	197
4234	32054	102	91	205	102	91	205
4235	32055	106	100	213	106	100	213
4236	32056	109	87	207	109	87	207
4237	32057	104	80	200	104	80	200
4238	32058	98	95	202	98	95	202
4239	32059	107	93	194	107	93	194
4240	32060	105	83	208	105	83	208
4241	32061	105	99	216	105	99	216
4242	32062	93	93	213	93	93	213
4243	32063	100	97	195	100	97	195
4244	Improved Samba Mahsuri (RP)	104	89	179	104	89	179
4245	32064	111	115	221	111	115	221
4246	32065	119	87	200	119	87	200
4247	32066	100	88	211	100	88	211
4248	32067	100	89	173	100	89	173
4249	Swarna (RP)						
4250	32068	102	94	170	102	94	170
4251	32069	93	84	204	93	84	204
4252	32070	102	90	201	102	90	201
4253	32071	91	91	215	91	91	215
4254	Samba Mahsuri (RP)	103	87	217	103	87	217
Exp. Mean		**106**	**94**	**205**	**106**	**94**	**205**

Table No.6a.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 & 1 - LATE, (Trial Not Considered) Zone -5,Kharif 2023

Entry No	IET No	Trial not considered					
		Madhya Pradesh (0)			Chattisgarh		
		@Waraseoni			@Jagadalpur		
		DFF	PH	PAN	DFF	PH	PAN
4201	29935	111	125	207	126	71	340
4202	28524	106	122	291	130	72	261
4203	29891	111	117	276	127	74	305
4208	Swarna (NC)	108	94	297	129	82	293
4212	Pusa 44 (zc)	97	121	283	129	79	274
4215	PA 6444 (HC)	93	122	271	130	73	360
4217	30864	108	133	217	128	71	258
4218	30844	112	115	269	131	81	212
4219	30882	106	118	242	131	72	341
4220	DRR Dhan 58	99	107	260	120	72	296
4221	Local Check (LC)	108	91	293	113	87	256
4234	32054	97	105	361	129	80	289
4235	32055	106	94	320	129	76	310
4236	32056	92	92	321	127	78	315
4237	32057	91	110	296	128	76	304
4238	32058	92	103	334	117	81	302
4239	32059	101	91	217	129	85	335
4240	32060	107	101	248	126	75	359
4241	32061	98	94	296	129	80	282
4242	32062	96	119	253	113	73	300
4243	32063	92	125	277	130	69	288
4244	Improved Samba Mahsuri (RP)	108	96	265	126	71	308
4245	32064		0		130	76	294
4246	32065	113	106	209	129	79	242
4247	32066	97	127	246	129	77	286
4248	32067	97	132	217	124	65	281
4249	Swarna (RP)	0	0		119	76	230
4250	32068	99	99	320	124	78	274
4251	32069	91	109	306	130	76	280
4252	32070	98	102	366	129	81	285
4253	32071	91	122	270	114	85	200
4254	Samba Mahsuri (RP)	98	98	235	129	75	300
Exp. Mean		**98**	**103**	**275**	**126**	**76**	**289**

Table No. 6a.3 (Contd) : Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 & 1 - LATE, Zone -6,Kharif 2023

Entry No	IET No	ZONE VI -WESTERN														
		Maharashtra						Maharashtra (2)			Gujarat (1)			Zone VI (3)		
		Karjat			Vadagaon			Mean			Navasari			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4201	29935	109	155	254	115	92	313	112	123	283	104	126	276	109	124	281
4202	28524	107	139	352	108	90	306	108	115	329	99	124	258	105	118	305
4203	29891	110	149	256	112	91	302	111	120	279	111	109	257	111	116	271
4208	Swarna (NC)	109	123	245	110	82	262	110	103	253	103	105	289	107	103	265
4212	Pusa 44 (ZC)	110	165	318	107	99	303	109	132	310	104	116	258	107	126	293
4215	PA 6444 (HC)	103	138	338	102	99	323	103	119	331	91	118	257	99	118	306
4217	30864	107	165	293	107	111	305	107	138	299	88	128	276	101	135	291
4218	30844	108	143	273	111	104	253	110	123	263	99	119	268	106	122	265
4219	30882	108	138	223	111	101	306	110	120	265	97	123	256	105	121	262
4220	DRR Dhan 58	105	119	332	107	87	234	106	103	283	102	103	274	105	103	280
4221	Local Check (LC)	106	129	259	113	82	244	110	105	252	102	143	269	107	118	258
Exp. Mean		**107**	**142**	**286**	**109**	**94**	**286**	**108**	**118**	**286**	**100**	**119**	**267**	**106**	**119**	**280**

Table No. 6a.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 & 1 - LATE, (Trial Not Considered) Zone -6,Kharif 2023

Entry No	IET No	Trial not considered		
		Maharashtra (2)		
		@Vadagaon		
		DFF	PH	PAN
4201	29935	113	106	244
4202	28524	101	111	216
4203	29891	112	110	226
4208	Swarna (NC)	107	96	273
4212	Pusa 44 (ZC)	108	117	226
4215	PA 6444 (HC)	95	110	204
4217	30864	105	117	225
4218	30844	108	105	224
4219	30882	108	107	211
4220	DRR Dhan 58	101	96	227
4221	Local Check (LC)	101	94	275
Exp. Mean		**105**	**106**	**232**

Table No. 6a.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 & 1 - LATE, Zone - 7,Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN											
		Andhra Pradesh									Andhra Pradesh (3)		
		Maruteru			Ragolu			Nellore			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4201	29935	113	123	345	115	120	283	122	112	376	117	118	335
4202	28524	105	131	383	102	113	290	106	101	370	104	115	347
4203	29891	114	126	315	117	120	323	120	105	383	117	117	340
4208	Swarna (NC)	106	118	345				114	84	373	110	101	359
4210	30877	96	109	359				121	74	406	108	92	382
4212	Pusa 44 (ZC)	112	123	398	116	109	273	119	98	306	116	110	326
4215	PA 6444 (HC)	95	124	427	92	111	286	123	91	373	103	108	362
4216	30831	112	119	354	116	100	280	119	91	393	116	103	342
4217	30864	104	125	367	118	124	276	113	102	366	112	117	337
4218	30844	106	130	354	108	111	286	119	102	396	111	114	346
4219	30882	101	125	392	110	117	336	120	88	406	110	110	378
4220	DRR Dhan 58	107	109	339	106	109	305	110	83	396	108	100	347
4221	Local Check (LC)	119	127	312	121	127	296	120	80	380	120	111	329
4222	30827	98	105	381	100	101	352	119	80	413	106	95	382
4223	30826	108	96	332	100	93	310	117	74	376	108	88	340
4224	29546 (R)	104	112	330	100	94	336	119	84	356	108	97	341
4225	32052	98	106	348	102	97	317	108	76	406	102	93	357
4226	30828	107	108	306	96	96	334	108	79	543	104	94	394
4227	29558	106	107	348	104	116	309	114	76	363	108	100	340
4228	28017	105	96	334	106	114	306	106	75	350	106	95	330
4229	32053	104	103	328	104	111	310	105	77	403	104	97	347
4230	30829	104	105	334	102	99	263	104	83	360	103	96	319
4231	28018	105	106	365	106	100	326	109	84	360	107	97	350
4232	30830	106	97	321	106	99	264	110	78	346	107	91	311
4233	Pusa 44 (RP)	105	103	361	102	101	307	112	78	366	106	94	345
4234	32054	103	108	328	100	100	315	109	82	380	104	97	341
4235	32055	105	113	345	119	110	267	110	79	460	111	101	357
4236	32056	106	98	372	118	114	280	109	69	336	111	94	329
4237	32057	102	115	339	95	120	295	112	87	350	103	107	328
4238	32058	95	112	323	99	110	283	112	82	406	102	101	338
4239	32059	104	95	308	106	108	267	108	79	443	106	94	339
4240	32060	103	114	356	106	104	295	105	83	326	105	100	326
4241	32061	101	110	323	101	108	268	110	88	376	104	102	322
4242	32062	110	108	374	91	112	293	102	72	356	101	98	341
4243	32063	99	118	372	100	111	256	110	75	400	103	101	342
4244	Improved Samba Mahsuri (RP)	105	101	304	102	104	277	107	72	353	105	92	311
4245	32064	111	113	282							111	113	282
4246	32065	107	117	352	119	116	272	119	92	373	115	108	332
4247	32066	104	107	348	96	109	283	121	81	406	107	99	346
4248	32067	104	102	328	104	111	281	113	81	445	107	98	351
4249	Swarna (RP)	109	121	293							109	121	293
4250	32068	105	98	337	97	104	332	106	81	410	103	94	360
4251	32069	104	105	297	96	99	299	102	71	333	101	92	310
4252	32070	104	98	330	99	99	310	105	85	460	103	94	367
4253	32071	111	96	328	95	106	326	103	71	343	103	91	332
4254	Samba Mahsuri (RP)	97	105	339	104	96	308	109	82	370	103	95	339
Exp. Mean		**105**	**111**	**342**	**105**	**108**	**297**	**112**	**83**	**384**	**107**	**101**	**341**

Table No. 6a.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 & 1 - LATE, Zone -7,Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN											
		Tamil Nadu (1)			Karnataka (1)			Puducherry (1)			Zone VII(6)		
		Aduturai			Sirsi			Kurumbapet			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4201	29935	122	115	418	108	97	319	118	103	407	116	112	358
4202	28524	105	110	370	107	77	385	115	105	457	107	106	376
4203	29891	121	110	420	103	101	342	125	135	437	117	116	370
4208	Swarna (NC)	104	90	380	100	104	304	116	100	453	108	99	371
4210	30877	116	95	333	97	75	297	120	108	430	110	92	365
4212	Pusa 44 (ZC)	125	92	380	111	89	390	122	103	353	117	102	350
4215	PA 6444 (HC)	101	90	385	107	107	297	106	110	420	104	105	365
4216	30831	117	110	421	112	102	380	120	95	407	116	103	372
4217	30864	118	110	439	107	109	325	108	127	427	111	116	367
4218	30844	122	110	439	105	84	368	119	110	410	113	108	376
4219	30882	105	110	447	108	108	314	113	112	450	110	110	391
4220	DRR Dhan 58	100	80	355	99	84	314	113	103	460	106	95	361
4221	Local Check (LC)	123	85	390	96	86	385	127	100	427	118	101	365
4222	30827	105	70	320	101	85	330	118	98	443	107	90	373
4223	30826	101	65	318	97	75	297	111	93	540	106	83	362
4224	29546 (R)	122	80	416	100	88	396	112	103	450	110	93	381
4225	32052	105	82	311	100	91	335	123	95	453	106	91	362
4226	30828	106	70	428	100	89	391	114	100	467	105	90	411
4227	29558	106	84	373	98	92	406	119	100	483	108	96	380
4228	28017	101	80	379	103	89	358	120	90	450	107	91	363
4229	32053	104	75	347	96	87	324	107	98	423	103	92	356
4230	30829	107	65	355	96	97	319	115	103	447	104	92	346
4231	28018	102	71	369	98	96	380	114	100	553	106	93	392
4232	30830	103	90	312	99	88	325	114	100	407	106	92	329
4233	Pusa 44 (RP)	105	70	382	100	89	396	115	95	457	106	89	378
4234	32054	105	75	411	98	87	340	112	100	437	105	92	368
4235	32055	106	72	388	103	90	264	116	98	453	110	94	363
4236	32056	107	80	333	103	79	330	110	90	430	109	88	347
4237	32057	105	110	386				110	102	353	105	107	345
4238	32058	108	75	308	100	93	325	111	105	420	104	96	344
4239	32059	103	75	308	94	83	274	110	95	407	104	89	334
4240	32060	106	85	361	105	82	352	112	108	427	106	96	353
4241	32061	109	100	320				111	103	410	107	102	339
4242	32062	102	80	323	100	82	302	102	90	450	101	91	350
4243	32063	104	70	271	104	83	319	108	103	460	104	93	346
4244	Improved Samba Mahsuri (RP)	102	75	360	103	87	281	111	100	427	105	90	333
4245	32064	124	84	367	93	77	259	111	113	443	110	97	338
4246	32065	122	110	364	99	65	243	117	104	540	114	100	357
4247	32066	105	90	416	112	85	269	117	105	450	109	96	362
4248	32067	119	104	335	103	64	358	116	118	453	110	97	367
4249	Swarna (RP)	119	95	340	103	77	325	115	102	467	112	99	356
4250	32068	105	95	323	97	85	340	115	103	483	104	94	371
4251	32069	106	70	317	106	83	347	102	97	450	103	87	340
4252	32070	104	90	381	99	80	391	114	95	423	104	91	382
4253	32071	105	81	346	106	71	347	110	88	447	105	85	356
4254	Samba Mahsuri (RP)	103	85	337	101	85	330	113	100	553	105	92	373
Exp. Mean		**109**	**87**	**365**	**102**	**87**	**333**	**114**	**102**	**446**	**108**	**96**	**362**

Table No. 6a.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 & 1 - LATE, (Trial Not Considered) Zone -7,Kharif 2023

Entry No	IET No	Trial not considered		
		@Ponnampet		
		DFF	PH	PAN
4201	29935	121	87	237
4202	28524	110	78	204
4203	29891	114	84	205
4208	Swarna (NC)	120	63	316
4210	30877	108	67	264
4212	Pusa 44 (ZC)	110	81	221
4215	PA 6444 (HC)	105	80	288
4216	30831	121	63	251
4217	30864	113	78	205
4218	30844	122	74	262
4219	30882	112	70	209
4220	DRR Dhan 58	116	61	233
4221	Local Check (LC)	117	92	251
4222	30827	106	70	215
4223	30826	104	67	258
4224	29546 (R)	107	77	239
4225	32052	106	72	216
4226	30828	105	68	238
4227	29558	103	76	222
4228	28017	105	64	216
4229	32053	103	69	241
4230	30829	102	67	237
4231	28018	103	73	237
4232	30830	104	69	235
4233	Pusa 44 (RP)	107	67	232
4234	32054	111	67	264
4235	32055	112	60	248
4236	32056	112	56	252
4237	32057	111	78	221
4238	32058	103	66	217
4239	32059	123	54	232
4240	32060	109	70	187
4241	32061	116	64	268
4242	32062	102	70	265
4243	32063	102	64	241
4244	Improved Samba Mahsuri (RP)	108	61	244
4245	32064			
4246	32065	117	69	235
4247	32066	104	67	211
4248	32067	101	69	197
4249	Swarna (RP)			
4250	32068	111	60	293
4251	32069	102	68	224
4252	32070	111	63	288
4253	32071	107	63	277
4254	Samba Mahsuri (RP)	111	59	251
Exp. Mean		**109**	**69**	**240**

Table No. 6a.4: Grain quality characteristics of entries in AVT 2 & 1-LATE, Kharif 2023

Entry No.	Designation / IET No.	HULL	MILL	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
4201	29935	80.2	70.8	65.5	6.53	2.01	3.24	LS	A	7.0	23.67	22
4202	29524	82.7	74.2	69.9	5.57	2.06	2.70	MS	A	4.0	25.87	57
4203	29891	75.1	62.7	57.6	5.16	2.16	2.38	SB	VOC	5.0	23.17	22
4204	30860											
4205	30851											
4206	30841											
4207	30869											
4208	**SWARNA (NC)**											
4209	30835											
4210	30877											
4211	30888											
4212	**PUSHYAMI (ZC)**											
4213	30846											
4214	30868											
4215	**PA - 6444 (HC)**											
4216	30831											
4217	30864											
4218	30844											
4219	30882											
4220	**DRR DHAN -58**											
4221	**L.C**											
4222	30827	77.1	68.0	53.3	6.24	2.26	2.76	LB	A	7.0	26.86	24
4223	30826	78.1	68.5	62.5	6.19	2.19	2.82	LB	VOC	7.0	22.49	22
4224	29546 (R)											
4225	32052											
4226	30828	77.8	69.4	64.5	6.83	2.12	3.22	LS	A	7.0	25.87	22
4227	29558(R)											
4228	28017	79.5	70.3	66.4	6.25	2.19	2.85	LB	VOC	7.0	26.60	22
4229	32053											
4230	30829	77.2	65.7	48.7	6.58	2.00	3.29	LS	VOC	7.0	27.28	22
4231	28018	78.6	68.4	64.1	6.30	2.17	2.90	LB	VOC	7.0	26.45	22
4232	30830	78.0	69.8	63.0	6.62	2.04	3.24	LS	VOC	7.0	26.86	24
4233	**PUSA -44**	81.3	72.1	68.5	5.63	2.03	2.77	MS	VOC	7.0	26.13	22
4234	32054											
4235	32055											
4236	32056											
4237	32057											
4238	32058											
4239	32059											
4240	32060											
4241	32061											
4242	32062											
4243	32063											
4244	**ISM (RP)**											
4245	32064											
4246	32065											
4247	32066											
4248	32067											
4249	**SWARNA (RP)**											
4250	32068											
4251	32069											
4252	32070											
4253	32071											
4254	**SAMBA MASHURI**											

HULL: Hulling (%); MILL: Milling (%); HRR: Head Rice Recovery (%); KL: Kernel Length(mm); KB: Kernel Breadth(mm); L/B: Length and breadth ratio; Grain Chalk: Grain Chalkiness; VOC: Very occasionally present; A: Absent ASV: Alkali Spreading Value; AC: Amylose Content(%); GC: Gel Consistency; LB: Long Bold; SB:Short Bold; LS: Long Slender; MS: Medium Slender; SS: Short Slender

Table No.6c.1 : Composition of entries in Initial Variety Trial –Late (IVT– L), Kharif 2023.

Entry No.	IET No.	Designation	Cross Combination	GT
1st year of testing:				
4301	31675	AD 20420	CR 1009 / MTU 1075	SB
4302	31676	OROI-9-IR 88230-60-1-2-2	IR 07F294 / Swarna-Sub 1 // NCIC RC 158	MS
4303	31677	BRR 2228	BRR 2028 / S Shree	MB
4304	31678	Pusa 2082-40-3-19-1	Pusa 3039-4-12 / Pusa 1853-12-192	LS
4305	31679	RP 6346-8-32-43-75	Samba Mahsuri*3 / ST 12	MS
4306	31680	KJT 23-21-41	NPR 2 / NP 9534	MS
4307	31681	KNM 12472	BPT 5204 / RNR 15048 // JGL 11727	MS
4308	31682	KMP 264	Rajamudi Selection -Red	MS
4309	31683	MTU 1416 (MTU 2632-53-1-2)	MTU 1166 / BPT 5204	MS
4310	31684	Purvakamini	BPT 5204 / NBIR 135	MS
4311	31685	KPS 10467	RNR 15048 / JGL-17004	MS
4312	31686	***PAN 21514 (Hybrid)***	***12A / AN-5319***	LS
4313	31687	KAU PTB -RP 5564-2-4-1-5	RP Bio 226 / IRGC 71598 Mut. 010	SB
4314	31688	***PHI-23106***	***Hybrid***	SB
4315	31689	RGL 7030 (MTU RM 403-15-1-1-1)	MTU 1226 / RP Bio 226	MB
4316	31690	BRR 0235	BRR 0071 / Swarna Sub-1	MS
4317	31691	VDN 1808	VDN 3-3-2-1 / KJT-2	LS
4318	31692	CR 4464-9-1-1-1-1	CR3856-44-22-2-1-11-3 / CR3976-2-2-1-1-1	SB
4319	**Swarna (NC)**			
4320	31693	NLR 4021	MTU 1001 / RNR 19994	MB
4321	31694	RP 6532-RMS-42-54-60-90	Swarna*2 / Improved Samba Mahsuri	MS
4322	31695	AD 20398	CR 1009 / MTU 1075	SB
4323	31696	OR 2382-7	OR 1534-129-14 / CR 682-16	MB
4324	31697	RP 6758-RMS 75-19-81-45	Swarna*2 // ST 12	MS
4325	31698	MLD 216-IR16T1437	IR 09F437 / IR13T101	LS
4326	31699	CR 4356- 1-5-1-2-1-1	CR3497-7-1-3-1-1-1 / CR3516-10-1-1-1-1-1	MB
4327	31700	***PAN 2440 (Hybrid)***	***25A / AN-5191***	MB
4328	31701	PUR K-IR17L1177	HHZ 8-SAL 6 SAL 3- Y2*3 / BungaMehu	LS
4329	31702	CR 4353-2-2-1-1-1-1	CR 3561-3-2-1-1-1 / CR 3504-5-3-1-1-1-1-2	MS
4330	31703	KHP 15 (TxJ-4-5-2-1)	Tunga / Jyothi	LB
4331	31704	RP 6759-CGR 26-CGIL-79-CGK 2-1-2131-30	BPT 5204*1 / IR53236-218-3 (TRP 38-5)	LS
4332	31705	Pusa 2083-40-16-10-4	Pusa 3039-4-12 / Pusa Samba 1853	LS
4333	31706	CN 2163-177-1-1-1	OLS 181 / Shatabdi	MS
4334	31707	RP 6736-MS-M-84-6-2	SM 93 / BPT 5204	MS
4335	31708	CR 4211-2-1-1-1-1	IR 73930-31-3-2 / CR-3856-44-22-2-1	LS
4336	31709	***PAN 21039 (Hybrid)***	***12A / AN-10351***	SB
4337	31710	***PHI-23105***	***Hybrid***	SB
4338	31711	CR 4454-4-3-4-2-1	Ranidhan / CR Dhan 800 // Swarn Sub1	LB
4339	**Pusa 44 (Northern), NDR 8002 (Eastern & Central), Ranjeet (North Eastern), Salivahana (Western), Pushyami (Southern)-- ZC**			
4340	31712	WGL 1745	MTU 1061 / RNR 15048	SS
4341	31713	HURS 23-6-IR100842-B-BRGA-B-RGAB-RGA-9	PSBRC 82 / IR10F379 // IR 10F290 (AGGRi Alliance)	
4342	31714	***PHI-23104***	***Hybrid***	MS

Entry No.	IET No.	Designation	Cross Combination	GT
4343	**CRHR 702 (Hybrid Check)**			
4344	31715	OROI-12-IR 88250-20-1-1-3	Savitri / 2* IR 64- Sub 1	LB
4345	31716	RP 6760-IR17A 2231	IR10N225 / IR11N202	LS
4346	31717	BPT 3287	BPT 2605 / MTU 1140	LS
4347	31718	TRC 2023-28 - TRC GK 5400-B-B-11-4	Gomati / Khowai	LB
4348	31719	Pusa 2082-40-16-4-4	Pusa 3039-4-12 / Pusa 1853-12-192	LS
4349	**MRP 5222 (Hybrid Observational Check)**			
4350	31720	MTU 1415 (MTU 1064 / JGL 11118)	MTU 1064 / JGL 11118	MS
4351	31721	CR 4203-225-2	CR Dhan 307 / O. rufipogon (AC 100174) // CR Dhan 307	LB
4352	31722	KAU PTB-mut-46-1-1-2-1	170 GY mutant of PTB 18	LB
4353	31723	***PHI-23107***	***Hybrid***	LB
4354	31724	RGL 7031 (MTU RM 428-44-1-1)	MTU 1262 / MTU 1075	SS
4355	31725	R 2451-225-1-25-1	Karma Mahsuri / IR 42253	LB
4356	31726	CR 3856-44-22-2-1-11-4-2-4-1	IR 73963-86-1-5-2-2 / CR-2324-1	SB
4357	31727	RP Bio 4918-NPS1	Swarna / O.nivara	LB
4358	31728	RP 6354-RMS-1-46-79-87	Samba Mahsuri*2 / ST 12	MS
4359	31729	KJT-23-21-27	MTU 2077 / KJT-14-72	SB
4360	31730	Shweta-43	JGL 3844 / NBIR 658 // MTU 1010	MS
4361	31731	CR 4455-197-4-2-1	MTU 1010 / IR 132759-3-37-3	MS
4362	31732	Khushi-27	MTU 1010 / NBIR 896	MS
4363	31733	SVMM11	MTU 1010 mutant	LS
4364	**Local Check (LC)**			

Table No. 6c.2 :Grain Yield (kg/ha) in IVT – Late, Kharif 2023

Entry No	IET No	ZONE II-NORTHERN		ZONE III-EASTERN							
		Uttar Pradesh1 (1)		Odisha				Odisha (2)		Bihar	
		Nagina		Bhubaneswar		Jeypore		Mean		BIKRAMGANJ (Dhangain)	
4301	31675	8305	1 #	5711		2844		4278			
4302	31676	6908	9 #	4877		3383		4130		6414	
4303	31677	6217	#	5135		5111		5123		5091	
4304	31678	5472		5074		5811	10	5443		6059	
4305	31679	6941	8 #	5882		6358	7	6120	6	4977	
4306	31680	4036		6360		4303		5332		7700	3
4307	31681	4422		5811		2989		4400		3721	
4308	31682	8278	2 #	4730		4039		4385		3631	
4309	31683	6017		5184		3900		4542			
4310	31684	6516	#	6164		4028		5096		5001	
4311	31685	7128	7 #	5551		2319		3935		5620	
4312	31686	5419		5907		2597		4252		6870	8
4313	31687	6722	#			2892		2892			
4314	31688	5439		6054		4447		5251		3925	
4315	31689	5565		6311		5158		5735		7724	2
4316	31690	7247	5 #	4718		2533		3626		6137	
4317	31691	5731		6422		3781		5102		3390	
4318	31692	5678		6703	9	4742		5723		5999	
4319	Swarna (NC)	7380	4 #	6238		4489		5364		6973	7
4320	31693	5519		6814	8	5056		5935	10	3955	
4321	31694	3770		7426	2	4486		5956	9	2903	
4322	31695	3584		7022	4	4033		5528		3144	
4323	31696	4176		5600		4117		4859		3126	
4324	31697	5499		4301		3631		3966		4252	
4325	31698	5372		5262		4622		4942		4535	
4326	31699	5731		5208		2817		4013		6780	9
4327	31700	5073		6127		6219	8	6173	5	4448	
4328	31701	5066		4743		5019		4881		3577	
4329	31702	5552		6140		5808		5974	8	5115	
4330	31703	7241	6 #	5699		6483	6	6091	7	5236	
4331	31704	4648		5233		2764		3999		4190	
4332	31705	5399		5270		2822		4046		5103	
4333	31706	6423	#	5086		4436		4761		5416	
4334	31707	5020		4265		3650		3958		5163	
4335	31708	4721		5221		2447		3834		3973	
4336	31709	5572		6336		3286		4811		7147	5
4337	31710	5392		6863	6	2800		4832		6462	
4338	31711	6749	10 #	7525	1	2631		5078		5109	
4339	Zonal Check	5339		6703	9	2372		4538		6492	
4340	31712	5698		5662		5703		5683		6456	
4341	31713	5166		5931		6578	5	6255	4	3871	
4342	31714	7387	3 #	6348		5433		5891		8572	1
4343	CRHR 702 (Hybrid Check)	4987		5037		5850	9	5444		7634	4
4344	31715	4721		6054		6967	3	6511	3 *	5825	
4345	31716	4834		5613		2822		4218		3577	
4346	31717	5120		5539		5322		5431		4015	
4347	31718	4555		4167		5308		4738		3859	
4348	31719	5399		4743		2514		3629		4773	
4349	MRP 5222 (Hybrid Observational Check)	4880		6850	7	6633	4	6742	1 *	4791	
4350	31720	4049		5637		3092		4365		3745	
4351	31721	5426		5441		2353		3897		3799	
4352	31722	4880		7169	3	3250		5210		2825	
4353	31723	4834		6936	5	4300		5618		5972	
4354	31724	4441		4007		7331	1	5669		5662	
4355	31725	4787		5049		3908		4479		4087	
4356	31726	4987		6164		4083		5124		5242	
4357	31727	4448		4252		3994		4123		3072	
4358	31728	3737		5478		2647		4063		4286	
4359	31729	5638		6127		4844		5486		6504	
4360	31730	4767		4118		5481		4800		4310	
4361	31731	4907		6152		7183	2	6668	2 *	6588	10
4362	31732	4275		6017		3989		5003		3769	
4363	31733	4441		5147		3947		4547		6985	6
4364	Local Check	5612		6446		4844		5645		6360	
Exp. Mean		**5457**		**5711**		**4275**		**4971**		**5114**	
F Value		**7.32(p<0.0001)S**		**13.77(p<0.0001)S**		**8.67(p<0.0001)S**		**10.59(p<0.0001)S**		**10.70(p<0.0001)S**	
CD		1100		639		1305		726		1208	
CV%		**10.08**		**5.6**		**15.27**		**7.3**		**11.81**	
D/S		01-07-2023		26--06-2023		18-07-2023				22-06-2023	
D/P		30-07-2023		01-08-2023		18-08-2023				20-07-2023	
Local Check Name		Pusa 44		Kalinga Dhan 1501		Kalinga Dhan 1203				Rajendra Mahsuri 1	

Table No. 6c.2 (Contd).:Grain Yield (kg/ha) in IVT – Late, Kharif 2023

Entry No	IET No	ZONE III-EASTERN											
		Bihar		Bihar (2)		West Bengal						West Bengal (3)	
		Sabour		Mean		Chinsurah		Pundibhari		Malda		Mean	
4301	31675	1580		1580		4756		4400		5875		5010	
4302	31676	4066		5240				6013	1	6875	10	6444	2
4303	31677	6552	10	5822		5722		4473		6625		5607	
4304	31678	4673		5366		5500		3813		5875		5063	
4305	31679	4719		4848		5528		5280	9	5375		5394	
4306	31680	6006		6853	6	5656		4327		7000	7	5661	
4307	31681	3606		3664		4944		5207		5750		5300	
4308	31682	3501		3566		4800		4693		6625		5373	
4309	31683	3465		3465		4711		4767		5688		5055	
4310	31684	5519		5260		4817		5133		5750		5233	
4311	31685	3932		4776		4728		4840		6438		5335	
4312	31686	6650	8	6760	7	6017	10	5280	9	5750		5682	
4313	31687	7083	5	7083	5					7000	7	7000	1 * #
4314	31688	6156		5041		4733		4913		5938		5195	
4315	31689	3606		5665		4794		5207		6438		5480	
4316	31690	6439		6288		4772		4840		4875		4829	
4317	31691	2416		2903		5667		3740		5375		4927	
4318	31692	5509		5754		4722		4840		7875	2	5812	
4319	Swarna (NC)	7587	2	7280	3	4911		4840		5125		4959	
4320	31693	5104		4530		4722		3887		4375		4328	
4321	31694	1874		2389		4439		4033		6625		5032	
4322	31695	3374		3259		4944		5207		6250		5467	
4323	31696	2242		2684		5583		4180		5750		5171	
4324	31697	4145		4199		5639		5060		6625		5775	
4325	31698	2318		3427		4994		3740		6625		5120	
4326	31699	6242		6511	9	4956		5647	4	6875	10	5826	
4327	31700	4947		4698		5672		4180		5125		4992	
4328	31701	2300		2939		4878		4033		6000		4970	
4329	31702	6655	7	5885		5889		4400		5250		5180	
4330	31703	4081		4659		5667		4987		5813		5489	
4331	31704	2044		3117		5011		4033		6375		5140	
4332	31705	4866		4985		6050	5	4840		6500		5797	
4333	31706	4719		5068		5500		4180		6500		5393	
4334	31707	4067		4615		4928		5280	9	6000		5403	
4335	31708	3997		3985		5694		3887		6750		5444	
4336	31709	7565	3	7356	2	5667				5500		5584	
4337	31710	5568		6015		5172		4180		5813		5055	
4338	31711	6017		5563		5883				6750		6317	4
4339	Zonal Check	5491		5992		5567		5280	9	7625	4	6157	7
4340	31712	5965		6211		6117	2	4767		6563		5816	
4341	31713	3443		3657		4939		5060		5250		5083	
4342	31714	7137	4	7855	1	6017	10	3300		5000		4772	
4343	CRHR 702 (Hybrid Check)	6579	9	7107	4	6067	4	4327		7125	5	5840	10
4344	31715	6259		6042		6044	7	5720	2	7000	7	6255	5
4345	31716	2662		3120		6000		3740		6250		5330	
4346	31717	3784		3900		4844				5250		5047	
4347	31718	3874		3867		5122		4107		6375		5201	
4348	31719	5476		5125		6050	5	4107		5250		5136	
4349	MRP 5222 (Hybrid Observational Check)	8528	1	6660	8	5450		5720	2	6625		5932	9
4350	31720	1344		2545		5461		4767		5750		5326	
4351	31721	6067		4933		5989		4253		8250	1	6164	6
4352	31722	4753		3789		6033	9	5280	9	5750		5688	
4353	31723	7018	6	6495	10	6150	1	5427	5	7750	3	6442	3
4354	31724	3391		4527		4894		4913		5750		5186	
4355	31725	5660		4874		6111	3	4180		5125		5139	
4356	31726	5853		5548		6039	8	5207		6875	10	6040	8
4357	31727	1133		2103		5689		5427	5	6000		5705	
4358	31728	5044		4665		5439		4033		5000		4824	
4359	31729	3196		4850		4950				6250		5600	
4360	31730	3802		4056		5094		5280	9	4750		5041	
4361	31731	6366		6477		5794		4400		6750		5648	
4362	31732	2509		3139		4906		4253		6375		5178	
4363	31733	4681		5833		5061		3887		6375		5108	
4364	Local Check	6486		6423		5250		3960		6250		5153	
Exp. Mean		**4714**		**4889**		**5373**		**4640**		**6142**		**5432**	
F Value		**27.20(p<0.0001)S**		**28.92(p<0.0001)S**		**2.00(p<0.0037)S**		**3.04(p<0.0001)S**		**4.03(p<0.0001)S**		**3.46(p<0.0001)S**	
CD		934		760		1007		1016		1103		721	
CV%		**9.91**		**7.78**		**9.37**		**10.94**		**8.99**		**6.64**	
D/S		20-06-2023				27-06-2023		26-06-2023		27-06-2023			
D/P		08-07-2023				03-08-2023		24-07-2023		26-07-2023			
Local Check Name		Rajendra Mahsuri				Kaushalya		Swarna Sub-1		Rajdip			

Table No. 6c.2 (Contd).:Grain Yield (kg/ha) in IVT – Late, Kharif 2023

Entry No	IET No	Zone III (7)		ZONE IV- NORTH EASTERN						ZONE-V – CENTRAL			
				Assam (1)		Tripura (1)		Zone IV (2)		Chattisgarh			
		Mean		Gerua		Lembucherra		Mean		Raipur		Jagadalpur	
4301	31675	4194		4451		5095		4773		5323		6341	
4302	31676	5271		4760		5095		4928		5753	9	6296	
4303	31677	5530		4698		4695		4697		5054		5684	
4304	31678	5258		5989				5989		5368		5251	
4305	31679	5446		5618		4512		5065		4267		4801	
4306	31680	5907	8	5467		5112		5290		6882	2	6826	10
4307	31681	4575		4773		4429		4601		4946		7451	5
4308	31682	4574		2136		2697		2417		2419		6696	
4309	31683	4619		5048		4312		4680		4355		5697	
4310	31684	5202		6401	10	2947		4674		4194		7161	7
4311	31685	4775		4768		7559	3 * #	6164		4784		4977	
4312	31686	5582		7066	4			7066	3 *	3781		7637	2
4313	31687	5658				3230		3230				5993	
4314	31688	5167		5426		6077	10 *	5752		4691		5098	
4315	31689	5605		5674		8545	1 * #	7110	2 *	6894	1	4626	
4316	31690	4902		6654	7	6027	*	6341	8	4005		4541	
4317	31691	4399		3777		4745		4261		4677		5169	
4318	31692	5770	10	4293		4595		4444		2957		7458	4
4319	Swarna (NC)	5738		7308	3	4529		5919		5269		7666	1
4320	31693	4845		5440		4529		4985		5161		4655	
4321	31694	4541		2953		2448		2701		3656		5785	
4322	31695	4853		4842		5544	*	5193		4946		5843	
4323	31696	4371		4327		5977	*	5152		3925		6654	
4324	31697	4808		4255		4829		4542		3656		4935	
4325	31698	4585		2562		2531		2547		3481		6751	
4326	31699	5504		5714		4862		5288		4355		5052	
4327	31700	5245		4667		4113		4390		3710		4857	
4328	31701	4364		3922		2697		3310		3226		4535	
4329	31702	5608		5776		4113		4945		4355		5319	
4330	31703	5424		5515		4645		5080		3172		4808	
4331	31704	4236		3098		2231		2665		3169		5378	
4332	31705	5064		5137		4346		4742		4731		6338	
4333	31706	5120		5282		4995		5139		4086		5697	
4334	31707	4765		4890		5345		5118		4267		5059	
4335	31708	4567		3173		5028		4101		5914	7	5296	
4336	31709	5917	7	7768	2	4812		6290	9	6506	5	5592	
4337	31710	5265		6223		5611	*	5917		6559	4	2973	
4338	31711	5653		5865		4379		5122		5645		4596	
4339	Zonal Check	5647		5659		4645		5152		4900		5137	
4340	31712	5890	9	5172		4412		4792		5645		5052	
4341	31713	5010		5247		6394	8 *	5821		3065		6077	
4342	31714	5972	6	6477	9	7193	5 * #	6835	5 *	5538		5485	
4343	CRHR 702 (Hybrid Check)	6088	5	5096		4695		4896		5376		5381	
4344	31715	6267	2 *	5714		4812		5263		5566		6071	
4345	31716	4381		4918		4396		4657		3763		4873	
4346	31717	4792		4723		4762		4743		5226		6003	
4347	31718	4687		4114		4229		4172		3978		6829	9
4348	31719	4702		5405		4312		4859		5538		4769	
4349	MRP 5222 (Hybrid Observational Check)	6371	1 *	7995	1	6094	9 *	7045	4 *	6774	3	5576	
4350	31720	4257		4128		5145		4637		5376		5547	
4351	31721	5165		4890		2831		3861		5860	8	6341	
4352	31722	5009				6027	*	6027		5339		6296	
4353	31723	6222	3 *	5529		5744	*	5637		4785		5684	
4354	31724	5135		6113		7209	4 * #	6661	6	6477	6	5251	
4355	31725	4874		6786	6	5561	*	6174	10	4731		4801	
4356	31726	5638		6354		6593	7 *	6474	7	3871		6826	10
4357	31727	4224		2342		2081		2212		3678		7451	5
4358	31728	4561		5041		5078		5060		3777		6696	
4359	31729	5312		5069		6976	6 * #	6023		4933		5697	
4360	31730	4691		4815		4745		4780		3602		7161	7
4361	31731	6176	4 *	6511	8	5062		5787		4409		4977	
4362	31732	4545		4904		3979		4442		3817		7637	2
4363	31733	5155		6889	5	8092	2 * #	7491	1 *	5699	10	6563	
4364	Local Check	5657		5549		2464		4007		5495		6165	
Exp. Mean		**5146**		**5180**		**4851**		**5033**		**4720**		**5779**	
F Value		**14.22(p<0.0001)S**		**4.81(p<0.0001)S**		**20.59(p<0.0001)S**		**14.50(p<0.0001)S**		**22.66(p<0.0001)S**		**1.55(p<0.0418)S**	
CD		432		1563		863		859		619		2179	
CV%		**4.21**		**15.09**		**8.9**		**8.54**		**6.56**		**18.87**	
D/S				08-07-2023		09-07-2023				10-07-2023		16-07-2023	
D/P				11-08-2023		30-07-2023				02-08-2023		09-08-2023	
Local Check Name				Ranjeet		Jala				Chhattisgarh Dhan 1919		CG 1919	

Table No. 6c.2 (Contd).:Grain Yield (kg/ha) in IVT – Late, Kharif 2023

Entry No	IET No	ZONE-V – CENTRAL				ZONE VI – WESTERN							
		Chattisgarh (2)		Zone V (2)		Maharashtra						Maharashtra (3)	
		Mean		Mean		Karjat		Vadagaon		Pondaghat		Mean	
4301	31675	5832		5832		4389		7278	1	394		4020	
4302	31676	6025	8	6025	8	5278		4695		4160		4711	
4303	31677	5369		5369		5861	7	5525		4748		5378	10
4304	31678	5310		5310		4028		6160		2201		4130	
4305	31679	4534		4534		4083		4367		4993		4481	
4306	31680	6854	1	6854	1	4556		6346	9	4491		5131	
4307	31681	6199	3	6199	3	4352		5223		456		3344	
4308	31682	4558		4558		5028		6399	7	559		3995	
4309	31683	5026		5026		4065		4195		1780		3347	
4310	31684	5678		5678		5000		5443		6032	10	5492	8
4311	31685	4881		4881		4380		4349		3174		3968	
4312	31686	5709		5709		5870	6	6497	6	6563	4	6310	1 * #
4313	31687	5993	9	5993	9	4093						4093	
4314	31688	4895		4895		4296		6200		2208		4235	
4315	31689	5760		5760		5222		6976	3	1503		4567	
4316	31690	4273		4273		4389		4562		5220		4724	
4317	31691	4923		4923		4944		6257		5414		5538	6
4318	31692	5208		5208		5065		5690		5001		5252	
4319	Swarna (NC)	6468	2	6468	2	4704		5680		4796		5060	
4320	31693	4908		4908		4046		5741		3461		4416	
4321	31694	4721		4721		3935		4331		5361		4542	
4322	31695	5395		5395		5000		6232		2030		4421	
4323	31696	5290		5290		4417		5121		402		3313	
4324	31697	4296		4296		4787		4393		4939		4706	
4325	31698	5116		5116		4583		4188		6525	5	5099	
4326	31699	4704		4704		4806		4859		5310		4992	
4327	31700	4284		4284		5667	9	4855		6706	1	5743	4
4328	31701	3881		3881		4111		4464		6454	6	5010	
4329	31702	4837		4837		4889		5148		6030		5356	
4330	31703	3990		3990		3981		4527		5296		4601	
4331	31704	4274		4274		5352		5562		3837		4917	
4332	31705	5535		5535		5231		5006		3249		4495	
4333	31706	4892		4892		4731		5506		4484		4907	
4334	31707	4663		4663		4398		4978		3639		4338	
4335	31708	5605		5605		4028		4820		4463		4437	
4336	31709	6049	7	6049	7	6213	2	6302	10	5778		6098	2 * #
4337	31710	4766		4766		4657		6657	4	2525		4613	
4338	31711	5121		5121		4380		4811		3993		4395	
4339	Zonal Check	5019		5019		4500		6368	8	4931		5266	
4340	31712	5349		5349		5120		4975		5058		5051	
4341	31713	4571		4571		5657	10	4243		6281	7	5394	9
4342	31714	5512		5512		5537		7065	2	4912		5838	3 *
4343	CRHR 702 (Hybrid Check)	5379		5379		5333		6580	5	4079		5331	
4344	31715	5819		5819		5889	5	4793		4388		5023	
4345	31716	4318		4318		4769		5592		6693	2	5685	5
4346	31717	5615		5615		4343		5068		1362		3591	
4347	31718	5404		5404		5028		4234		5869		5044	
4348	31719	5154		5154		4444		4704		3501		4216	
4349	MRP 5222 (Hybrid Observational Check)	6175	4	6175	4	5519		4518		3782		4606	
4350	31720	5462		5462		4435		4109		1273		3272	
4351	31721	6101	6	6101	6	6296	1	4154		4817		5089	
4352	31722	5818		5818		4676		4340		6603	3	5206	
4353	31723	5235		5235		4491		4846		5119		4819	
4354	31724	5864	10	5864	10	4583		4930		1999		3837	
4355	31725	4766		4766		5481		4722		4411		4871	
4356	31726	5349		5349		4296		4385		5856		4846	
4357	31727	5565		5565		4546		4376		6104	9	5009	
4358	31728	5237		5237		5972	4	4331		6229	8	5511	7
4359	31729	5315		5315		4148		4660		3759		4189	
4360	31730	5382		5382		5722	8	4287		5163		5057	
4361	31731	4693		4693		4769		4882		4916		4856	
4362	31732	5727		5727		6148	3	4269		5363		5260	
4363	31733	6131	5	6131	5	4602		4709		3940		4417	
4364	Local Check	5830		5830		5111		5052		4752		4972	
Exp. Mean		**5259**		**5259**		**4847**		**5167**		**4275**		**4757**	
F Value		**2.27(p<0.0007)S**		**2.27(p<0.0007)S**		**3.24(p<0.0001)S**		**7.43(p<0.0001)S**		**78.88(p<0.0001)S**		**11.12(p<0.0001)S**	
CD		1161		1161		977		879		547		556	
CV%		**11.04**		**11.04**		**10.09**		**8.51**		**6.4**		**5.85**	
D/S						17-06-2023		27-06-2023		30-06-2023			
D/P						12-07-2023		28-07-2023		24-07-2023			
Local Check Name						Karjat-2		KJT-2		Karjat-2			

Table No. 6c.2 (Contd).:Grain Yield (kg/ha) in IVT – Late, Kharif 2023

Entry No	IET No	ZONE VI – WESTERN				ZONE VII – SOUTHERN					
		Gujarat (1)		Zone VI (4)		Andhra Pradesh					
		Navasari		Mean		Maruteru		Ragolu		Nellore	
4301	31675	4249		4078		3120		4405		6583	6
4302	31676	5714		4962		5941		6830	4	4375	
4303	31677	7021	4	5789	5	6891	10	4812		4347	
4304	31678	6452		4710		5564		5512		5208	
4305	31679	5625		4767		6030		4842		3944	
4306	31680	7710	1	5776	6	5971		6830	4	6181	
4307	31681	4070		3525		5960		6694	8	4528	
4308	31682	2773		3690		5403		4089		3222	
4309	31683	2540		3145		4992		4789		4958	
4310	31684	5777		5563	9	6072		5926		4861	
4311	31685	4781		4171		4612		4247		2361	
4312	31686	5644		6144	3 * #	6867		6212		3056	
4313	31687			4093		6551					
4314	31688	5093		4449		3760		3833		5292	
4315	31689	5201		4726		3696		4066		7153	4
4316	31690	5777		4987		6080		5926		3625	
4317	31691	4913		5382		6596		3908		4069	
4318	31692	5820		5394		6879		4736		3431	
4319	Swarna (NC)	6563	9	5436		6640		5640		5833	
4320	31693	3723		4243		6183		5753		6125	
4321	31694	4613		4560		4611		3863		3389	
4322	31695	4037		4325		3200		3810		6042	
4323	31696	2585		3131		3280		4819		6250	10
4324	31697	3895		4504		4880		3810		3222	
4325	31698	4688		4996		6731		6596		3361	
4326	31699	6024		5250		5280		6627	10	3056	
4327	31700	6926	5	6039	4 * #	5640		3938		3056	
4328	31701	5283		5078		6772		4300		3500	
4329	31702	5134		5300		6651		6363		3681	
4330	31703	6549		5088		7044	5	5309		3236	
4331	31704	5106		4964		7142	3	4096		2958	
4332	31705	5896		4846		4758		3765		6403	8
4333	31706	3235		4489		5880		5256		2944	
4334	31707	5459		4619		6260		5384		2972	
4335	31708	4998		4577		6990	6	4556		3347	
4336	31709	6741	8	6259	2 * #	6549		6785	6	4278	
4337	31710	7349	3	5297		3936		6702	7	4000	
4338	31711	6090		4819		6188		3833		4486	
4339	Zonal Check	5308		5277		6169		6852	3	6139	
4340	31712	5042		5049		3548		4224		5153	
4341	31713	5077		5315		6790		5798		2917	
4342	31714	7526	2	6260	1 * #	6421		7078	2	5333	
4343	CRHR 702 (Hybrid Check)	5978		5493	10	3408		4194		2708	
4344	31715	5592		5166		6080		5542		2972	
4345	31716	5653		5677	8	6978	8	4819		3028	
4346	31717	4677		3863		3548		4217		5347	
4347	31718	4069		4800		6581		4119		3083	
4348	31719	6398		4762		7462	1	5256		6542	7
4349	MRP 5222 (Hybrid Observational Check)	6560	10	5095		4979		5181		6083	
4350	31720	3226		3261		4160		4149		6861	5
4351	31721	4929		5049		5429		4119		5431	
4352	31722			5206		6918	9			2583	
4353	31723	6903	6	5340		7088	4	7244	1	5264	
4354	31724	5125		4159		5320		4217		7417	3
4355	31725	5631		5061		6776		4714		6389	9
4356	31726	6245		5196		6534		6649	9	7722	2
4357	31727	4619		4911		7320	2	5535		3764	
4358	31728	6530		5766	7	6979	7	6574		3903	
4359	31729	5689		4564		5272		4375		9167	1
4360	31730	5070		5061		5344		4172		3042	
4361	31731	6445		5253		5258		6566		3750	
4362	31732	5477		5314		5080		4375		2931	
4363	31733	6768	7	5005		5236		4563		3292	
4364	Local Check	5552		5117		5164		6032		6069	
Exp. Mean		**5389**		**4909**		**5710**		**5152**		**4543**	
F Value		**6.91(p<0.0001)S**		**13.30(p<0.0001)S**		**3.90(p<0.0001)S**		**8.78(p<0.0001)S**		**31.16(p<0.0001)S**	
CD		1258		533		1706		1017		778	
CV%		**11.67**		**5.44**		**14.95**		**9.87**		**8.56**	
D/S		11-06-2023				16-07-2023		27-06-2023		08-09-2023	
D/P		04-07-2023				21-08-2023		25-07-2023		07-10-2023	
Local Check Name		Masuri				MTU 1061		MTU 1262			

Table No. 6c.2 (Contd).:Grain Yield (kg/ha) in IVT – Late, Kharif 2023

Entry No	IET No	ZONE VII – SOUTHERN								Overall Mean (21)	
		Andhra Pradesh (3)		Tamil Nadu (1)		Pudhucherry (1)		Zone VII (5)			
		Mean		Aduthurai		Kurumbapet		Mean			
4301	31675	4703		4747		5298		4831		4757	
4302	31676	5715		5443		8095		6137		5549	
4303	31677	5350		5696		7202		5790		5579	
4304	31678	5428		5570		11905	1 * #	6752	2 *	5574	
4305	31679	4939		5000		3929		4749		5099	
4306	31680	6327	6 #	5886	7	8274	*	6628	6 *	5996	4
4307	31681	5727		6646	4 *	5357		5837		4825	
4308	31682	4238		4747		6726		4837		4438	
4309	31683	4913		5886	7			5156		4545	
4310	31684	5620		5886	7	5476		5644		5434	
4311	31685	3740		4557		5952		4346		4812	
4312	31686	5378		4810		7500		5689		5800	8
4313	31687	6551	2 #	5443		6310		6101		5532	
4314	31688	4295		6646	4 *	4881		4882		5005	
4315	31689	4972		5570		7738		5645		5603	
4316	31690	5210		4241				4968		5130	
4317	31691	4858		4114		5595		4856		4795	
4318	31692	5015		4747		4167		4792		5281	
4319	Swarna (NC)	6038	9	5063		6310		5897		5883	6
4320	31693	6020	10	5411		9762	5 * #	6647	4 *	5211	
4321	31694	3954		4177		9643	6 * #	5137		4491	
4322	31695	4351		4747		4643		4488		4689	
4323	31696	4783		5823	9	4167		4868		4406	
4324	31697	3971		4557		7917		4877		4725	
4325	31698	5563		4620		9464	8 * #	6154	10	4931	
4326	31699	4988		4241		5595		4960		5240	
4327	31700	4211		4114		6607		4671		5078	
4328	31701	4857		4905		7857		5467		4650	
4329	31702	5565		5063		8690	10 *	6090		5525	
4330	31703	5196		4430		5595		5123		5205	
4331	31704	4732		4937		7857		5398		4525	
4332	31705	4975		5063		8929	9 *	5784		5224	
4333	31706	4693		4241		7857		5236		5069	
4334	31707	4872		4766		7798		5436		4933	
4335	31708	4964		5190		8095		5636		4885	
4336	31709	5871		5063		10952	2 * #	6725	3 *	6221	2 *
4337	31710	4879		5696		5595		5186		5273	
4338	31711	4836		5063		4762		4866		5238	
4339	Zonal Check	6387	5 #	5380		4821		5872		5508	
4340	31712	4308		4304		7262		4898		5328	
4341	31713	5168		5000		5893		5280		5175	
4342	31714	6277	7 #	6835	2 *	10714	3 * #	7276	1 * #	6443	1 * #
4343	CRHR 702 (Hybrid Check)	3437		5823	9	5357		4298		5315	
4344	31715	4865		5063		7440		5419		5643	10
4345	31716	4942		4114		5476		4883		4789	
4346	31717	4371		5063		7857		5206		4804	
4347	31718	4594		4652		5655		4818		4753	
4348	31719	6420	4 #	5158		5655		6015		5117	
4349	MRP 5222 (Hybrid Observational Check)	5414		6741	3 *	7440		6085		6034	3
4350	31720	5057		5557		7083		5562		4519	
4351	31721	4993		5601		8155		5747		5259	
4352	31722	4751		5320		4345		4792		5133	
4353	31723	6532	3 #	5348		7976		6584	7	5924	5
4354	31724	5651		5791		5298		5609		5244	
4355	31725	5960		4953		5774		5721		5221	
4356	31726	6968	1 #	4399		7857		6632	5 *	5811	7
4357	31727	5540		5044		7143		5761		4668	
4358	31728	5819		5190		9643	6* #	6458	8	5315	
4359	31729	6271	8 #	4747		4762		5665		5338	
4360	31730	4186		4703		3690		4190		4720	
4361	31731	5191		4747		10536	4 * #	6171	9	5760	9
4362	31732	4129		4304		4583		4255		4712	
4363	31733	4364		7089	1 *	4583		4953		5359	
4364	Local Check	5755		5032		5952		5650		5409	
Exp. Mean		**5151**		**5137**		**6830**		**5470**		**5195**	
F Value		**8.56(p<0.0001)S**		**4.89(p<0.0001)S**		**7.62(p<0.0001)S**		**7.92(p<0.0001)S**		**19.61(p<0.0001)S**	
CD		733		890		1958		698		293	
CV%		**7.12**		**8.67**		**14.33**		**6.38**		**2.82**	
D/S				28-08-2023		03-08-2023					
D/P				29-09-2023		06-09-2023					
Local Check Name				ADT 51		CR-1009 sub-I					

Table No. 6c.2 (Contd).:Grain Yield (kg/ha) in IVT – Late, (Trial Not Considered), Kharif 2023

Entry No	IET No	Trials not considered					
		Uttar Pradesh 2		Karnataka			
		@Masodha		@Ponnampet		@Sirsi	
4301	31675	5612	4	2797		5501	4
4302	31676	4568		3561		3676	
4303	31677	5605	6	2797		5041	9
4304	31678	4082		2615		4970	
4305	31679	5180		2032		1635	
4306	31680			4369	6	4569	
4307	31681	3418		3257		3580	
4308	31682	4382		3433		3124	
4309	31683	5931	1	3005		2556	
4310	31684	5539		1802		3228	
4311	31685	5459		3529		3134	
4312	31686	5572	10	3936		4980	10
4313	31687	4880		3455		477	
4314	31688	4289		3877		4837	
4315	31689	4102		4086	8	3913	
4316	31690	4262		2754		4281	
4317	31691	4069		1754		3181	
4318	31692	5924	2	3219		2907	
4319	Swarna (NC)	4707		2631		1905	
4320	31693	4914		4342	7	5218	6
4321	31694	5060		1636		2724	
4322	31695	5618	3	3631		5874	2
4323	31696	5060		2930		5611	3
4324	31697	4408		1797		3573	
4325	31698	4282		3230		1041	
4326	31699	5206		3251		3757	
4327	31700			2968		1600	
4328	31701			3941	10	1121	
4329	31702	5346		3128		3000	
4330	31703	5000		4529	4	3454	
4331	31704	4867		3567		1140	
4332	31705	5578	8	2070		3753	
4333	31706	4574		3032		2595	
4334	31707	4694		818		2934	
4335	31708	5073		3214		1000	
4336	31709	5412		4390	5	4856	
4337	31710	4914		3722		4230	
4338	31711	5572	10	3380		2268	
4339	Zonal Check			3439		3599	
4340	31712			2037		3148	
4341	31713	5598	7	2086		1865	
4342	31714	5459		4690	3	4654	
4343	CRHR 702 (Hybrid Check)	4807		1920		5053	8
4344	31715			3353		4148	
4345	31716	5612	4	3267			
4346	31717	5392		3797		2770	
4347	31718	4934		1898		2044	
4348	31719	4787		2193		4509	
4349	MRP 5222 (Hybrid Observational Check)			2759		5353	5
4350	31720	5552		2695		3485	
4351	31721	5459		2904		6205	1
4352	31722	5572	10	3262		4461	
4353	31723	5352		5465	1	1720	
4354	31724	5073		3102		2724	
4355	31725	5472		5225	2	3568	
4356	31726			3107		2924	
4357	31727	4528		2059		1369	
4358	31728	5379		2166		3308	
4359	31729			3840		4531	
4360	31730	4488		2439		1894	
4361	31731	5432		3273		5130	7
4362	31732	5379		1385		2295	
4363	31733	5000		3882		3724	
4364	Local Check	5060		4070	9	4623	
Exp. Mean		**5045**		**3106**		**3434**	
F Value		**12.66(p<0.0001)S**		**17.18(p<0.0001)S**		**25.34(p<0.0001)S**	
CD		429		628		812	
CV%		**4.24**		**10.11**		**11.83**	
D/S		11-07-2023		13-07-2023		13-06-2023	
D/P		16-08-2023		27-08-2023		04-07-2023	
Local Check Name		Sambha Mahsuri- Sub		Tunga		ASHA	

Table No. 6c.3 : Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – LATE, Kharif 2023

Entry No	IET No	ZONE II-NORTHERN			ZONE III-EASTERN											
		Uttar Pradesh1 (1)			Odisha						Odisha (2)			Bihar		
		Nagina			Bhubaneswar			Jeypore			Mean			BIKRAMGANJ (Dhangain)		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4301	31675	132	96	218	129	120	249	113	93	291	121	106	270			
4302	31676	119	86	236	117	90	176	111	69	238	114	80	207	125	111	398
4303	31677	121	101	261	116	110	254	119	95	365	118	102	309	120	116	374
4304	31678	121	104	300	115	117	232	116	88	318	115	102	275	121	107	454
4305	31679	111	94	274	108	96	176	117	104	295	113	100	235	102	101	371
4306	31680	120	97	212	110	117	223	117	81	466	114	99	344	119	127	351
4307	31681	132	100	227	116	112	242	116	70	265	116	91	253	133	108	429
4308	31682	135	89	252	121	125	252	116	65	379	118	95	315	137	157	429
4309	31683	132	96	255	124	102	257	103	76	211	114	89	234			
4310	31684	109	88	291	106	99	267	111	75	308	109	87	287	110	111	437
4311	31685	121	85	235	107	108	233	117	66	312	112	87	272	113	106	376
4312	31686	108	97	253	107	107	220	118	69	298	112	88	259	113	123	184
4313	31687	94	90	257				113	74	285	113	74	285			
4314	31688	133	94	259	121	100	244	117	82	346	119	91	295	106	89	293
4315	31689	129	93	279	122	117	286	112	69	248	117	93	267	137	105	412
4316	31690	110	105	271	114	112	193	115	72	281	114	92	237	121	126	393
4317	31691	101	86	246	99	110	265	109	82	249	104	96	257	103	124	427
4318	31692	105	95	279	109	103	258	116	69	322	112	86	290	105	125	395
4319	Swarna (NC)	116	77	252	113	107	291	117	88	302	115	98	296	125	99	432
4320	31693	121	84	248	114	103	227	117	85	382	115	94	304	123	103	402
4321	31694	102	95	256	99	105	199	111	76	375	105	90	287	102	105	418
4322	31695	133	98	297	121	107	224	114	69	365	118	88	294	133	94	399
4323	31696	133	103	261	123	122	287	117	82	295	120	102	291	137	131	377
4324	31697	110	85	259	101	100	302	114	70	315	108	85	308	109	114	334
4325	31698	97	102	243	92	96	275	115	90	335	103	93	305	102	126	375
4326	31699	110	98	249	104	123	234	117	74	307	110	98	270	112	130	394
4327	31700	105	104	227	97	113	202	116	90	352	106	102	277	105	132	336
4328	31701	97	85	291	93	107	308	115	87	329	104	97	318	102	126	357
4329	31702	115	86	250	113	116	224	116	85	329	114	101	276	115	122	398
4330	31703	111	87	240	106	120	206	116	82	279	111	101	242	114	132	343
4331	31704	100	89	250	99	117	306	119	88	235	109	102	270	103	119	368
4332	31705	118	97	251	112	115	236	113	68	278	113	91	257	121	120	447
4333	31706	107	102	219	111	124	357	114	72	271	112	98	314	105	134	433
4334	31707	111	84	227	112	104	206	114	73	298	113	89	252	111	116	413
4335	31708	101	95	248	106	121	352	110	69	238	108	95	295	103	142	375
4336	31709	111	102	233	109	115	224	108	85	228	109	100	226	114	122	388
4337	31710	130	89	300	118	112	327	119	65	285	118	89	306	133	108	325
4338	31711	113	108	237	112	102	246	114	71	265	113	86	255	114	139	419
4339	Zonal Check	111	92	294	112	108	266	119	68	316	115	88	291	128	113	401
4340	31712	121	88	241	111	116	235	117	110	281	114	113	258	116	130	377
4341	31713	103	97	245	103	110	248	115	82	322	109	96	285	105	143	373
4342	31714	122	11	254	113	117	218	120	84	261	116	100	239	123	122	400
4343	CRHR 702 (Hybrid Check)	121	93	250	111	123	259	116	73	241	113	98	250	115	128	399
4344	31715	123	86	225	113	104	285	108	88	323	110	96	304	123	129	379
4345	31716	93	101	226	100	114	245	112	93	444	106	104	344	102	136	415
4346	31717	132	96	265	130	108	270	111	74	449	120	91	359	138	112	359
4347	31718	103	98	242	103	122	320	115	86	347	109	104	333	103	116	399
4348	31719	121	87	293	115	112	305	111	87	350	113	99	327	121	115	375
4349	MRP 5222 (Hybrid Observational Check)	122	79	247	113	120	304	111	85	368	112	102	336	114	126	391
4350	31720	131	97	251	126	120	211	117	75	312	121	97	261	137	107	425
4351	31721	125	95	224	117	95	277	119	71	372	118	83	324	125	104	340
4352	31722	121	93	234	113	122	311	114	72	465	114	97	388	115	124	418
4353	31723	121	95	244	113	125	288	110	67	265	111	96	276	123	120	375
4354	31724	131	92	263	122	115	260	116	78	369	119	97	314	106	127	394
4355	31725	109	99	259	110	118	253	117	75	275	113	97	264	120	140	392
4356	31726	126	96	269	111	122	215	119	68	335	115	95	275	121	127	403
4357	31727	100	90	278	98	90	284	112	77	265	105	83	274	100	109	408
4358	31728	112	79	291	107	87	247	113	78	330	110	82	288	105	116	391
4359	31729	127	88	282	123	108	284	110	89	312	116	99	298	137	112	432
4360	31730	121	88	253	105	117	286	115	77	433	110	97	359	125	124	399
4361	31731	124	105	264	110	95	252	113	76	332	111	86	292	115	108	373
4362	31732	95	107	250	99	94	259	118	69	358	109	81	308	100	111	394
4363	31733	131	90	276	113	107	329	113	78	271	113	92	300	126	116	394
4364	Local Check	115	99	272	123	112	245	118	74	241	120	93	243	128	113	356
Exp. Mean		**116**	**92**	**255**	**111**	**110**	**257**	**114**	**78**	**315**	**113**	**94**	**286**	**117**	**119**	**387**

Table No. 6c.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – LATE, Kharif 2023

Entry No	IET No	ZONE III-EASTERN																	
		Bihar			Bihar (2)			West Bengal									West Bengal (3)		
		Sabour			Mean			Chinsurah			Pundibhari			Malda			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4301	31675		117	290		117	290	136	103	413	126	103	312	109	117	11	123	108	362
4302	31676	125	109	304	125	110	351				121	103	298	108	113	10	114	108	298
4303	31677	120	130	382	120	123	378	120	115	413	115	117	232	102	130	10	112	121	322
4304	31678	121	119	282	121	113	368	124	123	380	123	104	190	109	134	9	119	120	285
4305	31679	115	102	268	109	101	319	109	104	380	108	98	232	99	109	7	105	104	306
4306	31680	114	126	283	116	127	317	124	116	330	108	121	228	101	135	12	111	124	279
4307	31681	126	104	289	130	106	359	130	108	512	126	100	235	103	121	7	119	110	373
4308	31682	130	172	258	134	164	343	128	196	413	125	160	326	99	106	14	117	154	369
4309	31683	135	101	290	135	101	290	139	99	330	122	97	241	109	110	11	123	102	286
4310	31684	140	101	290	125	106	364	115	102	281	108	113	238	99	105	10	107	107	259
4311	31685	117	119	221	115	113	298	117	124	429	117	104	268	102	123	11	112	117	349
4312	31686	105	121	241	109	122	212	118	113	297	143	121	177	102	126	12	121	120	237
4313	31687	112	125	275	112	125	275							106	127	10	106	127	
4314	31688	128	105	306	117	97	300	132	101	446	124	96	282	106	137	11	120	111	364
4315	31689	132	118	293	135	112	353	129	107	363	128	109	225	109	129	6	122	115	294
4316	31690	121	120	319	121	123	356	122	107	561	120	104	228	79	115	7	107	109	394
4317	31691	100	108	218	102	116	322	109	97	396	95	111	256	97	105	7	100	104	326
4318	31692	112	122	192	109	124	293	108	119	446	109	112	172	99	113	11	105	115	309
4319	Swarna (NC)	118	101	271	122	100	351	124	98	380	119	109	213	106	122	9	116	110	296
4320	31693	120	105	249	122	104	325	125	107	363	122	99	223	109	115	13	119	107	293
4321	31694	102	98	209	102	101	313	111	99	314	101	107	270	101	112	8	104	106	292
4322	31695	130	107	308	132	100	353	127	107	347	125	98	248	100	110	12	117	105	297
4323	31696	143	150	302	140	140	340	117	117	330	104	111	339	109	128	9	110	119	334
4324	31697	109	103	259	109	108	296	118	104	462	109	110	232	99	124	8	109	113	347
4325	31698	87	98	251	95	112	313	104	70	347	91	117	235	97	103	9	97	97	291
4326	31699	112	132	247	112	131	321	118	124	363	113	107	222	103	144	8	111	125	292
4327	31700	105	124	230	105	128	283	111	107	396	107	122	178	99	122	10	106	117	287
4328	31701	96	102	365	99	114	361	113	105	363	93	110	271	102	103	14	103	106	317
4329	31702	117	127	294	116	125	346	122	114	314	112	115	262	98	112	10	111	114	288
4330	31703	116	138	280	115	135	312	126	123	512	114	133	280	103	131	7	114	129	396
4331	31704	98	109	288	101	114	328	105	100	495	103	106	209	103	131	10	103	112	352
4332	31705	123	120	299	122	120	373	122	112	347	123	115	202	99	100	13	115	109	274
4333	31706	108	127	255	106	130	344	111	109	462	108	115	299	83	120	9	100	115	381
4334	31707	113	112	215	112	114	314	116	98	380	106	108	188	104	116	9	109	107	284
4335	31708	103	130	284	103	136	329	112	124	297	103	129	284	101	120	7	105	124	291
4336	31709	114	123	278	114	122	333	118	112	314				99	105	12	109	109	314
4337	31710	124	115	296	129	112	310	128	121	429	125	120	237	106	129	10	120	123	333
4338	31711	117	107	248	115	123	333	225	103	446				99	104	11	162	104	446
4339	Zonal Check	123	110	283	126	111	342	122	111	512	124	103	269	107	127	9	118	114	390
4340	31712	114	131	303	115	130	340	117	112	479	116	115	290	99	118	8	111	115	384
4341	31713	108	111	224	107	127	298	109	113	198	104	122	217	98	110	9	104	115	208
4342	31714	117	124	246	120	123	323	124	112	512	119	115	165	102	125	10	115	117	338
4343	CRHR 702 (Hybrid Check)	115	118	254	115	123	327	115	107	446	115	110	245	104	118	11	111	112	345
4344	31715	121	122	306	122	125	343	122	109	363	112	107	252	106	105	9	113	107	307
4345	31716	92	122	249	97	129	332	103	123	396	97	126	181	109	98	10	103	116	289
4346	31717	143	116	280	141	114	319	126	107	495				110	121	6	118	114	495
4347	31718	103	154	290	103	135	344	106	141	363	95	137	258	101	124	10	100	134	311
4348	31719	119	118	272	120	117	324	121	110	396	120	106	260	99	123	8	113	113	328
4349	MRP 5222 (Hybrid Observational Check)	118	128	240	116	127	315	121	109	479	118	118	241	106	131	12	115	119	360
4350	31720	138	113	240	137	110	332	132	111	429	127	101	268	106	130	10	122	114	349
4351	31721	120	106	293	123	105	316	123	102	380	124	89	291	104	100	11	117	97	335
4352	31722	125	121	219	120	122	318	121	102	330	120	117	235	103	132	9	115	117	283
4353	31723	117	119	285	120	119	330	116	112	396	119	112	236	101	123	13	112	116	316
4354	31724	142	129	239	124	128	316	126	124	330	126	111	200	107	143	8	119	126	265
4355	31725	105	127	230	112	134	311	125	124	413	113	114	295	101	120	10	113	119	354
4356	31726	118	135	240	120	131	321	119	118	347	123	121	228	104	138	8	115	126	287
4357	31727	94	95	233	97	102	320	102	90	281	125	110	219	104	103	10	110	101	250
4358	31728	117	99	248	111	107	320	104	101	330	109	101	253	98	100	11	103	101	292
4359	31729	133	113	305	135	113	369	120	120	314				107	135	9	113	128	314
4360	31730	123	117	294	124	121	346	114	112	297	126	104	288	99	134	8	113	117	292
4361	31731	117	98	300	116	103	336	116	103	396	124	90	274	101	100	9	114	98	335
4362	31732	104	106	251	102	108	323	100	104	396	96	99	217	99	102	11	98	102	306
4363	31733	125	109	258	125	113	326	118	107	479	114	107	217	97	112	11	110	109	348
4364	Local Check	120	123	330	124	118	343	120	115	314	121	110	203	93	95	8	111	107	258
Exp. Mean		**117**	**117**	**271**	**117**	**118**	**326**	**120**	**111**	**389**	**115**	**111**	**243**	**102**	**118**	**9**	**112**	**114**	**320**

Table No. 6c.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – LATE, Kharif 2023

Entry No	IET No	Zone III (7)			ZONE IV- NORTH EASTERN									ZONE-V – CENTRAL					
					Assam (1)			Tripura (1)			Zone IV (2)			Chattisgarh					
		Mean			Gerua			Lembucherra			Mean			Raipur			Jagadalpur		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4301	31675	122	109	311	131	117	291	124	100	238	127	109	264	93	107	210	129	74	268
4302	31676	118	99	282	116	103	262	87	123	275	102	113	268	103	108	153	119	66	281
4303	31677	116	116	336	109	123	234	100	106	325	104	114	279	109	113	183	127	81	209
4304	31678	118	113	309	114	119	274				114	119	274	108	114	155	132	78	162
4305	31679	108	102	287	107	98	280	84	103	263	95	101	271	106	95	204	128	92	242
4306	31680	113	118	313	109	121	280	105	121	213	107	121	246	113	108	237	119	67	264
4307	31681	121	103	328	126	118	261	121	94	288	123	106	274	112	96	215	132	61	282
4308	31682	122	140	342	115	165	256	109	99	288	112	132	272	102	155	236	131	72	263
4309	31683	122	97	266	123	100	256	83	95	263	103	97	259	120	94	190	135	78	202
4310	31684	113	101	303	104	99	281	81	112	300	93	106	291	100	98	209	112	73	231
4311	31685	113	107	306	104	108	284	77	109	300	91	108	292	100	121	199	110	68	210
4312	31686	115	111	236	104	107	231				104	107	231	100	125	207	121	85	285
4313	31687	110	109	280				103	91	313	103	91	313				129	70	193
4314	31688	119	101	319	120	94	256	123	98	238	121	96	247	121	85	206	130	72	200
4315	31689	124	108	304	123	99	227	110	110	338	117	104	282	121	113	192	131	69	275
4316	31690	113	108	329	112	110	263	73	92	263	92	101	263	100	107	168	127	72	211
4317	31691	101	105	302	99	111	242	75	108	263	87	110	252	96	95	206	120	86	285
4318	31692	108	109	297	101	113	211	109	98	300	105	106	256	98	107	135	121	67	258
4319	Swarna (NC)	117	103	315	109	101	284	85	112	300	97	107	292	109	78	196	130	78	196
4320	31693	119	102	307	115	107	257	72	97	225	93	102	241	108	95	222	131	84	152
4321	31694	104	100	297	99	101	253	103	150	338	101	126	295	93	105	184	112	70	235
4322	31695	121	99	315	123	100	253	108	103	275	115	101	264	114	86	179	112	73	231
4323	31696	121	120	321	128	145	291	111	132	338	119	139	314	123	125	214	124	75	226
4324	31697	108	103	317	101	102	256	75	100	275	88	101	266	97	112	186	120	71	268
4325	31698	98	100	303	111	106	244	92	90	213	101	98	228	88	116	198	106	79	202
4326	31699	111	119	294	104	123	237	74	125	263	89	124	250	97	129	177	117	82	234
4327	31700	106	116	282	93	110	258	67	100	200	80	105	229	89	107	185	103	75	250
4328	31701	102	106	332	97	117	221	65	98	238	81	108	229	89	115	214	119	72	251
4329	31702	113	113	303	109	125	252	81	115	288	95	120	270	101	119	213	126	66	236
4330	31703	113	123	316	109	141	267	83	129	213	96	135	240	99	145	189	122	76	214
4331	31704	104	110	317	101	112	245	63	123	213	82	117	229	88	116	160	113	69	208
4332	31705	116	107	301	109	117	236	81	121	300	95	119	268	103	95	220	130	67	184
4333	31706	105	114	346	109	111	284	81	115	325	95	113	304	105	104	184	118	65	276
4334	31707	111	104	283	107	100	239	88	110	250	97	105	244	103	105	208	111	78	312
4335	31708	105	119	305	101	121	219	94	117	263	97	119	241	92	110	198	117	69	279
4336	31709	110	110	286	107	119	261	82	112	288	94	116	274	103	116	184	127	81	243
4337	31710	122	110	316	115	112	252	92	115	338	104	113	295	111	115	221	131	68	238
4338	31711	130	104	324	109	99	254	107	92	275	108	96	264	104	94	225	126	74	276
4339	Zonal Check	119	106	341	116	118	244	107	103	288	112	111	266	96	104	157	127	62	230
4340	31712	113	119	327	109	112	270	78	110	250	94	111	260	102	116	208	128	72	234
4341	31713	106	113	263	103	135	272	72	122	225	87	129	248	92	121	218	117	70	238
4342	31714	117	114	300	112	125	226	92	124	275	102	125	251	104	116	241	131	73	233
4343	CRHR 702 (Hybrid Check)	113	111	307	107	117	237	77	113	238	92	115	237	106	108	213	129	67	193
4344	31715	115	109	318	107	111	241	80	106	263	93	108	252	104	115	238	111	81	271
4345	31716	102	116	321	97	128	264	81	127	263	89	128	263	94	127	239	114	86	224
4346	31717	126	106	370	123	119	275	87	102	300	105	110	288	123	120	213	131	71	213
4347	31718	103	126	329	104	137	242	75	126	313	89	132	277	99	164	223	121	94	182
4348	31719	115	110	326	114	122	260	94	125	238	104	123	249	103	113	221	119	73	242
4349	MRP 5222 (Hybrid Observational Check)	114	117	337	109	116	262	85	101	300	97	108	281	108	107	230	129	76	254
4350	31720	126	108	314	123	117	216	125	105	275	124	111	246	111	111	234	139	73	288
4351	31721	119	95	325	114	90	290	100	91	288	107	91	289	112	93	221	128	70	276
4352	31722	116	113	330				89	113	300	89	113	300	110	115	230	128	62	258
4353	31723	114	111	307	112	123	236	76	120	213	94	121	224	106	116	190	129	60	179
4354	31724	121	118	299	120	123	244	111	124	250	115	124	247	113	127	208	130	71	256
4355	31725	113	117	309	104	111	236	108	118	263	106	115	249	99	126	190	121	79	244
4356	31726	116	118	294	109	139	220	99	132	275	104	135	248	107	135	203	127	72	231
4357	31727	105	96	281	97	97	281	95	82	188	96	90	234	91	95	221	116	58	249
4358	31728	107	97	300	104	99	247	75	98	275	90	98	261	98	107	185	111	78	241
4359	31729	121	113	329	123	118	270	117	98	350	120	108	310	111	108	223	135	91	147
4360	31730	115	112	332	101	121	268	75	123	300	88	122	284	95	123	216	112	68	327
4361	31731	113	96	321	109	102	281	106	90	300	108	96	291	100	100	222	129	76	228
4362	31732	102	98	312	101	109	297	75	92	250	88	101	273	93	106	185	111	59	240
4363	31733	115	105	324	115	112	224	111	104	275	113	108	249	108	107	183	129	70	271
4364	Local Check	117	106	281	114	118	240	70	101	300	92	109	270	98	104	196	112	78	216
Exp. Mean		**114**	**109**	**310**	**110**	**114**	**254**	**91**	**109**	**273**	**100**	**112**	**264**	**103**	**111**	**202**	**123**	**73**	**237**

Table No. 6c.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – LATE, Kharif 2023

Entry No	IET No	ZONE-V – CENTRAL						ZONE VI – WESTERN											
		Chattisgarh (2)			Zone V (2)			Maharashtra									Maharashtra (3)		
		Mean			Mean			Karjat			Vadagaon			Pondaghat			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4301	31675	111	91	239	111	91	239	132	129	228	120	102	306	124	95	320	125	109	284
4302	31676	111	87	217	111	87	217	116	126	250	106	96	251	112	92	295	111	105	265
4303	31677	118	97	196	118	97	196	111	146	243	111	108	276	113	109	325	111	121	281
4304	31678	120	96	159	120	96	159	119	128	209	113	101	273	117	100	319	116	109	267
4305	31679	117	93	223	117	93	223	112	117	213	107	94	243	104	85	279	107	99	245
4306	31680	116	87	251	116	87	251	115	139	232	111	112	292	113	106	177	113	119	234
4307	31681	122	79	249	122	79	249	112	128	239	111	105	268	119	91	241	114	108	249
4308	31682	117	113	249	117	113	249	127	207	258	124	96	296	124	136	241	125	146	265
4309	31683	127	86	196	127	86	196	114	126	218	113	98	241	123	92	324	116	105	261
4310	31684	106	86	220	106	86	220	105	110	252	100	91	272	105	90	312	103	97	278
4311	31685	105	94	204	105	94	204	110	132	266	108	104	243	108	95	272	109	110	260
4312	31686	110	105	246	110	105	246	112	131	281	102	104	283	107	99	237	107	111	267
4313	31687	129	70	193	129	70	193	107	127	230							107	127	230
4314	31688	125	79	203	125	79	203	115	119	216	111	93	290	119	82	292	115	98	266
4315	31689	126	91	233	126	91	233	121	121	235	117	104	292	125	92	291	121	105	272
4316	31690	113	90	189	113	90	189	112	123	224	99	95	209	106	96	252	106	105	228
4317	31691	108	90	245	108	90	245	103	116	220	113	96	270	104	85	264	107	99	251
4318	31692	109	87	196	109	87	196	109	134	223	104	104	251	109	107	255	107	115	243
4319	Swarna (NC)	119	78	196	119	78	196	114	110	230	108	86	259	116	86	272	113	94	253
4320	31693	119	89	187	119	89	187	117	132	228	109	97	291	109	96	186	112	108	235
4321	31694	102	87	209	102	87	209	105	120	206	94	100	239	97	104	243	99	108	230
4322	31695	113	80	205	113	80	205	120	116	227	110	95	296	119	84	223	116	98	249
4323	31696	123	100	220	123	100	220	130	159	247	121	120	239	125	121	322	125	133	269
4324	31697	108	91	227	108	91	227	112	122	236	97	90	260	102	92	227	103	101	241
4325	31698	97	98	200	97	98	200	104	107	231	90	102	241	94	98	331	96	103	267
4326	31699	107	105	205	107	105	205	112	146	222	100	105	232	104	104	329	105	118	261
4327	31700	96	91	218	96	91	218	110	136	233	98	105	233	97	105	280	101	115	249
4328	31701	104	93	233	104	93	233	105	125	266	90	105	276	94	101	309	96	110	283
4329	31702	113	93	224	113	93	224	112	135	217	104	109	241	104	95	314	106	113	257
4330	31703	110	110	201	110	110	201	112	155	207	96	108	230	107	107	287	105	123	242
4331	31704	100	92	184	100	92	184	105	119	245	103	118	262	97	102	258	102	113	255
4332	31705	116	81	202	116	81	202	115	128	222	110	99	296	116	89	261	114	105	260
4333	31706	112	85	230	112	85	230	109	129	218	111	103	301	107	105	252	109	112	257
4334	31707	107	91	260	107	91	260	110	118	238	103	89	318	108	86	228	107	98	261
4335	31708	104	89	238	104	89	238	105	141	240	98	106	237	101	106	341	101	118	273
4336	31709	115	98	213	115	98	213	111	134	287	106	105	280	109	98	331	108	112	299
4337	31710	121	92	230	121	92	230	119	134	233	112	105	311	119	101	228	116	113	257
4338	31711	115	84	250	115	84	250	113	115	218	107	86	247	111	82	322	110	94	262
4339	Zonal Check	112	83	193	112	83	193	118	143	229	110	109	279	112	107	279	113	120	262
4340	31712	115	94	221	115	94	221	105	149	251	107	104	272	108	110	322	107	121	281
4341	31713	104	96	228	104	96	228	105	138	269	99	107	225	109	115	238	104	120	244
4342	31714	118	95	237	118	95	237	114	130	232	111	113	304	112	109	247	112	117	261
4343	CRHR 702 (Hybrid Check)	117	87	203	117	87	203	111	131	231	111	101	277	111	93	230	111	108	246
4344	31715	108	98	254	108	98	254	112	126	255	104	95	223	109	97	303	108	106	260
4345	31716	104	107	231	104	107	231	102	134	225	101	117	257	97	117	245	100	122	242
4346	31717	127	95	213	127	95	213	117	128	213	91	100	265	115	95	327	108	108	268
4347	31718	110	129	202	110	129	202	107	120	220	104	121	210	101	142	292	104	127	240
4348	31719	111	93	231	111	93	231	114	125	200	111	95	266	116	93	280	114	105	249
4349	MRP 5222 (Hybrid Observational Check)	118	92	242	118	92	242	110	136	215	114	90	249	118	107	327	114	111	264
4350	31720	125	92	261	125	92	261	121	128	235	112	87	237	116	96	237	116	103	236
4351	31721	120	82	248	120	82	248	112	123	283	114	74	232	119	87	297	115	95	270
4352	31722	119	88	244	119	88	244	114	139	215	93	90	237	111	114	281	106	114	244
4353	31723	118	88	184	118	88	184	111	139	205	111	97	194	116	114	264	113	116	221
4354	31724	121	99	232	121	99	232	120	141	210	116	100	249	123	114	249	119	118	236
4355	31725	110	102	217	110	102	217	110	141	213	107	101	213	107	106	318	108	116	248
4356	31726	117	103	217	117	103	217	112	149	195	108	109	176	108	114	171	109	124	180
4357	31727	103	77	235	103	77	235	103	112	213	97	84	172	97	87	278	99	94	221
4358	31728	105	93	213	105	93	213	105	114	245	105	86	220	105	93	284	105	98	250
4359	31729	123	99	185	123	99	185	121	133	201	109	89	214	117	97	275	115	106	230
4360	31730	104	96	271	104	96	271	110	141	224	103	94	222	106	99	242	106	111	229
4361	31731	114	88	225	114	88	225	110	116	220	104	85	268	106	92	305	106	98	264
4362	31732	102	82	212	102	82	212	104	121	272	99	83	208	98	94	327	100	99	269
4363	31733	118	89	227	118	89	227	114	123	210	110	88	221	111	106	205	112	105	212
4364	Local Check	105	91	206	105	91	206	110	112	218	112	89	267	106	88	247	109	96	244
Exp. Mean		**113**	**92**	**220**	**113**	**92**	**220**	**112**	**130**	**231**	**106**	**99**	**254**	**110**	**100**	**275**	**109**	**110**	**253**

Table No. 6c.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – LATE, Kharif 2023

Entry No	IET No	ZONE VI – WESTERN						ZONE VII – SOUTHERN								
		Gujarat (1)			Zone VI (4)			Andhra Pradesh								
		Navasari			Mean			Maruteru			Ragolu			Nellore		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4301	31675	131	128	304	127	114	289	123	132	277	123	145	314	114	110	407
4302	31676	115	130	279	112	111	268	112	118	442	116	129	317	109	92	500
4303	31677	115	123	253	112	121	274	125	144	380	111	145	241	113	92	467
4304	31678	114	121	266	116	112	266	114	123	419	125	124	343	114	103	393
4305	31679	101	114	231	106	103	241	95	118	432	110	114	354	105	77	403
4306	31680	114	132	268	113	122	242	121	130	452	108	144	294	102	99	437
4307	31681	115	124	290	114	112	259	114	115	310	110	129	297	103	102	400
4308	31682	126	175	301	125	154	274	107	163	396	121	218	271	96	112	408
4309	31683	119	114	267	117	107	262	122	108	267	125	120	360	107	94	410
4310	31684	106	112	273	104	101	277	104	113	370	104	123	290	109	82	437
4311	31685	111	135	256	109	117	259	98	118	393	107	121	347	99	85	418
4312	31686	103	132	231	106	116	258	106	123	406	101	134	248	97	84	407
4313	31687				107	127	230	114	122	297						
4314	31688	118	103	255	116	99	263	120	105	277	124	126	261	116	90	515
4315	31689	119	132	247	120	112	266	116	113	244	124	124	235	118	85	453
4316	31690	106	123	266	106	109	238	109	129	432	113	129	343	103	87	422
4317	31691	98	110	281	104	102	259	95	109	413	94	129	291	102	83	420
4318	31692	99	115	247	105	115	244	114	124	330	98	133	218	104	96	393
4319	Swarna (NC)	111	113	297	112	99	264	115	115	436	113	109	347	111	86	433
4320	31693	113	127	295	112	113	250	118	122	350	112	126	334	110	86	452
4321	31694	95	119	267	98	111	239	93	118	380	94	121	258	106	86	383
4322	31695	119	105	300	117	100	261	114	112	264	125	123	304	102	97	403
4323	31696	121	158	314	124	139	280	113	147	290	126	161	345	99	116	323
4324	31697	98	117	237	102	105	240	96	123	386	103	135	228	101	85	315
4325	31698	92	126	221	95	108	256	92	115	393	83	128	343	101	79	355
4326	31699	111	136	277	106	123	265	100	148	429	109	163	258	102	95	370
4327	31700	100	128	265	101	119	253	92	111	409	109	133	231	100	71	393
4328	31701	94	125	250	96	114	275	93	121	436	94	110	275	103	91	397
4329	31702	100	127	230	105	116	250	107	144	380	108	145	321	105	94	377
4330	31703	103	155	236	104	131	240	106	147	393	103	162	271	102	106	390
4331	31704	94	127	213	100	116	244	93	133	396	91	138	284	106	98	690
4332	31705	104	126	279	111	111	264	111	128	389	116	120	261	106	101	305
4333	31706	102	123	240	107	115	252	96	131	416	127	137	324	110	95	540
4334	31707	112	125	256	108	104	260	104	114	347	107	105	255	113	71	323
4335	31708	99	137	228	101	123	261	98	131	409	125	146	319	102	85	325
4336	31709	106	134	231	108	118	282	106	130	380	109	141	304	106	91	292
4337	31710	115	124	240	116	116	253	114	123	419	119	145	314	108	109	412
4338	31711	113	114	263	111	99	262	106	118	452	109	119	312	119	85	443
4339	Zonal Check	123	129	276	115	122	266	114	117	469	114	128	320	115	96	443
4340	31712	113	145	261	108	127	276	106	133	422	63	135	274	110	105	307
4341	31713	100	133	241	103	123	243	98	129	459	96	142	301	106	96	393
4342	31714	115	132	289	113	121	268	106	137	389	112	138	264	103	101	415
4343	CRHR 702 (Hybrid Check)	102	131	284	109	114	255	102	135	446	113	131	248	108	87	435
4344	31715	115	127	288	110	111	267	108	126	422	112	136	264	114	84	517
4345	31716	98	142	240	99	127	242	94	132	449	91	165	307	104	104	617
4346	31717	102	141	276	106	116	270	114	134	297	122	138	297	114	100	500
4347	31718	100	151	264	103	133	246	99	163	422	93	204	323	108	116	380
4348	31719	110	121	254	113	109	250	110	133	459	114	133	248	112	105	390
4349	MRP 5222 (Hybrid Observational Check)	111	128	308	113	115	275	111	133	416	110	138	327	107	97	487
4350	31720	103	124	249	113	108	240	116	114	284	112	126	261	109	93	367
4351	31721	113	110	227	114	98	260	114	116	406	123	116	291	117	85	400
4352	31722		.		106	114	244	110	139	323		.		123	90	590
4353	31723	113	130	274	113	120	234	106	132	422	112	148	290	102	82	377
4354	31724	125	141	230	121	124	234	114	131	307	125	132	231	115	111	437
4355	31725	102	134	257	106	121	250	104	134	403	103	148	308	106	95	410
4356	31726	110	163	314	109	134	214	104	150	360	110	151	258	112	112	293
4357	31727	94	122	301	97	101	241	93	111	353	94	106	223	104	78	403
4358	31728	91	118	285	101	103	258	94	115	376	103	116	249	108	83	357
4359	31729	115	126	300	115	111	247	113	123	294	122	138	275	114	104	487
4360	31730	115	152	307	108	121	248	93	127	422	103	134	281	103	84	450
4361	31731	109	112	288	107	101	270	100	118	370	108	112	248	96	80	452
4362	31732	97	124	237	99	106	261	92	110	396	72	115	274	97	74	400
4363	31733	102	128	251	109	111	222	114	118	383	114	137	253	116	93	517
4364	Local Check	110	158	278	109	111	252	121	122	340	124	116	321	115	83	640
Exp. Mean		**108**	**129**	**265**	**109**	**115**	**256**	**107**	**126**	**381**	**109**	**134**	**288**	**107**	**93**	**423**

Table No. 6c.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – LATE, Kharif 2023

Entry No	IET No	ZONE VII – SOUTHERN												Overall Mean (21)		
		Andhra Pradesh (3)			Tamil Nadu (1)			Pudhucherry (1)			Zone VII (5)					
		Mean			Aduthurai			Kurumbapet			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4301	31675	120	129	332	115	102	312	122	97	280	119	117	318	122	109	291
4302	31676	112	113	420	105	106	374	126	116	330	113	112	393	113	104	298
4303	31677	116	127	362	104	80	330	119	109	360	114	114	355	114	114	305
4304	31678	117	117	385	114	104	380	112	107	315	116	112	370	117	111	298
4305	31679	103	103	396	105	85	365	113	95	345	105	98	380	107	100	292
4306	31680	110	124	394	104	117	360	112	102	398	109	118	388	112	115	300
4307	31681	109	115	336	113	104	387	114	113	545	111	113	388	118	105	311
4308	31682	108	164	358	91	132	330	111	137	480	105	152	377	118	140	316
4309	31683	118	107	346	112	92	351				116	103	347	119	99	274
4310	31684	106	106	365	97	102	374	113	110	415	105	106	377	106	100	306
4311	31685	101	108	386	120	89	408	104	100	365	105	102	386	108	106	302
4312	31686	101	113	353	90	105	317	109	105	315	100	110	338	108	111	269
4313	31687	114	122	297	113	96	340	115	132	350	114	117	329	111	105	282
4314	31688	120	107	351	114	93	428	113	92	460	117	101	388	119	98	303
4315	31689	119	107	311	115	87	278	121	110	330	119	104	308	122	105	287
4316	31690	108	115	399	105	83	300				107	107	374	108	105	295
4317	31691	97	107	374	97	71	274	100	102	625	97	99	404	100	101	305
4318	31692	105	117	314	98	104	335	113	105	260	105	112	307	106	108	274
4319	Swarna (NC)	113	103	405	108	92	425	113	82	445	112	97	417	113	98	313
4320	31693	113	111	378	111	108	434	131	107	545	116	110	423	114	104	303
4321	31694	97	108	340	121	78	274	114	95	280	105	99	315	102	103	279
4322	31695	113	111	324	110	90	296	116	133	410	113	111	335	118	100	292
4323	31696	112	142	320	117	114	393	120	117	410	115	131	352	121	125	307
4324	31697	100	114	310	105	92	310	109	92	312	103	105	310	104	102	283
4325	31698	92	107	364	96	87	280	96	92	345	94	100	343	96	101	283
4326	31699	103	135	352	97	93	359	111	112	315	104	122	346	106	119	286
4327	31700	100	105	344	120	73	291	96	87	280	103	95	321	101	107	271
4328	31701	96	107	369	96	89	308	106	95	300	98	101	343	98	104	301
4329	31702	106	127	359	94	103	350	113	102	430	105	117	371	108	112	296
4330	31703	104	138	351	98	85	369	114	120	310	105	124	346	107	123	286
4331	31704	97	123	456	97	86	298	110	105	545	99	112	442	99	110	308
4332	31705	111	116	318	111	108	444	112	97	315	111	111	343	112	107	288
4333	31706	111	121	426	106	98	335	114	138	415	110	120	406	107	112	320
4334	31707	108	97	308	100	89	338	112	115	315	107	99	315	108	101	277
4335	31708	108	121	351	98	108	373	111	112	280	106	116	341	104	115	289
4336	31709	107	121	325	99	111	475	110	105	345	106	116	359	107	112	293
4337	31710	113	126	382	110	106	482	112	107	395	112	118	404	117	111	314
4338	31711	111	107	402	100	82	380	113	85	345	109	98	386	116	99	309
4339	Zonal Check	114	114	411	103	97	341	116	100	230	112	108	361	115	107	306
4340	31712	93	124	334	96	107	395	113	110	465	97	118	373	107	116	307
4341	31713	100	122	384	94	94	352	102	95	310	99	111	363	102	114	278
4342	31714	107	125	356	110	104	390	110	115	395	108	119	371	113	111	298
4343	CRHR 702 (Hybrid Check)	107	118	376	102	110	393	112	112	330	107	115	370	109	110	292
4344	31715	111	115	401	97	110	388	112	108	295	109	113	377	110	108	305
4345	31716	96	133	457	120	104	354	106	105	395	103	122	424	100	119	311
4346	31717	116	124	365	118	111	384	118	102	360	117	117	368	118	110	318
4347	31718	100	161	375	103	131	348	112	133	580	103	149	411	102	132	311
4348	31719	112	124	365	113	112	362	110	112	430	112	119	378	113	111	305
4349	MRP 5222 (Hybrid Observational Check)	109	123	410	112	103	422	113	115	350	110	117	400	112	112	321
4350	31720	112	111	304	111	101	389	115	116	445	112	110	349	120	107	292
4351	31721	118	105	365	115	100	401	114	87	365	116	101	372	117	95	307
4352	31722	116	114	457	105	91	362	112	108	525	112	107	450	112	108	325
4353	31723	107	121	363	121	112	450	114	105	245	111	116	357	112	112	281
4354	31724	118	125	325	112	127	412	114	125	445	116	125	366	119	118	289
4355	31725	104	126	373	98	92	353	109	115	260	104	117	347	108	115	289
4356	31726	108	138	304	99	116	325	110	135	460	107	133	339	112	124	276
4357	31727	97	99	326	117	79	340	113	82	345	104	91	333	102	93	277
4358	31728	101	104	327	118	102	414	112	105	375	107	104	354	104	99	292
4359	31729	116	122	352	119	102	350	118	95	365	117	113	354	119	109	299
4360	31730	99	115	384	119	85	360	99	88	280	103	103	359	108	110	307
4361	31731	101	103	356	98	89	362	114	97	430	103	99	372	110	97	308
4362	31732	87	100	357	99	91	319	112	87	415	94	95	361	98	98	297
4363	31733	114	116	384	103	107	384	109	110	445	111	113	396	114	106	302
4364	Local Check	120	107	434	121	87	383	129	100	280	122	102	393	113	105	294
Exp. Mean		**107**	**118**	**364**	**107**	**99**	**362**	**112**	**106**	**376**	**108**	**112**	**366**	**110**	**109**	**297**

Table No. 6c.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – LATE, (Trial Not Considered) Kharif 2023

Entry No	IET No	Trials not considered								
		Uttar Pradesh 2			Karnataka					
		@Masodha			@Ponnampet			@Sirsi		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4301	31675	117	97	291	102	73	272	134	96	378
4302	31676	119	75	278	110	72	237	114	85	383
4303	31677	119	88	263	118	67	243	118	97	352
4304	31678	120	89	254	121	71	312	118	96	398
4305	31679	120	96	287	123	60	310	114	79	271
4306	31680	126	89		114	83	197	116	94	281
4307	31681	118	86	192	126	72	276	122	93	360
4308	31682	113	96	252	122	106	224	134	139	312
4309	31683	118	94	269	124	56	258	120	86	391
4310	31684	111	96	300	113	61	228	109	86	276
4311	31685	117	96	283	108	76	229	114	104	329
4312	31686	116	96	293	109	74	237	109	97	337
4313	31687	111	89	237	107	73	254	121	98	492
4314	31688	114	87	263	126	63	261	122	94	388
4315	31689	124	89	273	126	79	259	125	93	322
4316	31690	120	91	223	106	77	249	108	97	398
4317	31691	119	87	239	112	68	245	106	93	320
4318	31692	110	98	293	112	75	176	114	109	306
4319	Swarna (NC)	112	88	264	122	61	304	120	73	251
4320	31693	117	87	247	114	70	264	118	87	464
4321	31694	120	89	239	104	67	176	102	93	240
4322	31695	111	89	283	121	68	240	122	87	401
4323	31696	119	86	291	128	84	285	134	115	400
4324	31697	125	92	224	107	70	234	95	94	348
4325	31698	123	96	243	103	79	260	90	84	241
4326	31699	120	108	267	104	71	227	112	103	365
4327	31700	127	96		101	75	221	109	98	302
4328	31701	126	92		101	80	264	92	84	381
4329	31702	116	82	269	105	80	256	112	101	332
4330	31703	119	87	266	106	101	268	104	124	348
4331	31704	116	89	268	105	90	248	98	100	339
4332	31705	111	92	284	113	70	280	116	95	405
4333	31706	120	80	252	125	72	320	116	102	322
4334	31707	114	86	253	118	57	204	112	85	337
4335	31708	119	83	272	108	81	212	104	104	315
4336	31709	119	92	274	111	69	216	114	106	362
4337	31710	116	84	254	114	74	236	118	95	411
4338	31711	119	91	253	117	58	251	118	82	314
4339	Zonal Check	123	98		113	78	276	116	96	362
4340	31712	126	89		109	79	222	114	95	391
4341	31713	117	96	298	103	79	248	112	97	220
4342	31714	115	74	288	129	69	288	120	106	390
4343	CRHR 702 (Hybrid Check)	119	88	247	119	63	248	119	99	342
4344	31715	128	96		108	72	208	115	97	325
4345	31716	114	92	254	108	85	272		.	
4346	31717	116	94	264	126	72	272	116	96	375
4347	31718	118	93	259	109	93	210	104	120	296
4348	31719	117	87	249	113	67	270	116	93	421
4349	MRP 5222 (Hybrid Observational Check)	125	89		122	67	276	116	104	307
4350	31720	113	95	282	113	77	212	120	110	360
4351	31721	119	96	284	124	60	259	120	88	310
4352	31722	107	79	293	111	81	242	116	102	329
4353	31723	117	82	256	116	75	242	120	97	253
4354	31724	113	96	272	122	86	204	122	119	343
4355	31725	117	96	269	112	94	280	114	108	352
4356	31726	121	92		110	93	203	114	122	335
4357	31727	128	93	253	104	71	364	95	82	393
4358	31728	115	94	292	106	71	240	95	93	324
4359	31729	122	93		114	84	258	119	102	314
4360	31730	116	96	230	101	85	233	104	103	357
4361	31731	117	96	282	107	65	252	106	84	353
4362	31732	114	94	263	107	64	272	104	85	310
4363	31733	118	85	252	110	84	232	118	100	396
4364	Local Check	116	90	245	118	90	241	120	100	388
Exp. Mean		**118**	**91**	**264**	**113**	**75**	**249**	**114**	**97**	**344**

ADVANCE VARIETY TRIAL -1- & INITIAL VARIETY TRIAL – BORO
(AVT-1 & IVT- BORO)

Locations: 13 **Test Entries: 38**

Checks: Gautam (National), IR 64 (Zonal), Rajalaxmi (Hybrid), and Local check **Table: 7a**

AVT-1 & IVT-Boro trial was constituted with 38 test entries (37 inbreds + 1 hybrid) and four checks including Gautam (National), IR 64 (Zonal), Rajalakshmi (Hybrid), and Local check. Among the test entries one entry, IET 29624 was in 3rd year of testing and 2 entries IET30467 & IET 30465 in 2nd year of testing, and the remaining 35 were in 1st year of testing. The trial was sent to two zones *ie.,* Zone III (9 locations) and Zone IV (4 locations) However, two locations namely Malda (West Bengal) and Varanasi (Uttar Pradesh) in zone III did not conduct the trial. The data received from Chinsurah (West Bengal) in zone III was not considered for analysis due to non-significant variation among genotypes.

The data from the remaining ten locations was considered for assessing the performance of test entries. The data pertaining to yield, days to 50% flowering, plant height and panicles/m2 are presented in the tables 7a.2, 7a.3 and 7a.4 respectively. The findings are discussed in the following paragraphs.

Overall

Overall mean grain yield ranged from 3952 kg/ha (IET 31320) to 6656 kg/ha (Rajalaxmi, hybrid check) and days to 50% flowering from 105 (IET 31318) to 128 days (IET 31314). Among checks, Rajalaxmi (HC) recorded the highest grain yield of 6656 kg/ha followed by Gautam (6058kg/ha), whereas, IR-64 recorded 5480 Kg/ha and Local check yielded 5464 kg/ha, and among the entries IET31338 recorded highest yield of 6522 kg/ha. ***Among test entries, none of the inbreds and hybrids recorded significant yield advantage over the best check; hence none was promoted to the next stage of testing.***

Zone III (Eastern)

Data from six locations (Cuttack, Jeypore, Chiplima, Pusa, Pundibhari and Bankura) was considered for assessing the performance of test entries in Zone III. The grain yield ranged from 4725 (IET 31342) to 7561 kg/ha (IET 30465) and days to 50% flowering ranged from 102 (IET 31320) to 129 days (IET 31327). Among checks, Gautam, yielded the highest with 6536 kg/ha followed by a local check (6070 kg/ha) and IR 64 (5817 kg/ha) whereas Rajalaxmi (HC) recorded grain yield of 6439 kg/ha.

Among the test entries, IET 30465 (2nd year), IET 31309(1st year) and IET 31338 (1st year) recorded significantly superior yield of 7561*, 7210*, and 7302* kg/ha respectively over the best check (Gautam), hence promoted to next stage of testing. IET 30465, in 2nd year of testing, was promoted to AVT2, and IET 31309 and IET 31338 in 1st year of testing were promoted to AVT1.

IET 31337 (6544 kg/ha), a hybrid entry failed to show significant yield improvement over the hybrid check (Rajalakshmi) and best inbred check (Gautam) and therefore not promoted to AVT-1- boro.

Performance of the entries in AVT-1 & IVT- Boro, Zone III

Rank	IET No/ Designation/ Cross Combination	Grain yield (kg/ha)	Days to 50% flowering	Remarks
1	IET 30465 CR 3582-5-2-1-2-2-1 (Lalat/ Supriya)	7561*	122	Promoted for AVT2-Boro
2	IET 31338 CR4443-7-1-2-1-1-1-1 (Annapurna/ Vandana)	7302*	120	Promoted for AVT1- Boro
3	IET 31309 JR Boro-1 MTU1081/NPT13-01/IR64	7210*	110	Promoted for AVT1- Boro
	National check (Gautam)	**6536***	113	
	Zonal check (IR 64)	5817	111	
	Hybrid check (Rajalakshmi)	6439	116	
	Local check (LC)	6070	115	
	CD	594		

Zone IV (North Eastern)

Data was received from four locations (Arundhutinagar, Gerua, Lembucherra, and Titabar). The grain yield ranged from 1950 (IET 31318) to 6983 kg/ha (Rajalaxmi (HC) and days to 50% flowering from 106 (IET 31318) to 132 days (IET 31330). Among checks, Gautam recorded the highest grain yield (5341kg/ha) followed by IR 64 (4974 kg/ha) and local check (4707 kg/ha), whereas, hybrid check (Rajalaxmi (HC) yielded 6983 kg/ha. Among the test entries, IET31319 recorded the top yield with 6494 kg/ha over the best varietal check (Gautam) and hence promoted to the second year of testing.

IET 31337 (6282 kg/ha), a hybrid entry although recorded a significant yield advantage over the best inbred check (Gautam), failed to outperform the hybrid check (Rajalakshmi) significantly, hence it is not promoted to AVT-1- boro.

Performance of the entries AVT-1 & IVT- Boro, Zone IV

Rank	IET No/ Designation/ Cross Combination	Grain yield (kg/ha)	Days to 50% flowering	Remarks
1	IET 31319 CR3969-24-1-2-2-1 (IR739930-31-3-2-2/ Pratiksya)	6494*	120	Promoted for AVT1- Boro
	National check (Gautam)	**5341***	112	
	Zonal check (IR 64)	4974	115	
	Hybrid check (Rajalakshmi)	6983	122	
	Local check (LC)	4707	117	
	CD	889		

Entries which completed three years of evaluation

One inbred entry *viz.*, IET 29624 (CR 4334-2-1-1) was evaluated in boro trials during 2021, 2022 and 2023. It was derived from the cross CR 3856-44-22-2-1-7*3/Swarna and recorded significant yield superiority in the overall mean yield over the best check (8448*kg/ha) in the 1st year. Zone wise, it established significant yield gain in zone 3 (8448 *kg/ha). State wise it excelled in a single location each in UP (12304*kg/ha) and Odisha (7190 *kg/ha) in 1st year. It could not record significant yield superiority either in 2nd or 3rd year. Hence it is discontinued due to inconsistent performance. It recorded high HRR (66.1%), intermediate amylose (20.29%), GC (60 mm) and ASV (4.0).

IET No.	Year	Overall yield (Kg/ha)	Significant yield superiority over BVC	Zone (Locations)	Yield (kg/ha)	Significant yield superiority over BVC	States/Locations	Yield (kg/ha)	Significant yield superiority over BVC	*Remarks*
IET 29624 (CR 4334-2-1-1)	2021	8448	*	ZIII (3)	8448	*	UP(1L)	12304	*	***Discontinued***
							WB(1L)	5849	-	
							OD (1L)	7190	*	
				ZIV (1)	-	-	TR(1L)	NG	-	
							AS(2L)	NG	-	
	2022	4992	-	ZIII (7)	4834	-	UP(1L)	5196	-	
							WB(4L)	5496	-	
							OD (2L)	3659	-	
				ZIV (2)	5465		TR(1L)	6370	-	
							AS(1L)	4560	-	
	2023	5747	-	ZIII (6)	6181	-	BI(1L)	7882	-	
							WB(2L)	6540	-	
							OD (3L)	5375	-	
				ZIV (1)	5096	-	TR(2L)	5900	-	
							AS(2L)	4292	-	

Table No. 7a.1 Composition of entries in Advance Variety Trial and Initial Variety Trial- Boro 2022-23 (AVT & IVT- BORO 2022-23).

Entry No.	IET No.	Designation	Cross Combination	GT
3rd year of testing:				
2101	29624	CR 4334-2-1-1	CR 3856-44-22-2-1-7*3 / Swarna MAS	LS
2nd year of testing:				
2102	30467	CR 3516-11-2-2-1-1-3	Birupa / Pusa 44	SB
2103	30465	CR 3582-5-2-1-2-2-1	Lalat / Supriya	SB
1st year of testing:				
2104	31308	RP 6495-JB 19019-1-1-1	Krishna Hamsa / IRBB60 // Krishna Hamsa / Tetep	
2105	31309	JR- BORO-1	MTU 1081 / NPT 13-01 / IR 64	MS
2106	31310	RP 6724-JB 19022-1-1-1	Krishna Hamsa / IRBB60 /// Krishna Hamsa / Tetep // Krishna Hamsa / DSB 2	
2107	31311	RP Bio 4919-NSR 23	KMR 3 / O.rufipogon WR 120	MS
2108	31312	CN 1646-4-17	Pusa Basmati 1 / IR 64	LS
2109	31313	CR 3561-7-3-2-1-1-1	Surendra / Annapurna	MB
2110	**Gautam (Check)**			
2111	31314	CR 4415-3-1-3-1-3	CR3580-7-3-1-1-1-1 / CR3561-3-2-1-1-1	SB
2112	31315	RP Bio 4918-NPK 18	Swarna / O.nivara	MS
2113	31316	RP 5364-JBB 674-24-1-1-1	Improved Samba Mahsuri / IRGC 39050 // MTU 1081	
2114	31317	CR 4442-3-4-2-1	MTU 1010 / Tapaswini MAS	LB
2115	31318	CN 1646-1-12	Pusa Basmati 1 / IR 64	LS
2116	31319	CR 3969-24-1-2-2-1	IR-73930-31-3-2-2 / Pratiksya	LB
2117	31320	PUR-B-NAE-22-01	Kalo Nunia / Pusa Basmati 1637	LB
2118	31321	CR 4119-12-2-1-1-2	CR Dhan 201 / IR 84852-B-12-2	LS
2119	31322	RP 5507-JBB-680-4-B-1-1-1	Swarna / IRGC 63248 // Swarna Sub 1	
2120	31323	CR 3504-19-1-2-1-1-1	IR 36 / Birupa	LB
2121	**IR 64 (Check)**			
2122	31324	CR 4114-23-4-1-1-3	CR 3848-1-1-2-1-1 / Vandana	MS
2123	31325	RP Bio 4918-NPS 110	Swarna / O.nivara	LS
2124	31326	RP 6722-JB 19024-1-1-1	Krishna Hamsa / IRBB60 // Krishna Hamsa / DSB2	
2125	31327	CR 4379-6-2-1-1-1	Maudamani / MTU 1010	SB
2126	31328	CN 1646-3-15	Pusa Basmati 1 / IR 64	LS
2127	31329	CR 4444-6-1-1-1-2-1	Swarna / BAM 18	LB
2128	31330	RP Bio 4919-NSR 40	KMR 3 / O.rufipogon WR 120	LS
2129	31331	JR-BORO-2	JR 201 / NPT	MS
2130	31332	CR 3516-11-2-2-1-1-1	Birupa / Pusa44	MS
2131	31333	RP 6722-JB 19020-1-1-1	Krishna Hamsa / IRBB60 // Krishna Hamsa / DSB2	
2132	31334	CR 4225-B-1-1-2	CR Dhan 310 / Bindli	MS
2133	31335	RP 6726-JB 19247-1-1-1	Krishna Hamsa*2 / IR 81896-96-B-B-195	
2134	31336	CR 4121-16-3-1-2	CR 3846-2-1-2-1-1 / CR Dhan 203	LS
2135	31337	**Indam 300-021 (Hybrid)**	IAHS24A / IA9R	LB
2136	**Rajalaxmi (Hybrid Check)**			
2137	31338	CR 4443-7-1-2-1-1-1-1	Annapurna / Vandana	LB
2138	31339	RP 6723-JB 19021-1-1-1	Krishna Hamsa*2 / DSB 2	
2139	31340	CR 4379-12-1-1-1-1	Maudamani / MTU 1010	MS
2140	31341	RP 6725-JB 19181-1-1-1	Krishna Hamsa*2 / IR 96321-1447-561-B-1	
2141	31342	CR 3783-3-2-1-2-1-1	Surendra / Abhaya	MS
2142	**Local Check (LC)**			

Table No. 7b.2 : Grain Yield (Kg/ha) of AVT 1- BORO-2023

Entry No	IET No	ZONE III-EASTERN																	
		Odisha						Odisha (3)		Bihar (1)		West Bengal (2)				West Bengal (2)		Zone III(6)	
		Cuttack		Jeypore		Chiplima		Mean		Pusa		Pundibhari		Bankura		Mean		Mean	
2101	29624	5120		6088		4917		5375		7882	9 #	4860		8220		6540		6181	
2102	30467	7301	2 #	6438		3480		5740		8333	5 #	5640	4	9570	4	7605	8 *	6794	5
2103	30465	5014		6774		6263	2 #	6017		10243	2 #			9510	5	9510	2 * #	7561	1 * #
2104	31308	6648	3 #	5704		6316	1 #	6223		6597	#	3720		8665		6193		6275	
2105	31309	6114	10	7594		5946	4	6551	8 #	8854	4 #	6060	2 *	8694		7377	10 *	7210	3 * #
2106	31310	6581	5	7906		4539		6342				4260		7062		5661		6070	
2107	31311	4613		6969		4561		5381		5903		2520		6958		4739		5254	
2108	31312	4544		6799		4690		5344		4514		3600		6810		5205		5160	
2109	31313	6140	9	8645	7 #	5938	5	6908	2 #	6250	#	4080		6231		5156		6214	
2110	Gautam (Check)	6219	8	4856		5250	10	5442		10417	1 #	3780		8694		6237		6536	10
2111	31314	7430	1 #	9768	1 * #	3026		6741	5 #	5208				6291		6291		6345	
2112	31315	5801		9366	3 * #	4917		6695	6 #	3993		4920		9332	8	7126		6388	
2113	31316	4044		8638	9 #	4660		5781		6597	#	5280	9	6558		5919		5963	
2114	31317	4821		5931		4312		5021		4688		3480		8620		6050		5309	
2115	31318			8894	5 #			8894	1 * #			4200				4200		6547	8
2116	31319	6612	4	5770		4387		5590				4140		8813		6477		5944	
2117	31320	1089		5319		3555		3321		7986	7 #	5460	5	5148		5304		4760	
2118	31321			4634				4634		6250	#	4560				4560		5148	
2119	31322	5186		5790		2950		4642		5903		4800		8798		6799		5571	
2120	31323	5747		8643	8 #	6165	3 #	6852	3 #	4861		5400	7	8783		7092		6600	7
2121	IR 64 (Check)	5678		7368		5182		6076		4410		3660		8605		6133		5817	
2122	31324	2508		6343				4426				4440		7715		6078		5252	
2123	31325	5662		5231		5862	7	5585		5799				8754		8754	5 *	6262	
2124	31326	5436		8709	6 #	5030		6392	9	5000		4860		9599	3	7230	*	6439	
2125	31327	3350		8150		4576		5359		4306				9125		9125	4 *	5901	
2126	31328	4493		6069		4955		5172		5556				9659	2	9659	1 * #	6146	
2127	31329	5496		2966				4231		6771	#			7715		7715	7 *	5737	
2128	31330	4493		6171		4085		4916				4440		9199	10	6820		5678	
2129	31331	5263		9743	2 * #	5295	9	6767	4 #	6076	#	5940	3	9021		7481	9 *	6890	4
2130	31332	5434		4330		3215		4326		5278		3120		8694		5907		5012	
2131	31333	6222	7	6468		4349		5680		7708	10 #	4680		6320		5500		5958	
2132	31334	5691		8299	10	4917		6302		6250	#	3960		8546		6253		6277	
2133	31335	5201		6356		2345		4634		7986	7 #	4740		9481	6	7111		6018	
2134	31336			2481				2481		7361	#	5460	5	6276		5868		5395	
2135	31337	4743		9123	4 * #	5189		6352		7188	#	5100		7923		6512		6544	9
2136	Rajalaxmi (HC)	5151		6680		4652		5494		5208		6600	1 *	10341	1 *	8471	6 *	6439	
2137	31338	6104		7357		5598	8	6353	10	7986	7 #			9466	7	9466	3 * #	7302	2 * #
2138	31339	5912		8178		5900	6	6663	7 #	6250	#	5400	7	8027		6714		6611	6
2139	31340	5408		5509		4728		5215		6944	#	5220		9273	9	7247	*	6180	
2140	31341	5693		4079		4766		4846		5556		5280	9	8264		6772		5606	
2141	31342	6313	6	3774		1815		3967		5208				6513		6513		4725	
2142	Local Check (LC)	5672		4844		4614		5043		9965	3 #	5253				5253		6070	
Exp. Mean		5358		6637		4674		5566		6521		4674		8238		6681		6050	
F Value		5.28(p<0.0001)S		9.89(p<0.0001)S		4.56(p<0.0001)S		10.21(p<0.0001)S		38.74(p<0.0001)S		10.49(p<0.0001)S		7.05(p<0.0001)S		16.43(p<0.0001)S		9.73(p<0.0001)S	
CD		1466		1636		1434		989		761		780		1318		919		594	
CV%		13.52		12.21		15.12		8.80		5.75		8.20		7.90		6.81		4.86	
D/S		30-12-2023		23-12-2022		04-01-2023				10-12-2022		06-01-2023		12-12-2022					
D/P		18-02-2023		28-01-2023		09-02-2023				28-02-2023		03-02-2023		03-02-2023					
Local Check Name		Tapaswini		Mandakini		MTU-1156				Rajendra Nilam		MTU 1153		PUSPA					

Table No. 7b.2 (Contd) : Grain Yield (Kg/ha) of AVT 1- BORO-2023

Entry No	IET No	ZONE IV- NORTH EASTERN														Overall Mean (10)			
		Assam				Assam (2)		Tripura				Truipura (2)		Zone IV (4)					
		Titabar		Gerua		Mean		Arundhatinagar		Lembucherra		Mean		Mean				@Chinsurah	
2101	29624	4105		4478		4292		6250		5550		5900		5096		5747		5573	#
2102	30467	6690	3	4034		5362		8000	1	4150		6075	10	5719	7	6364	7	5764	#
2103	30465	5620		3976		4798		6800	6	3675		5238		5018		6431	6	6481	3 #
2104	31308	6450	7	3278		4864		7100	4	4950		6025		5445		5943		6134	5 #
2105	31309	5835		5453	8 *	5644	8	6350		3425		4888		5266		6433	5		
2106	31310	6020		4751		5386		6700	7	5175		5938		5662	8	5888		5700	#
2107	31311	4265		4107		4186		3350		3775		3563		3874		4702		6539	2 #
2108	31312	5545		3159		4352		6550	9	1175		3863		4107		4739		4375	#
2109	31313	6985	1	3620		5303		7950	2	3925		5938		5620	9	5976			
2110	Gautam (Check)	5595		3269		4432		7100	4	5400		6250	8	5341		6058		5642	#
2111	31314	5580		3851		4716		3025		5900		4463		4589		5564			
2112	31315	4550		3575		4063		7150	3	2825		4988		4525		5643		5266	#
2113	31316	5900		4020		4960		5050		3200		4125		4543		5395		4745	#
2114	31317	6000		5573	7 *	5787	7	5250		6350	6	5800		5793	5	5503		5845	9 #
2115	31318							3150		750		1950		1950		4249		4977	#
2116	31319	6075		7102	1 *	6589	2 *	6600	8	6200	8	6400	5	6494	2 *	6189	9	5179	#
2117	31320	3650		2966		3308		3700		650		2175		2742		3952		4861	#
2118	31321							3950		2850		3400		3400		4449			
2119	31322	5065		5376	9 *	5221		3950		4375		4163		4692		5219		5874	8 #
2120	31323	6440	8	6698	3 *	6569	3 *	4650		4325		4488		5528		6171	10	4948	#
2121	IR 64 (Check)	6350	9	3196		4773		5400		4950		5175		4974		5480		5613	#
2122	31324	4605		4195		4400		5950		5300		5625		5013		5132			
2123	31325	5785		4098		4942		5050		5250		5150		5046		5721		5660	#
2124	31326	5775		5228	*	5502	9	6500	10	7275	3	6888	3	6195	4	6341	8	6181	4 #
2125	31327			3405		3405		5650		4100		4875		4385		5333		5804	#
2126	31328	4705		7102	1 *	5904	6	5100		3850		4475		5189		5721		4716	#
2127	31329	5040		4864		4952		3450		3525		3488		4220		4978		4456	#
2128	31330	3180		3009		3095		3075		4950		4013		3554		4734		5845	9 #
2129	31331	5415		5233	10 *	5324		6150		6300	7	6225	9	5775	6	6444	3		
2130	31332	6515	5	4280		5398	10	4750		5025		4888		5143		5064			
2131	31333	5625		3834		4730		6150		6475	5	6313	6	5521		5783		5718	#
2132	31334	5015		4865		4940		4500		4400		4450		4695		5644			
2133	31335	5330		3184		4257		4100		5450		4775		4516		5417		5816	#
2134	31336	5755		6242	6 *	5999	5	4000		5600		4800		5399		5397			
2135	31337	6200	10	6391	5 *	6296	4 *	6350		6185	10	6268	7	6282	3 *	6439	4	5816	#
2136	Rajalaxmi (HC)	6945	2	6435	4 *	6690	1 *	6450		8100	1 *	7275	1	6983	1 *	6656	1 *		
2137	31338	5360		5227	*	5294		5400		6200	8	5800		5547		6522	2	4225	#
2138	31339	5860		3250		4555		5650		6125		5888		5221		6055		6701	1 #
2139	31340	4890		3687		4289		6250		7575	2	6913	2	5601	10	5948		6094	6 #
2140	31341	6175		2827		4501		6200		7025	4	6613	4	5557		5587		5903	7 #
2141	31342	6485	6	3999		5242		4450		5450		4950		5096		4890			
2142	Local Check (LC)	6655	4	4122		5389		3250		4800		4025		4707		5464		5266	#
Exp. Mean		5591		4449		4993		5392		4822		5107		5000		5604		5539	
F Value		5.84(p<0.0001)S		20.34(p<0.0001)S		12.18(p<0.0001)S		3.79(p<0.0001)S		4.19(p<0.0001)S		4.08(p<0.0001)S		9.31(p<0.0001)S		15.55(p<0.0001)S		1.47(p=0.1457)NS	
CD		1041		756		680		2036		2351		1739		889		469		1510	
CV%		9.20		8.40		6.74		18.70		24.14		16.86		8.81		4.15		13.35	
D/S		26-12-2022		21-01-2023				26-12-2022		13-01-2023								23-12-2022	
D/P		16-02-2023		28-02-2023				23-01-2023		.								31-01-2023	
Local Check Name		Kanaklata		Chandrama				pura Hakuchuk-2 (21		TRC 2016-14								Khitish (IET 4094)	

Table No. 7b.3: DFF, Plant Height and No. of Panicles of AVT 1- BORO-2023

Entry No	IET No	ZONE III-EASTERN																										
		Odisha									Odisha (3)			Bihar (1)			West Bengal						West Bengal (2)			Zone III(6)		
		Cuttack			Jeypore			Chiplima			Mean			Pusa			Pundibhari			Bankura			Mean			Mean		
		DFF	PH	NPT	DFF	PH	NPT	DFF	PH	NPT	DFF	PH	NPT	DFF	PH	NPT	DFF	PH	NPT	DFF	PH	NPT	DFF	PH	NPT	DFF	PH	NPT
2101	**29624**	123	102	489	113	89	394	106	103	358	114	98	414	137	105	194	116	101	277	143	120	304	130	110	290	123	103	336
2102	**30467**	123	115	414	111	89	320	107	93	409	113	99	381	124	96	217	117	99	283	138	115	359	128	107	321	120	101	333
2103	**30465**	122	104	503	111	93	394	113	91	451	115	96	449	125	93	230	115	.		146	110	449	131	110	449	122	98	405
2104	**31308**	116	84	531	109	78	418	106	88	418	110	83	455	125	99	191	111	87	299	138	90	308	124	88	303	117	88	361
2105	**31309**	112	110	403	108	106	370	101	93	451	107	103	408	115	85	182	106	111	263	121	120	316	114	115	289	110	104	331
2106	**31310**	117	99	616	112	81	432	112	92	328	114	90	458		.		117	87	279	133	120	375	125	103	327	118	96	406
2107	**31311**	141	134	477	113	103	337	114	102	434	122	113	416	114	87	171	119	121	275	138	130	311	129	125	293	123	113	334
2108	**31312**	106	100	445	105	92	403	101	90	433	104	94	427	118	98	164	110	99	295	128	105	275	119	102	285	111	97	336
2109	**31313**	109	110	484	109	90	282	110	90	300	109	97	355	126	88	171	115	100	255	136	120	338	126	110	296	117	100	305
2110	**Gautam (Check)**	104	88	526	109	83	415	104	89	346	106	87	429	131	102	228	104	92	237	127	100	376	116	96	306	113	92	354
2111	**31314**	124	112	568	116	92	513	125	88	439	121	98	507	117	84	176		.		149	120	340	149	120	340	126	99	407
2112	**31315**	104	111	533	105	109	553	104	97	267	104	106	451	138	105	158	109	106	283	126	110	311	117	108	297	114	106	351
2113	**31316**	138	129	523	113	87	456	121	85	423	124	100	467	128	99	188	118	94	262	138	110	416	128	102	339	126	101	378
2114	**31317**	115	99	529	107	89	418	100	102	440	107	97	462	144	108	158	107	92	279	129	100	371	118	96	325	117	98	366
2115	**31318**		.		98	85	472		..		98	85	472		.		111	98	240		.		111	98	240	104	91	356
2116	**31319**	125	109	472	113	100	511	106	80	364	114	97	449		.		118	97	230	127	115	347	123	106	288	118	100	385
2117	**31320**	81	83	440	97	98	285	85	84	399	88	88	375	124	94	189	100	111	283	128	135	441	114	123	362	102	101	339
2118	**31321**		.		103	95	524		..		103	95	524	119	92	172	106	105	290		.		106	105	290	109	97	329
2119	**31322**	117	95	574	109	88	306	106	97	281	111	93	387	126	78	151	111	97	216	132	90	394	122	93	305	117	91	320
2120	**31323**	118	116	371	110	101	265	110	87	446	113	101	360	113	80	141	114	106	257	130	125	368	122	115	313	116	102	308
2121	**IR 64 (Check)**	115	98	490	108	84	500	100	96	313	107	93	434	111	78	134	107	91	216	126	90	442	117	90	329	111	89	349
2122	**31324**	131	111	495	109	112	415		..		120	112	455		.		108	111	273	129	135	443	119	123	358	119	117	406
2123	**31325**	122	108	489	113	88	484	103	89	382	112	95	451	126	82	143	112	94	231	133	105	423	122	99	327	118	94	358
2124	**31326**	117	84	504	111	88	400	112	94	468	113	89	457	126	80	138	117	87	285	143	90	402	130	88	344	121	87	366
2125	**31327**	141	119	529	114	102	374	126	86	296	127	102	399	115	78	124		.		151	120	412	151	120	412	129	101	347
2126	**31328**	109	95	430	103	92	258	101	100	458	104	96	382	123	82	134		.		124	100	291	124	100	291	112	94	314
2127	**31329**	118	127	548	105	101	381		..		111	114	464	133	100	145		.		119	125	476	119	125	476	119	113	387
2128	**31330**	131	122	543	113	118	306	115	103	367	120	114	405		.		113	103	244	131	125	481	122	114	362	120	114	388
2129	**31331**	111	98	433	107	96	375	102	86	439	107	93	416	132	96	194	112	105	279	126	95	414	119	100	346	115	96	355
2130	**31332**	123	109	493	106	93	354	104	89	377	111	97	408	115	86	170	109	86	299	120	110	425	115	98	362	113	95	353
2131	**31333**	115	90	547	111	85	456	108	95	431	111	90	478	138	102	204	115	85	306	133	90	425	124	88	366	120	91	395
2132	**31334**	114	113	508	109	104	461	101	101	376	108	106	448	119	94	171	108	107	274	129	120	341	119	113	308	113	106	355
2133	**31335**	124	98	542	110	89	462	126	97	532	120	95	512	133	105	216	106	80	292	154	90	515	130	85	403	125	93	426
2134	**31336**		.		109	104	398		..		109	104	398	130	101	205	116	107	238	134	120	275	125	113	257	122	108	279
2135	**31337**	103	96	474	107	90	428	104	79	478	105	88	460	126	98	196	108	106	271	123	95	344	116	100	307	112	94	365
2136	**Rajalaxmi (HC)**	117	126	427	108	99	309	110	83	347	112	103	361	120	94	185	114	113	298	129	120	493	122	116	395	116	106	343
2137	**31338**	120	100	567	109	96	323	104	85	482	111	94	457	136	103	213		.		130	110	311	130	110	311	120	99	379
2138	**31339**	119	91	482	110	79	415	115	94	292	114	88	396	126	99	200	116	90	303	133	85	350	125	87	326	120	90	340
2139	**31340**	104	95	378	106	83	275	106	90	385	105	89	346	125	101	205	113	93	277	128	85	479	121	89	378	113	91	333
2140	**31341**	119	104	390	108	91	300	115	95	318	114	97	336	115	92	180	114	94	236	150	115	383	132	104	309	120	98	301
2141	**31342**	106	111	504	119	91	292	121	95	529	115	99	442	119	94	176		.		130	95	374	130	95	374	119	97	375
2142	**Local Check (LC)**	128	92	506	102	96	371	102	109	472	111	99	449	131	100	228	114	105	302		.		114	105	302	115	100	375
Exp. Mean		**117**	**105**	**491**	**109**	**94**	**391**	**108**	**92**	**398**	**111**	**97**	**429**	**125**	**93**	**179**	**112**	**99**	**269**	**133**	**109**	**382**	**123**	**105**	**331**	**117**	**99**	**355**

Table No. 7b.3 (Contd) : DFF, Plant Height and No. of Panicles of AVT 1- BORO-2023

ZONE IV- NORTH EASTERN																					Overall Mean (10)					
Assam						Assam (2)			Tripura						Truipura (2)			Zone IV (4)						@Chinsurah		
Titabar			Gerua			Mean			Arundhatinagar			Lembucherra			Mean			Mean								
DFF	PH	NPT	DFF	PH	NPT	DFF	PH	NPT	DFF	PH	NPT	DFF	PH	NPT	DFF	PH	NPT	DFF	PH	NPT	DFF	PH	NPT	DFF	PH	NPT
150	105		125	94	210	138	100	210	119	102	346	111	109	413	115	106	379	126	103	323	124	103	331	115	101	363
151	108		111	94	237	131	101	237	114	140	362	102	120	538	108	130	450	120	115	379	120	107	349	112	105	347
151	103		116	95	219	134	99	219	115	116	428	107	107	400	111	112	414	122	105	349	122	101	384	115	106	380
139	87		113	76	267	126	82	267	115	86	443	105	87	338	110	87	390	118	84	349	118	86	357	112	92	347
138	114		108	99	200	123	107	200	111	120	384	100	119	463	106	120	423	114	113	349	112	108	337		.	
140	83		113	77	268	126	80	268	118	92	440	104	97	313	111	95	376	119	87	340	118	92	381	114	96	413
140	114		129	103	251	134	109	251	116	113	432	112	120	375	114	117	404	124	113	353	123	113	340	121	119	363
137	96		98	92	216	117	94	216	115	101	360	102	95	250	108	98	305	113	96	275	112	97	316	105	100	330
139	104		116	91	210	127	97	210	117	108	455	104	128	500	110	118	478	119	108	388	118	103	333		.	
133	88		98	81	223	116	85	223	116	98	416	101	96	575	108	97	496	112	91	405	113	92	371	110	94	413
159	94		129	82	209	144	88	209	124	105	371	109	112	400	117	109	385	130	98	326	128	99	377		.	
130	99		108	106	257	119	102	257	116	112	394	101	119	413	108	116	403	113	109	355	114	107	352	113	116	413
148	101		121	86	244	134	94	244	124	102	463	119	104	500	121	103	482	128	98	402	127	100	386	119	100	396
138	96		103	93	223	120	95	223	114	99	390	113	102	350	113	101	370	117	98	321	117	98	351	121	98	363
	.			.					101	94	346	111	137	388	106	116	367	106	116	367	105	103	361	120	95	314
141	103		125	84	237	133	94	237	104	103	394	111	118	300	107	110	347	120	102	310	119	101	357	119	104	363
137	88		98	103	221	118	95	221	120	104	233	100	108	300	110	106	266	114	101	251	107	101	310	96	111	297
	.			.					108	117	363	110	112	238	109	115	300	109	115	300	109	104	317		.	
137	97		103	85	281	120	91	281	121	103	410	110	92	375	115	98	393	118	94	355	117	92	332	114	95	380
135	108		108	114	218	122	111	218	118	126	377	110	120	263	114	123	320	118	117	286	116	108	300	122	114	215
136	97		98	79	240	117	88	240	113	99	460	115	91	275	114	95	368	115	92	325	113	90	341	108	99	413
139	107		116	104	263	127	105	263	112	151	372	100	131	213	106	141	292	116	123	282	118	120	353		.	
140	99		116	98	290	128	99	290	121	103	380	109	103	650	115	103	515	121	101	440	119	97	386	112	104	380
140	84		118	77	231	129	81	231	116	96	315	106	91	400	111	94	357	120	87	315	120	87	349	115	91	330
	.		125	101	195	125	101	195	128	115	385	121	120	288	125	117	336	125	112	289	127	105	325	126	120	264
135	98		103	112	214	119	105	214	107	98	361	99	116	200	103	107	281	111	106	258	111	99	293	104	105	314
137	118		103	107	200	120	112	200	108	127	437	115	132	238	111	130	337	115	121	292	117	117	346	114	121	330
157	119		129	97	191	143	108	191	126	141	347	115	88	363	120	115	355	132	111	300	125	113	355	120	119	314
136	102		113	91	209	125	97	209	114	109	369	103	112	500	109	111	435	117	104	359	116	99	357		.	
137	103		121	89	267	129	96	267	112	106	473	101	135	425	106	121	449	118	108	388	115	101	365		.	
137	85		116	78	267	127	81	267	122	89	384	103	97	488	113	93	436	120	87	379	120	90	390	114	93	248
136	108		108	105	270	122	106	270	107	116	388	103	113	488	105	115	438	114	110	382	113	108	364		.	
156	103		129	86	249	143	95	249	119	113	373	119	94	275	119	104	324	131	99	299	127	95	384	131	100	413
140	99		113	98	243	127	99	243	116	126	370	111	115	500	114	121	435	120	110	371	121	109	318		.	
130	99		103	95	256	117	97	256	112	118	494	97	114	688	104	116	591	110	107	479	111	99	403	103	97	314
143	121		116	102	246	129	112	246	123	114	491	106	123	575	114	119	533	122	115	437	118	109	374		.	
138	107		113	94	204	125	101	204	117	89	405	105	111	400	111	100	402	118	100	336	119	99	363	116	106	347
140	82		116	81	282	128	81	282	115	101	370	105	102	388	110	102	379	119	91	347	119	90	342	113	95	380
134	92		108	89	198	121	90	198	115	102	372	119	102	425	117	102	398	119	96	332	116	93	333	117	101	347
140	106		116	92	208	128	99	208	117	109	505	107	105	250	112	107	378	120	103	321	120	100	308	121	101	363
145	103		125	84	207	135	94	207	121	112	461	111	112	425	116	112	443	126	103	364	122	100	371		.	
136	129		118	93	312	127	111	312	114	98	423	100	106	338	107	102	380	117	106	357	116	103	369	106	94	347
140	**101**	**####**	**114**	**93**	**236**	**127**	**97**	**236**	**116**	**109**	**398**	**107**	**110**	**392**	**111**	**109**	**395**	**119**	**104**	**344**	**118**	**101**	**351**	**114**	**103**	**348**

Table No. 7b.4: Grain quality characteristics of entries in AVT 2 & 1-LATE, Kharif 2023

21. AVT 1 -BORO, 2022-23													
Code	**Entry No.**	**Designation/IET No.**	**Hull**	**Mill**	**HRR**	**KL**	**KB**	**L/B**	**Grain Type**	**Grain Chalk**	**ASV**	**AC**	**GC**
1140	2101	29624	80.0	72.1	66.1	6.16	2.21	2.66	LB	VOC	4.0	20.29	60
1141	2102	30467	79.5	69.4	61.4	5.07	2.45	2.06	SB	VOC	4.0	24.52	30
1142	2103	30465	79.5	71.0	66.7	4.83	2.43	1.98	SB	VOC	4.0	23.02	22
1143	2110	GAUTAM	81.0	72.3	66.9	5.32	2.20	2.41	SB	VOC	7.0	29.15	22
1144	2121	IR 64	78.0	68.6	54.0	6.71	2.11	3.18	LS	VOC	4.0	22.02	67
1145	2136	Raja Lasmi	78.5	70.6	65.4	6.69	2.07	3.23	LS	VOC	7.0	25.34	50

HULL: Hulling(%) **MILL:**Milling(%) **HRR:**Head Rice Recovery **KL:**Kernal length (mm) **KB:**Kernal Breadth(mm) **L/B :** Length and Breadth(mm) **KLAC:**Kernal length after cooking **WU:**Water uptake **ER:**Elongation ratio **AC:**Amylose content (%)**ASV:**Alkali Spreading Value **AC:** Amylose Content

INITIAL VARIETY TRIAL- IRRIGATED EARLY TRANSPLANTED (IVT-E TP Rabi)

Locations: 16 **Test Entries: 37**

Checks: CO-51 (National); PR 124 (Northern), Narendra 97 (Eastern), Luit (North Eastern), Sahbhagidhan (Central & Western), MTU 1153 (Southern)- Zonal and local check **Table:7.1a**

Initial variety trial - Early Transplanted (IVT- ETP) Rabi was constituted with 37 test entries and 3 checks namely CO-51 (National check); PR 124 (Northern), Narendra 97 (Eastern), Luit (North Eastern), Sahbhagidhan (Central & Western) and MTU 1153 (Southern) as Zonal checks, and a local check. The trial was sent to 16 locations however, data was not received from 4 locations namely Kampasagar, Aduthurai, Brahmavar and Gangavathi. Data from one center was excluded from analysis viz., Moncompu due to high CV (22.32 %).

Among the centres from which data was included in the analysis, location-wise mean grain yield ranged from 4267 kg/ha (Nellore) to 7258 kg/ha (Warangal- Telangana) while CV ranged from 5.80% (Coimbatore) to 14.36% (Warangal). Overall mean grain yield of the entries ranged from 4684 kg/ha (IET 31356) to 7032 kg/ha (IET 31377); days to 50% flowering from 93 days (IET 31361) to 112 days (IET 31363); plant height ranged from 77cm (IET 31379) to 122cm (IET 31348); number of panicles per sq. m ranged from 399 (IET 31349) to 490 (IET 31379).

On over all mean basis, none of the entries got promoted for next level of testing

Eastern Zone (Zone III)

The trial was evaluated at 3 locations *viz.*, Cuttack, Jeypore and Chiplima (Odisha), in Eastern Zone. Experimental mean yield at the locations ranged from 4772 kg/ha (Chiplima) to 6783 kg/ha (Cuttack) and CV% from 10.05 (Cuttack) to 12.22 (Chiplima). Mean yield of the entries ranged from 4503 kg/ha (IET 31344) to 6570 kg/ha (IET 31346); days to 50% flowering ranged from 103 days (Zonal check) to 123 days (IET 31348); plant height ranged from 81 cm (31375) to 110 cm (IET 31348) and panicles per square meter ranged from 313 (IET 31375) to 414 (IET 31379).

In zone III, entries namely IET 31346 (6570 kg/ha), IET 31368 (6507 kg/ha) recorded significantly superior yield performance and are promoted to 2nd year of testing in AVT-1-ETP (Zone III)

Performance of the entries in Zone III, IVT- ETP Rabi 2023

Rank	IET No/ Designation/ Cross Combination	GY	FD	GT
1	IET 31346 RP 6495-JB 19396-1-1-1 (Krishna Hamsa / IRBB 60// Krishna Hamsa / Tetep)	6570	111	
2	IET 31368 MTU 1407 (MTU2460-17-2-1-1-1) (MTU 1010 / KMP105) / (MTU 1075 / MTU 1081)	6507	108	LS
	CO-51 (NC)	5729	106	
	Zonal check (ZC)	5683	103	
	Local check (LC)	***5784***	107	
	CD	621		

In Zone VII data from eight locations *viz.*, Rajendranagar, Warangal, Jagityal, Maruteru, Nellore, Coimbatore, Mandya and Pattambi were considered for analysis. The mean grain yield of entries ranged from 4679 kg/ha (IET 31356) to 7427 kg/ha (31377), while days to 50% flowering ranged from 90 days (IET 31361) to 111 days (IETs 31355). Plant height ranged from 77 days (IET 31379) to 127 days (IETs 31348); Number of panicles/m2 ranged from 413 (IET 31349) to 518 (IET 31379). **None of the entries showed significant yield superiority**.

Summary

Zone III: IET 31346, IET 31368 promoted to 2nd year of testing in AVT-1-ETP Rabi (Zone III)

Table No. 7.1a: Composition of entries in Initial Variety Trial- Early Transplanted Rabi 2022-23 (IVT- E TP RABI 2022-23).

Entry No.	IET No.	Designation	Cross Combination	GT
1st year of testing:				
2201	31343	CB 17511	CO 51 / ARC 10319	MS
2202	31344	RP 6166-NPV 37-17	MTU 1010 / O.rufipogon	MS
2203	31345	NLR 3773	NLR 34449 / ADT 43	MS
2204	31346	RP 6495-JB 19396-1-1-1	Krishna Hamsa / IRBB 60 // Krishna Hamsa / Tetep	
2205	31347	CR 4344-10-1-1-1	MTU 1001 / Pusa 44 // IR 107476-13-15-8-29-B	LS
2206	31348	RP 6199-SB/RIL-E90	Swarna / BR 2655	
2207	31349	CR 4392-RGA-10	C767-4-2-1-1 / IET27218 // N22	MB
2208	31350	RP 6297-RMS-1703-55-89-66	MTU 1010*2 // ST 12	LS
2209	31351	RP 6460-C3-345	166S-Swarna / O.nivara // 148S-Swarna / O.nivara	MS
2210	31352	CB 18530	CO 51 / KNM 110	MS
2211	31353	CR-4070-1320-2-3-1-1-6-4	IET 22704 / Pyari	MB
2212	31354	RP 6728-JB 19211-1-1-1	Krishna Hamsa / IRBB 60 // Krishna Hamsa / IR 81896-96-B-B-195 // Krishna Hamsa / IR 96321-1447-561-B-1	
2213	31355	CR 3506-1-2-3-1-1-1	IR 36 / Tapaswini	MS
2214	31356	RP 6196-PC/RIL-PC-B1162	PR 116 / Chittimutyalu	
2215	31357	RP 6529-RMS-1777-35-81-42	MTU 1010 *2 / Improved Samba Mahsuri	LS
2216	31358	NLR 3650	MDT 6 / NLR 33358	LS
2217	31359	CRAC 4424 -101	Double Haploid of 8433DT	MB
2218	**CO 51 (NC)**			
2219	31360	RP 6729-JB 19198-1-1-1	Krishna Hamsa / IRBB 60 // Krishna Hamsa / Tetep /// Krishna Hamsa / IR 81896-96-B-B-195 // Krishna Hamsa / IR96321-1447-561-B-1	
2220	31361	RP 6703-SP-M-MS-KS-1-9-6-4-7-3-7	Samba Mahsuri Mutant 93 / BPT 5204	MS
2221	31362	MTU 1405 (MTUAST2-5-29-5-1)	(MTU1010 / MTU1081) // *2MTU1010	LS
2222	31363	CR 4343-15-2-1-1	MTU 1001 / Pusa 44 // IR 102698-1-47-57-102-1-B	LS
2223	31364	RP 6420-C10-269-23	MTU 1010 / Tulasi	MS
2224	31365	RP 6215-PR/RIL-PR-Q1200	PR 116 / Ranbir Basmati	
2225	31366	RP 6727-JB 19202-1-1-1	Krishna Hamsa / IRBB 60 // Krishna Hamsa / IR 81896-96-B-B-195	
2226	31367	CR-4004-14228-3-6-4-7	C460-3-2 / BS-6444G	MS
2227	31368	MTU1407 (MTU2460-17-2-1-1-1)	(MTU1010 / KMP105) / (MTU1075 / MTU1081)	LS
2228	31369	CB MAS 14110	I.W. Ponni /Apo	MS
2229	31370	RP 6112-MS-M-116-4-8-3-4-6-3	BPT 5204 Mutant	MB
2230	**Narendra 97-Eastern and MTU 1153-Southern-- ZC**			
2231	31371	RP 6495-JBJBC 159-11-1-1-1	Krishna Hamsa / IRBB 60 // Krishna Hamsa / Tetep	
2232	31372	CR 4381-145-4-2-1	MTU 1010 / IR 132763-2	LS
2233	31373	RP 6529-RMS-170842-56-18	MTU 1010 *2 / Improved Samba Mahsuri	LS
2234	31374	CRAC 4424 -118	Double Haploid of 8433DT	MB

Entry No.	IET No.	Designation	Cross Combination	GT
2235	31375	RNR 37977	RNR 25154 / IR 83142-12	
2236	31376	CR 4121-170-36-24-17-1	CR 3856-44-22-2-1-11*3 / IRBB 60 / Swarna Sub1	LB
2237	31377	RNR 35011	HKR 08-1 / MTU 1001	
2238	31378	MTU 1406 (MTU 2645-39-4-1-1)	RAVI 003 / MTU 1156	MS
2239	31379	RNR 38948	RNR 15048 / CN 1560-3-93-2	
2240	**Local Check (LC)**			

Table No. 7.1b : Grain Yield (kg/ha) in IVT – E TP Rabi, Kharif 2023

Entry No	IET No	ZONE III-EASTERN									
		Odisha						Odisha (3)		Zone 3(3)	
		ICAR-NRRI (Cuttack)		Jeypore		Chiplima		Mean		Mean	
2201	31343	6230		4205		3328		4588		4588	
2202	31344	6541		4509		2458		4503		4503	
2203	31345	5590		5604		5522	7	5572		5572	
2204	31346	7094		5998	8	6619	1 *	6570	1 *	6570	1 *
2205	31347	7113		6231	5	4690		6011	10	6011	10
2206	31348	6352		5172		4576		5367		5367	
2207	31349	6959		5456		5333	10	5916		5916	
2208	31350	6084		5327		5560	6	5657		5657	
2209	31351	6464		3821		3555		4613		4613	
2210	31352	7274	8	5069		4841		5728		5728	
2211	31353	7666	3	6363	4	4614		6214	5	6214	5
2212	31354	6369		5796	10	5484	9	5883		5883	
2213	31355	6725		5569		4123		5472		5472	
2214	31356	6167		4755		3177		4700		4700	
2215	31357	7058		4964		4463		5495		5495	
2216	31358	7934	2	5259		5900	3	6364	3	6364	3
2217	31359	7028		4844		5787	4	5886		5886	
2218	CO 51 (NC)	6944		5023		5219		5729		5729	
2219	31360	6504		5310		4463		5426		5426	
2220	31361	7625	5	4386				6006		6006	
2221	31362	6577		5088		4690		5452		5452	
2222	31363	7274	8	5338				6306	4	6306	4
2223	31364	7987	1	5387		4085		5820		5820	
2224	31365	6578		4106		4387		5024		5024	
2225	31366	6808		4700		4992		5500		5500	
2226	31367	6752		5709		5787	4	6083	8	6083	8
2227	31368	7648	4	7258	1	4614		6507	2 *	6507	2 *
2228	31369	6347		4556		5522	7	5475		5475	
2229	31370	6413		3527				4970		4970	
2230	Zonal Check (ZC)	6667		5995	9	4387		5683		5683	
2231	31371	7062		6622	3	4955		6213	6	6213	6
2232	31372	4847		5270		6089	2	5402		5402	
2233	31373	7471	7	5401		3366		5413		5413	
2234	31374	6288		5472		5295		5685		5685	
2235	31375	7207	10	4845		3858		5303		5303	
2236	31376	6652		5412				6032	9	6032	9
2237	31377	6802		6065	7	5068		5978		5978	
2238	31378	7565	6	3790		5257		5537		5537	
2239	31379	6686		7178	2	4501		6122	7	6122	7
2240	Local Check (LC)	5969		6164	6	5219		5784		5784	
Exp. Mean		**6783**		**5289**		**4772**		**5650**		**5650**	
F Value		**1.70(p<0.0492)S**		**4.14(p<0.0001)S**		**4.65(p<0.0001)S**		**5.38(p<0.0001)S**		**5.38(p<0.0001)S**	
CD		1378		1208		1183		621		621	
CV%		**10.05**		**11.30**		**12.22**		**5.43**		**5.43**	
D/S		19/12/2022		22/12/2022		04/01/2023					
D/P		25/01/2023		27/01/2023		08/02/2023					
Local Check Name		MTU1010		Mandakini		MTU-1156					

Table No. 7.1b (Contd).: Grain Yield (kg/ha) in IVT – E TP Rabi, Kharif 2023

Entry No	IET No	ZONE VII- SOUTHERN												Andhra Pradesh (2)	
		Telangana						Telangana (3)		Andhra Pradesh					
		Rajendranagar		Warangal		Jagityal		Mean		Maruteru		Nellore		Mean	
2201	31343	5311		5563		5318		5397		7627		2416		5022	
2202	31344	5501		4784		5987		5424		4917		3026		3972	
2203	31345	6991	4	10702	3	9189	4	8961	2 *	6824		5248	8	6036	
2204	31346	5570		4173		6612		5452		5926		2897		4412	
2205	31347	4936		8238		8434	9	7203		6715		4728		5722	
2206	31348	5663		6125		5435		5741		6505		4684		5595	
2207	31349	4899		7611		6171		6227		6097		4979		5538	
2208	31350	4242		5728		4181		4717		5932		3944		4938	
2209	31351	6365		7412		5660		6479		4921		4415		4668	
2210	31352	5172		6548		7164		6295		6797		5248	8	6023	
2211	31353	7837	2 *	12325	1 *	9655	2	9939	1 *	6621		4491		5556	
2212	31354	4448		5525		7353		5775		8228	5	4850		6539	3
2213	31355	5307		4775		7156		5746		6704		3457		5081	
2214	31356	3406		4179		5152		4246		4050		6252	2	5151	
2215	31357	4028		5937		5653		5206		4637		3380		4009	
2216	31358	7893	1 *	8092		9731	1	8572	4	6644		5415	7	6030	
2217	31359	6611	8	8087		7648		7449		7360		3615		5488	
2218	CO 51 (NC)	5679		8935	8	8572	7	7729	7	7755	9	5175	10	6465	5
2219	31360	5780		7238		5987		6335		6035		3462		4749	
2220	31361	3353		4456		7560		5123		4120		3321		3721	
2221	31362	6926	5	11225	2 *	5159		7770	6	8533	1	5679	5	7106	1
2222	31363	5914		9688	5	6768		7457		7847	8	3329		5588	
2223	31364	6538	10	5992		5961		6164		3649		3073		3361	
2224	31365	4294		7551		7257		6367		4454		4167		4311	
2225	31366	4944		6234		7381		6186		8373	3	4662		6518	4
2226	31367	2298		5873		5953		4708		5380		3278		4329	
2227	31368	7323	3	7778		7054		7385		8519	2	2530		5525	
2228	31369	6925	6	7658		7864	10	7482	8	7207		5060		6134	7
2229	31370	5521		6216		8704	5	6814		5477		3090		4284	
2230	Zonal Check (ZC)	6753	7	8173		8638	6	7855	5	8235	4	5688	4	6962	2
2231	31371	5030		8533	10	6998		6854		6721		5474	6	6098	8
2232	31372	5655		9110	6	7681		7482	8	7977	7	3282		5630	
2233	31373	5012		4393		4781		4729		5828		4128		4978	
2234	31374	3650		7795		6940		6128		6912		5778	3	6345	6
2235	31375	5618		8743	9	6371		6911		7498		4440		5969	
2236	31376	4960		8976	7	8490	8	7475	10	5177		6897	1 *	6037	10
2237	31377	6575	9	10338	4	9535	3	8816	3 *	8037	6	3974		6006	
2238	31378	4127		3894		3370		3797		5985		4530		5258	
2239	31379	4504		7660		7293		6486		6466		2188		4327	
2240	Local Check (LC)	6339		8040		7575		7318		7646	10	4436		6041	9
Exp. Mean		**5447**		**7258**		**6960**		**6555**		**6508**		**4267**		**5388**	
F Value		**10.79(p<0.0001)S**		**7.52(p<0.0001)S**		**14.02(p<0.0001)S**		**23.10(p<0.0001)S**		**16.32(p<0.0001)S**		**9.92(p<0.0001)S**		**14.48(p<0.0001)S**	
CD		1082		2108		1134		791		933		1000		675	
CV%		**9.82**		**14.36**		**8.05**		**5.97**		**7.09**		**11.59**		**6.20**	
D/S		02/12/2022		06/12/2022		06/12/2022				04/01/2023		17/12/2022			
D/P		04/01/2023		12/01/2023		31/12/2022				25/01/2023		11/01/2023			
Local Check Name		JGL 24423		KNM 118		.				MTU1121		.			

Table No. 7.1b (Contd).: Grain Yield (kg/ha) in IVT – E TP Rabi, Kharif 2023

Entry No	IET No	ZONE VII- SOUTHERN								Overall Mean (11)		Trail Not Cosidered	
		Tamil Nadu		Karnataka		Kerala (1)		Zone 7(8)				Kearala	
		Coimbatore		Mandya		Pattambi		Mean				@Moncompu	
2201	31343	7431	5	6010		5774		5681		5383		4167	
2202	31344	5752		3793		5413		4897		4789		4477	
2203	31345	6341		7091	5	5481		7233	4	6780	4	4545	
2204	31346	6383		5061		6577		5400		5719		5273	3
2205	31347	6970		5773		6736	7	6566		6415		4318	
2206	31348	6415		5919		6750	6	5937		5781		4621	
2207	31349	6476		5631		7298	3 *	6145		6083		4924	8
2208	31350	7852	1	8031	1	5841		5719		5702		4955	7
2209	31351	6467		5834		5885		5870		5527		7311	1
2210	31352	7405	6	4712		6654	9	6213		6080		4212	
2211	31353	5761		6131		5125		7243	3	6963	3	4424	
2212	31354	7262	8	6894	9	5755		6289		6179		4492	
2213	31355	6494		6106		5875		5734		5663		4970	6
2214	31356	5606		3288		5495		4679		4684		4455	
2215	31357	6110		5268		7010	4 *	5253		5319		4314	
2216	31358	7130	10	5924		6889	5	7215	5	6983	2	4803	
2217	31359	6282		5641		5293		6317		6200		5235	5
2218	CO 51 (NC)	7564	4	4833		5885		6800	7	6508	9	5273	3
2219	31360	5816		5329		6365		5752		5663		4644	
2220	31361	7273	7	3707		6466		5032		5227		4644	
2221	31362	6721		7126	2	6654	9	7253	2	6762	6	5280	2
2222	31363	7090		4995		5168		6350		6341		4174	
2223	31364	6196		6965	8	5755		5516		5599		4720	
2224	31365	7609	3	5414		4813		5695		5512		4864	9
2225	31366	6106		6096		8606	1 *	6550		6264		4333	
2226	31367	6472		6015		5173		5055		5335		4424	
2227	31368	6381		7126	2	6149		6608	10	6580	7	4177	
2228	31369	7778	2	6828	10	4923		6780	8	6424	10	4833	10
2229	31370	6422		4061		4769		5533		5420		4720	
2230	Zonal Check (ZC)	6967		7106	4	5817		7172	6	6766	5	4712	
2231	31371	6459		5985		5764		6371		6328		4136	
2232	31372	5935		7025	6	5154		6477		6184		4068	
2233	31373	6549		6647		6716	8	5507		5481		3902	
2234	31374	6328		5889		5495		6098		5986		4318	
2235	31375	6037		6308		6351		6421		6116		4167	
2236	31376	6354		6611		5995		6683	9	6552	8	4659	
2237	31377	6465		7012	7	7481	2 *	7427	1	7032	1	4303	
2238	31378	7179	9	5715		5163		4995		5143		4121	
2239	31379	5769		4281		4995		5395		5593		4530	
2240	Local Check (LC)	6875		6091		5264		6533		6329		4727	
Exp. Mean		**6612**		**5857**		**5969**		**6110**		**5985**		**4631**	
F Value		**4.77(p<0.0001)S**		**8.65(p<0.0001)S**		**5.06(p<0.0001)S**		**31.77(p<0.0001)S**		**36.91(p<0.0001)S**		**0.61(p=0.9368)NS**	
CD		776		1039		1048		370		281		2090	
CV%		**5.80**		**8.77**		**8.68**		**3.00**		**2.32**		**22.32**	
D/S		20/12/2022		14/12/2022		17/12/2022						17/01/2023	
D/P		20/01/2023		13/01/2023		20/01/2023						04/02/2023	
Local Check Name		CO 51		Raksha		Kanchana						MO 21 Prathyasa	

Table No. 7.1c: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – E TP Rabi, Kharif 2023

Entry No	IET No	ZONE III-EASTERN														
		Odisha									Odisha (3)			Zone 3(3)		
		ICAR-NRRI (Cuttack)			Jeypore			Chiplima			Mean			Mean		
		DFF	PH	NPT	DFF	PH	NPT	DFF	PH	NPT	DFF	PH	NPT	DFF	PH	NPT
2201	31343	113	95	334	98	87	367	102	91	320	104	91	340	104	91	340
2202	31344	113	106	361	109	86	327	114	91	321	112	94	336	112	94	336
2203	31345	121	109	340	112	89	384	112	93	298	115	97	341	115	97	341
2204	31346	118	97	349	108	76	379	107	82	318	111	85	348	111	85	348
2205	31347	128	102	374	110	88	289	114	90	250	117	93	304	117	93	304
2206	31348	138	106	340	110	116	329	120	107	282	123	110	317	123	110	317
2207	31349	121	122	361	110	99	408	119	105	320	116	109	363	116	109	363
2208	31350	113	96	350	102	83	337	101	88	255	105	89	314	105	89	314
2209	31351	118	97	323	109	79	411	110	86	393	112	87	375	112	87	375
2210	31352	121	103	376	104	80	332	106	89	320	110	91	343	110	91	343
2211	31353	117	94	356	107	84	343	113	93	253	112	90	317	112	90	317
2212	31354	113	93	401	106	75	415	106	85	208	108	85	341	108	85	341
2213	31355	126	110	402	109	81	391	123	90	275	119	94	356	119	94	356
2214	31356	123	114	360	114	89	445	121	95	288	119	99	364	119	99	364
2215	31357	121	106	336	101	79	330	106	85	300	109	90	322	109	90	322
2216	31358	121	97	406	106	80	360	111	94	248	112	90	338	112	90	338
2217	31359	121	115	350	101	88	353	106	98	273	109	100	325	109	100	325
2218	CO 51 (NC)	117	100	316	101	77	323	101	85	283	106	87	307	106	87	307
2219	31360	123	93	326	111	75	398	111	84	263	115	84	329	115	84	329
2220	31361	113	90	459	95	73	306				104	82	383	104	82	383
2221	31362	118	97	340	101	85	398	102	94	343	107	92	360	107	92	360
2222	31363	131	98	339	108	92	289				119	95	314	119	95	314
2223	31364	123	110	354	110	97	473	115	93	355	116	100	394	116	100	394
2224	31365	115	102	363	103	87	367	105	91	283	108	93	337	108	93	337
2225	31366	116	93	420	100	71	363	101	73	300	105	79	361	105	79	361
2226	31367	113	102	429	97	84	357	103	91	330	104	92	372	104	92	372
2227	31368	118	101	388	101	87	381	106	88	210	108	92	326	108	92	326
2228	31369	113	94	322	101	83	433	103	88	350	105	88	368	105	88	368
2229	31370	113	94	387	105	83	275				109	88	331	109	88	331
2230	Zonal Check (ZC)	113	88	306	95	69	385	101	76	253	103	78	315	103	78	315
2231	31371	118	91	424	106	79	394	113	89	393	112	86	404	112	86	404
2232	31372	113	106	370	103	93	341	102	95	273	106	98	328	106	98	328
2233	31373	118	105	383	104	80	347	106	85	279	109	90	336	109	90	336
2234	31374	117	106	424	103	81	320	107	88	333	109	91	359	109	91	359
2235	31375	123	88	315	101	77	415	114	79	208	113	81	313	113	81	313
2236	31376	114	97	358	102	81	289				108	89	324	108	89	324
2237	31377	118	99	330	101	88	398	101	85	330	107	90	352	107	90	352
2238	31378	126	95	385	103	84	418	112	82	310	113	87	371	113	87	371
2239	31379	118	85	445	107	71	440	107	73	359	111	76	414	111	76	414
2240	Local Check (LC)	118	101	341	98	99	391	105	93	238	107	98	323	107	98	323
Exp. Mean		**119**	**100**	**366**	**104**	**84**	**368**	**108**	**89**	**295**	**110**	**91**	**344**	**110**	**91**	**344**

Table No. 7.1c. (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – E TP Rabi, Kharif 2023

Entry No	IET No	ZONE VII- SOUTHERN																				
		Telangana									Telangana (3)			Andhra Pradesh						Andhra Pradesh (2)		
		Rajendranagar			Warangal			Jagityal			Mean			Maruteru			Nellore			Mean		
		DFF	PH	NPT	DFF	PH	NPT	DFF	PH	NPT	DFF	PH	NPT	DFF	PH	NPT	DFF	PH	NPT	DFF	PH	NPT
2201	31343	117	93	556	104	92	503	98	94	361	106	93	473	91	113	528	84	110	915	87	112	722
2202	31344	121	97	747	105	98	604	111	98	359	112	97	570	92	117	524	83	94	593	87	105	558
2203	31345	123	91	604	114	110	427	112	99	451	116	100	494	92	113	528	85	99	560	88	106	544
2204	31346	122	77	636	113	83	568	108	84	460	114	81	554	91	103	396	79	78	551	85	90	474
2205	31347	130	.	498	126	88	485	109	96	339	122	92	441	103	113	392	84	96	680	94	104	536
2206	31348	120	115	693	121	133	490	110	132	407	117	127	530	92	146	497	85	128	595	88	137	546
2207	31349	130	105	387	120	132	503	112	125	348	120	121	413	90	140	396	83	122	467	87	131	431
2208	31350	115	83	742	112	108	474	100	95	365	109	95	527	82	107	511	79	99	640	80	103	576
2209	31351	126	82	778	118	89	498	114	91	438	119	87	571	92	105	453	83	92	631	88	98	542
2210	31352	119	89	511	113	108	480	108	102	387	113	99	459	82	113	507	87	101	476	84	107	491
2211	31353	124	83	649	115	102	450	112	98	376	117	94	492	88	106	466	93	90	529	90	98	498
2212	31354	117	76	667	111	84	493	104	91	444	110	84	535	89	95	503	79	82	658	84	89	580
2213	31355	133	93	684	124	109	483	111	96	451	123	99	540	99	116	416	96	84	489	97	100	452
2214	31356	128	90	667	120	106	474	112	90	400	120	95	514	99	102	374	81	104	480	90	103	427
2215	31357	115	85	698	113	104	472	100	99	409	109	96	526	88	105	488	85	95	702	86	100	595
2216	31358	119	92	578	113	104	495	108	94	392	113	97	488	91	113	356	90	98	489	90	105	423
2217	31359	117	103	742	106	108	452	101	113	370	108	108	521	83	133	515	92	125	800	87	129	657
2218	CO 51 (NC)	110	85	502	105	94	488	100	99	414	105	93	468	80	108	524	84	100	587	82	104	555
2219	31360	118	78	822	112	92	474	111	94	436	113	88	577	82	101	493	85	82	556	83	92	524
2220	31361	106	.	262	92	87	513	86	92	326	95	90	367	80	101	480	84	82	522	82	92	501
2221	31362	115	89	644	109	108	472	103	100	370	109	99	495	82	114	593	84	94	524	83	104	559
2222	31363	130	92	604	120	99	479	113	92	370	121	95	484	97	109	414	94	91	476	96	100	445
2223	31364	129	100	827	119	112	472	113	107	422	120	106	574	81	126	466	87	103	489	84	115	478
2224	31365	113	97	629	105	117	482	103	107	345	107	107	485	83	122	539	86	92	440	85	107	490
2225	31366	118	76	662	106	83	498	100	80	418	108	80	526	80	96	519	81	79	582	80	87	551
2226	31367	112	91	560	93	107	488	93	111	396	99	103	481	80	129	524	82	103	489	81	116	506
2227	31368	115	93	729	106	102	474	101	95	363	107	97	522	82	113	488	79	90	595	81	102	542
2228	31369	115	93	724	107	102	464	102	98	416	108	98	535	81	106	504	85	88	644	83	97	574
2229	31370	123	93	756	112	94	464	111	89	400	115	92	540	89	113	396	80	76	680	84	95	538
2230	Zonal Check (ZC)	119	96	707	112	104	474	104	105	356	112	101	512	83	115	532	93	89	644	88	102	588
2231	31371	118	83	787	114	93	457	107	89	409	113	89	551	86	98	493	84	97	573	85	97	533
2232	31372	113	99	516	109	104	457	100	106	352	107	103	442	80	114	493	84	98	644	82	106	569
2233	31373	123	93	604	115	100	465	108	92	385	115	95	485	81	112	521	84	98	556	82	105	538
2234	31374	111	92	609	111	113	427	100	117	394	107	107	477	85	113	506	89	105	529	87	109	517
2235	31375	108	80	733	107	91	434	100	86	372	105	85	513	85	109	471	88	87	516	86	98	493
2236	31376	115	84	622	114	94	414	107	92	370	112	90	469	92	109	370	84	99	573	88	104	471
2237	31377	115	92	676	107	98	444	101	95	374	108	95	498	93	110	475	88	92	547	90	101	511
2238	31378	113	89	653	108	104	472	103	92	339	108	95	488	83	110	528	90	95	755	86	103	642
2239	31379	121	73	764	116	84	426	113	74	482	117	77	557	93	86	356	92	88	893	92	87	625
2240	Local Check (LC)	116	90	769	111	104	422	98	96	414	108	96	535	97	112	497	93	85	618	95	99	557
Exp. Mean		**119**	**90**	**650**	**111**	**101**	**475**	**105**	**98**	**392**	**112**	**96**	**506**	**87**	**112**	**476**	**85**	**95**	**592**	**86**	**103**	**534**

Table No. 7.1c. (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – E TP Rabi, Kharif 2023

Entry No	IET No	ZONE VII- SOUTHERN												Overall Mean (11)			Trail Not Cosidered		
		Tamil Nadu (1)			Karnataka (1)			Kerala (1)			Zone 7(8)						Kearala		
		Coimbatore			Mandya			Pattambi			Mean						@Moncompu		
		DFF	PH	NPT	DFF	PH	NPT	DFF	PH	NPT	DFF	PH	NPT	DFF	PH	NPT	DFF	PH	NPT
2201	31343	93	92	325	109	91	297	85	80	369	97	96	482	99	94	443	89	103	200
2202	31344	108	100	348	115	92	400	86	83	406	102	97	497	105	96	453	89	95	463
2203	31345	100	99	370	116	92	420	90	68	399	104	96	470	107	97	435	98	96	207
2204	31346	99	85	363	114	78	387	92	87	441	102	84	475	104	85	440	86	76	417
2205	31347	110	92	355	117	98	334	91	91	537	109	96	452	111	95	412	112	90	170
2206	31348	110	138	390	115	114	384	92	105	397	105	127	482	110	122	437	133	96	147
2207	31349	100	98	318	119	107	343	92	102	541	106	116	413	109	114	399	91	56	166
2208	31350	91	99	315	106	93	314	80	83	470	96	96	479	98	94	434	86	87	220
2209	31351	100	89	403	119	81	407	93	76	444	106	88	506	107	88	471	86	84	297
2210	31352	100	91	363	113	99	374	85	78	500	101	97	450	103	96	420	89	94	287
2211	31353	105	88	325	116	89	340	85	80	333	105	92	434	107	91	402	89	80	210
2212	31354	97	81	365	113	85	390	82	64	432	99	82	494	101	83	452	84	79	387
2213	31355	102	96	348	129	91	384	93	86	414	111	96	459	113	96	431	93	92	250
2214	31356	115	98	455	121	95	373	93	83	353	108	96	447	111	97	424	106	90	184
2215	31357	97	88	373	109	93	438	80	91	503	98	95	510	101	93	459	91	98	213
2216	31358	99	101	320	114	91	383	91	84	472	103	97	436	106	95	409	98	85	217
2217	31359	95	104	310	112	105	334	85	96	376	99	111	487	101	108	443	89	99	233
2218	CO 51 (NC)	94	94	395	105	89	424	85	79	393	95	93	466	98	92	422	89	82	253
2219	31360	97	94	405	113	84	387	91	76	402	101	88	497	105	87	451	91	81	297
2220	31361	91	84	320	101	86	380	80	69	510	90	86	414	93	85	408	89	70	210
2221	31362	96	87	318	109	95	387	80	74	415	97	95	465	100	94	437	86	81	213
2222	31363	112	97	380	127	100	327	92	81	321	110	95	421	112	95	400	112	106	210
2223	31364	103	109	415	118	102	337	93	86	448	105	106	484	108	104	460	91	89	167
2224	31365	96	106	378	114	100	347	80	79	346	97	102	438	100	100	411	91	86	230
2225	31366	93	78	363	108	80	387	85	78	579	96	81	501	99	80	463	86	79	167
2226	31367	93	93	383	105	97	380	85	92	396	93	103	452	96	100	430	89	105	270
2227	31368	97	96	310	109	93	320	91	81	500	97	95	472	100	94	433	84	89	167
2228	31369	96	86	358	109	94	347	90	81	425	98	93	485	100	92	453	84	93	175
2229	31370	100	85	320	126	93	422	80	74	343	102	90	472	104	89	444	86	77	317
2230	Zonal Check (ZC)	96	80	295	110	97	390	91	88	477	101	97	484	101	92	438	86	97	286
2231	31371	103	82	383	116	87	450	95	77	398	103	88	494	105	88	469	89	80	403
2232	31372	94	94	330	110	101	350	80	85	421	96	100	445	99	99	413	86	88	220
2233	31373	97	93	303	117	96	374	80	87	590	100	96	475	103	95	437	86	82	167
2234	31374	93	93	363	110	98	350	80	84	526	97	102	463	100	99	434	86	94	273
2235	31375	97	14	313	109	89	350	86	79	518	97	79	463	102	80	422	89	86	203
2236	31376	98	88	335	117	88	327	80	86	551	101	92	445	102	92	421	86	91	203
2237	31377	95	92	328	113	91	393	80	85	525	99	94	470	101	93	438	89	95	197
2238	31378	98	97	320	114	91	327	92	89	416	100	96	476	103	93	448	102	97	170
2239	31379	103	75	375	124	70	427	91	63	425	106	77	518	108	77	490	86	68	456
2240	Local Check (LC)	89	90	428	102	84	420	90	75	489	99	92	507	101	94	457	86	90	297
Exp. Mean		**98**	**91**	**354**	**113**	**92**	**372**	**87**	**82**	**445**	**101**	**95**	**470**	**103**	**94**	**436**	**91**	**88**	**245**

Hybrid Rice

Hybrid rice is a proven technology for increasing rice production and productivity and is playing an important role in increasing the rice production in our country. As a result of concerted efforts over the last three decades, 152 hybrids have been released and notified for commercial cultivation. Among these, 43 hybrids have been developed by the public sector, while the remaining 109 have been developed by the private sector. During the year 2023, hybrid rice was planted in an area of 3.5 m. ha. and more than 80% of the total hybrid rice area is in the states of Uttar Pradesh, Jharkhand, Chhattisgarh, Madhya Pradesh, Odisha and Haryana.

During this year (2023-24), fifteen rice hybrids viz., Kaveri Rice Hybrid-7299, VNR-227, RRX-848, Sava-7301, HRI-207 (Early duration); RRX-809, SHX-468 (Mid-early duration); S-7004, HRI-204, PHI-20107 (Medium duration); DR 8611 (Medium slender); DRRRH-5 (Coastal saline ecology); NK-5231 and JKRH-2728 (Boro ecology); Indam 300-007 (SVRC, Assam) were released and notified by the Central Sub Committee on Crop standards, Notification & Release of varieties (CSCCSN & RV) for commercial cultivation in different parts of the country. The details of rice hybrids released and notified during 2023-24 are given in Table 1.

Table 1: Details of rice hybrids released and notified during 2023-24

S. No.	Hybrid	IET No	Recommended states
Early			
1.	Kaveri Rice Hybrid -7299	28954	Haryana, Punjab, Rajasthan, Uttarakhand, Bihar, UttarPradesh, Odisha and West Bengal
2.	VNR-227	28964	Uttar Pradesh, Bihar, Jharkhand and Odisha
3.	RRX-848	28960	Haryana, Punjab, Uttar Pradesh, Bihar, Odisha, West Bengal, Jharkhand, Chhattisgarh, Madhya Pradesh, Gujarat and Maharashtra
4.	SAVA-7301	27328	Jharkhand and Tamil Nadu
5.	HRI-207	28950	Punjab, Haryana, Western Uttar Pradesh, Bihar, Uttar Pradesh, Jharkhand, Odisha, West Bengal, Assam, Tripura, Madhya Pradesh, Chhattisgarh, Gujarat, Maharashtra, Telangana, Andhra Pradesh, Tamil Nadu and Karnataka
Mid-early			
6.	RRX-809	28982	Punjab and Haryana
7.	SHX-468	28128	Western Uttar Pradesh, Jammuand Kashmir, and Punjab
Medium			
8.	S-7004	29001	Madhya Pradesh, Chhattisgarh, Gujarat, Maharashtra, Andhra Pradesh and Tamil Nadu
9.	HRI-204	28997	Punjab, Haryana, Western Uttar Pradesh, Bihar, Uttar Pradesh, Jharkhand, Odisha, West Bengal, Madhya Pradesh and Chhattisgarh
10.	PHI-20107	29004	Uttar Pradesh, Bihar, Jharkhand,Odisha and West Bengal
Medium slender			
11.	DR-8611	29017	Maharashtra, Gujarat, Chhattisgarh and Madhya Pradesh
Coastal saline ecology			
12.	DRRH-5	27847	West Bengal, Gujarat, Goa andAndhra Pradesh
Boro ecology			
13.	NK-5231	28849	Uttar Pradesh and West Bengal
14.	JKRH-2728	28848	Odisha, Uttar Pradesh, Assam and Tripura
SVRC, Assam			
15.	Indam 300-007	21734	Assam

For identification of high yielding and widely adaptable hybrids, a national level three-tier system of evaluation is being adopted. In this system, the hybrids developed by constituent funded and voluntary centres of All India Coordinated Research Project on Rice (AICRPR), and those developed by private sector seed companies, having their own R&D are pooled together based on maturity groups in early (<120 days), mid early (121-130 days) and medium (131-140 days) trials. In addition, one more trial is also constituted aiming to develop and evaluate medium slender (MS) grain type hybrids. IHRTs are conducted in approximately 40 or more locations across the country and these trials consist of test hybrids, national varietal/hybrid checks, zonal and local varietal checks in the respective maturity and grain type groups. Private sector companies also participate in the IHRT evaluation.

The location data is considered for analysis and the hybrids are promoted to the next stage of testing *i.e.,* Advance Varietal Trial-1 (AVT-1) based on criterion mentioned in the proceeding of 56th ARGM (p14-15).

1. The significance of the trial is determined based on F-value. If the F value at individual location is not significant, data from such locations are not considered for assessment of entries.
2. 'Minimum experimental mean yield of 4 t/ha for inbreds and 5 t/ha for hybrid trial is a requirement for inclusion of location data for assessment of entries.' However, it has been slightly modified this year to include the yield data upto 4 t/ha for IHRTs as many locations were getting dropped, if 5 t/ha limit is applied.
3. CV for trial acceptance is in the range of 5-20%.
4. CD @ 5% is considered as criterion for promotion of entries.

During Kharif 2023, four hybrid trials were conducted and evaluated, and test locations are given in Table 2 and Table 3 respectively.

Table 2: Details of Initial Hybrid Rice Trials conducted during Kharif 2023

S. No	Name of the trial	No. of hybrids evaluated		No. of test locations
		Public	Private	
1.	Initial Hybrid Rice Trial - Early	05	09	32
2.	Initial Hybrid Rice Trial - Mid Early	07	20	36
3.	Initial Hybrid Rice Trial - Medium	07	15	36
4.	Initial Hybrid Rice Trial - Medium Slender	04	04	30
5	Multilocation Hybrid Evaluation trial	02	22	30

Table 3: Zone wise test centres for Initial Hybrid Rice Trials, Kharif 2023

Zone	No. of Locations	Name of Locations
Zone I (Hills)	01	**Public Sector:** Malan (MLN)
Zone II (Northern)	05	**Public Sector:** New Delhi (IAR), Kaul (KUL), Ludhiana (LDN), Nagina (NGN), Pantnagar (PNT)
Zone III (Eastern)	14	**Public Sector:** Chinsurah (CHN), Chiplima (CHP), Cuttack (CTK), Dhangain (BKG), Masodha (MSD), Ranchi (RCI), Sabour (SBR), Varanasi (VRN)

Zone	No. of Locations	Name of Locations
		Private Sector: Bayer Seeds (BAY), Nuziveedu Seeds (NZV), PAN Seeds (PAN), Rasi Seeds (RSI), Syngenta (SYN), Trimurthi Seeds (TMT)
Zone IV (North- Eastern)	02	**Public Sector:** Titabar (TTB), Arundhatinagar (ARD)
Zone V (Central)	08	**Public Sector:** Jabalpur (JBP), Raipur (RPR), Sakoli (SKL), Sindewahi (SND), Waraseoni (WRS) **Private Sector:** Ankur Seeds (ANK), Rasi Seeds (RSI), VNR Seeds (VNR)
Zone VI (Western)	08	**Public Sector:** Dabhoi (DBI), Karjat (KJT), Navsari (NVS), Nawagam (NWG), Pondaghat (PDG), Radhanagari (RDN), Shirgaon (SHG), Vadgaon Maval (VDG)
Zone VII (Southern)	09	**Public Sector:** Aduthurai (ADT), Bapatla (BPT), Brahmavar (BRM), Coimbatore (CBT), Hyderabad (IIRR), Karaikal (KRK), Mandya (MND), Maruteru (MTU)**,** Warangal (WGL)

1. Initial Hybrid Rice Trial - Early (IHRT-E)

Fourteen test hybrids (9 and 5 from private and public sector respectively) were evaluated in 32 locations comprising Zone I, II, III, IV, V, VI and VII along with national hybrid check (US 314), national varietal check (CO-51), zonal varietal checks (PR 124 - Zone II; NDR 97 - Zone III; Luit - Zone IV; Shabhagidhan - Zone V & VI; MTU 1153 - Zone VII) and local varietal checks of their respective locations. The details of the composition of the trial are given in Table 4.

Table 4: Composition of Initial Hybrid Rice Trial - Early (IHRT-E), Kharif 2023

S. No.	IET No	Name	Nominating Agency
1	31432	JATAYU	Ramnagar Seeds, Hyderabad
2	31433	KSRH-01	Kurnool Seeds, Hyderabad
3	31434	MEPH-174	MAHYCO, Hyderabad
4	31435	NPH-X49	Nuziveedu Seeds, Hyderabad
5	31436	VNR-234	VNR Seeds, Raipur
6	31437	SHX-5977	Savannah Seeds, Hyderabad
7	31438	Pusa RH-66	IARI, New Delhi
8	31439	CP. R-2019	CP Seeds, Hyderabad
9	31440	Pusa RH-67	IARI, New Delhi
10	31441	TNTRH-131	TNAU, Coimbatore
11	31442	Pusa RH-68	IARI, New Delhi
12	31443	NRH-343	Nirmal Seeds, Hyderabad
13	31444	BS-356	Yanganti Agrotech, Hyderabad
14	31445	KJTRH-22005	RARS, Karjat
15	-	US-314 (NCH)	National Check Hybrid
16	-	CO-51 (NCV)	National Check Variety
17	-	PR-124/Luit/NDR-97/ Sahbhagidhan/MTU-1153 (ZCV)	Zonal Check Variety
18	-	Local Check Variety (LCV)	Local Check Variety

Northern: PR-124; North Eastern: Luit; Eastern: NDR-97; Central and Western: Sahbhagidhan; Southern: MTU-1153

The detailed location wise and zone wise performance for grain yield and days to 50% flowering (DFF) is given in Appendix 1&2 respectively. The overall DFF ranged from 80 to 97 days. The national varietal check (CO-51) had overall mean of 84 days, zonal check of 88 days, national hybrid check and local check had 86 days. The grain quality characteristics of test entries are given in Appendix 3.

Based on the overall mean, three hybrids *viz.*, VNR 234, MEPH 174, SHX 5977; based on zonal means, four hybrids *viz.*, NPH-X49 (Zone II & III); BS-356 (Zone II & VI); Pusa RH 67 (Zone II); KSRH-1 (Zone III) were found promising. Among these, four hybrids *viz.*, VNR 234 (26.42), MEPH 174 (26.48), NPH-X49 (26.22), KSRH-1 (26.34) recorded slightly high amylose content. However, they recorded very high Head Rice Recovery (HRR). Considering this, as well as their significant yield superiority over the checks, all the seven hybrids *viz.*, VNR 234, MEPH 174, SHX 5977, NPH-X49, BS-356, Pusa RH 67 and KSRH-1 are promoted to AVT-1-E-TP. The promising hybrids identified in IHRT-Early, Kharif 2023 are given in Table 5.

Table 5: Promising hybrids identified in IHRT-E, Kharif 2023

S. No	Hybrid	IET No	DFF	Grain Type	Mean Yield (kg/ha)							Remarks
					Over all	Zone II	Zone III	Zone IV	Zone V	Zone VI	Zone VII	
1	VNR-234	31436	89	LB	7151 *#	8959 *#	6636 *#	4470	6432	6270 *#	7784	Promoted to AVT-1-E-TP
2	MEPH-174	31434	88	LS	6851 *#	9098 *#	6304	5870 *#	6381	6408 *#	6660	Promoted to AVT-1-E-TP
3	SHX-5977	31437	86	LS	6516 *#	7893 *#	6178	4641	5901	5523	7834	Promoted to AVT-1-E-TP
4	NPH-X49	31435	85	LB	6209	7977 *#	6677 *#	4373	5594	4973	6687	Promoted to AVT-1-E-TP
5	Pusa RH-67	31440	89	LS	6097	7745 *#	5636	4700	5934	5314	6234	Promoted to AVT-1-E-TP
6	BS-356	31444	82	LB	6363	8234 *#	6252	3167	6003	5693 *#	6184	Promoted to AVT-1-E-TP
7	KSRH-01	31433	84	LS	6191	7181	7028 *#	4794	5908	5159	6687	Promoted to AVT-1-E-TP
	US 314	NCH	86	LS	5287	6263	5528	4147	5090	4043	5944	
	CO 51	NCV	84	MS	5400	6271	5350	4886	4786	4640	6329	
		ZCV	88	LB	6181	7074	5852	4592	5780	5162	7490	
		LCV	86	SB	5691	7106	4882	4334	6240	4824	5978	
	CD (0.05)				195	504	583	357	368	512	674	
	HC + CD (0.05)				5482	6767	6111	4504	5458	4555	6318	
	BVC + CD (0.05)				6376	7610	6435	5243	6608	5674	7864	

#: Denotes superior to Hybrid Check; *: Denotes superior to Best Varietal Check.

2. Initial Hybrid Rice Trial - Mid Early (IHRT-ME)

Mid Early trial comprising of 27 hybrids and four checks *viz.*, Gontra Bidhan-3 (National varietal check); US 312 (National hybrid check); Zonal checks - PR 113 (Zone II); Lalat (Zone III); Karjat-7 (Zone V&VI); MTU 1010 (Zone VII) and respective local checks were conducted at 36 locations. Among the 27 hybrids evaluated, 20 were from private sector and seven from public sector. The composition of the trial is given in Table 6.

Table 6: Composition of Initial Hybrid Rice Trial - Mid Early (IHRT-ME), Kharif 2023

S. No.	IET No.	Name	Nominating Agency
1	31446	SRH-369	Srikar Biotech. (P) Ltd. Hyderabad
2	31447	JKRH-1179	JK Seeds, Hyderabad
3	31448	HRI-217	Bayer Bioscience, Hyderabad
4	31449	ADVRH-190125	UPL, Hyderabad
5	31450	MEPH-175	MAHYCO, Hyderabad
6	30556	NPH-X4	Nuziveedu Seeds, Hyderabad
7	31451	VNR-235	VNR Seeds, Raipur
8	31452	RRX-3341	Rasi Seeds, Hyderabad
9	30558	NPH-X69	Nuziveedu Seeds, Hyderabad
10	31453	NPH-X97	Nuziveedu Seeds, Hyderabad
11	31454	US-396	Seed Works, Hyderabad
12	31455	TNTRH-127	TNAU, Coimbatore
13	31456	TMRH-5786	Trimurthi, Hyderabad
14	31457	PHI-23108	Pioneer, Hyderabad
15	31458	TMRH-5750	Trimurthi, Hyderabad
16	31459	PHI-23109	Pioneer, Hyderabad
17	31460	BS-330	Yaganti Agrotech, Hyderabad
18	31461	RNC-0992	Syngenta, Hyderabad
19	31462	Sona-405	Sona Genetics, Ahmedabad
20	31463	IIRRH-170	ICAR-IIRR, Hyderabad
21	31464	KJTRH-22039	RARS, Karjat
22	31465	IIRRH-171	ICAR-IIRR, Hyderabad
23	31466	AGRH-01	Alpgiri Seeds, Gujarat
24	31467	IIRRH-172	ICAR-IIRR, Hyderabad
25	31468	JRH-137	JNKVV, Jabalpur
26	31469	AGRH-02	Alpgiri Seeds, Gujarat
27	31470	JRH-138	JNKVV, Jabalpur
28	-	US-312 (NCH)	National Check Hybrid
29	-	Gontra Bidhan-3 (NCV)	National Check Variety
30	-	PR-113/Lalat/ Karjat-7/MTU-1010 (ZCV)	Zonal Check Variety
31	-	Local Check Variety (LCV)	Local Check Variety

North Zone: PR 113; East Zone: Lalat; West Zone: Karjat-7; South Zone: MTU-1010

Performance of the hybrids with respect to grain yield and days to 50% flowering (DFF) are given in Appendix 4&5 respectively. The grain quality characteristics of the test entries are given in Appendix 6.

Performance of promising hybrids identified in different zones is given in Table 7. In the trial, mean DFF of checks ranged from 93-95 days, the hybrid check US 312 had mean DFF of 95 days. The varietal checks *viz.*, national, zonal and local checks had mean DFF of 94, 93 and 95 days respectively.

Table 7: Promising hybrids identified in IHRT-ME, Kharif 2023

S. No	Hybrid	IET No	DFF	Grain Type	Mean Yield (kg/ha)						Remarks
					Over all	Zone II	Zone III	Zone V	Zone VI	Zone VII	
1	RRX-3341	31452	97	LS	7019 *#	8451	6642 *#	6823 *#	6209	7574	Promoted to AVT-1-ME
2	RNC-0992	31461	97	LB	6865 *#	8533	6377 *#	6857 *#	5704	7571	Promoted to AVT-1-ME
3	VNR-235	31451	94	LB	6846 *#	8313	6817 *#	6945 *#	5735	6603	Promoted to AVT-1-ME
4	HRI-217	31448	94	LB	6694 *#	7508	6768 *#	6449	5837	6793	Promoted to AVT-1-ME
5	PHI-23108	31457	94	LS	6627	7229	6735 *#	6054	6194	6785	Dropped low HRR
6	SRH-369	31446	91	LB	6583	7477	6610 *#	6890 *#	6112	6001	Dropped high AC
7	JKRH-1179	31447	97	LB	6589	6847	6620 *#	5858	6205	7370	Promoted to AVT-1-ME
8	ADV-RH 190125	31449	98	LS	6528	7217	6364 *#	6564	6079	6655	Promoted to AVT-1-ME
9	NPH-X4	30556	93	LB	6619	7526	6356 *#	6573	6142	6950	Promoted to AVT-1-ME
10	TMRH-5786	31456	94	LB	6517	7726	6521 *#	6410	5410	6527	Promoted to AVT-1-ME
11	TMRH-5750	31458	95	SB	6315	7185	6292 *#	6034	5325	6787	Dropped high AC
12	PHI-23109	31459	96	LB	6320	7323	6310 *#	5651	6241	6232	Dropped high AC, low HRR
13	BS-330	31460	92	MS	6412	8115	6453 *#	5855	5609	6263	Promoted to AVT-1-ME
14	Sona 405	31462	92	LS	6451	7293	6304 *#	6326	5595	6921	Promoted to AVT-1-ME
15	AGRH-01	31466	94	LB	6508	7330	6491 *#	5773	5653	7364	Promoted to AVT-1-ME
16	AGRH-02	31469	93	LS	6389	7537	6497 *#	6535	5553	5748	Promoted to AVT-1-ME
17	MEPH-175	31450	93	LB	6520	6937	6168	6925 *#	5860	7062	Dropped high AC
18	NPH-X69	30558	95	SB	6409	7689	6227	6764 *#	6232	5772	Promoted to AVT-1-ME
	US 312	NCH	95	MS	6474	7874	5727	6046	6249	7831	
	Gontra Bidhan-3	NCV	94	SB	6150	7807	6045	6328	4832	6022	
		ZCV	93	LS	5266	6947	5220	4595	3885	5750	
		LCV	95	SB	5875	7725	5299	5978	5322	6036	
	CD (0.05)				173	670	226	400	669	429	
	NCH + CD (0.05)				6647	8544	5953	6446	6918	8260	
	BVC + CD (0.05)				6323	8477	6271	6728	5991	6465	

#: Denotes superior to Hybrid Check; *: Denotes superior to Best Varietal Check.

Based on the overall mean, four hybrids *viz.*, RRX 3341, RNC 0992, VNR 235, HRI 217 and based on zonal means, 14 hybrids *viz.,* SPH-369 (Zone III & V); PHI 23108, JKRH 1179, ADV-RH 190125, NPH-X4, TMRH-5786, TMRH-5750, PHI 23109, BS-330, Sona 405, AGRH 01, AGRH 02 (Zone III); MEPH 175, NPH-X69 (Zone V) were found promising. Among these, five hybrids *viz.,* PHI 23108 (low HRR - 48.1); SRH-369 (high AC - 27.98); TMRH-5750 (high AC - 26.72); PHI-23109 (high AC - 26.25, low HRR - 46.3); MEPH-175 (high AC - 27.04), were dropped as they are not meeting the quality trait requirements. Remaining 13 hybrids *viz.,* RRX 3341, RNC 0992, VNR 235, HRI-217, JKRH 1179, ADVRH 190125, NPH-X4, TMRH 5786, BS-330, Sona 405, AGRH-01, AGRH-02, NPH-X69 were promoted to AVT-1-ME.

3. Initial Hybrid Rice Trial - Medium (IHRT-M)

The IHRT-M conducted at 36 locations, with 22 hybrids (public sector - 07; private sector - 15) along with four checks *viz.,* HRI-174 (National hybrid check); NDR-359 (National varietal check); Zonal varietal checks (PR 121 - Zone II; CR Dhan 300 - Zone III&IV); IR-64 - Zone V; Akshayadhan - Zone VI; Jaya - Zone VII) and local checks of their respective locations. AZ 8433DT was included as observational hybrid check in the trial to evaluate its performance in comparison to the existing hybrid check HRI-174. The composition of the trial is given in Table 8.

Table 8: Composition of Initial Hybrid Rice Trial - Medium (IHRT-M), Kharif2023

S. No.	IET No.	Name	Nominating Agency
1	31471	HRI-219	Bayer Bioscience, Hyderabad
2	31472	SPH-47	Super Seeds, Hyderabad
3	31473	PAN-7161	PAN Seeds, Hyderabad
4	31474	VNR-236	VNR Seeds, Raipur
5	31475	PAN-21544	PAN Seeds, Hyderabad
6	31476	RALLIS-22306	Rallis (I) Ltd., Hyderabad
7	31477	RRX-3411	Rasi Seeds, Hyderabad
8	31478	Gazab	Nath Bio-Gene, Aurangabad
9	31479	RRX-3413	Rasi Seeds, Hyderabad
10	31480	HRI-218	Bayer Bioscience, Hyderabad
11	31481	Dhadak Gold	Nath Bio-Gene, Aurangabad
12	31482	TNRH-305	TNAU, Coimbatore
13	31483	Dhadak	Nath Bio-Gene, Aurangabad
14	31484	PHI-23110	Pioneer, Hyderabad
15	31485	IIRRH-173	ICAR-IIRR, Hyderabad
16	31486	PHI-23111	Pioneer, Hyderabad
17	31487	IIRRH-174	ICAR-IIRR, Hyderabad
18	31488	KJTRH-22060	RARS, Karjat
19	31489	CRHR-180	ICAR-NRRI, Cuttack
20	31490	CRHR-181	ICAR-NRRI, Cuttack
21	31491	JRH-139	JNKVV, Jabalpur
22	31492	RNE-0420	Syngenta, Hyderabad
23	-	AZ8433DT (OBCH)	Observational Check Hybrid
24	-	HRI-174 (NCH)	National Check Hybrid
25	-	NDR-359 (NCV)	National Check Variety
26	-	PR-121/CR Dhan-300/ IR-4/ Akshayadhan/Jaya(ZCV)	Zonal Check Variety
27	-	Local Check Variety (LCV)	Local Check Variety

Northern: PR-121; Eastern and North Eastern: CR Dhan-300; Central: IR-64; Western: Akshayadhan; Southern: Jaya

Performance of the hybrids with respect to grain yield and days to 50% flowering (DFF) are given in Appendix 7&8 respectively. The grain quality characteristics of the test entries are given in Appendix 9.

Based on the overall mean, seven hybrids *viz.*, HRI-218, PHI-23110, RRX-3413, PHI-23111, Dhadak Gold, RRX-3411, RNE-0420; based on zonal means, 10 hybrids *viz.*, VNR-236 (Zone II & VI); Dhadak, IIRRH-174 (Zone V); HRI-219, SPH-47, PAN-7161, Rallis-22306, Ghazab, CRHR-180, CRHR-181 (Zone VI) were found promising. Among these, PHI-23111 (49.8); RRX 3411 (50.6); IIRRH-174 (39.9); CRHR-180 (47.9) recorded low HRR; VNR-236 (14.81) recorded low AC, hence dropped from further evaluation. The remaining 12 hybrids *viz.*, HRI-218, PHI-23110, RRX-3413, Dhadak Gold, RNE-0420, Dhadak, HRI-219, SPH-47, PAN 7161, RALLIS-22306, Ghazab, CRHR-181 are promoted to AVT-1-M (Table 9).

Table 9: Promising hybrids identified in IHRT-M, Kharif 2023

S. No	Hybrid	IET No	DFF	Grain Type	Mean Yield (kg/ha)							Remarks
					Over all	Zone II	Zone III	Zone IV	Zone V	Zone VI	Zone VII	
1	HRI-218	31480	105	LB	6985 *#	5725	7300 *#	5753	7590 *#	5981 *#	7731	Promoted to AVT-1-M
2	PHI-23110	31484	97	LB	6999 *#	7447 *#	7241 *#	4923	6537 *#	6453 *#	7576	Promoted to AVT-1-M
3	RRX-3413	31479	101	LB	6705 *#	5593	7048 *#	4393	6987 *#	6184 *#	7334	Promoted to AVT-1-M
4	PHI-23111	31486	98	LB	6687 *#	7154 *#	6565 *#	6677 *#	6337	6429 *#	7126	Dropped low HRR
5	Dhadak Gold	31481	92	LB	6483 *#	6970 *#	6461	4327	7220 *#	6069 *#	6404	Promoted to AVT-1-M
6	RRX-3411	31477	98	LS	6387 *#	6318	6657 *#	4150	6275	5596	7150	Dropped low HRR
7	RNE-0420	31492	99	LB	6388 *#	6013	6465	5787	5859	5811 *#	7450	Promoted to AVT-1-M
8	VNR-236	31474	104	LB	6095	7600 *#	5821	3037	5828	5947 *#	6824	Dropped low AC
9	Dhadak	31483	92	LS	6088	6789	5905	4093	6594 *#	5528	6437	Promoted to AVT-1-M
10	IIRRH-174	31487	96	MS	5797	6483	5319	6569	6619 *#	5655	5563	Dropped low HRR
11	HRI-219	31471	98	LB	6079	6358	5948	3733	5380	5775 *#	7316	Promoted to AVT-1-M
12	SPH-47	31472	97	LB	5951	6235	5910	3837	4972	5868 *#	7032	Promoted to AVT-1-M
13	PAN-7161	31473	96	LS	6301	6069	6471	3277	5657	6035 *#	7353	Promoted to AVT-1-M
14	RALLIS-22306	31476	98	LB	6307	6163	6099	5050	5935	5969 *#	7493	Promoted to AVT-1-M
15	Gazab	31478	95	LS	6277	6027	6118	6543	6038	6032 *#	6980	Promoted to AVT-1-M
16	CRHR-180	31489	109	MS	6238	5318	6423	5860	6017	5784 *#	6870	Dropped low HRR
17	CRHR-181	31490	108	LB	5908	4611	6349	5467	5632	6005 *#	6066	Promoted to AVT-1-M
	HRI-174	NCH	100	LB	6201	5806	6247	4567	6029	5290	7470	
	NDR-359	NCV	98	LB	5769	6295	5854	4723	5130	5157	6562	
		ZCV	103	LS	5253	5353	5181	6060	3993	5334	5992	
		LCV	100	LB	5795	5521	6121	5400	5353	5102	6423	
	CD (0.05)				457	561	311	526	468	440	386	
	HC + CD (0.05)				6358	6367	6558	5093	6497	5730	7856	
	BVC + CD (0.05)				5952	6856	6432	6586	5821	5774	6948	

#: Denotes superior to Hybrid Check; *: Denotes superior to Best Varietal Check.

Table 10: Performance of observational Hybrid check *viz.*, AZ8433DT over the existing national hybrid check HRI-174 in IHRT-M, Kharif 2023

S. No	Hybrid	DFF	Grain Type	Mean Yield (kg/ha)					
				Over all	Zone II	Zone III	Zone V	Zone VI	Zone VII
1.	AZ8433DT (OBHC)	101	MS	6763 *#	7040 *#	6907 *#	6233	5935 *#	7660
2.	HRI-174 (NCH)	100	LB	6201	5806	6247	6029	5290	7470
	CD (0.05)			157	561	311	468	440	386
	NCH + CD (0.05)			6358	6367	6558	6497	5730	7856

An observational hybrid check AZ8433DT was included in the trial to evaluate its performance vis-à-vis the existing national hybrid check HRI 174. It recorded a significant yield advantage over HRI-174, overall mean basis as well as in majority zones (II, III and VI). Based on its superiority over the existing hybrid check, it's proposed to replace the existing check HRI 174 with AZ8433DT as national hybrid check in the trial (Table 10).

4. Initial Hybrid Rice Trial - Medium Slender (IHRT-MS), Kharif 2023

The trial consisting of eight hybrids (four each from public as well as private sector) was conducted at 30 locations. It has four checks *viz.*, national hybrid check (27P63); national varietal checks (BPT 5204 and WGL-14); zonal checks (Improved Samba Mahsuri - Zone III and V; Karjat 6 - Zone VI; Ketekejoha - Zone IV; ADT 49 - Zone VII). The details about the composition of the trial are given in Table 11.

Table 11: Composition of Initial Hybrid Rice Trial - Medium Slender (IHRT-MS), Kharif 2023

S. No.	IET No.	Name	Nominating Agency
1	31493	TNRH-297	TNAU, Coimbatore
2	31494	Shakthi-5455	Shakthi Seeds, Hyderabad
3	31495	PHI-23101	Pioneer, Hyderabad
4	31496	PHI-23102	Pioneer, Hyderabad
5	31497	CRHR-183	ICAR-NRRI, Cuttack
6	31498	PHI-23103	Pioneer, Hyderabad
7	31499	BRRH-11	BAU, Sabour
8	31500	KRH-13	ZARS, Mandya
9	-	27P63 (NCH)	National Check Hybrid
10	-	WGL-14 (NCV-1)	National Check Variety-1
11	-	BPT-5204 (NCV-2)	National Check Variety-2
12	-	Improved Samba Mahsuri/Ketekejoha / Karjat-6/ADT-49 (ZCV)	Zonal Check Variety

Eastern and Central: Improved Samba Mahsuri; North East: Ketekejoha; Western: Karjat-6 and Southern: ADT-49

The location wise mean data of grain yield and DFF are given in Appendix10&11 respectively. The grain quality characteristics of test entries are given in Appendix 12.

Based on overall mean, four hybrids *viz.*, PHI 23103, PHI 23101, Shakthi 5455, PHI 23102 were found promising with required yield advantage over the varietal and hybrid checks (Table 12). All these four hybrids are promoted to AVT-1 MS trial.

Table 12: Promising hybrids identified in IHRT-MS, Kharif 2023

S. No	Hybrid	IET No	DFF	Grain Type	Mean Yield (kg/ha)					Remarks
					Over all	Zone III	Zone V	Zone VI	Zone VII	
1	PHI-23103	31498	104	MS	6722 *#	7434 *#	6508	6267	6899 *#	Promoted to AVT-1-MS
2	PHI-23101	31495	103	MS	6566 *#	7310 *#	6274	6191	6714 *#	Promoted to AVT-1-MS
3	Shakthi-5455	31494	104	MS	6505 *#	7133	6750 *#	6107	5989	Promoted to AVT-1-MS
4	PHI-23102	31496	106	MS	6460 *#	6851	6358	6019	6564 *#	Promoted to AVT-1-MS
	27P63	NCH	102	MS	6217	6767	6241	5913	6008	
	WGL-14	NCV-1	107	MS	5930	6628	6117	5917	5430	
	BPT 5204	NCV-2	102	MS	5523	6197	5488	5199	5114	
		ZCV	106	MS	5201	6119	5254	4624	4896	
	CD (0.05)				199	461	333	504	378	
	NCH + CD (0.05)				6416	7228	6574	6417	6386	
	BVC + CD (0.05)				6129	7089	6450	6421	5808	

#: Denotes superior to Hybrid Check; *: Denotes superior to Best Varietal Check.

Multilocation Evaluation of released hybrids

In order to find out the suitability of already released hybrids to more number of locations *i.e.*, respective states representing different zones of the country, a separate multilocation evaluation trial consisting of 23 hybrids along with nine checks (representing early, mid early and medium duration), was conducted 30 locations. The composition of the trial is given in Table 13.

Table 13: Composition of Multi-Location Evaluation of released hybrids (MLT - Early, Mid-Early and Medium Duration Group) - Kharif 2023

S No.	Name	Nominating Agency
Early Duration Hybrid Group		
1	JKRH-2154	JK Seeds, Hyderabad
2	S-9002	Syngenta, Hyderabad
3	NPH-X1	Nuziveedu Seeds, Hyderabad
4	MRP-5222	MAHYCO, Hyderabad
5	MRP-5433	MAHYCO, Hyderabad
6	VNR-2111 Plus	VNR Seeds, Hyderabad
7	DRRH-4	ICAR-IIRR, Hyderabad
8	US-314	National Hybrid Check
9	CO-51	National Varietal Check
10	LCV	Local Varietal Check

S No.	Name	Nominating Agency
Mid-Early Duration Hybrid Group		
1	US-380	Seed Works, Hyderabad
2	S-4001	Syngenta, Hyderabad
3	MP-3030	Mahindra Agri., Hyderabad
4	MRP-5626	MAHYCO, Hyderabad
5	VNR-2228	VNR Seeds, Hyderabad
6	27P37	Pioneer, Hyderabad
7	KPH-473	Kaveri Seeds, Hyderabad
8	US-312	National Hybrid Check
9	Gontra Bidhan-3	National Varietal Check
10	LCV	Local Varietal Check
Medium Duration Hybrid Group		
1	AZ 8433DT	Bayer Bioscience, Hyderabad
2	MR-8666	Rallis (I) Ltd., Hyderabad
3	SAVA-134	Savannah Seeds, Hyderabad
4	PAC-8744+	Advanta, Hyderabad
5	MRP-5408	MAHYCO, Hyderabad
6	Bio-799	Bio-seeds, Hyderabad
7	28P67	Pioneer, Hyderabad
8	CORH-4	TNAU, Coimbatore
9	ADV-8082	Advanta, Hyderabad
10	HRI-174	National Hybrid Check
11	NDR-359	National Varietal Check
12	LCV	Local Varietal Check

Performance of the hybrids with respect to grain yield and days to 50% flowering (DFF) are given in Appendix 13&14 respectively.

Performance of hybrids in different zones are given in Table 14. In the early duration group, based on overall mean basis, all the seven hybrids *viz.*, S-9002, MRP-5222, JKRH-2154, MRP-5433, VNR-2111 Plus, NPH-X1 and DRRH 4 have recorded their yield superiority over the checks.

In the mid early duration group, based on overall mean basis, only one hybrid 27P37 and on zonal mean basis two hybrids *viz.*, VNR 2228 (Zone III & VI) and S 4001 (Zone III) were found promising.

In the medium duration group, none of the tested hybrids were found promising. However, based on zonal means four hybrids *viz.*, 28P67 (Zone II, V); AZ 8433DT (Zone V); ADV 8082, PAC 8744+ (Zone II) were found to perform better the check genotypes.

Table 14: Promising hybrids identified in Hybrid Multilocation Trial, Kharif 2023

S. No	Hybrid	DFF	Mean Yield (kg/ha)					
			Over all	Zone II	Zone III	Zone V	Zone VI	Zone VII
Early duration hybrids								
1	S-9002		6597 *#	8343 *#	5361 *#	5990 *#	6251 *#	8521 *#
2	MRP-5222		6410 *#	6061	6648 *#	6105 *#	5858 *#	7026 *#
3	JKRH-2154		6241 *#	6733	5724 *#	5710 *#	6349 *#	7171 *#
4	MRP-5433		6058 *#	7452	5512 *#	5964 *#	5374 *#	6912 *#
5	VNR-2111 Plus		6026 *#	8724	5989 *#	5864 *#	4590	6222
6	NPH-X1		6019 *#	8829 *#	5412 *#	5519	5360 *#	6633 *#
7	DRRH 4		5921 *#	8483 *#	5394 *#	5418	5630 *#	6185
	US-314 (NHC)		4338	7373	3818	3265	4371	4617
	CO-51 (NVC)		4936	7267	4381	4488	3933	6005
	Local Check		5179	6828	4490	5240	4834	5639
	CD (0.05)		160	730	469	445	436	439
	NCH + CD (0.05)		4498	8103	4287	3710	4807	5056
	NVC + CD (0.05)		5339	7997	4959	5685	5270	6444
Mid Early duration hybrids								
1.	27P37		6767 *#	7737	6589 *#	6222	5987	7307
2.	S-4001		6559	7735	6552 *#	6438	5595	6201
3.	VNR 2228		6403	7172	6232 *#	5685	6442 *#	6251
	US-312 (NHC)		5775	6660	5493	5428	5839	5663
	Gontra Bidhan-3 (NVC)		6291	8144	5457	5938	5623	6725
	Local Check		5316	7354	4591	4573	4662	6161
	CD (0.05)		270	449	460	581	453	690
	NCH + CD (0.05)		6045	7109	5953	6009	6292	6353
	BCV + CD (0.05)		6561	8593	5917	6519	6076	7415
Medium duration hybrids								
1.	AZ 8433DT		6700	7956	6454	6313 *#	5768	7584
2.	28P67		6872	8894 *#	6637	6464 *#	5566	7524
3.	ADV 8082		6064	8840 *#	5544	5742	5335	6003
4.	PAC 8744+		6436	8354 *#	5944	6264	5157	7281
	HRI-174 (NHC)		6779	7620	6657	5844	6131	8133
	NDR-359 (NVC)		6213	7469	6085	5881	5563	6524
	Local Check		5707	7368	5037	5555	4390	7007
	CD (0.05)		191	585	431	422	535	630
	NCH + CD (0.05)		6970	8205	7088	6266	6666	8763
	NVC + CD (0.05)		6404	8054	6516	6303	6098	7637

#: Denotes superior to Hybrid Check; *: Denotes superior to Best Varietal Check.

Appendix- 1: Grain Yield (kg/ha) of hybrids in IHRT-Early, Kharif 2023

S No.	IET No.	Name	Z1	Z2					Z3 contd..			
			HP-Z1	DL-Z2	UK-Z2	HR-Z2	PB-Z2	UP-Z2		UP-Z3	JH-Z3		
			MLN	IAR	@PNT	KUL	LDN	NGN	Z2 (4)	@MSD	RCI	BAY	JH-Z3 (2)
1	31432	JATAYU	4561	7392	2555	4367	5950(8)	4222	5483	5841(8)	4330	5395	4863
2	31433	KSRH-01	6592	9357(6)	4693(5)	8700(7)	5296	5369	7181(8)	5549(10)	5938(3)	6643(4)	6290(3)
3	31434	MEPH-174	8747(7)	11188(1)	4631(7)	10200(1)	6375(3)	8628(3)	9098(1)	6767(1)	6295(2)	5383	5839(4)
4	31435	NPH-X49	7654 (9)	10615(2)	4969(2)	8767(6)	6218(5)	6308(8)	7977(4)	6258(6)	5134(6)	5081	5107
5	31436	VNR-234	11153(1)	10278(3)	4459(8)	9033(4)	7741(1)	8786(2)	8959(2)	4631	5491(4)	8075(1)	6783(1)
6	31437	SHX-5977	9435(3)	9058(7)	5051(1)	9533(2)	4165	8815(1)	7893(5)	5507	6473(1)	6271(7)	6372(2)
7	31438	Pusa RH-66	7841(8)	8982(8)	4796(4)	9400(3)	4165	6583(7)	7282(7)	6383(4)	3393	4895	4144
8	31439	CP. R-2019	9091(4)	7685	3566	8467(9)	5712(9)	3438	6325	6300(5)	3616	5763	4690
9	31440	Pusa RH-67	7310(10)	9575(5)	4961(3)	8933(5)	5597(10)	6875(5)	7745(6)	5757(9)	3839	6169(8)	5004
10	31441	TNTRH-131	8841(5)	3553	1893	4367	3560	3417	3724	5215	5089(7)	5939(9)	5514(8)
11	31442	Pusa RH-68	6467	8807(9)	3987(9)	8200	4786	4293	6522	6466(2)	5312(5)	4904	5108
12	31443	NRH-343	5530	7707	3729	7633	5975(7)	6813(6)	7032	4714	5000(9)	6499(5)	5749(6)
13	31444	BS-356	9653(2)	10098(4)	4652(6)	8700(7)	6358(4)	7781(4)	8234(3)	5215	4911	6651(3)	5781(5)
14	31445	KJTRH-22005	7091	7026	2707	6400	5309	5382	6029	6433(3)	4955	6464(6)	5710(7)
15	US-314 (NCH)		7091	7533	3079	6533	5115	5870(10)	6263	5457	5000(10)	5699	5349(10)
16	CO-51 (NCV)		6748	8493	3432	6933	4300	5357	6271	5882(7)	5089(8)	5801	5445(9)
17	PR-124/Luit/NDR-97/ Sahbhagidhan/ MTU-1153 (ZCV)		8810(6)	8655(10)	3872(10)	7700	6202(6)	5741	7074(10)	5173	3170	6901(2)	5036
18	Local Check Variety (LCV)		5249	6297	2639	8333(10)	7601(2)	6195(9)	7106(9)	3984	3080	5839(10)	4460
Exp. Mean			7659	8461	3871	7900	5579	6104	7011	5641	4784	6021	5402
CD (0.05)			1190	1424	839	866	662	557	504	370	840	882	655
CV (%)			9.42	10.2	13.14	6.64	7.19	5.53	4.35	3.97	10.64	8.88	7.34
F value			16.76	13.01	11.13	29.06	23.91	74.31	52.93	32.79	11.99	6.63	8.9
NHC+CD (0.05)			8281	8957	3918	7399	5777	6427	6767	5827	5840	6581	6004
BVC+CD (0.05)			10000	10079	4711	9199	8263	6752	7610	6252	5929	7783	6100
D/S			05.06.23	06.06.23	06.06.23	09.06.23	03.06.23	28.06.23		23.06.23	30.06.23	05.07.23	
D/P			28.06.23	07.07.23	05.07.23	10.07.23	03.07.23	25.07.23		28.07.23	01.08.23	23.07.23	
Gross Plot Size (Sq. m)			5.33	10	10.13	10	8.1	10		10	10.08	10	
Net Plot Size (Sq. m)			5.33	10	10.13	10	8.1	7.99		7.99	10.08	10	
Zonal Check Variety			PR-124	PR-124	PR-124	PR-124	PR-124	PR-124		NDR 97	NDR 97	NDR 97	
Local Check Variety			HPR 2143	IR 64	Govind	HKR-49	PR 126	NDR 97		NDR 97	BVD-110	MTU 1010	

@Data of PNT(Pantnagar) not included in the analysis due to low Experimental Mean and data of MSD(Masodha) not included in the analysis due to low C.V.

Appendix- 1(contd.): Grain Yield (kg/ha) of hybrids in IHRT-Early, Kharif 2023

S No.	IET No.	Name	Z3			Z4			Z5 contd..				
			OD-Z3	WB-Z3		AS-Z4	TR-Z4		CG-Z5			MH-Z5 contd..	
			CTK	CHN	Z3 (4)	TTB	ARD	Z4 (2)	RPR	VNS	CG-Z5 (2)	SKL	SND
1	31432	JATAYU	4942	5478	5036	3123	5179(5)	4151	3978	3869	3924	4600	5450(7)
2	31433	KSRH-01	6401(2)	9130(2)	7028(1)	6060(2)	3527(10)	4794(3)	5078(4)	5810(10)	5444(6)	7767(4)	5676(6)
3	31434	MEPH-174	5592(5)	7949(7)	6304(4)	6310(1)	5431(4)	5870(1)	5311(1)	7327(1)	6319(1)	7300(8)	7609(1)
4	31435	NPH-X49	7113(1)	9381(1)	6677(2)	4373(9)		4373	4539(10)	4962	4750	7600(5)	4777
5	31436	VNR-234	5136(9)	7841(9)	6636(3)	4470(6)		4470(10)	5227(2)	7002(3)	6115(2)	7067(9)	6276(3)
6	31437	SHX-5977	4915	7053	6178(6)	3383	5899(1)	4641(6)	5141(3)	5550	5346(9)	7967(3)	5882(5)
7	31438	Pusa RH-66	5375(6)	7877(8)	5385	4437(8)		4437	4891(5)	5950(8)	5420(7)	8267(1)	4791
8	31439	CP. R-2019	4894	6087	5090	4717(3)		4717(4)	4868(6)	6274(6)	5571(4)	6600	6248(4)
9	31440	Pusa RH-67	5660(4)	6874	5636	4700(4)		4700(5)	4462	6121(7)	5292(10)	8267(1)	4337
10	31441	TNTRH-131	4725	4977	5182	4523(5)		4523(8)	3806	3617	3711	4133	4864
11	31442	Pusa RH-68	4662	8056(5)	5734(10)	3760		3760	4345	5234	4790	7333(7)	4814
12	31443	NRH-343	4984	8092(4)	6144(8)	4463(7)	4525(9)	4494(9)	3869	4944	4406	6167	5441(9)
13	31444	BS-356	6178(3)	7268(10)	6252(5)	3167		3167	4824(7)	4938	4881	7500(6)	5442(8)
14	31445	KJTRH-22005	5102(10)	8128(3)	6162(7)	4243(10)	4559(8)	4401	3963	5944(9)	4954	6400	4524
15	US-314 (NCH)		5364(7)	6051	5528	3417	4877(6)	4147	4121	6598(4)	5360(8)	4300	3719
16	CO-51 (NCV)		4783	5729	5350	3973	5799(2)	4886(2)	4588(9)	3461	4024	5533	4744
17	PR-124/Luit/NDR-97/ Sahbhagidhan/MTU-1153 (ZCV)		5315(8)	8020(6)	5852(9)	3507	5677(3)	4592(7)	3935	7229(2)	5582(3)	6800	4906(10)
18	Local Check Variety (LCV)		4917	5693	4882	4087	4581(7)	4334	4631(8)	6504(5)	5568(5)	6833(10)	7461(2)
Exp. Mean			5336	7205	5836	4262	5005	4470	4532	5630	5081	6691	5387
CD (0.05)			1117	1510	583	397	491	357	370	1431	800	1280	755
CV (%)			12.68	12.7	6.05	5.64	5.71	4.84	4.95	15.4	9.55	11.59	8.49
F value			2.78	5.9	9.33	39.5	20	18.26	14.93	5.48	6.6	8.37	14.94
NHC+CD (0.05)			6481	7561	6111	3814	5368	4504	4491	8029	6160	5580	4474
BVC+CD (0.05)			6432	9530	6435	4484	6290	5243	5001	8660	6382	8113	8216
D/S			30.05.23	23.06.23		23.06.23	30.06.23		23.06.23	11.06.23		29.06.23	16.06.23
D/P			06.07.23	31.07.23		20.07.23	17.07.23		30.07.23	06.07.23		19.07.23	13.07.23
Gross Plot Size (Sq. m)			8.28	9.31		10	11.5		12.96	6.5		10	10
Net Plot Size (Sq. m)			6.4	9.31		10	11.5		9.66	6.5		10	7.99
Zonal Check Variety			NDR 97	NDR 97		Luit	Luit		Sahbhagidhan	Sahbhagidhan		Sahbhagidhan	Sahbhagidhan
Local Check Variety			Annada	Ajit		Lachit			NarendraBarani	MTU 1010		PDKV Sadhana	PDKV Sadhana

Appendix- 1(contd.): Grain Yield (kg/ha) of hybrids in IHRT-Early, Kharif 2023

S No.	IET No.	Name	Z5						Z6 contd..					
			MH-Z5		MP-Z5				GJ-Z6				MH-Z6contd..	
			ANKN	MH-Z5 (3)	JBP	WRS	MP-Z5 (2)	Z5 (7)	NVS	NWG	DBI	GJ-Z6 (3)	KJT	RDN
1	31432	JATAYU	4576	4875	7810(5)	5439(4)	6624(3)	5103	3329	4762	6496(3)	4268	3658	4964(8)
2	31433	KSRH-01	5453(6)	6299(5)	5930	5642(2)	5786	5908(6)	4845(5)	5774(6)	4559	5045(3)	3920	5054(7)
3	31434	MEPH-174	5224	6711(2)	6967(8)	4931	5949(10)	6381(2)	5590(1)	5238(8)	7230(1)	6017(1)	6484(3)	6845(1)
4	31435	NPH-X49	5387(7)	5921(10)	6957(9)	4939(10)	5948	5594	4165(9)	5968(4)	4780(9)	4878(7)	3100	3979
5	31436	VNR-234	6174(2)	6505(3)	8237(2)	5045(9)	6641(2)	6432(1)	4989(3)	7334(1)	4564	5392(2)	7413(2)	5381(4)
6	31437	SHX-5977	5315(10)	6388(4)	6073	5382(6)	5728	5901(8)	4546(8)	4548	4196	4602	4963(9)	6392(2)
7	31438	Pusa RH-66	5345(9)	6134(8)	6400	5667(1)	6033(8)	5902(7)	4724(6)	4936(10)	4618	4843(8)	5801(5)	4652
8	31439	CP. R-2019	4535	5794	6213	4850	5532	5655(10)	3995	5873(5)	6682(2)	4936(5)	7453(1)	3839
9	31440	Pusa RH-67	6290(1)	6298(6)	6877	5183(8)	6030(9)	5934(5)	4985(4)	4850	4706(10)	4770(9)	5407(6)	4220
10	31441	TNTRH-131	5228	4742	5367	2915	4141	4276	2822	3532	4412	3214	4000	4828(9)
11	31442	Pusa RH-68	5682(5)	5943(9)	5837	4846	5341	5442	4126(10)	3413	5318(5)	4320	5311(8)	4462
12	31443	NRH-343	4661	5423	8383(1)	4602	6492(4)	5438	5173(2)	4674	4162	4969(4)	2900	5253(6)
13	31444	BS-356	5778(4)	6240(7)	7903(4)	5634(3)	6769(1)	6003(4)	4716(7)	6190(3)	4216	4896(6)	4085	6332(3)
14	31445	KJTRH-22005	4810	5245	7097(7)	3671	5384	5201	3371	4389	5147(7)	3974	3875	4211
15	US-314 (NCH)		4516	4178	8183(3)	4191	6187(6)	5090	3175	3770	6176(4)	3904	3316	4333
16	CO-51 (NCV)		5363(8)	5213	5253	4557	4905	4786	3628	5492(7)	4069	4183	4222(10)	5367(5)
17	PR-124/Luit/NDR97/ Sahbhagidhan/MTU-1153 (ZCV)		5002	5569	7300(6)	5289(7)	6294(5)	5780(9)	3933	4952(9)	5294(6)	4405	6370(4)	4795(10)
18	Local Check Variety (LCV)		5880(3)	6725(1)	6947(10)	5427(5)	6187(7)	6240(3)	3504	6802(2)	5147(7)	4699(10)	5362(7)	3950
Exp. Mean			5290	5789	6874	4900	5887	5615	4201	5139	5098	4629	4869	4936
CD (0.05)			653	607	524	567	368	368	902	1557	1242	1015	1047	842
CV(%)			7.49	6.35	4.62	7.01	3.79	3.97	13.01	14.36	11.54	13.28	13.03	10.34
F Value			5.58	11.51	28.33	13.31	26.17	19.3	6.22	4.17	5.21	3.05	14.99	8.84
NHC+CD (0.05)			5169	4785	8707	4758	6555	5458	4077	5327	7418	4919	4363	5175
BVC+CD (0.05)			6533	7332	7824	5994	6662	6608	4835	8359	6536	5714	7417	6209
D/S			25.06.23		15.06.23	23.06.23			20.06.23	16.06.23	09.06.23		15.06.23	15.06.23
D/P			27.07.23		20.07.23	14.07.23			26.07.23	21.07.23	25.07.23		07.07.23	18.07.23
Gross Plot Size (Sq. m)			9.24		10	10			9.7	8.1	12.96		8.1	8.1
Net Plot Size (Sq. m)			7.6		7.99	8.2			7.4	6.3	10.2		5.85	6.3
Zonal Check Variety			Sahbhagidhan		Sahbhagidhan	Sahbhagidhan			Sahbhagidhan	Sahbhagidhan	Sahbhagidhan		Sahbhagidhan	Sahbhagidhan
Local Check Variety			MTU 1010		MTU1010	JR 206			GR 17 (Sardar)	Mahisagar	Gurjari		KJT-7	PhuleRadha

Appendix- 1(contd.): Grain Yield (kg/ha) of hybrids in IHRT-Early, Kharif 2023

S No.	IET No.	Name	Z6			Z7								Overall Mean (29)
			MH-Z6			AP-Z7	KA-Z7	TG-Z7			TN-Z7			
			VDG	MH-Z6 (3)	Z6 (6)	MTU	MND	IIRR	WGL	TG-Z7 (2)	@CBT	ADT	Z7 (5)	
1	31432	JATAYU	6567(10)	5063	4836	3813	7096	5372(10)	4119	4745	5453	5567	5193	5036
2	31433	KSRH-01	6912(7)	5295(10)	5159(9)	5568(9)	10284(6)	7596(1)	3186	5391(6)	5710	6800(6)	6687(5)	6191(6)
3	31434	MEPH-174	6787(8)	6705(2)	6408(1)	6667(4)	9663(10)	5051	5655(7)	5353(7)	6572(5)	6267	6660(7)	6851(2)
4	31435	NPH-X49	8023(2)	5034	4973	6843(3)	9479	6137(3)	4009	5073(8)	6798(2)	6967(3)	6687(5)	6209(5)
5	31436	VNR-234	7738(3)	6844(1)	6270(2)	5779(7)	10314(5)	5862(4)	9664(1)	7763(1)	6651(4)	7300(1)	7784(2)	7151(1)
6	31437	SHX-5977	7217(5)	6191(3)	5523(4)	6894(1)	10812(3)	6516(2)	8316(2)	7416(2)	6311(6)	6633(8)	7834(1)	6516(3)
7	31438	Pusa RH-66	7047(6)	5833(5)	5399(5)	5972(6)	10797(4)	5612(6)	5992(6)	5802(4)	5978(7)	6900(4)	7055(4)	6153(8)
8	31439	CP. R-2019	4800	5364(9)	5328(6)	5135	7954	5428(9)	3671	4550	5374	6633(8)	5764	5720(10)
9	31440	Pusa RH-67	7462(4)	5697(6)	5314(7)	4512	10912(2)	5470(8)	3925	4697	6724(3)	6350	6234(10)	6097(9)
10	31441	TNTRH-131	5285	4705	4166	3872	7762	3059	4338	3698	5776(10)	5900	4986	4614
11	31442	Pusa RH-68	6687(9)	5486(8)	4994(10)	4844	9701(9)	5694(5)	3980	4837	7064(1)	7133(2)	6270(9)	5677
12	31443	NRH-343	4835	4329	4518	4586	9739(8)	5345	4482	4913	5405	6167	6064	5635
13	31444	BS-356	8108(1)	6175(4)	5693(3)	4789	11199(1)	2722	6077(5)	4400	4909	6133	6184	6363(4)
14	31445	KJTRH-22005	5130	4405	4284	4827	8008	4491	4515(10)	4503	4701	6733(7)	5715	5388
15	US-314 (NCH)		4459	4036	4043	5269(10)	8284	4708	5359(8)	5034(10)	5827(9)	6100	5944	5287
16	CO-51 (NCV)		5235	4942	4640	5623(8)	9333	5132	4954(9)	5043(9)	5473	6600(10)	6329(8)	5400
17	PR-124/Luit/ NDR-97/ Sahbhagidhan/MTU-1153 (ZCV)		5556	5574(7)	5162(8)	6856(2)	9962(7)	5564(7)	8187(3)	6875(3)	5711	6883(5)	7490(3)	6181(7)
18	Local Check Variety (LCV)		4965	4759	4824	6279(5)	6793	4584	6298(4)	5441(5)	5953(8)	5933	5978	5691
Exp. Mean			6267	5358	5085	5451	9338	5241	5374	5308	5911	6500	6381	5898
CD (0.05)			750	552	512	1049	695	1342	854	719	353	698	374	195
CV (%)			7.25	6.25	6.11	11.66	4.51	15.51	9.64	8.2	3.62	6.51	3.56	2
F Value			21.83	16.79	13.13	7.3	31.53	5.7	36.03	17.78	28.77	3.74	36.79	87.33
NHC+CD (0.05)			5209	4588	4555	6318	8979	6050	6213	5753	6180	6798	6318	5482
BVC+CD (0.05)			6306	6126	5674	7905	10657	6906	9041	7594	6306	7581	7864	6376
D/S			30.06.23			15.07.23	03.08.23	21.06.23	30.06.23		07.06.23	02.07.23		
D/P			27.07.23			11.08.23	20.08.23	29.07.23	03.08.23		27.06.23	31.07.23		
Gross Plot Size (Sq. m)			12.9			10.5	9.9	6.72	7.9		9.72	10		
Net Plot Size (Sq. m)			9.99			7.92	8.7	5.19	7.9		7	10		
Zonal Check Variety			Sahbhagidhan			MTU-1153	MTU-1153	MTU-1153	MTU-1153		MTU-1153	MTU-1153		
Local Check Variety			PhuleRadha			MTU 1156	Raksha	Rasi	WGL 962		Co 55			

@Data of CBT (Coimbatore) not included in the analysis due to low C.V.

Appendix-2: Days to 50% Flowering (DFF) of hybrids in IHRT-Early, Kharif 2023

			Z1	Z2						Z3						Z4		
			HP-Z1	DL-Z2	UK-Z2	HR-Z2	PB-Z2	UP-Z2		UP-Z3	JH-Z3			OD-Z3	WB-Z3		AS-Z4	TR-Z4	
S No.	IET No.	Name	MLN	IAR	@PNT	KUL	LDN	NGN	Z2 (4)	@MSD	RCI	BAY	JH-Z3 (2)	CTK	CHN	Z3 (4)	TTB	ARD	Z4 (2)
1	31432	JATAYU	85	85	84	76	83	72	79	89	82	77	80	79	84	81	103	97	100
2	31433	KSRH-01	87	72	85	77	83	78	77	84	90	75	82	82	92	85	101	89	95
3	31434	MEPH-174	94	93	91	87	95	86	90	87	90	80	85	86	91	87	112	92	102
4	31435	NPH-X49	87	72	86	77	83	78	78	73	90	79	85	81	91	85	99		99
5	31436	VNR-234	98	86	88	87	85	86	86	84	93	76	85	88	99	89	100		100
6	31437	SHX-5977	93	89	85	80	82	77	82	74	91	85	88	83	91	87	97	87	92
7	31438	Pusa RH-66	99	85	92	88	88	85	87	91	98	79	89	80	97	89	103		103
8	31439	CP. R-2019	102	83	92	89	95	88	89	86	102	76	89	89	91	89	109		109
9	31440	Pusa RH-67	101	82	92	86	84	85	84	81	95	76	86	84	92	87	104		104
10	31441	TNTRH-131	101	87	98	92	96	91	92	82	95	75	85	95	102	92	127		127
11	31442	Pusa RH-68	99	83	90	83	88	83	84	76	92	77	84	86	92	87	109		109
12	31443	NRH-343	89	84	87	78	84	80	81	69	85	84	85	88	91	87	96	89	93
13	31444	BS-356	88	71	87	76	81	80	77	73	86	85	86	89	85	86	96		96
14	31445	KJTRH-22005	98	80	93	87	93	85	87	78	92	83	87	83	97	89	101	93	97
15	US-314 (NCH)		89	78	88	83	85	81	82	77	91	82	87	87	91	88	100	93	96
16	CO-51 (NCV)		85	76	84	78	81	79	78	70	90	72	81	85	92	85	100	93	97
17	PR-124/Luit/ NDR-97/ Sahbhagidhan/MTU-1153 (ZCV)		105	85	99	94	98	72	87	67	85	84	85	78	86	83	98	93	95
18	Local Check Variety (LCV)		86	72	82	88	86	89	84	76	77	81	79	86	90	83	79	91	85
Exp. Mean			94	81	89	84	87	82	84	79	90	79	85	85	92	87	102	92	100

Appendix-2(contd.): Days to 50% Flowering (DFF) of hybrids in IHRT-Early, Kharif 2023

S No.	IET No.	Name	Z5										Z6 contd..			
			CG-Z5			MH-Z5				MP-Z5				GJ-Z6			
			RPR	VNS	CG-Z5 (2)	SKL	SND	ANKN	MH-Z5 (3)	JBP	WRS	MP-Z5 (2)	Z5 (7)	NVS	NWG	DBI	GJ-Z6 (3)
1	31432	JATAYU	77	76	77	71	80	77	76	87	73	80	77	76	86	78	78
2	31433	KSRH-01	85	79	82	77	85	88	83	94	77	86	84	82	87	80	82
3	31434	MEPH-174	89	82	86	79	91	90	87	100	79	89	87	86	87	96	89
4	31435	NPH-X49	89	78	84	81	90	93	88	102	80	91	88	82	85	71	80
5	31436	VNR-234	91	80	86	82	95	93	90	103	83	93	90	85	87	78	84
6	31437	SHX-5977	87	78	83	81	89	89	86	98	80	89	86	83	85	77	82
7	31438	Pusa RH-66	92	80	86	83	93	92	89	100	86	93	89	88	83	94	88
8	31439	CP. R-2019	83	83	83	87	96	95	93	101	83	92	90	87	88	96	89
9	31440	Pusa RH-67	93	81	87	81	93	94	90	101	85	93	90	86	88	92	88
10	31441	TNTRH-131	97	85	91	83	97	101	94	109	83	96	94	92	101	103	96
11	31442	Pusa RH-68	89	80	85	81	93	92	89	95	82	89	88	85	86	94	87
12	31443	NRH-343	84	78	81	75	88	88	84	95	77	86	84	80	86	79	81
13	31444	BS-356	81	76	78	74	86	84	81	95	77	86	82	78	85	78	79
14	31445	KJTRH-22005	89	83	86	77	90	92	86	97	81	89	87	87	88	102	90
15	US-314 (NCH)		86	78	82	80	88	92	87	98	83	91	86	81	87	97	86
16	CO-51 (NCV)		87	78	82	76	91	92	86	101	78	90	86	80	82	80	81
17	PR-124/Luit/ NDR-97/ Sahbhagidhan /MTU-1153 (ZCV)		86	84	85	79	92	91	87	99	83	91	88	87	82	96	88
18	Local Check Variety (LCV)		91	83	87	81	95	91	89	96	83	90	89	87	87	93	88
Exp. Mean			88	80	84	79	91	91	87	98	81	90	87	84	86	88	85

Appendix-2(contd.): Days to 50% Flowering (DFF) of hybrids in IHRT-Early, Kharif 2023

S No.	IET No.	Name	Z6					Z7								Overall Mean (29)
			MH-Z6					AP-Z7	KA-Z7	TG-Z7			TN-Z7			
			KJT	RDN	VDG	MH-Z6 (3)	Z6 (6)	MTU	MND	IIRR	WGL	TG-Z7 (2)	@CBT	ADT	Z7 (5)	
1	31432	JATAYU	73	81	78	77	78	75	71	80	78	79	72	90	79	80
2	31433	KSRH-01	77	91	85	84	84	74	80	89	88	89	80	91	85	84
3	31434	MEPH-174	78	94	84	85	87	73	76	84	91	88	83	93	83	88
4	31435	NPH-X49	78	87	88	85	82	75	83	92	89	90	82	95	87	85
5	31436	VNR-234	81	92	92	88	86	77	86	95	92	94	88	95	89	89
6	31437	SHX-5977	79	90	88	86	84	75	83	92	87	89	83	93	86	86
7	31438	Pusa RH-66	81	94	93	89	89	78	84	92	92	92	86	95	88	89
8	31439	CP. R-2019	79	94	94	89	89	84	88	98	94	96	87	99	93	91
9	31440	Pusa RH-67	78	94	94	89	88	78	85	95	94	94	85	89	88	89
10	31441	TNTRH-131	80	96	91	89	92	85	86	96	99	98	88	93	92	94
11	31442	Pusa RH-68	80	92	90	87	87	77	85	90	93	91	85	93	87	88
12	31443	NRH-343	76	91	86	85	83	73	80	86	88	87	81	84	82	84
13	31444	BS-356	76	82	83	80	80	74	79	78	79	79	76	89	80	82
14	31445	KJTRH-22005	81	94	87	87	89	79	80	87	92	90	84	90	86	88
15	US-314 (NCH)		78	92	87	86	86	78	78	86	88	87	82	88	84	86
16	CO-51 (NCV)		81	90	86	86	83	74	77	87	89	88	81	87	83	84
17	PR-124/Luit/NDR-97/ Sahbhagidhan/ MTU-1153 (ZCV)		82	85	85	84	86	80	80	98	94	96	86	94	89	88
18	Local Check Variety (LCV)		79	95	90	88	88	90	73	84	101	92	82	64	82	86
Exp. Mean			79	91	88	86	86	78	81	89	90	90	83	90	86	87

Appendix-3: Quality characteristics of IHRT-Early Kharif 2023

S. No.	IET No.	Name	Hull	Mill	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
1	31432	JATAYU	79.9	71.1	66.2	6.81	2.20	3.09	LS	VOC	4.8	22.44	22
2	31433	KSRH-01	79.5	70.3	67.5	7.10	2.17	3.27	LS	VOC	7.0	26.34	22
3	31434	MEPH-174	79.4	70.5	66.8	6.56	2.12	3.09	LS	VOC	5.5	26.48	22
4	31435	NPH-X49	80.0	73.3	69.1	6.23	2.39	2.60	LB	VOC	5.0	26.22	22
5	31436	VNR-234	81.2	73.5	71.9	6.34	2.22	2.85	LB	VOC	7.0	26.42	24
6	31437	SHX-5977	80.0	71.0	66.9	7.03	1.92	3.56	LS	A	4.0	24.69	22
7	31438	Pusa RH-66	79.0	72.4	70.6	8.19	2.10	3.90	LS	A	3.0	17.65	50
8	31439	CP. R-2019	81.2	72.3	69.6	7.28	2.02	3.60	LS	VOC	6.5	18.42	35
9	31440	Pusa RH-67	78.7	68.9	66.9	7.00	2.05	3.41	LS	VOC	3.0	20.24	30
10	31441	TNTRH-131	77.7	70.1	69.4	6.22	2.17	2.86	LB	VOC	4.0	25.81	22
11	31442	Pusa RH-68	80.3	72.2	70.1	7.81	2.02	3.86	LS	A	4.1	21.91	22
12	31443	NRH-343	80.4	72.4	67.4	7.25	2.04	3.55	LS	VOC	7.0	22.05	22
13	31444	BS-356	78.8	69.4	64.7	6.55	2.21	2.96	LB	VOC	4.0	25.13	24
14	31445	KJTRH-22005	79.7	70.0	67.0	6.27	2.06	3.04	LS	VOC	7.0	24.52	22
15	US-314 (NCH)		78.7	71.4	69.2	6.51	2.10	3.10	LS	VOC	5.0	21.56	55
16	CO-51 (NCV)		77.8	70.3	69.6	5.56	1.92	2.89	MS	A	4.0	26.31	61
17	MTU-1153 (ZCV)		79.2	71.6	70.0	6.57	2.20	2.98	LB	VOC	4.3	22.14	46
18	Rasi (LCV)		77.9	70.0	64.3	5.30	2.32	2.88	SB	A	7.0	26.78	26

Hull: Hulling %; Mill: Milling %; HRR: Head rice recovery; KL: Kernel length; KB: Kernel breadth; L/B: L/B ratio; ASV: Alkali spreading value; AC: Amylose content; GC: Gel consistency

Appendix- 4: Grain Yield (kg/ha) of hybrids in IHRT-Mid Early, Kharif 2023

S No.	IET No.	Name	Z2						Z3 contd..				
			DL-Z2	HR-Z2	PB-Z2	UP-Z2	UK-Z2		BR-Z3				
			ICAR-IARI	KUL	LDN	NGN	@PNT	Z2 (4)	BKG	RSIH_E_MFP	SBR	SGA	BR-Z3 (4)
1	31446	SRH-369	8783	7700	7893	5532(9)	4203(6)	7477	5639	6555	5577(8)	7288	6205
2	31447	JKRH-1179	8693	7900	7169	3626	3622	6847	5959(7)	7260	5000	6750	6141
3	31448	HRI-217	9508	9233(6)	7782	3509	4114(9)	7508	6618(5)	7684(4)	5201	7267	6574(4)
4	31449	ADVRH-190125	9392	9000(10)	7152	3325	3857	7217	5616	6460	5384	6516	5922
5	31450	MEPH-175	7455	8367	8342(8)	3584	3995	6937	4216	7772(3)	5135	6966	5828
6	30556	NPH-X4	10556(1)	9367(3)	6189	3992	3926	7526	4217	6212	5600(7)	7780(1)	5921
7	31451	VNR-235	9550(10)	8433	7992(10)	7276(4)	4136(7)	8313(3)	5417	6403	5863(4)	7429(6)	6256(10)
8	31452	RRX-3341	10524(2)	8333	8527(4)	6420(6)	3684	8451(2)	6790(2)	8216(1)	6115(1)	6050	6630(3)
9	30558	NPH-X69	9678(8)	8300	5477	7301(3)	4741(4)	7689(10)	5548	7261(10)	6077(2)	7383(8)	6512(5)
10	31453	NPH-X97	10217(3)	8200	4876	3513	3874	6701	5447	7557(6)	5242	7377(10)	6305(9)
11	31454	US-396	9339	9600(2)	8444(6)	3325	3910	7677	6892(1)	6149	5087	7370	6417(7)
12	31455	TNTRH-127	3984	7500	3111	3621	1624	4554	2597	3340	1708	6895	3661
13	31456	TMRH-5786	9164	9133(7)	8934(1)	3671	4121(8)	7726(8)	3943	7528(7)	5381	7678(3)	5978
14	31457	PHI-23108	9180	9033(9)	7449	3254	4226(5)	7229	6736(4)	7260	5608(6)	7348	6673(1)
15	31458	TMRH-5750	9482	8333	7243	3684	3667	7185	5641(10)	7068	5415(10)	7125	6240
16	31459	PHI-23109	9799(7)	8633	7218	3642	5395(1)	7323	6782(3)	7491(8)	5804(5)	7026	6669(2)
17	31460	BS-330	9581(9)	9333(4)	6737	6808(5)	5387(2)	8115(4)	5733(8)	6316	5435(9)	7364	6181
18	31461	RNC-0992	10164(4)	9300(5)	8510(5)	6158(7)	4943(3)	8533(1)	5978(6)	8035(2)	5079	7246	6455(6)
19	31462	Sona-405	8608	8467	8395(7)	3700	4009(10)	7293	4983	6208	5892(3)	7383(9)	6140
20	31463	IIRRH-170	3312	6000		3196	248	4169	2232	3560	1542	6338	3376
21	31464	KJTRH-22039	8212	7700	6704	3358	3299	6493	5139	5579	4169	6250	5286
22	31465	IIRRH-171	8783	7400	5230	5565(8)	2744	6745	5704(9)	6786	4424	7412(7)	5991
23	31466	AGRH-01	10153(5)	8767	6905	3496	3871	7330	5539	7622(5)	5004	7727(2)	6355(8)
24	31467	IIRRH-172	9439	7867	6008	7835(1)	3854	7787(7)	2877	5438	4792	7291	5064
25	31468	JRH-137	9386	8467	6107	3992	3854	6988	4587	5682	4896	7436(5)	5645
26	31469	AGRH-02	9069	8700	8774(2)	3604	3807	7537	4819	7378(9)	5035	6388	5753
27	31470	JRH-138	7254	8433	5510	4447	3083	6411	3265	5346	5346	6828	5187
28	US-312 (NCH)		8048	9100(8)	6518	7831(2)	3850	7874(5)	4604	6452	5161	6871	5708
29	Gontra Bidhan-3 (NCV)		9942(6)	9633(1)	8013(9)	3642	3684	7807(6)	4090	6000	5154	7587(4)	5679
30	PR-113/Lalat/ Karjat-7/MTU-1010 (ZCV)		6757	8700	7292	5040(10)	2532	6947	4899	5012	4115	6790	5247
31	Local Check Variety (LCV)		8418	8900	8572(3)	5011	2537	7725(9)	4217		4477	6247	4980
Exp. Mean			8788	8511	7102	4612	3703	7230	5056	6521	4991	7078	5838
CD (0.05)			2104	880	574	619	963	670	532	1037	574	857	386
CV (%)			14.66	6.33	4.95	8.21	15.93	5.68	6.45	6.46	7.04	7.42	4.05
F Value			4.91	6.01	44.79	48.33	8.7	15.48	43.03	15.94	25.51	2.43	32.88
NHC+CD (0.05)			10152	9980	7092	8450	4813	8544	5136	7489	5735	7728	6094
BVC+CD (0.05)			12046	10513	9146	5659	4647	8477	5431	7037	5728	8444	6065
D/S			06.06.23	06.06.23	02.06.23	28.06.23			21.06.23	15.06.23	07.07.23	30.06.23	
D/P			07.07.23	08.07.23	02.07.23	24.07.23			24.07.23	09.07.23	07.08.23	24.07.23	
Gross plot size (Sq.m)			10	10	8.1	10			10.08	10.35	10.4	10	
Net plot size (Sq.m)			10	10	8.1	7.99			9.1	9.5	10.4	10	
Zonal Check Variety			PR 113	PR 113	PR 113	PR 113			Lalat	Lalat	Lalat	Lalat	
Local Check Variety			Pusa 44	HKR-47	PR 130	PR 126			S.Harshit		SabourHarshit	Super moti	

@Data of PNT(Pantnagar) not included in the analysis due to low Exp. Mean

Appendix- 4(contd.): Grain Yield (kg/ha) of hybrids in IHRT-Mid Early, Kharif 2023

S No.	IET No.	Name	Z3 contd...										
			JH-Z3				OD-Z3			UP-Z3			
			RCI	TRMHR	BAY	JH-Z3 (3)	CHP	CTK	OD-Z3 (2)	NUZ	TRMHB	MSD	UP-Z3 (3)
1	31446	SRH-369	5205(6)	6647(9)	8877(1)	6910(2)	5669	4467	5068	8548(6)	6104(10)	7188(2)	7280(4)
2	31447	JKRH-1179	6673(1)	6116	7781	6857(3)	6128	6425(9)	6277	7362	5910	5799	6357
3	31448	HRI-217	6340(2)	6616(10)	7380	6779(4)	7265(3)	6122	6693(6)	7896	6091	6341	6776
4	31449	ADVRH-190125	3937	6335	8147(8)	6140	6471(10)	7468(1)	6970(2)	6949	6129(9)	4797	5958
5	31450	MEPH-175	5806(5)	6335	6241	6127	6017	5219	5618	7555	5792	6758(8)	6702
6	30556	NPH-X4	3937	7218(5)	7186	6114	6302	6575(7)	6438(8)	8522(7)	6675(5)	6550	7249(6)
7	31451	VNR-235		8067(2)	7427	7747(1)	6573(7)	3471	5022	9074(1)	7739(4)	6508	7774(1)
8	31452	RRX-3341	5005(7)	6522	6478	6002	7337(1)	6285	6811(5)	7438	5998	7259(1)	6898(9)
9	30558	NPH-X69	3470	6210	6118	5266	6365	6318(10)	6342	8342(8)	5686	6696(9)	6908(8)
10	31453	NPH-X97	4605(9)	5586	6898	5696	6414	5369	5892	8678(3)	5398	6562	6879(10)
11	31454	US-396	3937	6085	6082	5368	5949	4603	5276	6654	5542	6091	6096
12	31455	TNTRH-127	3871	5211	7491	5524	2167	3344	2755	6647	4687	6925(5)	6086
13	31456	TMRH-5786	3337	7664(4)	6773	5925	6089	6535(8)	6312	8032(9)	7758(3)	6909(6)	7566(3)
14	31457	PHI-23108	6073(4)	6741(8)	6754	6523(5)	7308(2)	6655(6)	6982(1)	7902	6198(8)	6258	6786
15	31458	TMRH-5750	3203	6054	6015	5091	6481(9)	7294(3)	6888(3)	8572(5)	5530	6971(4)	7024(7)
16	31459	PHI-23109	3537	6928(6)	5342	5269	5736	7094(5)	6415(9)	7169	6403(6)	5590	6387
17	31460	BS-330	3737	8326(1)	6226	6096	6254	4453	5354	7599	8386(1)	7167(3)	7717(2)
18	31461	RNC-0992	3270	6866(7)	8710(4)	6282(9)	6675(6)	4473	5574	8650(4)	6322(7)	5424	6799
19	31462	Sona-405	3937	6460	7785(10)	6061	7110(4)	4786	5948	7562	5935	6800(7)	6766
20	31463	IIRRH-170	3403	2507	8458(6)	4789	1978	3741	2859	4828	2504	6633(10)	4655
21	31464	KJTRH-22039	4605(9)	5429	6420	5485	7032(5)	5742	6387(10)	7914(10)	5224	6091	6410
22	31465	IIRRH-171	4489	5929	8739(3)	6386(7)	6143	4330	5236	6740	5405	6258	6134
23	31466	AGRH-01	4424	5929	8501(5)	6285(8)	6510(8)	7135(4)	6822(4)	7861	5386	5548	6265
24	31467	IIRRH-172	4359	5367	8159(7)	5962	5886	4044	4965	6823	5180	6550	6184
25	31468	JRH-137	4945(8)	5586	8763(2)	6431(6)	5944	5329	5637	5430	5398	6550	5793
26	31469	AGRH-02	4424	7789(3)	6571	6262(10)	5775	7424(2)	6600(7)	8735(2)	7799(2)	5298	7277(5)
27	31470	JRH-138	6311(3)	5648	6754	6238	5499	5046	5273	6238	5442	6466	6049
28	US-312 (NCH)		3337	5836	6741	5304	5847	4370	5109	7093	5648	6425	6388
29	Gontra Bidhan-3 (NCV)		4271	6179	6652	5700	6428	5992	6210	7693	5636	6425	6584
30	PR-113/Lalat/ Karjat-7/MTU-1010 (ZCV)		3203	4587	8000(9)	5263	5320	3591	4456	5893	4736	5549	5393
31	Local Check Variety (LCV)		3804	4992	7155	5317	5741	4993	5367	6751	5142	4994	5629
Exp. Mean			4382	6186	7246	5974	6013	5442	5728	7456	5864	6303	6541
CD (0.05)			802	675	1015	475	1086	1358	774	1330	706	543	510
CV (%)			11.21	6.68	8.58	4.87	11.06	15.28	8.27	10.92	7.37	5.27	4.78
F value			12.74	21.58	7.32	14.31	9.38	6.9	14.61	4.65	18.96	11.29	14.48
NHC+CD (0.05)			4139	6511	7756	5779	6933	5728	5883	8423	6354	6968	6898
BVC+CD (0.05)			5073	6854	9015	6175	7514	7350	6984	9023	6342	6968	7094
D/S			30.06.23	19.06.23	05.07.23		07.07.23	30.05.23		15.06.23	11.06.23	24.06.23	
D/P			17.08.23	11.07.23	24.07.23		11.08.23	07.07.23		13.07.23	07.07.23	29.07.23	
Gross plot size (Sq.m)			9.99	12.6	10		8.96	8.28		12.6	12.6	10	
Net plot size (Sq.m)			9.99	10.8	10		6.89	6.4		9.9	10.8	7.99	
Zonal Check Variety			Lalat	Lalat	Lalat		Lalat	Lalat		Lalat	Lalat	Lalat	
Local Check Variety			BVD-203	Lalat	Lalat		MTU 1156	Naveen		IRBB 60	Rani Kajal	IR 64 Sub 1	

Appendix- 4(contd.): Grain Yield (kg/ha) of hybrids in IHRT-Mid Early, Kharif 2023

S No.	IET No.	Name	Z3		Z4	Z5 contd...							
			WB-Z3		AS-Z4	CG-Z5				MH-Z5	MP-Z5		
			CHN	Z3 (13)	@TTB	RPR	VNS	@RSIH_CR	CG-Z5 (2)	SND	WRS	JBP	MP-Z5 (2)
1	31446	SRH-369	8193(3)	6610(6)	5830	6179(4)	7982(8)	8960(8)	7080(4)	6411(9)	6563(2)	7313(7)	6938(2)
2	31447	JKRH-1179	9069(1)	6620(5)	5117	5528(8)	7281	8478	6404	5624	4988	5867	5427
3	31448	HRI-217	7563(6)	6768(2)	6930(3)	6385(2)	6391	8832(10)	6388	5953	5016	8500(1)	6758(4)
4	31449	ADVRH-190125	8543(2)	6364	6333(9)	5364	7390	8786	6377	7423(4)	5335	7310(8)	6322
5	31450	MEPH-175	6933	6168	6563(8)	5370	8550(3)	9108(5)	6960(6)	7399(5)	6208(6)	7097(10)	6652(6)
6	30556	NPH-X4	5847	6356	5897	6109(5)	8248(6)	8242	7179(2)	6088(10)	5418	7003	6210
7	31451	VNR-235	7668(4)	6817(1)	5687	5816(7)	8866(1)	8521	7341(1)	7691(2)	5472(10)	6880	6176
8	31452	RRX-3341	7423(9)	6642(4)	6710(6)	6556(1)	6951	9782(1)	6753(9)	8479(1)	5484(9)	6643	6064
9	30558	NPH-X69	5847	6227	4250	6001(6)	7641	9242(4)	6821(8)	7230(6)	6050(7)	6897	6474(9)
10	31453	NPH-X97	6583	6253	5523	4988	6612	9025(6)	5800	5648	5145	7467(5)	6306
11	31454	US-396	7353	5983	6567(7)	5158	7729(10)	7948	6444	4064	5393	7203(9)	6298
12	31455	TNTRH-127	4412	4593	4507	3160	5933	3414	4546	3116	3143	2940	3042
13	31456	TMRH-5786	7458(8)	6521(7)	6183(10)	5472	7563	7759	6518	5373	5645(8)	7997(3)	6821(3)
14	31457	PHI-23108	6933	6735(3)	5740	5119	7817(9)	8930(9)	6468	5077	5397	6860	6128
15	31458	TMRH-5750	6723	6292	4570	5477(10)	8459(5)	8619	6968(5)	5961	4487	5787	5137
16	31459	PHI-23109	7528(7)	6310	5587	5195	7570	8610	6383	4318	4781	6393	5587
17	31460	BS-330	6898	6453(10)	4580	5395	8522(4)	9248(3)	6958(7)	4172	4793	6393	5593
18	31461	RNC-0992	6723	6377	7073(1)	5524(9)	8677(2)	9259(2)	7100(3)	7531(3)	5165	7390(6)	6278
19	31462	Sona-405	7038	6304	4843	6184(3)	7308	8817	6746(10)	5131	6290(4)	6717	6504(8)
20	31463	IIRRH-170	4552	4035	4243	1840	4413	3802	3127	2522	1464	1800	1632
21	31464	KJTRH-22039	6793	5890	6947(2)	5007	5447	7616	5227	5802	4603	7723(4)	6163
22	31465	IIRRH-171	7388(10)	6111	4963	5124	6747	7911	5935	5285	4318	5633	4976
23	31466	AGRH-01	7598(5)	6491(9)	5943	4999	6611	8714	5805	4964	5372	6920	6146
24	31467	IIRRH-172	5567	5570	6863(4)	5257	8003(7)	7485	6630	3118	5380	6980	6180
25	31468	JRH-137	6408	5929	5887	5244	7173	8104	6208	5948	4152	6660	5406
26	31469	AGRH-02	7353	6497(8)	6790(5)	5403	7485	7164	6444	5847	6952(1)	6987	6969(1)
27	31470	JRH-138	5742	5697	5617	4882	5531	8582	5206	6479(8)	5240	7063	6152
28	US-312 (NCH)		6337	5727	5857	4911	7294	7632	6102	5134	6233(5)	6660	6446(10)
29	Gontra Bidhan-3 (NCV)		6513	6045	4743	5289	6082	8961(7)	5686	6922(7)	6505(3)	6840	6673(5)
30	PR-113/Lalat/ Karjat-7/MTU-1010 (ZCV)		6127	5220	5263	4020	5682	5005	4851	4065	3486	5723	4605
31	Local Check Variety (LCV)		5077	5299	4160	4422	6974		5698	5406	4917	8170(2)	6544(7)
Exp. Mean			6780	6094	5670	5206	7191	8085	6199	5619	5142	6639	5891
CD (0.05)			1177	226	353	510	1595	549	887	808	659	782	449
CV (%)			10.63	2.27	3.82	6	13.59	2.76	8.77	8.8	7.85	7.21	4.67
F value			6.47	61.63	51.48	25.93	3.58	91.04	8.14	24.94	21.76	23.02	49.87
NHC+CD (0.05)			7514	5953	6210	5421	8889	8181	6989	5942	6892	7442	6895
BVC+CD (0.05)			7690	6271	5096	5799	8569	9510	6585	7730	7164	8952	7122
D/S			22.06.23			29.06.23	11.06.23			16.06.23	30.06.23	15.06.23	
D/P			20.07.23			29.07.23	06.07.23			14.07.23	19.07.23	20.07.23	
Gross plot size (Sq.m)			9.52			12.6				10	10	10	
Net plot size (Sq.m)			9.52			9.6	5.4			7.99	8.06	7.99	
Zonal Check Variety			Lalat			Karjat-7	Karjat-7			Karjat-7	Karjat-7	Karjat-7	
Local Check Variety			Khitish			Durgeswari	MTU 1010			PKV Ganesh	JR 206	JR 206	

@Data of TTB(Titabar) and RSIH_CR (Rasi Seeds India Hyderabad_ Central Raipur) not included in the analysis due to low C.V

Appendix- 4(contd.): Grain Yield (kg/ha) of hybrids in IHRT-Mid Early, Kharif 2023

S No.	IET No.	Name	Z5	Z6								Z7 Contd..	
				GJ-Z6				MH-Z6				AP-Z7	KA-Z7
			Z5 (5)	NVS	NWG	DBI	GJ-Z6 (3)	KJT	RDN	MH-Z6 (2)	Z6 (5)	MTU	MND
1	31446	SRH-369	6890(3)	5351(6)	7619(1)	5637	5983(3)	6568	5780(9)	6174(9)	6112(8)	5139	10529(8)
2	31447	JKRH-1179	5858	4097	6373(10)	7378(10)	5337	7897(1)	5761(10)	6829(1)	6205(5)	5968	9678
3	31448	HRI-217	6449(10)	4999(10)	5866	7402(8)	5698	6758(9)	4779	5769	5837	6982(4)	11034(4)
4	31449	ADVRH-190125	6564(8)	4814	6444(9)	7966(1)	5784(10)	5889	6436(2)	6163(10)	6079(9)	6540(8)	10280
5	31450	MEPH-175	6925(2)	4479	6500(8)	6446	5266	6584(10)	6127(6)	6356(7)	5860(10)	6582(7)	10069
6	30556	NPH-X4	6573(7)	6194(2)	6238	7892(2)	6750(1)	5515	5447	5481	6142(7)	5278	10950(5)
7	31451	VNR-235	6945(1)	4588	7159(3)	6740	5619	6241	5089	5665	5735	5791	11161(2)
8	31452	RRX-3341	6823(5)	4613	6675(6)	7868(3)	5859(4)	7637(2)	5176	6407(6)	6209(4)	6667(6)	10084
9	30558	NPH-X69	6764(6)	4594	6238	7500(6)	5817(7)	6931(5)	6304(4)	6618(4)	6232(3)	5517	8920
10	31453	NPH-X97	5972	4918	6103	7402(8)	5852(5)	5351	5179	5265	5606	7159(3)	9226
11	31454	US-396	5910	5122(8)	6873(5)	7378	5819(6)	5244	5556	5400	5751	5749	9824
12	31455	TNTRH-127	3658	2906	1826	3824	2913	5214	4312	4763	3842	3266	6943
13	31456	TMRH-5786	6410	5031(9)	6527(7)	7304	5790(8)	5442	4152	4797	5410	5753	10061
14	31457	PHI-23108	6054	6286(1)	4920	7280	6195(2)	6488	6016(8)	6252(8)	6194(6)	6818(5)	9195
15	31458	TMRH-5750	6034	4814	4127	6152	5055	6516	4942	5729	5325	6010	8740
16	31459	PHI-23109	5651	5878(3)	4619	7480(7)	5789(9)	6888(7)	6449(1)	6668(3)	6241(2)	6107	10743(6)
17	31460	BS-330	5855	5702(4)	6119	4068	5407	5365	6212(5)	5788	5609	5938	10333(10)
18	31461	RNC-0992	6857(4)	3897	6992(4)	7206	5336	6930(6)	4713	5821	5704	7226(2)	9644
19	31462	Sona-405	6326	5389(5)	5722	5392	5588	5903	5342	5622	5595	6149	10732(7)
20	31463	IIRRH-170	2408	544	631	6676	1940	4192	2430	3311	2705	4874	3035
21	31464	KJTRH-22039	5716	3745	6044	6814	5021	5893	4767	5330	5195	6355(10)	9471
22	31465	IIRRH-171	5421	4066	5016	6520	4873	6816(8)	6121(7)	6468(5)	5743	6033	10100
23	31466	AGRH-01	5773	5206(7)	5404	6250	5680	5776	5637	5706	5653	6138	11149(3)
24	31467	IIRRH-172	5748	4132	5569	6299	4843	5063	5321	5192	5083	5661	9693
25	31468	JRH-137	5835	4779	5488	6662	5397	5717	4906	5312	5367	7285(1)	8314
26	31469	AGRH-02	6535(9)	4909	5317	6372	5320	7028(4)	4469	5748	5553	3838	10310
27	31470	JRH-138	5839	4293	5158	6324	4975	4796	4899	4848	4966	6296	10406(9)
28	US-312 (NCH)		6046	4602	5794	7622(5)	5535	7291(3)	6314(3)	6803(2)	6249(1)	6410(9)	11372(1)
29	Gontra Bidhan-3 (NCV)		6328	4662	4920	4804	4752	5803	4213	5008	4832	5105	9207
30	PR-113/Lalat/ Karjat-7/MTU-1010 (ZCV)		4595	3680	3190	4044	3428	4382	4172	4277	3885	5273	7448
31	Local Check Variety (LCV)		5978	4194	7460(2)	7696(4)	5666	5446	3832	4639	5322	6229	7272
Exp. Mean			5959	4596	5578	6593	5267	6050	5189	5620	5492	5940	9546
CD (0.05)			400	1156	1771	1457	1048	960	892	677	669	1038	920
CV (%)			4.11	15.41	15.55	10.8	12.19	9.72	10.52	7.38	7.46	10.7	5.9
F Value			45.27	6.61	6.09	5.2	6.63	7.29	8.34	11.06	11.34	5.97	25.79
NHC+CD (0.05)			6446	5758	7565	9079	6583	8251	7206	7480	6918	7448	12292
BVC+CD (0.05)			6728	5818	9231	9153	6714	6763	5105	5685	5991	7267	10127
D/S				20.06.23	16.06.23	09.06.23		15.06.23	16.06.23			15.07.23	01.08.23
D/P				20.07.23	21.07.23	22.07.23		08.07.23	13.07.23			11.08.23	21.08.23
Gross plot size (Sq.m)				9.7	8.1	12.96		8.03	6.98			10.5	9.9
Net plot size (Sq.m)				7.4	6.3	10.2		5.74	4.86			7.92	8.7
Zonal Check Variety				Karjat-7	Karjat-7	Karjat-7		Karjat-7	Karjat-7			MTU-1010	MTU-1010
Local Check Variety				GNR-3	Mahisagar	GAR 13		Karjat-5	PhuleRadha			MTU 1121	IR-64

Appendix- 4(contd.): Grain Yield (kg/ha) of hybrids in IHRT-Mid Early, Kharif 2023

S No.	IET No.	Name	Z7							Overall Mean (33)
			TG-Z7			TN-Z7				
			IIRR	WGL	TG-Z7 (2)	ADT	CBT	TN-Z7 (2)	Z7 (6)	
1	31446	SRH-369	4207	5870	5038	3948	6312	5130	6001	6583(8)
2	31447	JKRH-1179	6785(1)	6944	6864(4)		7477(10)	7477(4)	7370(4)	6589(7)
3	31448	HRI-217	4988	7847(4)	6418(9)	4271	5637	4954	6793	6694(4)
4	31449	ADVRH-190125	4678	7102(10)	5890	4870(7)	6461	5665	6655	6528(9)
5	31450	MEPH-175	5917(8)	9313(2)	7615(2)	4779(10)	5712	5245	7062(7)	6520(10)
6	30556	NPH-X4	6482(2)	6675	6579(6)	4531	7781(9)	6156	6950(9)	6619(6)
7	31451	VNR-235	3984	7323(8)	5654	4505	6853	5679	6603	6846(3)
8	31452	RRX-3341	5009	9268(3)	7138(3)	6041(1)	8373(5)	7207(5)	7574(2)	7019(1)
9	30558	NPH-X69	4427	5585	5006	4167	6014	5090	5772	6409
10	31453	NPH-X97	5507	6799	6153	4167	4300	4233	6193	6173
11	31454	US-396	6104(5)	6010	6057		5993	5993	6736	6295
12	31455	TNTRH-127	3337	3102	3219		5995	5995	4528	4310
13	31456	TMRH-5786	6085(6)	4376	5230	4349	8536(2)	6443(10)	6527	6517
14	31457	PHI-23108	4651	7331(7)	5991		5930	5930	6785	6627(5)
15	31458	TMRH-5750	4655	7779(6)	6217		6750	6750(6)	6787	6315
16	31459	PHI-23109	3417	6256	4836	4557	6312	5435	6232	6320
17	31460	BS-330	4948	6233	5591	4740	5383	5062	6263	6412
18	31461	RNC-0992	5753(10)	9629(1)	7691(1)	6016(2)	7158	6587(7)	7571(3)	6865(2)
19	31462	Sona-405	6437(3)	6824	6631(5)	4922(5)	6461	5691	6921(10)	6451
20	31463	IIRRH-170	3787	2932	3359	4193	5367	4780	4031	3606
21	31464	KJTRH-22039	5303	7819(5)	6561(7)	4258	7797(8)	6028	6834	6032
22	31465	IIRRH-171	5576	7038	6307(10)	4987(4)	8029(6)	6508(8)	6961(8)	6190
23	31466	AGRH-01	6279(4)	5330	5804		7926(7)	7926(3)	7364(5)	6508
24	31467	IIRRH-172	4781	7119(9)	5950		8677(1)	8677(1)	7186(6)	6091
25	31468	JRH-137	4258	5583	4920	4823(8)	6363	5593	6104	6013
26	31469	AGRH-02	3483		3483	4896(6)	6213	5554	5748	6389
27	31470	JRH-138	5681	5776	5728	4479	8431(3)	6455(9)	6845	5929
28	US-312 (NCH)		6014(7)	6943	6478(8)		8418(4)	8418(2)	7831(1)	**6474**
29	Gontra Bidhan-3 (NCV)		5503	6489	5996	4167	5662	4914	6022	**6150**
30	PR-113/Lalat/ Karjat-7/MTU-1010 (ZCV)		4916	5338	5127	5547(3)	5977	5762	5750	5266
31	Local Check Variety (LCV)		5870(9)	6269	6070	4818(9)	5756	5287	6036	5875
Exp. Mean			5123	6563	5794	4697	6711	6020	6517	6213
CD (0.05)			1325	954	810	563	583	439	429	**173**
CV (%)			15.84	8.9	8.56	7.34	5.32	4.46	4.03	1.7
F Value			4.19	20.62	14.26	7.8	30.78	46.34	29.3	129.88
NHC+CD (0.05)			7339	7897	7288		9001	8857	8260	6647
BVC+CD (0.05)			7195	7443	6880	6110	6560	6201	6465	6323
D/S			19.06.23	22.06.23		02.07.23	01.06.23			
D/P			29.07.23	15.07.23		31.07.23	22.06.23			
Gross plot size (Sq.m)			6.72	8.82		10	10			
Net plot size (Sq.m)			5.19	8.82		10	7.36			
Zonal Check Variety			MTU-1010	MTU-1010		MTU-1010	MTU-1010			
Local Check Variety			Varadhan	RNR 15048		ADT 58	TKM 13			

Appendix- 5: Days to 50% Flowering (DFF) of hybrids in IHRT-Mid Early, Kharif 2023

S No.	IET No.	Name	Z2						Z3 contd..						
			DL-Z2	HR-Z2	PB-Z2	UP-Z2	UK-Z2		BR-Z3					JH-Z3	
			IAR	KUL	LDN	NGN	@PNT	Z2 (4)	BKG	RSIH_E_ MFP	SBR	SGA	BR-Z3 (4)	RCI	TRMHR
1	31446	SRH-369	89	95	88	87	90	90	94	83	97	93	93	107	85
2	31447	JKRH-1179	95	97	100	95	97	97	103	89	103	94	98	119	103
3	31448	HRI-217	90	94	93	89	94	92	105	83	99	95	97	115	92
4	31449	ADVRH-190125	101	102	104	99	102	101	106	91	102	101	101	115	104
5	31450	MEPH-175	99	96	103	91	96	97	100	87	100	95	96	111	83
6	30556	NPH-X4	94	94	97	90	89	94	99	83	102	97	97	113	92
7	31451	VNR-235	91	94	94	88	90	92	101	83	98	105	98	119	94
8	31452	RRX-3341	101	97	100	94	99	98	101	87	105	104	101	111	99
9	30558	NPH-X69	93	93	95	89	91	93	101	83	101	97	97	121	94
10	31453	NPH-X97	91	94	100	91	95	94	105	103	102	102	103	109	109
11	31454	US-396	96	94	92	89	92	93	100	84	97	95	95	108	89
12	31455	TNTRH-127	95	99	97	90	94	95	105	88	101	107	101	117	93
13	31456	TMRH-5786	92	95	95	89	92	93	101	84	101	92	96	110	92
14	31457	PHI-23108	98	99	104	91	97	98	104	88	99	95	98	108	94
15	31458	TMRH-5750	93	99	97	90	95	95	105	87	102	96	99	108	100
16	31459	PHI-23109	104	100	103	91	97	100	101	89	103	102	100	112	95
17	31460	BS-330	97	94	88	89	91	92	100	86	95	93	94	109	92
18	31461	RNC-0992	94	97	97	95	95	96	105	87	103	94	98	113	104
19	31462	Sona-405	95	93	91	88	92	92	101	82	99	95	95	108	89
20	31463	IIRRH-170	98	93		105	124	99	111	110	102	109	108	111	108
21	31464	KJTRH-22039	98	99	106	99	100	101	105	92	102	107	103	118	105
22	31465	IIRRH-171	95	101	108	94	103	99	108	96	104	110	105	114	89
23	31466	AGRH-01	98	98	96	88	94	95	106	85	99	95	98	109	94
24	31467	IIRRH-172	97	96	104	88	96	96	101	86	101	95	97	111	85
25	31468	JRH-137	100	95	92	89	96	94	105	86	102	96	99	108	80
26	31469	AGRH-02	90	95	95	88	93	92	97	83	98	104	97	108	94
27	31470	JRH-138	91	93	91	89	87	91	101	81	99	100	97	105	86
28	US-312 (NCH)		100	97	97	93	95	97	101	88	101	95	97	114	92
29	Gontra Bidhan-3 (NCV)		91	94	91	86	93	91	101	82	98	97	96	116	91
30	PR-113/Lalat/ Karjat-7/MTU-1010 (ZCV)		96	103	107	94	103	100	106	91	101	95	99	115	92
31	Local Check Variety (LCV)		101	100	100	85	86	97	97		105	92	98	106	95
Exp. Mean			95	96	97	91	96	95	103	88	101	99	99	112	94

Appendix- 5(contd.): Days to 50% Flowering (DFF) of hybrids in IHRT-Mid Early, Kharif 2023

S No.	IET No.	Name	Z3											Z4
					OD-Z3			UP-Z3				WB-Z3		AS-Z4
			BAY	JH-Z3 (3)	CHP	CTK	OD-Z3 (2)	NUZ	TRMHB	MSD	UP-Z3 (3)	CHN	Z3 (13)	@TTB
1	31446	SRH-369	88	93	94	94	94	94	87	98	93	95	93	109
2	31447	JKRH-1179	89	104	100	92	96	96	105	97	99	99	99	112
3	31448	HRI-217	85	97	97	94	96	100	94	99	97	93	97	113
4	31449	ADVRH-190125	84	101	99	96	98	102	106	98	102	99	101	116
5	31450	MEPH-175	84	93	97	96	97	96	85	93	91	96	94	120
6	30556	NPH-X4	88	97	98	96	97	96	94	93	94	96	96	108
7	31451	VNR-235	90	101	96	93	95	98	96	91	95	93	97	111
8	31452	RRX-3341	91	100	100	95	98	101	101	96	99	98	99	118
9	30558	NPH-X69	90	102	96	92	94	97	96	91	95	96	97	111
10	31453	NPH-X97	88	102	96	93	95	97	111	90	99	93	100	110
11	31454	US-396	86	94	93	85	89	93	91	93	92	94	93	113
12	31455	TNTRH-127	88	99	97	91	94	100	95	98	98	98	99	124
13	31456	TMRH-5786	85	96	94	95	95	100	94	93	96	95	95	114
14	31457	PHI-23108	86	96	95	96	96	97	96	96	97	96	97	113
15	31458	TMRH-5750	84	97	102	90	96	99	102	92	98	97	98	120
16	31459	PHI-23109	89	98	96	94	95	97	97	95	96	96	98	114
17	31460	BS-330	87	96	94	95	95	94	94	95	94	94	95	115
18	31461	RNC-0992	90	102	100	92	96	101	106	89	99	99	99	114
19	31462	Sona-405	82	93	96	95	96	93	91	95	93	96	94	113
20	31463	IIRRH-170	88	102	96	103	99	100	110	107	106	104	104	118
21	31464	KJTRH-22039	88	104	102	96	99	101	107	99	102	103	102	114
22	31465	IIRRH-171	90	98	99	96	98	97	91	101	96	98	100	125
23	31466	AGRH-01	87	97	94	90	92	99	96	95	97	92	96	114
24	31467	IIRRH-172	91	96	95	95	95	94	87	95	92	96	95	117
25	31468	JRH-137	88	92	95	89	92	97	82	97	92	97	94	115
26	31469	AGRH-02	87	96	91	93	92	99	96	97	97	93	96	110
27	31470	JRH-138	87	93	93	98	95	97	88	92	93	93	94	111
28	US-312 (NCH)		86	97	97	93	95	97	94	92	94	95	96	117
29	Gontra Bidhan-3 (NCV)		89	99	96	94	95	101	93	93	96	94	96	107
30	PR-113/Lalat/ Karjat-7/MTU-1010 (ZCV)		91	99	99	101	100	99	94	98	97	99	99	114
31	Local Check Variety (LCV)		89	97	96	95	95	96	94	92	94	94	96	87
Exp. Mean			87	98	96	94	95	98	96	95	96	96	97	115

Appendix- 5(contd.): Days to 50% Flowering (DFF) of hybrids in IHRT-Mid Early, Kharif 2023

S No.	IET No.	Name	Z5									Z6 contd..			
			CG-Z5				MH-Z5	MP-Z5				GJ-Z6			
			RPR	VNS	@RSIH_CR	CG-Z5 (2)	SND	WRS	JBP	MP-Z5 (2)	Z5 (5)	NVS	NWG	DBI	GJ-Z6 (3)
1	31446	SRH-369	89	83	90	86	93	87	99	93	90	86	99	94	90
2	31447	JKRH-1179	96	90	99	93	102	86	102	94	95	97	90	105	97
3	31448	HRI-217	92	83	91	88	96	87	100	94	92	90	94	102	94
4	31449	ADVRH-190125	95	91	102	93	103	86	105	96	96	98	90	109	98
5	31450	MEPH-175	90	86	96	88	102	87	94	91	92	93	94	107	96
6	30556	NPH-X4	93	85	95	89	95	89	102	95	93	93	87	102	93
7	31451	VNR-235	93	85	94	89	95	88	99	93	92	93	89	100	93
8	31452	RRX-3341	94	88	99	91	100	87	102	95	94	96	92	103	96
9	30558	NPH-X69	92	86	95	89	97	89	105	97	94	93	88	102	93
10	31453	NPH-X97	94	83	94	89	97	88	104	96	93	93	87	96	92
11	31454	US-396	89	84	90	87	95	87	100	93	91	90	88	93	90
12	31455	TNTRH-127	94	88	99	91	98	88	107	97	95	92	102	112	99
13	31456	TMRH-5786	95	83	92	89	97	87	106	96	94	92	90	101	93
14	31457	PHI-23108	92	87	96	90	93	88	102	95	92	92	90	101	94
15	31458	TMRH-5750	93	88	98	90	97	87	101	94	93	93	94	101	95
16	31459	PHI-23109	93	89	98	91	98	88	103	96	94	96	98	105	98
17	31460	BS-330	91	83	92	87	96	88	101	95	92	88	88	102	91
18	31461	RNC-0992	97	87	98	92	102	89	101	95	95	96	94	95	95
19	31462	Sona-405	90	83	90	86	96	88	97	92	91	89	87	95	90
20	31463	IIRRH-170	95	105	106	100	105	88	112	100	101	105	107		106
21	31464	KJTRH-22039	97	92	101	95	100	87	111	99	98	99	99	106	100
22	31465	IIRRH-171	95	91	103	93	98	88	111	100	97	96	100	99	97
23	31466	AGRH-01	91	84	93	88	94	87	101	94	92	92	86	103	93
24	31467	IIRRH-172	90	84	96	87	97	88	99	94	92	99	95	100	98
25	31468	JRH-137	92	86	95	89	94	85	106	95	92	92	94	100	94
26	31469	AGRH-02	92	82	89	87	95	89	100	95	92	88	85	103	91
27	31470	JRH-138	89	80	89	85	93	85	100	93	89	88	86	94	89
28	US-312 (NCH)		94	87	97	91	97	88	99	94	93	92	94	101	95
29	Gontra Bidhan-3 (NCV)		93	82	94	88	99	88	101	95	93	91	86	95	91
30	PR-113/Lalat/ Karjat-7/MTU-1010 (ZCV)		88	79	86	84	90	87	93	90	87	85	84	101	88
31	Local Check Variety (LCV)		88	82		85	101	83	92	87	89	89	87	109	93
Exp. Mean			93	87	95	90	97	87	103	95	93	93	92	101	95

Appendix- 5(contd.): Days to 50% Flowering (DFF) of hybrids in IHRT-Mid Early, Kharif 2023

S No.	IET No.	Name	Contd..Z6				Z7									Overall Mean (33)
			MH-Z6				AP-Z7	KA-Z7	TG-Z7			TN-Z7				
			KJT	RDN	MH-Z6 (2)	Z6 (5)	MTU	MND	IIRR	WGL	TG-Z7 (2)	ADT	CBT	TN-Z7 (2)	Z7 (6)	
1	31446	SRH-369	78	94	86	89	84	87	95	93	94	95	88	92	91	91
2	31447	JKRH-1179	92	102	97	97	85	94	104	99	102		98	98	96	97
3	31448	HRI-217	87	100	94	94	85	90	102	96	99	96	91	94	93	94
4	31449	ADVRH-190125	88	101	95	96	88	91	102	98	100	94	93	94	94	98
5	31450	MEPH-175	81	94	88	92	84	83	97	95	96	94	89	92	90	93
6	30556	NPH-X4	87	97	92	93	85	90	65	91	78	95	92	94	86	93
7	31451	VNR-235	82	101	92	93	83	90	96	91	94	94	91	92	91	94
8	31452	RRX-3341	91	99	95	96	85	93	104	99	102	95	95	95	95	97
9	30558	NPH-X69	82	101	92	93	84	96	103	95	99	95	94	95	95	95
10	31453	NPH-X97	89	97	93	92	82	92	100	94	97	95	91	93	92	96
11	31454	US-396	82	94	88	89	76	86	97	90	93	94	88	91	88	91
12	31455	TNTRH-127	81	97	89	95	98	90	103	96	100		90	90	96	97
13	31456	TMRH-5786	81	97	89	91	82	91	102	94	98	94	92	93	92	94
14	31457	PHI-23108	88	95	92	93	84	84	94	95	94		89	89	89	94
15	31458	TMRH-5750	81	98	90	92	87	89	102	97	99		92	92	93	95
16	31459	PHI-23109	89	97	93	96	85	86	97	98	97	96	90	93	92	96
17	31460	BS-330	79	97	88	89	78	85	95	90	93	96	89	92	89	92
18	31461	RNC-0992	86	103	95	95	88	98	104	96	100	94	98	96	97	97
19	31462	Sona-405	80	96	88	89	82	88	98	92	95	95	89	92	91	92
20	31463	IIRRH-170	90	100	95	100	81	76	96	100	98	96	93	95	90	100
21	31464	KJTRH-22039	90	101	96	98	86	95	105	97	101	94	98	96	96	100
22	31465	IIRRH-171	82	97	90	94	88	93	101	96	99	94	91	92	94	97
23	31466	AGRH-01	85	98	91	92	80	90	99	91	95		93	93	90	94
24	31467	IIRRH-172	81	94	88	93	83	82	96	94	95		86	86	88	93
25	31468	JRH-137	82	95	89	91	84	81	96	95	95	96	88	92	90	93
26	31469	AGRH-02	86	98	92	92	83	90	94		94	94	88	91	90	93
27	31470	JRH-138	82	92	87	88	82	86	95	92	94	95	91	93	90	91
28	US-312 (NCH)		84	97	91	93	84	91	100	95	97		92	92	92	95
29	Gontra Bidhan-3 (NCV)		84	101	93	92	83	94	102	91	97	94	94	94	93	94
30	PR-113/Lalat/ Karjat-7/MTU-1010 (ZCV)		81	92	86	88	76	78	90	91	91	94	86	90	86	93
31	Local Check Variety (LCV)		81	92	86	90	110	83	104	102	103	95	102	98	99	95
Exp. Mean			85	98	91	93	84	89	98	95	96	95	91	93	92	95

Appendix-6: Quality characteristics of IHRT-Mid-Early Kharif 2023

S. No.	IET No.	Name	Hull	Mill	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
1	31446	SRH-369	80.4	68.8	54.6	6.35	2.21	2.87	LB	OC	7.0	27.98	22
2	31447	JKRH-1179	79.8	71.1	60.4	6.37	2.41	2.64	LB	VOC	4.4	22.49	56
3	31448	HRI-217	80.0	71.7	62.1	6.73	2.32	2.90	LB	OC	4.7	22.99	22
4	31449	ADVRH-190125	86.3	71.8	63.2	7.08	2.17	3.26	LS	VOC	4.0	24.31	22
5	31450	MEPH-175	79.6	67.7	54.3	6.60	2.33	2.85	LB	VOC	5.0	27.04	22
6	30556	NPH-X4	79.1	70.6	60.7	6.00	2.26	2.65	LB	VOC	4.0	25.10	24
7	31451	VNR-235	81.6	72.2	61.1	6.31	2.11	2.99	LB	VOC	7.0	23.74	22
8	31452	RRX-3341	78.9	71.6	69.5	6.53	2.08	3.13	LS	VOC	5.0	25.40	22
9	30558	NPH-X69	80.5	70.9	55.8	5.80	2.51	2.31	SB	OC	5.0	25.19	32
10	31453	NPH-X97	80.1	70.1	60.5	6.43	2.29	2.80	LB	VOC	5.0	25.54	22
11	31454	US-396	79.7	67.9	53.1	6.24	2.24	2.78	LB	VOC	3.0	23.11	39
12	31455	TNTRH-127	79.1	71.1	69.2	5.59	2.00	2.79	MS	VOC	5.0	24.58	31
13	31456	TMRH-5786	79.8	67.3	55.3	6.18	2.26	2.73	LB	VOC	4.0	25.16	43
14	31457	PHI-23108	79.8	69.6	48.1	6.15	2.03	3.02	LS	OC	4.0	24.02	22
15	31458	TMRH-5750	79.2	71.1	66.5	5.40	2.56	2.10	SB	VOC	4.0	26.72	22
16	31459	PHI-23109	80.2	69.0	46.3	6.25	2.38	2.62	LB	OC	4.0	26.25	22
17	31460	BS-330	78.8	66.6	55.6	5.69	2.08	2.73	MS	VOC	4.0	21.91	33
18	31461	RNC-0992	81.1	72.4	62.5	6.43	2.23	2.88	LB	VOC	4.0	22.52	22
19	31462	Sona-405	79.5	74.0	64.8	7.21	2.24	3.21	LS	OC	7.0	25.25	22
20	31463	IIRRH-170	77.8	69.1	57.3	6.16	1.99	3.09	LS	VOC	5.0	23.70	22
21	31464	KJTRH-22039	80.7	71.9	62.2	6.81	2.19	3.10	LS	VOC	5.0	22.55	31
22	31465	IIRRH-171	79.7	71.0	65.1	7.01	2.06	3.40	LS	VOC	4.0	23.90	24
23	31466	AGRH-01	79.6	67.8	55.8	6.61	2.36	2.80	LB	VOC	4.0	24.17	49
24	31467	IIRRH-172	78.8	70.7	58.2	6.27	2.07	3.02	LS	VOC	5.0	26.81	22
25	31468	JRH-137	80.0	71.3	59.6	6.44	2.08	3.09	LS	VOC	4.0	25.34	38
26	31469	AGRH-02	78.7	71.6	68.4	6.47	2.08	3.11	LS	VOC	4.0	23.55	24
27	31470	JRH-138	80.2	72.7	64.7	6.69	2.13	3.14	LS	VOC	2.0	26.25	22
28	US-312 (NCH)		79.1	71.1	65.6	5.70	2.03	2.80	MS	VOC	5.0	23.46	45
29	Gontra Bidhan-3 (NCV)		79.7	71.5	68.3	5.63	2.29	2.45	SB	VOC	4.0	26.22	47
30	MTU-1010 (ZCV)		78.0	68.5	58.5	6.38	2.07	3.08	LS	A	7.0	24.43	64
31	Varadhan (LCV)		77.8	69.9	67.2	5.44	2.32	2.34	SB	VOC	5.0	26.34	70

Hull: Hulling %; Mill: Milling %; HRR: Head rice recovery; KL: Kernel length; KB: Kernel breadth; L/B: L/B ratio; ASV: Alkali spreading value; AC: Amylose content; GC: Gel consistency

Appendix- 7: Grain Yield (kg/ha) of hybrids in IHRT-Medium, Kharif 2023

S No.	IET No	Name	Z2					Z3contd..					
			HR-Z2	UK-Z2	UP-Z2	PB-Z2		BR-Z3					JH-Z3
			KUL	PNT	NGN	@LDN	Z2 (3)	BKG	RSIH_E_MFP	SBR	SGA	BR-Z3 (4)	BAY
1	31471	HRI-219	8533	4007	6533(6)	7584	6358(9)	4825	5408	6465	6167	5743	8810(1)
2	31472	SPH-47	9167(8)	5476(6)	4063	7873(10)	6235	5458	6090(10)	7539(6)	7238(4)	6622(7)	4947
3	31473	PAN-7161	9333(5)	4782	4093	7946(8)	6069	5403	5863	7185(9)	7290(3)	6487	6081
4	31474	VNR-236	8000		7201(3)		7600(1)	4769	4074	7123	6458	5806	6979(10)
5	31475	PAN-21544	6267	1380	3471		3706	4601	5810	6825	6342	5927	6395
6	31476	RALLIS-22306	9533(4)	5375(7)	3579	8531(2)	6163	5564	6226(8)	7637(5)	6857(10)	6603(8)	5926
7	31477	RRX-3411	9200(7)	6083(2)	3671	6979	6318	5146	7332(1)	6966	7090(5)	6585(9)	6743
8	31478	Gazab	9833(3)	4365	3884	8284(4)	6027	4077	6710(4)	7225(8)	6331	6041	8512(2)
9	31479	RRX-3413	8300	4101	4377	7465	5593	6801(3)	7314(2)	5879	6370	6514	8122(5)
10	31480	HRI-218	8100	830	8244(1)		5725	8133(1)	6674(5)	8587(1)	6619	7607(1)	6445
11	31481	Dhadak Gold	9900(1)	5005(10)	6003(10)	8342(3)	6970(5)	7555(2)	6730(3)	6141	5051	6371	6368
12	31482	TNRH-305	8233	1271	3609	2251	4371	6766(4)	5327	2137	4864	4694	6640
13	31483	Dhadak	8667	5798(4)	5903	8839(1)	6789(6)	3139	5688	7111	6456	5588	6811
14	31484	PHI-23110	9267(6)	6045(3)	7030(4)	8181(7)	7447(2)	5963(9)	6339(7)	7397(7)	7024(8)	6706(5)	8313(4)
15	31485	IIRRH-173	8633	4344	6604(5)	7062	6527(7)	4571	5988	6377	7045(6)	6012	7359(7)
16	31486	PHI-23111	8933(9)	6604(1)	5924	7930(9)	7154(3)	6667(6)	6400(6)	8452(2)	6310	6979(2)	5615
17	31487	IIRRH-174	8700(10)	4668	6083(8)	6012	6483(8)	4062	5061	5623	6053	5223	5083
18	31488	KJTRH-22060	6900	4517	7576(2)	6041	6331(10)	3982	4081	4554	6764	4946	7301(8)
19	31489	CRHR-180	6167		4468		5318	5784	5166	8215(4)	6681	6644(6)	7058(9)
20	31490	CRHR-181	6433	1326	6074(9)		4611	5238	4794	8430(3)	7038(7)	6546(10)	6183
21	31491	JRH-139	6633	3516	5236	6621	5128	3908	4294	4835	4784	4479	7974(6)
22	31492	RNE-0420	8533	3976	5528	8210(6)	6013	6681(5)	5982	6223	7965(1)	6794(3)	5950
23	HRI-174 (NCH)		8233	5642(5)	3542	7679	5806	5967(8)	6178(9)	6982	7503(9)	6537	5866
24	NDR-359 (NCV)		7133	5227(9)	6525(7)	7124	6295	5275	4790	7182(10)	6783	6137	6343
25	PR-121/CR Dhan-300/ IR-64/Akshayadhan/Jaya (ZCV)		8433	3966	3659	7000	5353	3788	3797	4586		4095	6497
26	Local Check Variety (LCV)		8033	4187	4343	8280(5)	5521	5967(7)		6510	5435	5971	8452(3)
27	AZ8433DT (OBCH)		9867(2)	5338(8)	5916	7021	7040(4)	5916(10)	6067	7175	7503(2)	6727(4)	6615
Exp. Mean			8332	4313	5301	7330	6035	5408	5699	6643	6517	6088	6792
CD(0.05)			878	1165	704	510	561	610	811	680	871	483	870
CV(%)			6.46	16.53	8.14	4.26	5.7	6.91	5.47	6.27	8.18	4.85	7.84
F Value			12.7	14.88	32.94	57.77	21.11	31.58	19.43	34.1	6.46	22.97	11.25
NHC+CD(0.05)			9111	6807	4246	8189	6367	6577	6989	7662	7806	7020	6736
BVC+CD(0.05)			9311	6392	7229	8790	6856	6577	5601	7862	7654	6620	9322
D/S			05.06.23	03.06.23	28.06.23	30.05.23		21.06.23	15.06.23	16.06.23	25.06.23		05.07.23
D/P			07.07.23	30.06.23	24.07.23	11.07.23		24.07.23	08.07.23	05.07.23	20.07.23		22.07.23
Gross Plot Size (Sq.m)			10	10.13	10	8.1		10.08	10.35	9	10		10
Net Plot Size (Sq.m)			10	10.13	7.99	8.1		9.12	9.5	9	10		10
Zonal Check Variety			PR 121	PR 121	PR 121	PR 121		CR Dhan 300	CR Dhan 300	CR Dhan 300	CR Dhan 300		CR Dhan 300
Local Check Variety			HKR-128	Pant Dhan 4	Sarju 52	PR 131		S. Shree		Sabour Shree	Mugdha		MTU 1001

@Data of LDN (Ludhiana) not included in analysis due to Low C.V.

Appendix- 7(contd.): Grain Yield (kg/ha) of hybrids in IHRT-Medium, Kharif 2023

S No.	IET No	Name	Z3								Z4		Z5contd..
			OD-Z3	UP-Z3				WB-Z3			AS-Z4	TR-Z4	CG-Z5
			CTK	MSD	RSIH-EF	VRN	UP-Z3 (3)	CHN	@PANS	Z3 (10)	@TTB	ARD	VNS
1	31471	HRI-219	4913	5632	5113	4996	5290	6481	1584	5948	6157	3733	5270
2	31472	SPH-47	4816	6508	5299	5806(6)	5963(8)	5191	4152	5910	4920	3837	4671
3	31473	PAN-7161	5649	7134(3)	5936	6362(1)	6587(2)	7304(5)	5280(6)	6471(7)	5500	3277	7576(6)
4	31474	VNR-236	5729	5173	4788	5643(8)	5278	6302	2247	5821	6387	3037	5956
5	31475	PAN-21544	6208	6967(5)	5097	4609	5670	4869	5044(7)	5811	5160	3833	4628
6	31476	RALLIS-22306	6871	5590	6392(7)	4585	5393	5406	4213	6099	6427	5050	5909
7	31477	RRX-3411	7134	7359(1)	7298(2)	4835	6385(4)	6803(9)	4090	6657(5)	6740(6)	4150	7063
8	31478	Gazab	5103	6341	5994(9)	4203	5445	6695	3981	6118	6657(10)	6543(3)	6122
9	31479	RRX-3413	9453(2)	7176(2)	7470(1)	5907(3)	6778(1)	6122	2982	7048(3)	6230	4393	7884(5)
10	31480	HRI-218	9759(1)	6550	6986(3)	6310(2)	6574(3)	6660	2951	7300(1)	6670(9)	5753(9)	8720(1)
11	31481	Dhadak Gold	8713(5)	6383	6784(5)	4165	5628	6731	3928	6461(9)	5133	4327	8611(3)
12	31482	TNRH-305	6521	6300	4416	4245	5082	4511	3060	5192	3850	6047(6)	3650
13	31483	Dhadak	5872	6842(10)	6458(6)	3794	5604	6946(8)	4746(9)	5905	5713	4093	7470(7)
14	31484	PHI-23110	8930(4)	6884(8)	6082(8)	5840(5)	6294(5)	8880(1)	5464(4)	7241(2)	5863	4923	8396(4)
15	31485	IIRRH-173	5139	6383	5319	5008	5651	6158	6107(2)	5968	7507(1)	5667(10)	7258
16	31486	PHI-23111	7421(9)	6675	5965(10)	4951	5825(9)	7125(6)	6212(1)	6565(6)	6800(5)	6677(1)	7267(10)
17	31487	IIRRH-174	4293	6925(6)	4708	4115	5354	6803(9)	3329	5319	6733(7)	6569(2)	7346(9)
18	31488	KJTRH-22060	4550	6925(6)	5028	4169	5429	5263	3680	5343	4823	3697	5234
19	31489	CRHR-180	7204(10)	4594	4644	5871(4)	5140	7626(3)	2564	6423(10)	6690(8)	5860(7)	8687(2)
20	31490	CRHR-181	7498(8)	5144	5493	5140(10)	5258	7590(4)	3419	6349	6960(3)	5467	7423(8)
21	31491	JRH-139	4280	7092(4)	4920	3357	5227	5299	4976(8)	5139	4867	6143(4)	6835
22	31492	RNE-0420	5879	6884(8)	5846	5719(7)	6203(6)	7053(7)	5436(5)	6465(8)	6330	5787(8)	6013
23	HRI-174 (NCH)		8357(6)	6550	5752	4914	5787(10)	4619	5746(3)	6247	7457(2)	4567	6665
24	NDR-359 (NCV)		4583	6300	5050	5085	5561	6373	4332	5854	6157	4723	4537
25	PR-121/CR Dhan-300/ IR-64/Akshayadhan/Jaya (ZCV)		7650(7)	4756	4394	4309	4500	6123	3067	5181	5563	6060(5)	4912
26	Local Check Variety (LCV)		5589	6091		4981	5536	5943	4389(10)	6121	4373	5400	6692
27	AZ8433DT (OBCH)		9246(3)	6341	6892(4)	5369(9)	6090(7)	7662(2)	1372	6907(4)	6890(4)	5040	6982
Exp. Mean			6569	6352	5697	4974	5686	6390	4013	6143	6021	4987	6584
CD(0.05)			1442	480	960	859	382	1121	1491	311	385	526	1109
CV(%)			13.44	4.63	6.48	10.58	4.12	10.74	22.75	3.1	3.91	6.46	10.31
F Value			11.05	19.42	11.84	6.65	15.45	6.81	6.07	30.19	47.44	32.69	12.65
NHC+CD(0.05)			9799	7030	6712	5773	6169	5740	7237	6558	7842	5093	7774
BVC+CD(0.05)			9092	6780	6010	5944	5943	7494	5880	6432	6542	6586	7801
D/S			30.05.23	24.06.23	21.06.23	06.06.23		22.06.23	18.06.23		23.06.23	21.07.23	11.06.23
D/P			06.07.23	29.07.23	16.07.23	01.07.23		22.07.23	13.06.23		10.08.23	04.08.23	07.07.23
Gross Plot Size (Sq.m)			8.28	10	10.35	10		9.31	10.6		10	10	5.94
Net Plot Size (Sq.m)			6.4	7.99	9.5	9.8		9.31	5		10	10	5.94
Zonal Check Variety			CR Dhan 300	CR Dhan 300	CR Dhan 300	CR Dhan 300		CR Dhan 300	CR Dhan 300		CR Dhan 300	CR Dhan 300	IR 64
Local Check Variety			CR Dhan 316	NDR 2064		HUR-105		Pratiksha	P 2140		Shraboni		Mahamaya

@Data of PANS (PAN Seeds) not included in analysis due to High C.V. and data of TTB (Titabar) not included in the analysis due to low C.V.

Appendix- 7(contd.): Grain Yield (kg/ha) of hybrids in IHRT-Medium, Kharif 2023

S No.	IET No	Name	Z5							Z6 contd.			
						MH-Z5	MP-Z5	MP-Z5		GJ-Z6			
			RSIH_CR	RPR	CG-Z5 (3)	SND	WRS	@JBP	Z5 (5)	DBI	NVS	NWG	GJ-Z6 (3)
1	31471	HRI-219	6770	5266	5579	5474	4710	7900(4)	5380	5480	4254	7627(8)	5124
2	31472	SPH-47	5749	4910	4993	5065	4767	7100	4972	6838(9)	6124(7)	8016(5)	6828(4)
3	31473	PAN-7161	4322	5603(10)	6085	6281(8)	3926	7080	5657	6888(8)	6131(6)	7873(6)	6743(6)
4	31474	VNR-236	7287	5604(9)	6089	6381(6)	4543	8013(3)	5828	6789(10)	5252	8952(2)	6435(9)
5	31475	PAN-21544	7029	4959	5314	5789	3840	7210	5121	6029	5269	7722(7)	6063
6	31476	RALLIS-22306	8659(4)	4725	6072	5749	5629(5)	7247(10)	5935	6520	5789	8404(4)	6777(5)
7	31477	RRX-3411	8856(2)	5008	6662(10)	5837	5588(6)	7383(8)	6275(8)	5833	5514	5420	5613
8	31478	Gazab	7864	5429	6247	5811	5719(4)	5813	6038(10)	6765	6620(2)	8818(3)	7228(1)
9	31479	RRX-3413	8960(1)	5464	7117(4)	8619(2)	4755	7030	6987(3)	6226	6263(4)	7080	6406(10)
10	31480	HRI-218	8340(6)	7010(1)	7980(1)	8816(1)	5343(9)	7690(5)	7590(1)	7524(2)	5517	5420	6096
11	31481	Dhadak Gold	7922(9)	5994(4)	7438(2)	7530(3)	6258(2)	6873	7220(2)	4853	5637	9064(1)	6222
12	31482	TNRH-305	3442	1965	2929	2220	1609	2767	2500	5245	2984	2508	3397
13	31483	Dhadak	7990(8)	5806(6)	6900(5)	6031	6209(3)	7153	6594(5)	5686	4593	7008	5339
14	31484	PHI-23110	8447(5)	5714(8)	7334(3)	6305(7)	4620	7100	6537(6)	6961(7)	6452(3)	6198	6631(8)
15	31485	IIRRH-173	7872(10)	5306	6616	5028	4694	7673(6)	5868	6564	6768(1)	7574(9)	6851(2)
16	31486	PHI-23111	7593	5857(5)	6783(7)	6208(9)	5176	7090	6337(7)	7348(4)	6250(5)	6857	6845(3)
17	31487	IIRRH-174	7522	5555	6761(8)	5976	7018(1)	6930	6619(4)	7500(3)	5927(10)	6310	6672(7)
18	31488	KJTRH-22060	7470	4213	5316	4011	3019	6100	4570	4069	4441	5174	4508
19	31489	CRHR-180	4353	6082(2)	6687(9)	6636(5)	3754	9070(1)	6017	8137(1)	6056(8)	4730	6081
20	31490	CRHR-181	5760	5164	6130	5129	4837	7283(9)	5632	7274(5)	5580	6603	6110
21	31491	JRH-139	4736	4434	5412	4387	4967	7430(7)	5083	5638	5080	7405	5967
22	31492	RNE-0420	5524	6026(3)	5880	7293(4)	4310	8113(2)	5859	6496	5952(9)	5540	5939
23	HRI-174 (NCH)		8015(7)	5342	6439	5380	5539(8)	6553	6029	6398	4415	6444	5080
24	NDR-359 (NCV)		4688	4591	4609	6065(10)	5556(7)	5840	5130	5588	4797	7111	5460
25	PR-121/CR Dhan-300/ IR-64/Akshayadhan/Jaya (ZCV)		5926	4177	4867	3753	1957	5383	3993	6030	4789	7508(10)	5601
26	Local Check Variety (LCV)			4078	5385	5871	4771	7210	5353	6128	5258	7302	5877
27	AZ8433DT (OBCH)		8700(3)	5721(7)	6865(6)	5459	5196(10)	6383	6233(9)	7059(6)	5471	5754	5795
Exp. Mean			6915	5185	6092	5819	4752	6941	5754	6365	5451	6830	5989
CD(0.05)			940	479	667	906	732	451	468	1627	1084	1703	966
CV(%)			5.23	5.66	6.7	9.54	9.43	3.97	4.98	12.43	12.17	12.13	9.88
F Value			40.25	30.05	19.81	18.09	21.51	50.81	38.66	2.59	4.92	6.18	5.86
NHC+CD(0.05)			8955	5821	7106	6286	6271	7004	6497	8025	5499	8147	6046
BVC+CD(0.05)			6866	5070	6052	6971	6288	7661	5821	7755	6342	9211	6843
D/S			12.06.23	29.06.23		16.06.23	23.06.23	15.06.23		09.06.23	06.06.23	16.06.23	
D/P			07.07.23	30.07.23		13.07.23	18.07.23	20.07.23		25.07.23	01.07.23	21.07.23	
Gross Plot Size (Sq.m)			9.9	12.96		10	10	10		12.96	11.5	8.1	
Net Plot Size (Sq.m)			9	9.66		7.99	8.16	7.99		10.2	9.5	6.3	
Zonal Check Variety			IR 64	IR 64		IR 64	IR 64	IR 64		Akshayadhan	Akshayadhan	Akshayadhan	
Local Check Variety				IndraMaheswari		SYE-2001	JR 206	Kranti		GAR 13	GNR-3	GAR-13	

@Data of JBP (Jabalpur) not included in the analysis due to low C.V.

Appendix- 7(contd.): Grain Yield (kg/ha) of hybrids in IHRT-Medium, Kharif 2023

S No.	IET No	Name	Z6					Z7contd..					
			MH-Z6					AP-Z7	KA-Z7			TG-Z7	
			PDG	KJT	SHR	MH-Z6 (3)	Z6 (6)	MTU	MND	BRM	KA-Z7 (2)	IIRR	WGL
1	31471	HRI-219	7141(7)	6039(9)	4857(6)	6012(4)	5775	7128(6)	10394(5)	4628(7)	7511(3)	5068	8979(9)
2	31472	SPH-47	7062(10)	5077	3341	5160	5868	7346(4)	9500	4549(10)	7024	5456(9)	7943
3	31473	PAN-7161	6321	6686(2)	3504	5504	6035(5)	7111(7)	9617	4352	6985	4889	9545(4)
4	31474	VNR-236	6556	6181(6)	3646	5461	5947(10)	4556	9486	4544	7015	4716	9934(1)
5	31475	PAN-21544	6656	5285	3252	5064	5530	5156	7561	5054(2)	6307	4581	7776
6	31476	RALLIS-22306	7123(8)	5623	3325	5357	5969(9)	6449	10787(2)	4147	7467(5)	5607(8)	9108(8)
7	31477	RRX-3411	6725	5240	4941(3)	5636(10)	5596	5906	10305(8)	4591(8)	7448(7)	4947	8418
8	31478	Gazab	6429	4616	4274(9)	5106	6032(6)	5646	10206(9)	4745(3)	7476(4)	6803(2)	7768
9	31479	RRX-3413	7154(6)	5808(10)	5159(2)	6040(3)	6184(3)	7593(3)	9397	3871	6634	5380	9238(6)
10	31480	HRI-218	7352(5)	6587(4)	3766	5902(6)	5981(8)	7893(1)	10319(7)	4717(4)	7518(2)	6352(3)	8552
11	31481	Dhadak Gold	6902	5370	5199(1)	5824(7)	6069(4)	5050	9085	4128	6607	5381	6389
12	31482	TNRH-305	3243	3464	3412	3373	3414	2477	1801	4339	3070	1747	2771
13	31483	Dhadak	7538(4)	5247	3880	5555	5528	7031(9)	10181(10)	3810	6996	5448(10)	4528
14	31484	PHI-23110	8690(1)	6672(3)	3817	6393(1)	6453(1)	6671	10362(6)	3820	7091(10)	6062(4)	9929(2)
15	31485	IIRRH-173	6062	3797	4901(4)	4920	5749	5169	10603(3)	4301	7452(6)	4701	7386
16	31486	PHI-23111	7609(3)	6100(8)	4864(5)	6191(2)	6429(2)	6222	10550(4)	3988	7269(8)	2884	9669(3)
17	31487	IIRRH-174	6634	4178	4158	4990	5655	4868	8521	4549	6535	4963	3834
18	31488	KJTRH-22060	5227	3026	3870	4041	4230	4659	4851	4642(6)	4746	4092	3870
19	31489	CRHR-180	6875	6136(7)	3476	5496	5784	6939(10)	8177	3978	6078	5673(7)	8348
20	31490	CRHR-181	6167	7307(1)	3904	5792(8)	6005(7)	5148	8383	3787	6085	5122	6389
21	31491	JRH-139	4800	3554	4433(8)	4262	4970	5292	9259	4044	6652	3993	3208
22	31492	RNE-0420	7627(2)	5162	4246(10)	5678(9)	5811	7860(2)	10178	4250	7214(9)	5859(5)	9281(5)
23	HRI-174 (NCH)		7077(9)	5781	2918	5259	5290	7107(8)	9412	4563(9)	6987	5059	9152(7)
24	NDR-359 (NCV)		6567	4603	3206	4792	5157	5451	8550	4708(5)	6629	5678(6)	8256
25	PR-121/CR Dhan-300/ IR-64/Akshayadhan/Jaya (ZCV)		6771	4851	3329	4984	5334	4704	7897	5311(1)	6604	4305	6302
26	Local Check Variety (LCV)		5067	4723	3510	4433	5102	6276	8369	4404	6386	5242	7560
27	AZ8433DT (OBCH)		6727	6401(5)	4730(7)	5953(5)	5935	7198(5)	11103(1)	3988	7545(1)	6917(1)	8940(10)
Exp. Mean			6596	5315	3997	5303	5623	6034	9069	4363	6716	5071	7521
CD(0.05)			563	786	643	403	440	1020	835	398	464	988	1137
CV(%)			5.23	9.06	9.84	4.65	4.8	10.36	5.64	5.59	4.23	11.93	9.26
F Value			27.9	15.25	8.87	23.92	17.28	12.55	43.91	7.63	33.82	9.54	28.62
NHC+CD(0.05)			7640	6567	3561	5662	5730	8127	10247	4961	7451	6047	10289
BVC+CD(0.05)			7334	5637	4153	5387	5774	7296	9385	5709	7093	6666	9393
D/S			14.06.23	15.06.23	05.06.23			15.07.23	28.07.23	28.06.23		21.06.23	19.06.23
D/P			05.07.23	07.07.23	26.06.23			14.08.23	16.08.23	24.07.23		29.07.23	11.07.23
Gross Plot Size (Sq.m)			9.41	10.26	6.2			10.44	10.53	10		6.72	7.72
Net Plot Size (Sq.m)			6.89	7.65	4.3			8.1	9.4	7.13		5.19	7.72
Zonal Check Variety			Akshayadhan	Akshayadhan	Akshayadhan			Jaya	Jaya	Jaya		Jaya	Jaya
Local Check Variety			Karjat-9	KJT-5	Ratnagiri 4			MTU 1239	Thanu	Sahyadri Brahma		DRR Dhan 38	WGL 14

Appendix- 7(contd.): Grain Yield (kg/ha) of hybrids in IHRT-Medium, Kharif 2023

S No.	IET No	Name	Z7				Overall Mean (31)
				TN-Z7	Z7		
			TG-Z7 (2)	CBT	@ KRK	Z7 (6)	
1	31471	HRI-219	7023	7703	@KRK	7316(9)	6079
2	31472	SPH-47	6700	7395	5131	7032	5951
3	31473	PAN-7161	7217(9)	8602(6)	5476	7353(7)	6301(10)
4	31474	VNR-236	7325(6)	7707	4524	6824	6095
5	31475	PAN-21544	6178	6034	5238	6027	5410
6	31476	RALLIS-22306	7358(5)	8861(3)	6392(6)	7493(4)	6307(9)
7	31477	RRX-3411	6682	8734(4)	6660(3)	7150(10)	6387(8)
8	31478	Gazab	7286(8)	6713	6188(9)	6980	6277
9	31479	RRX-3413	7309(7)	8523(8)	4319	7334(8)	6705(4)
10	31480	HRI-218	7452(4)	8551(7)	4524	7731(1)	6985(2)
11	31481	Dhadak Gold	5885	8388(10)	4286	6404	6483(6)
12	31482	TNRH-305	2259	6333	5238	3245	3992
13	31483	Dhadak	4988	7624	5715	6437	6088
14	31484	PHI-23110	7995(1)	8612(5)	4047	7576(3)	6999(1)
15	31485	IIRRH-173	6044	8521(9)	5238	6780	6131
16	31486	PHI-23111	6277	9441(2)	3571	7126	6687(5)
17	31487	IIRRH-174	4398	6644	6429(5)	5563	5797
18	31488	KJTRH-22060	3981	6620	6658(4)	4789	4953
19	31489	CRHR-180	7011	8107	6191(7)	6870	6238
20	31490	CRHR-181	5755	7570	6681(2)	6066	5908
21	31491	JRH-139	3601	6759	5714	5426	5193
22	31492	RNE-0420	7570(3)	7274	8095(1)	7450(6)	6388(7)
23	HRI-174 (NCH)		7105(10)	9527(1)	5476	7470(5)	6201
24	NDR-359 (NCV)		6967	6730	5238	6562	5769
25	PR-121/CR Dhan-300/ IR-64/Akshayadhan/Jaya (ZCV)		5304	7435	5714	5992	5253
26	Local Check Variety (LCV)		6401	6690	3555	6423	5795
27	AZ8433DT (OBCH)		7928(2)	7815	6190(8)	7660(2)	6736(3)
Exp. Mean			6296	7738	5833(10)	6633	6041
CD (0.05)			885	653	5493	386	157
CV (%)			8.61	5.17	320	3.57	1.59
F value			20.32	17.5	3.57	54.35	139.51
NHC+CD (0.05)			7990	10180	10969	7856	6358
BVC+CD (0.05)			7852	8088	6034	6948	5952
D/S				01.06.23	06.09.23		
D/P				21.06.23	09.10.23		
Gross Plot Size (Sq.m				10	4.2		
Net Plot Size (Sq.m)				7.36	4.2		
Zonal Check Variety				Jaya	Jaya		
Local Check Variety				Co 56	KKLR-2		

@Data of KRK (Karaikal) not included in the analysis due to low C.V.

Appendix-8: Days to 50% Flowering (DFF) of hybrids in IHRT-Medium, Kharif 2023

S No.	IET No	Name	Z2					Z3contd..						
			HR-Z2	UK-Z2	UP-Z2	PB-Z2		BR-Z3					JH-Z3	OD-Z3
			KUL	PNT	NGN	@LDN	Z2 (3)	BKG	RSIH_E_MFP	SBR	SGA	BR-Z3 (4)	BAY	CTK
1	31471	HRI-219	101	110	102	110	104	100	92	104	103	101	91	100
2	31472	SPH-47	100	103	95	106	99	105	95	103	104	102	96	97
3	31473	PAN-7161	101	105	93	100	99	105	94	104	101	102	90	103
4	31474	VNR-236	118	133	108		119	104	109	110	107	108	92	101
5	31475	PAN-21544	117	129	104		117	106	91	104	103	105	97	95
6	31476	RALLIS-22306	101	105	94	110	100	104	94	100	106	102	96	101
7	31477	RRX-3411	103	105	96	109	101	106	95	102	103	102	91	97
8	31478	Gazab	98	101	92	96	97	101	92	99	103	99	98	98
9	31479	RRX-3413	106	109	100	108	105	108	101	107	103	105	94	103
10	31480	HRI-218	115	128	105		116	117	107	109	106	110	97	99
11	31481	Dhadak Gold	90	94	88	95	90	97	88	95	96	95	92	93
12	31482	TNRH-305	109	111	102	113	107	112	106	108	118	111	92	103
13	31483	Dhadak	93	95	88	96	92	97	86	93	103	96	89	92
14	31484	PHI-23110	102	104	96	110	100	105	96	100	103	101	92	102
15	31485	IIRRH-173	105	108	101	112	105	104	99	108	104	104	92	100
16	31486	PHI-23111	103	106	98	111	102	105	95	104	101	102	94	103
17	31487	IIRRH-174	107	107	93	113	102	107	95	99	103	102	93	103
18	31488	KJTRH-22060	96	98	91	96	95	99	89	85	99	93	92	94
19	31489	CRHR-180	118	133	122		124	122	111	114	120	118	96	102
20	31490	CRHR-181	117	130	108		118	122	110	114	119	118	101	102
21	31491	JRH-139	90	94	89	94	91	99	88	86	102	94	122	100
22	31492	RNE-0420	102	107	98	109	102	106	95	107	101	103	113	99
23	HRI-174 (NCH)		106	107	103	109	105	106	96	104	102	103	95	102
24	NDR-359 (NCV)		101	104	96	107	100	104	93	103	102	102	104	104
25	PR-121/CR Dhan-300/ IR-64/Akshayadhan/Jaya (ZCV)		104	105	113	112	108	136	113	118	122	125	92	107
26	Local Check Variety (LCV)		98	103	92	110	98	121		113	99	111	90	99
27	AZ8433DT (OBCH)		105	109	101	111	105	110	97	103	106	105	97	102
Exp. Mean			104	109	99	106	104	108	97	104	105	104	96	100

Appendix-8 (contd.): Days to 50% Flowering (DFF) of hybrids in IHRT-Medium, Kharif 2023

S No.	IET No	Name	Z3							Z4		Z5 contd.			
			UP-Z3				WB-Z3			AS-Z4	TR-Z4	CG-Z5			
			MSD	RSIH-EF	VRN	UP-Z3 (3)	CHN	@PANS	Z3 (10)	@TTB	ARD	VNS	RSIH_CR	RPR	CG-Z5 (3)
1	31471	HRI-219	97	92	92	94	102	96	98	122	86	96	98	102	99
2	31472	SPH-47	99	95	97	97	104	91	100	117	92	93	97	99	96
3	31473	PAN-7161	96	94	93	94	103	92	99	117	81	93	94	98	95
4	31474	VNR-236	106	109	115	110	106	106	106	115	91	107	108	99	104
5	31475	PAN-21544	97	91	102	98	100	100	101	114	91	102	103	95	99
6	31476	RALLIS-22306	97	94	96	96	102	94	99	122	92	95	97	98	96
7	31477	RRX-3411	101	95	94	97	102	93	99	117	91	94	98	99	97
8	31478	Gazab	95	92	93	93	101	90	97	116	94	91	94	98	95
9	31479	RRX-3413	104	101	100	102	111	100	103	124	91	98	101	104	101
10	31480	HRI-218	106	107	112	109	110	109	107	123	93	106	108	104	106
11	31481	Dhadak Gold	94	88	88	91	100	80	93	109	91	85	85	93	88
12	31482	TNRH-305	109	106	107	107	112	100	107	125	94	98	102	103	101
13	31483	Dhadak	93	86	89	90	100	82	94	111	92	85	88	96	90
14	31484	PHI-23110	97	96	92	94	103	91	99	115	93	93	96	98	96
15	31485	IIRRH-173	72	99	98	90	105	96	98	118	93	96	99	101	99
16	31486	PHI-23111	98	95	97	97	106	95	100	117	93	95	100	97	97
17	31487	IIRRH-174	101	95	95	97	106	96	100	125	93	92	98	95	94
18	31488	KJTRH-22060	92	89	87	89	102	87	93	116	95	87	91	89	89
19	31489	CRHR-180	116	111	116	115	116	113	113	117	92	111	113	109	111
20	31490	CRHR-181	116	110	113	114	117	112	113	113	93	111	112	111	111
21	31491	JRH-139	93	88	87	90	102	79	97	113	93	83	90	90	87
22	31492	RNE-0420	103	95	97	99	107	96	103	116	93	94	98	99	97
23	HRI-174 (NCH)		105	96	98	100	105	96	101	112	88	96	101	101	99
24	NDR-359 (NCV)		100	93	105	100	104	96	102	118	93	93	98	100	97
25	PR-121/CR Dhan-300 / IR-64/Akshayadhan /Jaya (ZCV)		117	113	118	117	120	124	116	114	92	83	89	89	87
26	Local Check Variety (LCV)		101		108	104	110	94	105	108	91	84		101	93
27	AZ8433DT (OBCH)		107	97	99	102	111	96	103	112	93	96	100	102	99
Exp. Mean			100	97	100	99	106	96	102	116	92	95	98	99	97

Appendix-8 (contd.): Days to 50% Flowering (DFF) of hybrids in IHRT-Medium, Kharif 2023

S No.	IET No	Name	Z5				Z6								
			MH-Z5	MP-Z5			GJ-Z6				MH-Z6				
			SND	WRS	@JBP	Z5 (5)	DBI	NVS	NWG	GJ-Z6 (3)	PDG	KJT	SHR	MH-Z6 (3)	Z6 (6)
1	31471	HRI-219	101	96	110	99	111	88	101	96	106	88	97	97	97
2	31472	SPH-47	98	94	102	96	106	93	95	96	99	89	98	95	96
3	31473	PAN-7161	101	93	107	96	104	87	97	93	103	84	97	95	94
4	31474	VNR-236	109	94	105	103	96	115	108	109	105	95	107	102	105
5	31475	PAN-21544	99	96	110	99	113	111	104	109	97	95	102	98	103
6	31476	RALLIS-22306	101	95	106	97	109	94	99	98	100	93	96	96	97
7	31477	RRX-3411	100	95	106	97	108	94	98	98	104	88	97	96	97
8	31478	Gazab	99	93	101	95	105	91	94	95	98	91	93	94	95
9	31479	RRX-3413	102	100	110	101	113	94	103	100	104	92	98	98	99
10	31480	HRI-218	108	95	101	104	87	100	109	99	112	95	105	104	102
11	31481	Dhadak Gold	96	92	98	91	94	83	88	87	90	85	89	88	88
12	31482	TNRH-305	103	95	111	100	111	95	103	100	103	93	105	100	101
13	31483	Dhadak	97	93	98	92	99	87	88	90	93	85	96	92	91
14	31484	PHI-23110	96	95	105	96	107	96	101	99	99	93	93	95	97
15	31485	IIRRH-173	101	96	110	99	109	97	98	100	102	91	98	97	98
16	31486	PHI-23111	100	95	106	97	108	95	99	99	102	91	98	97	98
17	31487	IIRRH-174	97	91	113	94	104	93	98	97	101	87	90	92	94
18	31488	KJTRH-22060	91	89	101	89	102	85	88	89	97	85	83	88	89
19	31489	CRHR-180	116	95	106	108	90	110	89	101	113	99	110	108	104
20	31490	CRHR-181	102	94	103	105	90	106	101	101	113	98	110	107	104
21	31491	JRH-139	93	89	101	89	93	85	112	93	91	90	87	89	91
22	31492	RNE-0420	103	95	105	98	104	97	88	96	101	92	99	98	97
23	HRI-174 (NCH)		101	95	100	99	109	98	100	101	104	85	96	95	98
24	NDR-359 (NCV)		102	95	114	97	101	99	82	96	99	85	93	92	93
25	PR-121/CR Dhan-300/ IR-64/Akshayadhan/Jaya (ZCV)		90	87	99	88	110	104	98	104	99	96	96	97	100
26	Local Check Variety (LCV)		100	89	113	94	105	87	87	90	113	94	108	105	99
27	AZ8433DT (OBCH)		104	93	113	99	111	95	101	100	104	96	98	99	100
Exp. Mean			100	94	106	97	103	95	97	98	102	91	98	97	97

Appendix-8 (contd.): Days to 50% Flowering (DFF) of hybrids in IHRT-Medium, Kharif 2023

S No.	IET No	Name	Z7										Overall Mean (31)
			AP-Z7	KA-Z7			TG-Z7			TN-Z7	Z7		
			MTU	MND	BRM	KA-Z7 (2)	IIRR	WGL	TG-Z7 (2)	CBT	@ KRK	Z7 (6)	
1	31471	HRI-219	93	91	103	97	104	93	98	94	92	96	98
2	31472	SPH-47	86	93	102	97	106	96	101	95	92	96	97
3	31473	PAN-7161	90	91	102	97	105	95	100	91	93	96	96
4	31474	VNR-236	86	82	100	91	102	102	102	100	81	95	104
5	31475	PAN-21544	83	79	99	89	97	87	92	94	81	90	100
6	31476	RALLIS-22306	89	91	104	98	106	97	102	96	94	97	98
7	31477	RRX-3411	91	92	101	97	105	96	101	95	93	97	98
8	31478	Gazab	85	88	98	93	103	93	98	92	86	93	95
9	31479	RRX-3413	94	94	104	99	110	103	107	97	97	100	101
10	31480	HRI-218	99	95	106	101	112	103	107	99	95	102	105
11	31481	Dhadak Gold	87	93	102	98	109	88	99	90	92	95	92
12	31482	TNRH-305	92	97	107	102	108	100	104	97	95	100	103
13	31483	Dhadak	84	91	103	97	102	84	93	90	93	92	92
14	31484	PHI-23110	89	86	100	93	102	96	99	92	88	94	97
15	31485	IIRRH-173	91	94	101	98	107	101	104	96	88	98	99
16	31486	PHI-23111	87	90	103	97	105	97	101	95	92	96	98
17	31487	IIRRH-174	87	80	99	90	101	97	99	88	83	92	96
18	31488	KJTRH-22060	84	76	104	90	96	86	91	87	81	89	91
19	31489	CRHR-180	110	98	99	99	114	113	114	100	108	106	109
20	31490	CRHR-181	108	98	95	97	113	113	113	98	101	104	108
21	31491	JRH-139	85	82	100	91	99	87	93	86	108	90	93
22	31492	RNE-0420	89	94	103	99	109	90	100	95	114	97	99
23	HRI-174 (NCH)		90	92	104	98	106	100	103	97	87	98	100
24	NDR-359 (NCV)		88	92	103	98	107	100	103	96	109	98	98
25	PR-121/CR Dhan-300/ IR-64/Akshayadhan/Jaya (ZCV)		88	97	102	100	107	95	101	96	88	97	103
26	Local Check Variety (LCV)		108	89	94	91	105	107	106	105	116	101	100
27	AZ8433DT (OBCH)		95	93	101	97	111	99	105	98	95	100	101
Exp. Mean			91	90	101	96	106	97	101	95	94	97	99

Appendix-9: Quality characteristics of IHRT-Medium Kharif 2023

S. No.	IET No.	Name	Hull	Mill	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
1	31471	HRI-219	81.9	74.8	69.3	6.41	2.23	2.87	LB	VOC	4.0	27.26	64
2	31472	SPH-47	80.1	72.0	57.3	6.38	2.14	298	LB	VOC	4.0	24.55	50
3	31473	PAN-7161	80.0	72.9	54.7	6.93	2.14	3.23	LS	VOC	7.0	27.36	44
4	31474	VNR-236	78.2	71.2	57.6	6.04	2.34	2.58	LB	VOC	4.0	14.81	47
5	31475	PAN-21544	79.5	69.4	38.5	5.82	2.33	2.49	SB	OC	4.0	26.22	46
6	31476	RALLIS-22306	80.4	73.5	61.2	6.51	2.30	2.83	LB	VOC	7.0	22.70	41
7	31477	RRX-3411	81.0	69.8	50.6	6.61	2.12	3.11	LS	VOC	5.7	22.38	81
8	31478	Gazab	80.4	72.4	60.3	6.82	2.10	3.24	LS	VOC	5.1	27.92	45
9	31479	RRX-3413	80.0	70.0	56.0	6.06	2.04	2.97	LB	VOC	5.5	25.90	61
10	31480	HRI-218	79.1	71.7	57.4	6.15	2.26	2.72	LB	VOC	7.0	27.10	40
11	31481	Dhadak Gold	79.2	71.3	54.8	6.37	2.39	2.66	LB	VOC	4.0	25.40	57
12	31482	TNRH-305	80.0	70.6	58.5	4.98	1.91	2.60	MS	VOC	5.1	26.72	24
13	31483	Dhadak	79.7	72.3	60.7	6.74	2.17	3.10	LS	VOC	5.0	24.49	49
14	31484	PHI-23110	80.7	73.5	55.6	6.25	2.28	2.74	LB	OC	4.0	24.69	56
15	31485	IIRRH-173	80.3	70.4	47.0	6.54	2.15	3.04	LS	VOC	4.0	27.48	44
16	31486	PHI-23111	79.8	72.2	49.8	6.47	2.23	2.90	LB	VOC	4.7	21.73	60
17	31487	IIRRH-174	78.7	69.1	39.9	5.47	2.15	2.54	MS	VOC	6.0	25.81	38
18	31488	KJTRH-22060	79.9	69.1	57.9	6.34	2.24	2.83	LB	VOC	5.0	20.79	47
19	31489	CRHR-180	79.4	69.7	47.9	5.94	2.17	2.73	MS	VOC	4.0	26.98	52
20	31490	CRHR-181	81.6	70.9	55.6	6.13	2.18	2.81	LB	VOC	5.7	27.30	56
21	31491	JRH-139	79.5	71.5	54.4	6.39	2.17	2.94	LB	VOC	7.0	23.90	48
22	31492	RNE-0420	82.0	74.5	62.4	6.71	2.07	3.24	LB	VOC	5.3	26.37	50
23	HRI-174 (NCH)		80.8	72.0	66.2	6.29	2.11	2.98	LB	VOC	5.0	23.11	44
24	NDR-359 (NCV)		78.6	70.2	60.2	6.70	2.46	2.72	LB	VOC	5.0	24.49	34
25	Jaya (ZCV)		78.5	70.7	35.16	7.09	2.03	3.49	LS	VOC	7.0	26.19	24
26	DRR Dhan 38(LCV)		80.4	71.4	38.3	6.39	2.19	2.91	LB	VOC	5.3	25.46	68
27	AZ8433DT (OBCH)		80.6	74.4	57.8	5.74	2.28	2.51	MS	VOC	4.0	26.31	63

Hull: Hulling %; Mill: Milling %; HRR: Head rice recovery; KL: Kernel length; KB: Kernel breadth; L/B: L/B ratio; ASV: Alkali spreading value; AC: Amylose content; GC: Gel consistency

Appendix- 10: Grain Yield (kg/ha) of hybrids in IHRT-Medium Slender, Kharif 2023

S No.	IET No.	Name	Z3									Z4	Z4
			BR-Z3			JH-Z3		OD-Z3	UP-Z3	WB-Z3		AS-Z4	TR-Z4
			BKG	SBR	BR-Z3 (2)	BAY	@RCI	CTK	MSD	CHN	Z3 (6)	@TTB	ARD
1	31493	TNRH-297	2675	4761	3718	6700(7)	2737(7)	4387	5632(9)	5120	4879	5163(8)	4200(7)
2	31494	Shakthi-5455	6099(5)	6484(5)	6292(6)	5782(10)	3389(4)	7801(3)	7501(1)	9130(2)	7133(3)	5910(2)	5474(2)
3	31495	PHI-23101	6542(3)	8197(2)	7370(2)	6927(5)	4268(2)	7704(4)	6971(4)	7519(6)	7310(2)	7330(1)	4683(5)
4	31496	PHI-23102	5022(8)	7625(3)	6324(5)	5993(9)	3454(3)	8014(2)	5465	8987(3)	6851(4)	5683(3)	5515(1)
5	31497	CRHR-183	6812(2)	6398(6)	6605(3)	6448(8)	2411(10)	7214(6)	5599(10)	7125(7)	6599(7)	5267(7)	5256(3)
6	31498	PHI-23103	6933(1)	8506(1)	7720(1)	4940	4366(1)	7424(5)	7455(3)	9345(1)	7434(1)	5473(4)	4622(6)
7	31499	BRRH-11	4432(10)	5945(8)	5189(9)	8313(4)	1173	5439(10)	6008(7)	6946(8)	6181(9)	5470(5)	3182(9)
8	31500	KRH-13	2700	4351	3526	9381(1)	3324(5)	6199(8)	6049(6)	5013	5615	4270	
9	27P63 (NCH)		6253(4)	6820(4)	6536(4)	5399	2640(8)	6898(7)	7497(2)	7734(5)	6767(5)	5450(6)	4725(4)
10	WGL-14 (NCV-1)		6040(6)	6044(7)	6042(7)	8778(2)	2476(9)	8030(1)	4464	6409(9)	6628(6)	4110	3096(10)
11	BPT-5204 (NCV-2)		5037(7)	5079(10)	5058(10)	6811(6)	2965(6)	5792(9)	5653(8)	8808(4)	6197(8)	4490(9)	
12	Improved Samba Mahsuri/Ketekejoha/ Karjat-6/ADT-49 (ZCV)		5004(9)	5865(9)	5434(8)	8475(3)	1271	4933	6925(5)	5514(10)	6119(10)	4477(10)	3307(8)
Exp. Mean			5296	6340	5818	6996	2873	6653	6268	7304	6476	5258	4406
CD (0.05)			690	602	421	1036	844	1215	579	1699	461	305	486
CV (%)			7.69	5.61	4.27	8.74	17.35	10.79	5.45	13.73	4.21	3.42	6.43
F Value			38.2	40.03	81.5	16.38	11.96	9.35	24.76	7.32	21.64	71.83	32.31
NHC+CD (0.05)			6943	7422	6957	6435	3484	8113	8076	9433	7228	5755	5211
BVC+CD (0.05)			6730	6646	6463	9814	3809	9245	7504	10507	7089	4795	3793
D/S			21.06.23	16.06.23		05.07.23	30.06.23	30.05.23	23.06.23	23.06.23		23.06.23	30.06.23
D/P			24.07.23	18.07.23		22.07.23	01.08.23	06.07.23	29.07.23	31.07.23		10.08.23	17.07.23
Gross Plot Size(Sq.m)			10.08	10.4		10	10.23	8.28	10	9.31		10	10
Net Plot Size(Sq.m)			9.12	10.4		10	10.23	6.4	7.99	9.31		10	10
Zonal Check Variety			Improved Samba Mahsuri	Improved Samba Mahsuri		Improved Samba Mahsuri	Improved Samba Mahsuri	Improved Samba Mahsuri	Improved Samba Mahsuri	Improved Samba Mahsuri		Ketekejoha	Ketekejoha

@Data of RCI(Ranchi) not included in the analysis due to low Experimental mean and data of TTB(Titabar) not included due to low C.V.

Appendix- 10(contd.): Grain Yield (kg/ha) of hybrids in IHRT-Medium Slender, Kharif 2023

S No.	IET No.	Name	Z5										
			CG-Z5			MH-Z5				MP-Z5			
			VNS	RPR	CG-Z5 (2)	ANK	SKL	SND	MH-Z5 (3)	JBP	WRS	MP-Z5 (2)	Z5 (7)
1	31493	TNRH-297	3644	4817	4230	5441	3933	4110(9)	4495	5303(10)	4160	4732	4487
2	31494	Shakthi-5455	5523(9)	7610(1)	6566(3)	6907(1)	6367(2)	7198(1)	6824(1)	7317(3)	6329(2)	6823(2)	6750(1)
3	31495	PHI-23101	7333(3)	5748(8)	6540(4)	6573(4)	5533(6)	6777(3)	6295(2)	6210(8)	5741(5)	5975(7)	6274(4)
4	31496	PHI-23102	6389(7)	6661(3)	6525(5)	6516(5)	4167(9)	6952(2)	5878(6)	7000(5)	6819(1)	6909(1)	6358(3)
5	31497	CRHR-183	5653(8)	6468(4)	6060(8)	6081(9)	6067(3)	5713(6)	5953(5)	7110(4)	6004(3)	6557(4)	6157(6)
6	31498	PHI-23103	6926(4)	6904(2)	6915(1)	6805(2)	5600(5)	6049(5)	6151(3)	7963(1)	5308(6)	6636(3)	6508(2)
7	31499	BRRH-11	7362(2)	5163(10)	6262(7)	5906(10)	3900	3875	4560(10)	4297	3699	3998	4886
8	31500	KRH-13	5083	4682	4883	5889	5233(7)	4084(10)	5069(9)	6020(9)	4860(10)	5440(9)	5122(10)
9	27P63 (NCH)		6758(5)	6077(5)	6417(6)	6221(7)	5233(7)	6464(4)	5973(4)	7917(2)	5021(8)	6469(5)	6241(5)
10	WGL-14 (NCV-1)		7689(1)	5788(7)	6739(2)	6658(3)	5633(4)	4534(8)	5608(8)	6757(6)	5757(4)	6257(6)	6117(7)
11	BPT-5204 (NCV-2)		5497(10)	5812(6)	5654(10)	6268(6)	6700(1)	4618(7)	5862(7)	4420	5099(7)	4759(10)	5488(8)
12	Improved Samba Mahsuri/Ketekejoha/ Karjat-6/ADT-49 (ZCV)		6517(6)	5405(9)	5961(9)	6211(8)	4167(9)	3120	4499	6360(7)	4996(9)	5678(8)	5254(9)
Exp. Mean			6198	5928	6063	6290	5211	5291	5597	6389	5316	5853	5803
CD (0.05)			1637	537	756	757	1062	1086	593	534	596	406	333
CV (%)			15.6	5.35	7.36	7.1	12.03	12.12	6.26	4.93	6.62	4.09	3.39
F Value			4.34	22.62	9.54	2.73	7.11	14.13	14.43	44.79	18.75	46.65	40.65
NHC+CD (0.05)			8395	6614	7173	6978	6295	7550	6566	8451	5617	6875	6574
BVC+CD (0.05)			9326	6349	7495	7415	7762	5704	6455	7291	6353	6663	6450
D/S			11.06.23	29.06.23		25.06.23	29.06.23	16.06.23		15.06.23	23.06.23		
D/P			07.07.23	30.07.23		28.07.23	19.07.23	13.07.23		20.07.23	15.07.23		
Gross Plot Size(Sq.m)			10.86	11.52		10	10	10		10	10		
Net Plot Size(Sq.m)			10.86	9.66		8.19	10	7.99		7.99	8.1		
Zonal Check Variety			Improved Samba Mahsuri	Improved Samba Mahsuri		Improved Samba Mahsuri	Improved Samba Mahsuri	Improved Samba Mahsuri		Improved Samba Mahsuri	Improved Samba Mahsuri		

Appendix- 10(contd.): Grain Yield (kg/ha) of hybrids in IHRT-Medium Slender, Kharif 2023

S No.	IET No.	Name	Z6									Z7 contd.		
			GJ-Z6				MH-Z6					AP-Z7		
			NVS	NWG	DBI	GJ-Z6 (3)	PDG	KJT	@SHR	MH-Z6 (2)	Z6 (5)	MTU	BPT	AP-Z7 (2)
1	31493	TNRH-297	4241(9)	5904	5564(6)	4978(10)	5227(9)	4687(9)	3161(10)	4957(10)	4990(10)	3927	2070	2998
2	31494	Shakthi-5455	5539(3)	7476(7)	6912(1)	6280(3)	5898(7)	5790(3)	3552(5)	5844(4)	6107(3)	5585(5)	5242(2)	5414(4)
3	31495	PHI-23101	4936(6)	8912(3)	6524(3)	6430(2)	5911(6)	5836(2)	4887(1)	5874(2)	6191(2)	7454(1)	5406(1)	6430(1)
4	31496	PHI-23102	4540(7)	9080(2)	6422(4)	5968(4)	6292(2)	5529(5)	4013(3)	5910(1)	6019(4)	6540(3)	5160(3)	5850(3)
5	31497	CRHR-183	5353(5)	7706(6)	5270(7)	5664(8)	5656(8)	5900(1)	3464(7)	5778(5)	5841(7)	5248(9)	4702(5)	4975(5)
6	31498	PHI-23103	6513(1)	8349(4)	6250(5)	6875(1)	6253(3)	4878(7)	3813(4)	5566(7)	6267(1)	7037(2)	5072(4)	6054(2)
7	31499	BRRH-11	2790	5706	5255(8)	4100	3298	3955	3257(8)	3626	3978	4453	4090(8)	4272(10)
8	31500	KRH-13	5945(2)	6166(10)	4706	5667(7)	4373	4245	2973	4309	4998(9)	6330(4)	2794(10)	4562(9)
9	27P63 (NCH)		4179(10)	9294(1)	6730(2)	5906(5)	6546(1)	4820(8)	4068(2)	5683(6)	5913(6)	4979(10)	4624(6)	4802(7)
10	WGL-14 (NCV-1)		5452(4)	8246(5)	5122(9)	5852(6)	6098(4)	5592(4)	3204(9)	5845(3)	5917(5)	5501(6)	4047(9)	4774(8)
11	BPT-5204 (NCV-2)		4262(8)	7400(8)	5098(10)	5151(9)	5078(10)	5087(6)	3549(6)	5082(9)	5199(8)	5376(7)	4304(7)	4840(6)
12	Improved Samba Mahsuri/Ketekejoha/ Karjat-6/ADT-49 (ZCV)		2983	6286(9)	4094	3847	6076(5)	4408(10)	2847	5242(8)	4624	5257(8)	2651	3954
Exp. Mean			4728	7544	5662	5560	5559	5060	3566	5310	5504	5640	4180	4910
CD (0.05)			1082	1926	1330	889	478	960	650	569	504	1168	732	694
CV (%)			13.51	11.6	10.68	9.45	5.08	11.2	10.76	6.33	5.41	12.23	10.34	8.34
F Value			9.28	4.28	4.32	8.87	33.08	4.15	6.53	13.74	17.99	6.71	19.84	16.08
NHC+CD (0.05)			5261	11220	8060	6795	7024	5780	4718	6252	6417	6147	5356	5496
BVC+CD (0.05)			6534	10172	6452	6741	6576	6552	4199	6414	6421	6669	5036	5534
D/S			06.06.23	16.06.23	14.06.23		14.06.23	15.06.23	05.06.23			15.07.23	05.08.23	
D/P			11.07.23	21.07.23	06.07.23		06.07.23	08.07.23	26.06.23			11.08.23	29.08.23	
Gross Plot Size(Sq.m)			11.5	8.1	10.71		10.71	8.03	7.92			10.5	9.24	
Net Plot Size(Sq.m)			9.45	7.56	8.1		8.1	5.74	5.67			7.92	7.2	
Zonal Check Variety			Karjat-6	Karjat-6	Karjat-6		Karjat-6	Karjat-6	Karjat-6			ADT-49	ADT-49	

@Data of SHR (Shirgaon) not included in the analysis due to low Experimental mean

Appendix- 10(contd.): Grain Yield (kg/ha) of hybrids in IHRT-Medium Slender, Kharif 2023

S No.	IET No.	Name	Z7									Overall Mean (25)
			KA-Z7			TG-Z7			PY-Z7	TN-Z7		
			BRM	MND	KA-Z7 (2)	IIRR	WGL	TG-Z7 (2)	@KRK	@CBT	Z7 (6)	
1	31493	TNRH-297	4478(5)	6674(10)	5576(10)	4827(9)	5163(9)	4995(9)	6714(10)	6497(10)	4523	4679
2	31494	Shakthi-5455	4867(2)	8865(6)	6866(3)	5082(8)	6295(7)	5688(7)	7397(7)	7087(9)	5989(5)	6505(3)
3	31495	PHI-23101	3534	9507(3)	6520(5)	6408(1)	7978(2)	7193(1)	9201(1)	8699(4)	6714(2)	6566(2)
4	31496	PHI-23102	4381(7)	9792(2)	7086(2)	6170(2)	7343(4)	6756(4)	9044(2)	7729(5)	6564(3)	6460(4)
5	31497	CRHR-183	3960(10)	7653(7)	5806(8)	5218(7)	6693(6)	5956(6)	7444(6)	7230(7)	5579(6)	6042(6)
6	31498	PHI-23103	4708(3)	10424(1)	7566(1)	5810(5)	8343(1)	7076(2)	8781(4)	8746(1)	6899(1)	6722(1)
7	31499	BRRH-11	4156(8)	7215(9)	5686(9)	5856(4)	4005	4930(10)	6863(9)	7213(8)	4963(9)	4997
8	31500	KRH-13	4418(6)	8931(5)	6674(4)	2994	3721	3358	6429	7401(6)	4865	5160(10)
9	27P63 (NCH)		3492	9424(4)	6458(6)	6004(3)	7525(3)	6764(3)	7381(8)	8732(2)	6008(4)	6217(5)
10	WGL-14 (NCV-1)		4035(9)	6496	5266	5321(6)	7180(5)	6250(5)	6429	8705(3)	5430(7)	5930(7)
11	BPT-5204 (NCV-2)		4680(4)	6209	5444	4801(10)	5315(8)	5058(8)	7881(5)	6144	5114(8)	5523(8)
12	Improved Samba Mahsuri/ Ketekejoha/Karjat-6/ ADT-49 (ZCV)		5339(1)	7479(8)	6409(7)	3833	4818(10)	4326	8910(3)	5880	4896(10)	5201(9)
Exp. Mean			4337	8222	6280	5194	6198	5696	7706	7505	5629	5833
CD (0.05)			487	714	444	547	974	551	212	406	378	199
CV (%)			6.62	5.13	4.18	6.22	9.28	5.71	1.63	3.19	3.97	2.01
F Value			10.55	34.73	22.63	28.49	22.08	40.22	206.72	56.08	38.5	105.98
NHC+CD (0.05)			3979	10138	6902	6551	8497	7315	7593	9138	6386	6416
BVC+CD (0.05)			5826	8193	6853	5868	8154	6801	9122	9111	5808	6129
D/S			28.06.23	28.07.23		26.06.23	30.06.23		06.09.23	07.06.23		
D/P			15.07.23	20.08.23		10.08.23	03.08.23		09.10.23	27.06.23		
Gross Plot Size(Sq.m)			10	10.8		6.43	8.78		4.2	9.72		
Net Plot Size(Sq.m)			7.13	9.6		4.95	8.78		4.2	7		
Zonal Check Variety			ADT-49	ADT-49		ADT-49	ADT-49		ADT-49	ADT-49		

@Data of CBT (Coimbatore) and KRK (Karaikal) not included in the analysis due to low C.V.

Appendix-11: Days to 50% Flowering (DFF) of hybrids in IHRT-Medium Slender, Kharif 2023

S No.	IET No.	Name	Z3									Z4		Z5 contd.		
			BR-Z3			JH-Z3		OD-Z3	UP-Z3	WB-Z3		AS-Z4	TR-Z4	CG-Z5		
			BKG	SBR	BR-Z3 (2)	BAY	@RCI	CTK	MSD	CHN	Z3 (6)	@TTB	ARD	VNS	RPR	CG-Z5 (2)
1	31493	TNRH-297	104	102	103	94	97	104	96	107	101	115	98	87	95	91
2	31494	Shakthi-5455	117	125	121	105	110	100	112	115	112	128	104	98	101	99
3	31495	PHI-23101	118	124	121	96	113	106	114	114	112	128	93	104	106	105
4	31496	PHI-23102	119	123	121	96	112	103	118	111	112	127	104	98	106	102
5	31497	CRHR-183	117	116	117	93	111	102	104	108	107	125	98	99	103	101
6	31498	PHI-23103	118	123	121	95	114	104	115	114	112	123	104	101	107	104
7	31499	BRRH-11	121	132	127	96	123	101	118	123	115	116	114	110	112	111
8	31500	KRH-13	93	134	114	79	119	105	91	97	100	110		82	87	85
9	27P63 (NCH)		113	114	113	87	112	105	105	109	105	124	107	97	100	99
10	WGL-14 (NCV-1)		114	125	120	98	114	109	117	115	113	128	103	104	105	105
11	BPT-5204 (NCV-2)		106	112	109	99	112	101	115	110	107	115		96	102	99
12	Improved Samba Mahsuri/Ketekejoha/ Karjat-6/ADT-49 (ZCV)		120	130	125	103	113	100	115	116	114	123	109	106	106	106
Exp. Mean			113	122	118	94	112	103	108	111	109	122	102	97	102	100

Appendix-11(contd.): Days to 50% Flowering (DFF) of hybrids in IHRT-Medium Slender, Kharif 2023

S No.	IET No.	Name	Z5								Z6 contd.			
			MH-Z5				MP-Z5				GJ-Z6			
			ANK	SKL	SND	MH-Z5 (3)	JBP	WRS	MP-Z5 (2)	Z5 (7)	NVS	NWG	DBI	GJ-Z6 (3)
1	31493	TNRH-297	104	81	123	103	104	83	94	97	85	93	100	90
2	31494	Shakthi-5455	106	90	127	108	112	94	103	104	97	112	114	104
3	31495	PHI-23101	110	73	106	97	111	97	104	101	96	113	114	104
4	31496	PHI-23102	110	97	128	112	116	103	110	108	100	112	87	100
5	31497	CRHR-183	106	94	119	106	109	96	103	104	90	105	112	98
6	31498	PHI-23103	107	96	120	108	119	100	109	107	100	108	87	99
7	31499	BRRH-11	115	97	115	109	119	105	112	110	103	114	91	103
8	31500	KRH-13	100	77	126	101	100	112	106	98	93	87	96	92
9	27P63 (NCH)		108	96	115	106	111	96	104	103	97	107	109	102
10	WGL-14 (NCV-1)		111	99	117	109	117	101	109	108	97	111	91	99
11	BPT-5204 (NCV-2)		108	96	104	103	116	97	107	103	98	102	110	101
12	Improved Samba Mahsuri/Ketekejoha/ Karjat-6/ADT-49 (ZCV)		114	100	115	110	120	105	112	109	96	106	89	96
Exp. Mean			107	88	121	105	111	99	105	104	96	105	100	99

Appendix-11(contd.): Days to 50% Flowering (DFF) of hybrids in IHRT-Medium Slender, Kharif 2023

S No.	IET No.	Name	Z6					Z7												Overall Mean (25)
			MH-Z6		MH-Z6			AP-Z7			KA-Z7			TG-Z7			PY-Z7	TN-Z7		
			PDG	KJT	@SHR	MH-Z6 (2)	Z6 (5)	MTU	BPT	AP-Z7 (2)	BRM	MND	KA-Z7 (2)	IIRR	WGL	TG-Z7 (2)	@KRK	@CBT	Z7 (6)	
1	31493	TNRH-297	91	82	83	87	89	80	79	80	112	83	97	105	98	101	92	87	93	95
2	31494	Shakthi-5455	104	101	97	103	104	87	95	91	100	88	94	92	103	98	95	96	94	104
3	31495	PHI-23101	108	96	99	102	104	91	83	87	101	89	95	108	102	105	96	95	96	103
4	31496	PHI-23102	108	106	102	107	103	91	95	93	101	94	98	106	107	106	97	97	99	106
5	31497	CRHR-183	104	93	99	98	99	92	79	86	93	95	94	109	104	106	99	92	95	101
6	31498	PHI-23103	113	96	101	105	102	91	83	87	102	94	98	99	104	102	98	97	96	104
7	31499	BRRH-11	117	102	101	109	106	107	98	102	121	86	104	111	110	111	100	100	106	110
8	31500	KRH-13	86	83	77	84	88	73	78	76	110	76	93	85	92	89	80	80	86	93
9	27P63 (NCH)		102	93	97	98	100	87	89	88	98	92	95	107	99	103	96	95	96	102
10	WGL-14 (NCV-1)		107	105	101	106	103	99	98	98	99	97	98	111	108	110	99	97	102	107
11	BPT-5204 (NCV-2)		102	99	98	100	101	89	86	88	103	97	100	107	97	102	101	97	97	102
12	Improved Samba Mahsuri/Ketekejoha/ Karjat-6/ADT-49 (ZCV)		113	103	115	108	102	91	83	87	100	95	97	99	104	102	96	95	95	106
Exp. Mean			104	95	95	99	99	89	86	88	105	88	97	102	103	102	95	93	95	102

Appendix-12: Quality characteristics of IHRT-Medium Slender Kharif 2023

S. No.	IET No.	Name	Hull	Mill	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
1	31493	TNRH-297	80.5	69.3	57.6	6.18	1.81	3.41	LS	VOC	4.0	22.58	22
2	31494	Shakthi-5455	80.2	69.5	56.2	4.88	1.94	2.51	MS	A	4.0	23.70	22
3	31495	PHI-23101	80.3	66.2	55.4	5.12	1.92	2.66	MS	VOC	5.0	21.79	22
4	31496	PHI-23102	80.7	70.6	59.9	5.11	1.90	2.68	MS	VOC	4.0	24.69	22
5	31497	CRHR-183	78.8	70.5	64.0	5.54	1.96	3.82	MS	VOC	5.0	24.43	22
6	31498	PHI-23103	79.8	69.0	61.0	5.23	2.03	2.52	MS	A	4.0	22.90	22
7	31499	BRRH-11	80.2	71.9	65.9	5.96	1.84	3.25	SS	VOC	4.0	25.43	22
8	31500	KRH-13	78.3	65.3	45.4	5.33	2.08	2.56	MS	VOC	4.0	27.57	22
9	27P63 (NCH)		79.3	69.4	56.1	5.22	1.93	2.70	MS	VOC	4.0	24.75	22
10	WGL-14 (NCV-1)		86.3	69.7	67.8	4.96	1.83	2.71	MS	A	5.0	22.64	22
11	BPT-5204 (NCV-2)		77.6	69.5	62.3	5.19	1.82	2.85	MS	A	4.0	23.93	32
12	ADT-49 (ZCV)		77.4	69.2	53.4	4.72	1.81	2.60	MS	VOC	7.0	23.49	32

Hull: Hulling %; Mill: Milling %; HRR: Head rice recovery; KL: Kernel length; KB: Kernel breadth; L/B: L/B ratio; ASV: Alkali spreading value; AC: Amylose content; GC: Gel consistency

Appendix:13 Grain Yield (Kg/ha) of Early duration hybrids in MLT, Kharif 2023

S No.	Name	Z2					Z3(contd.)					
		DL-Z2	HR-Z2	PB-Z2	UK-Z2		BR-Z3			OD-Z3		
		IAR	KUL	@LDN	@PNT	Z2 (2)	BKG	SBR	BR-Z3 (2)	CHP	CTK	OD-Z3 (2)
1	JKRH-2154	5567(9)	7900(5)	8528(3)	5178(1)	6733(9)	4029(6)	6733(1)	5381(3)	5645(4)	6390(3)	6017(5)
2	S-9002	9153(2)	7533(9)	8088(5)	5036(2)	8343(4)	4206(5)	5902(2)	5054(4)	4021(10)	6080(6)	5050(7)
3	NPH-X1	8957(3)	8700(1)	8556(2)	4618(4)	8829(1)	4849(3)	4984(6)	4917(5)	5715(3)	6350(4)	6032(4)
4	MRP-5222	5855(8)	6267(10)		740(10)	6061(10)	5803(1)	5528(3)	5666(1)	6439(1)	7119(2)	6779(1)
5	MRP-5433	6471(7)	8433(2)	5869(7)	3922(7)	7452(5)	4592(4)	4474(7)	4533(6)	5338(6)	5297(7)	5318(6)
6	VNR-2111 Plus	9582(1)	7867(7)	8446(4)	4463(5)	8724(2)	5741(2)	5520(4)	5630(2)	5534(5)	7243(1)	6388(2)
7	DRRH-4	8599(4)	8367(3)	6584(6)	4873(3)	8483(3)	3775(8)	5124(5)	4450(7)	6143(2)	6310(5)	6226(3)
8	US-314	6847(6)	7900(5)	5837(8)	2960(8)	7373(6)	2990(10)	3904(9)	3447(10)	4056(9)	3893(10)	3975(10)
9	CO-51	6868(5)	7667(8)	3278(9)	4005(6)	7267(7)	3399(9)	4126(8)	3762(8)	4197(7)	4930(8)	4564(8)
10	Local Check Variety	5356(10)	8300(4)	8748(1)	2689(9)	6828(8)	3927(7)	3585(10)	3756(9)	4167(8)	4627(9)	4397(9)
Exp. Mean		7326	7893	7104	3848	7609	4331	4988	4659	5126	5824	5475
CD(0.05)		1414	982	475	1123	730	1075	584	610	825	1475	967
CV(%)		11.25	7.25	3.86	17.01	5.59	14.46	6.82	7.62	9.38	14.76	10.29
F val		11.3	4.24	137.63	13.25	14.74	6.58	24.83	15.45	11.16	4.88	8.57
NHC+CD		8261	8882	6312	4083	8103	4065	4488	4057	4881	5368	4942
BVC+CD		8282	9282	9223	5128	7997	5002	4710	4372	5022	6405	5531

@Data of LDN(Ludhiana) not included in the analysis due to low C.V and Data of PNT(Pantnagar) not included in the analysis due to low experimental mean

Appendix:13(contd) Grain Yield (Kg/ha) of Early duration hybrids in MLT, Kharif 2023

S No.	Name	Z3					Z4	Z5 (contd.)			
		JH-Z3	UP-Z3	UP-Z3	WB-Z3		AS-Z4	CG-Z5	MH-Z5		
		@RCI	VRN	@MSD	CHN	Z3 (6)	@TTB	RPR	SKL	SND	MH-Z5 (2)
1	JKRH-2154	5621(2)	3848(9)	5277(5)	7697(2)	5724(3)	5360(6)	6205(2)	7567(3)	4352(8)	5959(6)
2	S-9002	6205(1)	4195(7)	5340(4)	7762(1)	5361(7)	6340(4)	6269(1)	5700(6)	7546(1)	6623(3)
3	NPH-X1	2920(8)	4260(6)	5273(6)	6312(7)	5412(5)	7403(1)	5365(4)	5467(7)	6324(2)	5895(7)
4	MRP-5222	4088(5)	7816(1)	5261(7)	7182(4)	6648(1)	7093(2)	5018(5)	6567(4)	6088(4)	6327(4)
5	MRP-5433	4380(3)	6770(2)	6396(1)	6602(6)	5512(4)	5577(5)	4752(7)	7767(1)	5943(5)	6855(2)
6	VNR-2111 Plus	4380(3)	4330(5)	5636(2)	7568(3)	5989(2)	6403(3)	4841(6)	7767(1)	6119(3)	6943(1)
7	DRRH-4	3650(6)	4123(8)	5453(3)	6892(5)	5394(6)	5120(7)	5597(3)	5367(8)	4230(9)	4798(9)
8	US-314	3212(7)	2107(10)	4485(8)	5958(8)	3818(10)	3697(9)	3614(10)	3367(10)	3604(10)	3485(10)
9	CO-51	2492(9)	4579(4)	4422(9)	5056(9)	4381(9)	4403(8)	4418(9)	5267(9)	4547(7)	4907(8)
10	Local Check Variety	1647(10)	5836(3)	4151(10)	4799(10)	4490(8)	3420(10)	4663(8)	6533(5)	5448(6)	5991(5)
Exp. Mean		3860	4786	5169	6583	5273	5482	5074	6137	5420	5778
CD (0.05)		867	878	312	1430	469	360	511	1427	1699	934
CV (%)		13.1	10.69	3.52	12.66	5.18	3.83	5.87	13.55	18.27	9.42
F Value		22.59	30.05	39.56	4.82	27.84	125.72	22.39	8.38	4.48	11.93
NHC+CD		4079	2985	4797	7388	4287	4057	4125	4794	5303	4419
BVC+CD		3359	6714	4734	6486	4959	4763	5174	7960	7147	6925

@Data of MSD(Masodha) and TTB(Titabar) not included in the analysis due to low C.V and data of (RCI)Ranchi not included due to low experimental mean.

Appendix:13 (contd) Grain Yield (Kg/ha) of Early duration hybrids in MLT, Kharif 2023

S No.	Name	Z5			Z6						
		MP-Z5			GJ-Z6			MH-Z6			
		WRS	@JBP	Z5 (4)	NVS	NWG	GJ-Z6 (2)	PDG	KJT	MH-Z6 (2)	Z6 (4)
1	JKRH-2154	4716(6)	8543(6)	5710(5)	7225(2)	6210(3)	6832(1)	5945(3)	6080(3)	6012(3)	6349(1)
2	S-9002	4443(7)	8263(8)	5990(2)	4819(9)	7008(1)	5633(6)	5988(2)	7337(2)	6663(1)	6251(2)
3	NPH-X1	4921(4)	7520(10)	5519(6)	6540(4)	4398(7)	5878(4)	5822(4)	4347(6)	5084(6)	5360(6)
4	MRP-5222	6748(1)	8673(3)	6105(1)	4486(10)	6719(2)	5348(7)	4701(6)	7813(1)	6257(2)	5858(3)
5	MRP-5433	5394(3)	7617(9)	5964(3)	5471(6)	4138(8)	4968(8)	5599(5)	5874(4)	5737(4)	5374(5)
6	VNR-2111 Plus	4729(5)	9670(1)	5864(4)	7385(1)	4532(6)	6403(2)	3134(8)	3249(10)	3191(10)	4590(8)
7	DRRH-4	6479(2)	8973(2)	5418(7)	6574(3)	5700(5)	6194(3)	6251(1)	4062(8)	5156(5)	5630(4)
8	US-314	2476(10)	8453(7)	3265(10)	5314(7)	3548(10)	4678(10)	4205(7)	4215(7)	4210(7)	4371(9)
9	CO-51	3721(9)	8610(4)	4488(9)	5156(8)	3738(9)	4830(9)	2654(9)	3965(9)	3310(9)	3933(10)
10	Local Check Variety	4317(8)	8610(4)	5240(8)	5570(5)	6019(4)	5736(5)	2303(10)	5794(5)	4048(8)	4834(7)
Exp. Mean		4794	8493	5356	5854	5201	5650	4660	5274	4967	5255
CD(0.05)		605	501	445	1206	1132	1012	546	1076	678	436
CV(%)		7.36	3.44	4.84	12	9.62	10.44	6.82	11.89	7.95	4.84
F Value		37.3	13.5	34.14	6.19	12.95	4.31	66.92	18.01	29.07	30.28
NHC+CD		3081	8954	3710	6520	4680	5690	4751	5291	4888	4807
BVC+CD		4922	9111	5685	6776	7151	6748	3200	6870	4726	5270

@Data of JBP(Jabalpur) not included in the analysis due to low C.V

Appendix:13(contd) Grain Yield (Kg/ha) of Early duration hybrids in MLT, Kharif 2023

S No.	Name	Z7					Z7			Overall Mean (20)
		AP-Z7	KA-Z7	TE-Z7			PY-Z7	TN-Z7		
		MTU	MND	IIRR	WGL	TE-Z7 (2)	@KRK	@CBT	Z7 (4)	
1	JKRH-2154	5996(5)	10505(4)	7044(3)	5139(7)	6092(4)	5309(1)	7598(6)	7171(2)	6241(3)
2	S-9002	6119(4)	11683(1)	8028(1)	8252(1)	8140(1)	3095(10)	6381(8)	8521(1)	6597(1)
3	NPH-X1	4572(6)	11143(2)	4970(7)	5846(6)	5408(5)	3453(6)	8809(2)	6633(5)	6019(6)
4	MRP-5222	7663(1)	7020(9)	7178(8)	6244(4)	6711(3)	4162(3)	8680(3)	7026(3)	6410(2)
5	MRP-5433	3235(10)	10722(3)	5636(6)	8054(2)	6845(2)	3563(5)	6585(7)	6912(4)	6058(4)
6	VNR-2111 Plus	4309(7)	10453(5)	5650(5)	4477(8)	5063(8)	4024(4)	8825(1)	6222(6)	6026(5)
7	DRRH-4	3914(8)	10345(6)	4257(8)	6226(5)	5242(7)	3112(9)	8139(5)	6185(7)	5921(7)
8	US-314	3749(9)	7820(8)	3906(10)	2994(9)	3450(10)	3297(8)	8179(4)	4617(10)	4338(10)
9	CO-51	7440(2)	8349(7)	5873(4)	2359(10)	4116(9)	4246(2)	5180(10)	6005(8)	4936(9)
10	Local Check Variety	6506(3)	5510(10)	3931(9)	6609(3)	5270(6)	3333(7)	5709(9)	5639(9)	5179(8)
Exp. Mean		5350	9355	5647	5620	5634	3759	7409	6493	5773
CD(0.05)		714	734	1021	858	670	199	391	439	160
CV(%)		7.78	4.57	10.53	8.9	6.93	3.08	3.07	3.94	1.62
F Value		43.97	68.5	17.33	44.94	36.86	105.98	105.11	49.38	177.02
NHC+CD		4463	8554	4927	3852	4120	3496	8570	5056	4498
BVC+CD		8154	9083	6894	7467	5940	4445	6100	6444	5339

@Data of KRK(Karaikal) not included in the analysis due to low experimental mean and C.V and Data of CBT (Coimbatore) not included in the analysis due to low C.V.

Appendix:13(contd) Grain Yield (Kg/ha) of Mid Early duration hybrids in MLT, Kharif 2023

S		Z2					Z3 (contd.)					
		DL-Z2	HR-Z2	PB-Z2	UK-Z2		BR-Z3			JH-Z3	OD-Z3	OD-Z3
No.	Name	IAR	KUL	LDN	PNT	Z2 (4)	SBR	BKG	BR-Z3 (2)	RCI	CTK	@CHP
1	US-380	8021(9)	7267(8)	6548(9)	3598(10)	6358(9)	5601(7)	5683(4)	5642(5)	4526(6)	7253(3)	6384(1)
2	S-4001	8603(6)	8867(2)	7666(5)	5805(4)	7735(4)	5704(5)	7180(1)	6442(1)	5256(2)	7286(2)	5514(3)
3	MP-3030	8921(3)	9600(1)	7625(6)	5231(6)	7844(2)	6763(1)	5257(6)	6010(4)	4453(7)	6140(8)	5740(2)
4	MRP-5626	8148(7)	7900(5)	3072(10)	3815(8)	5734(10)	4168(9)	3239(10)	3704(10)	2847(9)	6703(5)	3770(10)
5	VNR-2228	8053(8)	6700(10)	8625(2)	5309(5)	7172(6)	5244(8)	5564(5)	5404(6)	4818(5)	7556(1)	5152(6)
6	27P37	9513(2)	7767(6)	7708(4)	5961(2)	7737(3)	6133(2)	6695(3)	6414(2)	5694(1)	6699(6)	5057(7)
7	KPH-473	8810(4)	6833(9)	6667(8)	5830(3)	7035(7)	5682(6)	6779(2)	6231(3)	5110(3)	6170(7)	4615(9)
8	US-312	7328(10)	7733(7)	6671(7)	4907(7)	6660(8)	6021(4)	4765(7)	5393(7)	4891(4)	4580(10)	5193(4)
9	Gontra Bidhan-3	10137(1)	8200(4)	8070(3)	6167(1)	8144(1)	6051(3)	4512(8)	5282(8)	3577(8)	7126(4)	4750(8)
10	Local Check Variety	8674(5)	8433(3)	8684(1)	3624(9)	7354(5)	4062(10)	4379(9)	4220(9)	2125(10)	4753(9)	5178(5)
Exp. Mean		8621	7930	7133	5025	7177	5543	5405	5474	4330	6427	5135
CD(0.05)		1289	837	551	1105	449	459	817	481	1171	1333	1472
CV(%)		8.71	6.15	4.5	12.82	3.64	4.83	8.8	5.12	15.76	12.08	16.7
F Value		3.43	10.12	76.56	7.26	24.75	30.46	20.29	31.65	8.28	5.36	1.98
NHC+C		8617	8570	7222	6012	7109	6480	5582	5874	6062	5913	6665
BVC+C		11426	9270	9235	7272	8593	6510	5329	5763	4748	8459	6650

@Data of CHP (Chiplima) not included in the analysis due to non-significant F value

Appendix:13(contd.) Grain Yield (Kg/ha) of Mid Early duration hybrids in MLT, Kharif 2023

S		Z3				Z4	Z5 (contd.)					
		UP-Z3		WB-Z3		AS-Z4	CG-Z5	MH-Z5			MP-Z5	
No.	Name	VRN	@MSD	CHN	Z3 (6)	TTB	RPR	SKL	SND	MH-Z5 (2)	WRS	@JBP
1	US-380		5423(3)	6699(7)	5952(4)	5727(6)	5330(8)	6633(8)	5769(5)	6201(7)	5104(4)	8337(10)
2	S-4001	4416(6)	5252(6)	9468(1)	6552(2)	6997(3)	6394(2)	8100(2)	7029(1)	7565(1)	4227(7)	9083(3)
3	MP-3030	3792(9)	6537(1)	6312(8)	5453(8)	5703(7)	5845(6)	8167(1)	6025(2)	7096(2)	4504(6)	9180(2)
4	MRP-5626	4656(4)	4564(9)	4509(10)	4354(10)	4450(9)	3929(9)	6733(7)	4202(9)	5468(9)	3088(10)	8413(8)
5	VNR-2228	5871(2)	5303(4)	8341(4)	6232(3)	7440(2)	5987(5)	7200(5)	5893(3)	6547(3)	3660(9)	8513(5)
6	27P37	5070(3)	5615(2)	9243(2)	6589(1)	7517(1)	6505(1)	7067(6)	5694(6)	6380(5)	5622(2)	8867(4)
7	KPH-473	4062(8)	5290(5)	7890(5)	5949(5)	5867(5)	6143(3)	7833(4)	5192(7)	6512(4)	5941(1)	8400(9)
8	US-312	4071(7)	4952(7)	8631(3)	5493(6)	5523(8)	5552(7)	6267(9)	5840(4)	6053(8)	4055(8)	8507(6)
9	Gontra Bidhan-3	4584(5)	4039(10)	6892(6)	5457(7)	6497(4)	6073(4)	7900(3)	4569(8)	6234(6)	5210(3)	8503(7)
10	Local Check Variety	7170(1)	4689(8)	5056(9)	4591(9)	4390(10)	3865(10)	5833(10)	3565(10)	4699(10)	5030(5)	9223(1)
Exp. Mean		4855	5166	7304	5662	6011	5562	7173	5378	6276	4644	8703
CD(0.05)		1070	220	1093	460	485	525	1240	1584	1081	588	541
CV(%)		12.74	2.49	8.72	4.73	4.7	5.5	10.07	17.17	10.03	7.38	3.62
F Value		8.94	82.82	21.38	23.76	45.94	28.6	3.78	3.61	4.77	20.59	3.68
NHC+CD		5141	5172	9724	5953	6008	6077	7507	7424	7134	4643	9044
BVC+CD		8240	4909	7985	5917	6982	6598	9140	6153	7315	5798	9764

@Data of MSD (Masodha) and JBP(Jabalpur) not included in the analysis due to low C.V

Appendix:13(contd.) Grain Yield (Kg/ha) of Mid Early duration hybrids in MLT, Kharif 2023

S No.	Name	Z5	Z6							Z7 (contd.)		
			GJ-Z6			MH-Z6				AP-Z7	TE-Z7 (contd.)	
		Z5 (4)	NVS	NWG	GJ-Z6 (2)	PDG	KJT	MH-Z6 (2)	Z6 (4)	MTU	IIRR	WGL
1	US-380	5709(6)	5425(8)	7344(1)	6003(6)	6380(2)	5704(5)	6042(4)	6079(3)	4642(8)	6539(6)	6707(4)
2	S-4001	6438(1)	5875(6)	6632(4)	6084(4)	5399(7)	4878(9)	5139(8)	5595(8)	4284(10)	6603(5)	7716(3)
3	MP-3030	6135(4)	5577(7)	6806(3)	5865(8)	6413(1)	6449(3)	6431(2)	6243(2)	5329(4)	8449(2)	3628(9)
4	MRP-5626	4488(10)	6762(2)	4456(9)	6021(5)	2690(10)	4237(10)	3464(10)	4536(10)	5008(6)	3870(10)	2823(10)
5	VNR-2228	5685(7)	6255(4)	7002(2)	6488(2)	6262(4)	6469(2)	6365(3)	6442(1)	4646(7)	5783(9)	8325(2)
6	27P37	6222(3)	4987(10)	5012(8)	5099(9)	6339(3)	7100(1)	6719(1)	5987(5)	5457(2)	7874(3)	8590(1)
7	KPH-473	6277(2)	6852(1)	6279(5)	6667(1)	5096(8)	5977(4)	5536(6)	6048(4)	5436(3)	6269(7)	5735(7)
8	US-312	5428(8)	5875(5)	5949(6)	5910(7)	5947(5)	5572(6)	5760(5)	5839(6)	4523(9)	5931(8)	6536(6)
9	Gontra Bidhan-3	5938(5)	6576(3)	5186(7)	6255(3)	5564(6)	4970(8)	5267(7)	5623(7)	5025(5)	8557(1)	6594(5)
10	Local Check Variety	4573(9)	5200(9)	3940(10)	4730(10)	4152(9)	5097(7)	4624(9)	4662(9)	6387(1)	6632(4)	5463(8)
Exp. Mean		5689	5938	5861	5912	5424	5645	5535	5705	5074	6651	6212
CD(0.05)		581	983	1642	1178	647	911	486	453	1008	1144	1164
CV(%)		5.95	9.65	12.38	11.61	6.95	9.4	5.11	4.63	11.57	10.02	10.92
F Value		12.25	3.93	5.07	2.22	30.34	8.15	35.58	17.49	3.26	13.15	23.06
NHC+C		6009	6858	7591	7088	6594	6483	6246	6292	5531	7075	7700
BVC+C		6519	7559	6828	7433	6211	6008	5753	6076	7395	9701	7758

Appendix:13(contd.) Grain Yield (Kg/ha) of Mid Early duration hybrids in MLT, Kharif 2023

S No.	Name	Z7					Overall Mean (22)
			KA-Z7	PY-Z7	TN-Z7		
		TE-Z7 (2)	@MND	@KRK	@CBT	Z7 (3)	
1	US-380	6623(5)	10942(8)	3333(7)	8175(6)	5963(6)	6002(7)
2	S-4001	7160(3)	11805(2)	4010(2)	9630(1)	6201(4)	6559(2)
3	MP-3030	6039(8)	11384(6)	3198(9)	8064(7)	5802(8)	6217(5)
4	MRP-5626	3347(10)	10306(9)	4197(1)	5495(10)	3901(10)	4610(10)
5	VNR-2228	7054(4)	11737(3)	3095(10)	8536(5)	6251(3)	6403(3)
6	27P37	8232(1)	11859(1)	3837(3)	8743(3)	7307(1)	6767(1)
7	KPH-473	6002(9)	11509(5)	3280(8)	8556(4)	5813(7)	6205(6)
8	US-312	6234(6)	10977(7)	3810(4)	8768(2)	5663(9)	5775(8)
9	Gontra Bidhan-3	7576(2)	11572(4)	3442(6)	6073(8)	6725(2)	6291(4)
10	Local Check Variety	6048(7)	7625(10)	3714(5)	5986(9)	6161(5)	5316(9)
Exp. Mean		6431	10972	3592	7803	5979	6014
CD (0.05)		837	610	147	506	690	270
CV (%)		7.58	3.24	2.38	3.78	6.73	2.61
F Value		21.81	38.33	56.88	69.31	14.34	49.83
NHC+C		7071	11587	3957	9274	6353	6045
BVC+C		8413	12182	3861	6579	7415	6561

@Data of MND(Mandya) and CBT(Coimbatore) not included in the analysis due to low C.V and data of KRK (Karaikal) not included in the analysis due to low experimental mean and C.V

Appendix:13(contd) Grain Yield (Kg/ha) of Medium duration hybrids in MLT, Kharif 2023

S No.	Name	Z2					Z3 (contd.)					
		DL-Z2	HR-Z2	PB-Z2	UK-Z2		BR-Z3			JH-Z3	OD-Z3 (contd.)	
		IAR	KUL	LDN	@PNT	Z2 (3)	SBR	BKG	BR-Z3 (2)	RCI	CHP	CTK
1	AZ 8433DT	8307(3)	7767	7794(6)	4003(7)	7956(5)	6074(2)	5984(3)	6029(3)	5840(2)	6027(3)	6920(5)
2	MR-8666	6561(1)	8767(4)	7084(8)	3752(10)	7470(9)	5266(6)	4175(10)	4721(10)	4796(5)	5841(5)	4980
3	SAVA-134	8079(4)	8200(7)	7850(5)	4615(2)	8043(4)	3984(10)	5737(6)	4860(9)	3472	4599	6453(8)
4	PAC-8744+	7936(6)	8800(3)	8326(3)	4185(5)	8354(3)	5179(9)	5830(5)	5504(5)	3723(9)	5459(7)	7103(3)
5	MRP-5408	7915(7)	8267(6)	6731(10)	4190(4)	7638(6)	5231(7)	5870(4)	5550(4)	4376(7)	6293(1)	6483(7)
6	Bio-799	8069(5)	8533(5)	5988	3246	7530(8)	5911(4)	4508(9)	5209(7)	5402(3)	5559(6)	5597(9)
7	28P67	8846(2)	9533(2)	8304(4)	4301(3)	8894(1)	6574(1)	6074(2)	6324(1)	4088(8)	6168(2)	7046(4)
8	CORH-4	5852	8033(8)	5502	2886	6462	3715	3585	3650	3723(9)	3594	6823(6)
9	ADV-8082	9714(1)	9933(1)	6873(9)	4876(1)	8840(2)	5972(3)	4650(8)	5311(6)	5234(4)	5077(8)	7213(2)
10	HRI-174	7661(8)	6667	8533(1)	3856(8)	7620(7)	5599(5)	6759(1)	6179(2)	4745(6)	5911(4)	8736(1)
11	NDR-359	6212	7833(10)	8363(2)	3839(9)	7469(10)	5226(8)	5164(7)	5195(8)	7916(1)	4690(10)	5347
12	Local Check Variety	6487(10)	7900(9)	7717(7)	4155(6)	7368	3953	4104	4029	3647	4770(9)	5420(10)
Exp. Mean		7637	8353	7422	3992	7804	5224	5203	5213	4747	5332	6510
CD (0.05)		1406	914	616	2032	585	783	699	506	969	1311	1425
CV (%)		10.87	6.46	4.9	30.06	4.43	8.85	7.93	5.74	12.06	14.52	12.93
F Value		5.73	7.57	22.2	0.62 (ns)	11.42	11.68	16.94	22.12	14.49	3.24	4.65
NHC+CD		9067	7581	9149	5888	8205	6382	7458	6685	5714	7222	10161
BVC+CD		7893	8814	8979	6187	8054	6009	5863	5701	8885	6081	6845
D/S		05.06.23	12.06.23	13.06.23	09.06.23		12.07.23	28.06.23		01.07.23	07.07.23	10.06.23
D/P		07.07.23	13.07.23	12.07.23	11.07.23		12.08.23	24.07.23		10.08.23	16.08.23	07.07.23
Gross Plot Size (Sq.m)		10.00	10.00	7.27	4.5			9.58		10.00	8.64	9.0
Net Plot Size (Sq.m)		10.00	10.00	7.27	4.5		7.60	8.64		10.00	6.63	6.84
Local Check-Early		IR 64	HKR-49	PR 126	Govind		Sabour Deep	R. Bhagawati		Naveen		Annada
Local Check-Mid-Early		P 2090		PR 130	PD 12		SabourHarshit	SabourHarshit			MTU 1156	Naveen
Local Check- Medium		P 44		PR 131	PD 4		Sabour Shree	Sabour Shree				CR Dhan 316

@Data of PNT(Pantnagar) not included in the analysis due to and low experimental mean, high C.V.and non-significant F value

Appendix:13(contd) Grain Yield (Kg/ha) of Medium duration hybrids in MLT, Kharif 2023

S No.	Name	Z3					Z4	Z5 (contd.)				
			UP-Z3		WB-Z3		AS-Z4	CG-Z5	MH-Z5			MP-Z5(contd.)
		OR-Z3 (2)	VRN	@MSD	CHN	Z3 (7)	@TTB	RPR	SKL	SND	MH-Z5 (2)	JBP
1	AZ 8433DT	6473(3)	6924(7)	4047	7407(3)	6454(3)	6500(8)	5056(7)	6733(4)	6083(2)	6408(2)	8477(5)
2	MR-8666	5410(9)	5794(8)	5540(6)	6506(9)	5337(9)	6650(4)	4962(8)	6600(6)	5398(5)	5999(5)	7907(8)
3	SAVA-134	5526(8)	4401	6546(3)	6634(6)	5040(10)	7563(3)	4882(9)	7167(3)	4220(10)	5693(8)	7617
4	PAC-8744+	6281(5)	7711(3)	6233(4)	6602(7)	5944(5)	8110(2)	5308(6)	7367(1)	5487(4)	6427(1)	8467(6)
5	MRP-5408	6388(4)	4863(9)	6767(1)	6828(5)	5706(7)	6430(9)	5554(3)	5533(10)	6160(1)	5847(7)	7843(9)
6	Bio-799	5578(7)	8041(1)	5716(5)	6119(10)	5877(6)	6577(6)	5351(5)	6167(8)	5726(3)	5946(6)	8543(3)
7	28P67	6607(2)	8041(1)	5323(8)	8470(1)	6637(2)	6597(5)	5965(1)	7333(2)	4933(8)	6133(3)	8877(2)
8	CORH-4	5208(10)	4736(10)	4289	5250	4489	5523(10)	3795	5167	4216	4692	8523(4)
9	ADV-8082	6145(6)	4122	4380(10)	6538(8)	5544(8)	8247(1)	4813(10)	5667(9)	5242(7)	5454(9)	7650(10)
10	HRI-174	7324(1)	7247(6)	6758(2)	7601(2)	6657(1)	6557(7)	5769(2)	4967	4414(9)	4690	9150(1)
11	NDR-359	5018	7261(5)	4506(9)	6989(4)	6085(4)	4370	5473(4)	6400(7)	4088	5244(10)	8403(7)
12	Local Check Variety	5095	7662(4)	5361(7)	5700	5037	4417	3722	6700(5)	5380(6)	6040(4)	7243
Exp. Mean		5921	6400	5455	6720	5734	6462	5054	6317	5112	5714	8225
CD (0.05)		1008	1163	299	1240	431	440	523	1310	1321	1066	688
CV (%)		10.05	10.73	3.24	10.89	4.44	4.02	6.11	12.25	15.26	11.02	4.94
F Value		4.37	14.52	93.51	4.1	21.39	67.34	15.35	3.4	2.64	2.62	5.84
NHC+CD		8332	8410	7057	8841	7088	6997	6292	6277	5735	5756	9838
BVC+CD		6103	8825	5660	8229	6516	4857	5996	8010	6701	7106	9091
D/S				23.06.23	23.06.23		23.06.23	29.06.23	29.06.23	29.06.23		15.06.23
D/P				29.07.23	24.07.23		31.07.23	29.07.23	20.07.23	23.07.23		22.07.23
Gross Plot Size (Sq.m)				10			10	11.34	10.00	10.00		10.00
Net Plot Size (Sq.m)				7.99	10.35		10	9.60	10.00	7.99		7.99
Local Check-Early				NDR 97	Ajit		Luit	Durgeshwari	PDKV Sadhana	PDKV Sadhana		MTU 1010
Local Check-Mid-Early				IR 64 Sub 1	Khitish		Chillarai	Indira Bharani Dhan-1	PKV Ganesh	PKV Ganesh		JR 206
Local Check- Medium				NDR 2064	Pratikshya		Shraboni	Maheshwari	Sakoli 9	SYE-2001		Kranti

@Data of MSD(Masodha) and TTB (Titabar) not included in the analysis due to low C.V.

Appendix:13(contd) Grain Yield (Kg/ha) of Medium duration hybrids in MLT, Kharif 2023

S No.	Name	Z5			Z6							Z7 (contd.)
		MP-Z5	MP-Z5		GJ-Z6			MH-Z6				AP-Z7
		WRS	MP-Z5 (2)	Z5 (5)	NVS	NWG	GJ-Z6 (2)	PDG	KJT	MH-Z6 (2)	Z6 (4)	MTU
1	AZ 8433DT	5214(4)	6845(4)	6313(2)	5453(4)	4676(10)	5299(8)	6598(1)	5766(5)	6182(2)	5768(2)	5052(8)
2	MR-8666	5414(2)	6660(7)	6056(5)	5062(6)	7298(1)	5822(4)	5102(7)	5409(7)	5256(7)	5572(4)	5395(4)
3	SAVA-134	5765(1)	6691(6)	5930(7)	4910(9)	4878(9)	4877	4276(9)	3897	4086	4436	4449
4	PAC-8744+	4692	6579(8)	6264(3)	4684(10)	5619(8)	5151(9)	6355(2)	3968	5162(8)	5157(10)	5082(7)
5	MRP-5408	4880(9)	6362(10)	5994(6)	4916(8)	6213(5)	5345(7)	6030(4)	4920(9)	5475(5)	5441(7)	5259(5)
6	Bio-799	5182(6)	6862(3)	6194(4)	4998(7)	6424(4)	5551(6)	4614(8)	6651(3)	5632(4)	5604(3)	5934(3)
7	28P67	5210(5)	7043(1)	6464(1)	5956(2)	6846(2)	6428(1)	3589	6074(4)	4831(9)	5566(5)	4844
8	CORH-4	3509	6016	5042	4320	4526	4391	5257(6)	6940(1)	6098(3)	5340(8)	5050(9)
9	ADV-8082	5337(3)	6493(9)	5742(10)	6904(1)	4427	6135(2)	4089(10)	5492(6)	4791(10)	5335(9)	5206(6)
10	HRI-174	4920(8)	7035(2)	5844(9)	5095(5)	6638(3)	5632(5)	6215(3)	6749(2)	6482(1)	6131(1)	6072(2)
11	NDR-359	5043(7)	6723(5)	5881(8)	5628(3)	6042(6)	5902(3)	5474(5)	5202(8)	5338(6)	5563(6)	4864(10)
12	Local Check Variety	4729(10)	5986	5555	4549	5891(7)	5014(10)	3359	4367(10)	3863	4390	6210(1)
Exp. Mean		4991	6608	5940	5206	5790	5462	5080	5453	5266	5359	5285
CD (0.05)		666	473	422	998	1595	963	1551	930	891	535	881
CV (%)		7.88	4.23	4.2	11.32	12.51	10.41	18.03	10.07	9.99	5.9	9.85
F Value		6	4.64	7.04	4.26	3.57	3.02	4.33	10.82	6.88	7.63	3.16
NHC+CD		5586	7508	6266	6093	8233	6595	7766	7679	7373	6666	6953
BVC+CD		5709	7196	6303	6626	7637	6865	7025	6132	6229	6098	7091
D/S		30.06.23			15.06.23	16.06.23		14.06.23	15.06.23			15.07.23
D/P		22.07.23			15.07.23	26.07.23		07.07.23	08.07.23			14.08.23
Gross Plot Size (Sq.m)		10.02			14.43	10.9		7.56	8.64			10.44
Net Plot Size (Sq.m)		8.17			8.64	8.64		5.13	6.3			8.10
Local Check-Early		JR 81			GR 17	GAR 13		Karjat 184	Karjat 7			MTU 1156
Local Check-Mid-Early		JR 206			GNR-3			Karjat 3	Karjat 3			MTU 1121
Local Check- Medium		IR 64			GNR-5			Karjat 9	Karjat 5			MTU 1239

Appendix:13(contd) Grain Yield (Kg/ha) of Medium duration hybrids in MLT, Kharif 2023

S No.	Name	Z7							Overall Mean (23)
		KA-Z7	TE-Z7			PY-Z7	TN-Z7		
		MND	IIRR	WGL	TE-Z7 (2)	@KRK	@CBT	Z7 (4)	
1	AZ 8433DT	10543(4)	6627(5)	8116(4)	7372(3)	3323(7)	8757(4)	7584(2)	6700(3)
2	MR-8666	9061(10)	6610(6)	6089(9)	6349(8)	3174(9)	7544(7)	6789(8)	6074(8)
3	SAVA-134	11762(1)	5021(10)	3397	4209	2929	6167	6157(10)	5736(10)
4	PAC-8744+	10451(5)	4966	8625(2)	6796(6)	3095(10)	9035(3)	7281(6)	6436(4)
5	MRP-5408	10898(2)	5606(8)	7477(6)	6542(7)	4286(1)	7855(5)	7310(5)	6270(6)
6	Bio-799	9300(9)	6899(3)	7668(5)	7283(4)	3652(4)	6791(9)	7450(4)	6398(5)
7	28P67	9742(7)	6872(4)	8637(1)	7755(2)	4286(2)	9711(1)	7524(3)	6872(1)
8	CORH-4	8127	4448	4781(10)	4615(10)	3254(8)	7272(8)	5602	5205
9	ADV-8082	10011(6)	6291(7)	2502	4397	3619(5)	6626	6003	6064(9)
10	HRI-174	10567(3)	7668(1)	8223(3)	7946(1)	3492(6)	9636(2)	8133(1)	6779(2)
11	NDR-359	9636(8)	5066(9)	6527(8)	5797(9)	2402	7845(6)	6524(9)	6213(7)
12	Local Check Variety	7720	6975(2)	7124(7)	7049(5)	3896(3)	6747(10)	7007(7)	5707
Exp. Mean		9818	6087	6597	6342	3451	7832	6947	6205
CD (0.05)		760	1534	1049	1063	126	450	630	191
CV (%)		4.57	14.89	9.39	9.9	2.16	3.39	5.35	1.81
F Value		19.79	3.83	32.66	13.06	161.21	61.76	12.19	56.43
NHC+CD		11327	9202	9272	9009	3618	10086	8763	6970
BVC+CD		10396	8509	8173	8112	4022	8295	7637	6404
D/S		13.07.23	03.07.23	19.06.23		17.09.23	13.06.23		
D/P		18.08.23	17.08.23	10.07.23		17.10.23	07.07.23		
Gross Plot Size (Sq.m)		13.50	4.50	7.90			10.80		
Net Plot Size (Sq.m)		12.28	3.24	7.90		4.20	7.84		
Local Check-Early		Raksha 13	Rasi	WGL 962		ADT 39	CO 55		
Local Check-Mid-Early		IR 64	Varadhan	RNR 15048		KKL (R) 2	TKM 13		
Local Check- Medium		MTU 1001	DRR Dhan-38	WGL 14		ADT 45	CO 56		

@Data of KRK (Karaikal) not included in the analysis due to and low experimental mean and low C.V.andCBT(Coimbatore) not included due to low C.V.

Appendix:14 Days to 50% flowering (DFF) of Early duration hybrids in MLT, Kharif 2023

S No.	Name	Z2					Z3 (contd.)					
		DL-Z2	HR-Z2	PB-Z2	UK-Z2		BR-Z3			OD-Z3		
		IAR	KUL	@LDN	@PNT	Z2 (2)	BKG	SBR	BR-Z3 (2)	CHP	CTK	OD-Z3 (2)
1	JKRH-2154	92	87	95	95	89	89	99	94	97	92	95
2	S-9002	100	91	97	97	95	92	101	97	103	96	100
3	NPH-X1	93	87	91	89	90	89	95	92	100	92	96
4	MRP-5222	100	116		129	108	119	92	106	119	112	116
5	MRP-5433	102	96	101	105	99	96	101	99	105	102	104
6	VNR-2111 Plus	95	84	93	93	89	89	99	94	98	94	96
7	DRRH-4	102	97	103	103	100	86	96	91	99	100	100
8	US-314	100	80	91	89	90	86	95	91	98	89	93
9	CO-51	90	77	82	85	84	82	94	88	97	82	90
10	Local Check Variety	98	88	91	79	93	92	100	96	98	83	91
Exp. Mean		97	90	94	96	94	92	97	95	102	94	98

Appendix:14(contd) Days to 50% flowering (DFF) of Early duration hybrids in MLT, Kharif 2023

S No.	Name	Z3					Z4	Z5 (contd.)			
		JH-Z3	UP-Z3		WB-Z3		AS-Z4	CG-Z5	MH-Z5		
		@RCI	VRN	@MSD	CHN	Z3 (6)	@TTB	RPR	SKL	SND	MH-Z5 (2)
1	JKRH-2154	98	88	95	95	93	101	92	87	93	90
2	S-9002	96	90	97	100	97	104	93	91	93	92
3	NPH-X1	107	89	95	97	94	105	91	85	91	88
4	MRP-5222	123	104	112	115	110	124	112	106	115	111
5	MRP-5433	108	93	99	103	100	115	95	89	95	92
6	VNR-2111 Plus	105	86	93	97	94	101	86	84	92	88
7	DRRH-4	96	91	91	100	95	108	91	85	92	89
8	US-314	93	81	87	90	90	98	82	77	83	80
9	CO-51	97	80	89	90	88	97	84	73	86	80
10	Local Check Variety	108	96	73	89	93	76	87	83	89	86
Exp. Mean		103	90	93	98	95	103	91	86	93	90

Appendix:14 (contd) Days to 50% flowering (DFF) of Early duration hybrids in MLT, Kharif 2023

S No.	Name	Z5			Z6						
		MP-Z5			GJ-Z6			MH-Z6			
		WRS	@JBP	Z5 (4)	NVS	NWG	GJ-Z6 (2)	PDG	KJT	MH-Z6 (2)	Z6 (4)
1	JKRH-2154	88	104	90	86	86	86	93	84	89	87
2	S-9002	87	106	91	91	100	94	97	89	93	94
3	NPH-X1	87	103	89	84	94	87	91	90	90	90
4	MRP-5222	115	121	112	105	96	102	116	101	109	105
5	MRP-5433	98	107	94	91	101	94	97	85	91	92
6	VNR-2111 Plus	87	104	87	84	98	88	85	81	83	85
7	DRRH-4	88	104	89	88	98	91	92	80	86	88
8	US-314	86	101	82	85	89	86	86	77	82	84
9	CO-51	88	101	83	80	100	87	83	79	81	84
10	Local Check Variety	86	103	86	88	105	94	83	88	85	89
Exp. Mean		91	105	90	88	97	91	92	85	89	90

Appendix:14(contd) Days to 50% flowering (DFF) of Early duration hybrids in MLT, Kharif 2023

S No.	Name	Z7								Overall Mean (20)
		AP-Z7	KA-Z7	TE-Z7			PY-Z7	TN-Z7		
		MTU	MND	IIRR	WGL	TE-Z7 (2)	@KRK	@CBT	Z7 (4)	
1	JKRH-2154	82	92	90	89	90	82	88	89	90
2	S-9002	88	88	105	94	100	83	95	94	94
3	NPH-X1	83	84	109	88	99	91	89	91	91
4	MRP-5222	110	102	110	117	114	80	97	110	109
5	MRP-5433	92	88	97	97	97	76	91	94	96
6	VNR-2111 Plus	84	87	92	88	90	81	89	88	89
7	DRRH-4	88	78	113	90	101	76	87	92	93
8	US-314	80	77	92	81	87	81	79	83	86
9	CO-51	78	75	89	80	84	74	83	81	84
10	Local Check Variety	92	72	90	100	95	79	83	88	90
Exp. Mean		88	84	99	92	96	80	88	91	92

Appendix:14(contd) Days to 50% flowering (DFF) of Mid Early duration hybrids in MLT, Kharif 2023

S No.	Name	Z2					Z3 (contd.)					
		DL-Z2	HR-Z2	PB-Z2	UK-Z2		BR-Z3			JH-Z3	OD-Z3	
		IAR	KUL	LDN	PNT	Z2 (4)	SBR	BKG	BR-Z3 (2)	RCI	CTK	@CHP
1	US-380	105	91	98	99	98	100	97	99	109	102	102
2	S-4001	104	93	100	100	99	98	98	98	109	95	105
3	MP-3030	95	87	94	96	93	103	87	95	96	95	99
4	MRP-5626	89	76	83	80	82	88	79	84	109	81	91
5	VNR-2228	107	97	102	105	103	101	94	98	107	108	104
6	27P37	106	95	102	104	101	102	94	98	108	101	103
7	KPH-473	97	86	94	97	93	99	87	93	110	95	101
8	US-312 (NCH-ME)	101	86	91	95	93	98	88	93	100	90	99
9	Gontra Bidhan-3 (NCV-ME)	101	90	99	98	97	101	96	98	108	92	103
10	Local Check Variety	95	95	102	90	96	99	92	96	107	93	100
Exp. Mean		100	90	97	96	96	99	91	95	106	95	101

Appendix:14(contd) Days to 50% flowering (DFF) of Mid Early duration hybrids in MLT, Kharif 2023

S No.	Name	Z3				Z4	Z5 (contd.)					
		UP-Z3		WB-Z3		AS-Z4	CG-Z5	MH-Z5			MP-Z5	
		VRN	@MSD	CHN	Z3 (6)	TTB	RPR	SKL	SND	MH-Z5 (2)	WRS	@JBP
1	US-380		91	101	102	107	93	89	99	94	96	104
2	S-4001	94	97	102	100	112	93	88	97	93	89	109
3	MP-3030	90	96	99	95	103	92	85	101	93	88	104
4	MRP-5626	77	84	87	87	95	77	76	90	83	83	97
5	VNR-2228	93	98	101	101	110	95	90	102	96	92	104
6	27P37	87	95	101	99	105	93	89	97	93	84	104
7	KPH-473	90	95	100	97	104	92	88	103	96	89	104
8	US-312	87	92	98	94	94	92	88	94	91	87	105
9	Gontra Bidhan-3	92	96	101	98	109	93	90	93	92	89	106
10	Local Check Variety	87	87	92	95	106	87	94	98	96	84	105
Exp. Mean		89	93	98	97	104	91	88	97	93	88	104

Appendix:14(contd) Days to 50% flowering (DFF) of Mid Early duration hybrids in MLT, Kharif 2023

S No.	Name	Z6							Z7 (contd.)		
			GJ-Z6			MH-Z				AP-Z7	TE-Z7(contd)	
		Z5 (4)	NVS	NWG	GJ-Z6 (2)	PDG	KJT	MH-Z6 (2)	Z6 (4)	MTU	IIRR	WGL
1	US-380	95	91	96	93	99	90	94	93	88	101	93
2	S-4001	92	91	99	94	93	84	89	91	85	103	96
3	MP-3030	92	90	94	91	90	90	90	91	85	98	89
4	MRP-5626	82	79	99	85	83	79	81	83	76	90	77
5	VNR-2228	95	94	101	96	96	90	93	94	86	95	97
6	27P37	91	102	101	102	99	94	97	99	86	107	95
7	KPH-473	93	89	93	90	87	91	89	90	83	116	89
8	US-312	90	88	99	92	87	80	83	87	82	110	94
9	Gontra Bidhan-3	91	91	96	93	97	89	93	93	88	108	92
10	Local Check Variety	91	88	94	90	94	92	93	92	109	101	110
Exp. Mean		91	90	97	93	92	88	90	91	87	103	93

Appendix:14(contd) Days to 50% flowering (DFF) of Mid Early duration hybrids in MLT, Kharif 2023

S No.	Name	Z7					Overall Mean (22)
			KA-Z7	PY-Z7	TN-Z7		
		TE-Z7 (2)	@MND	@KRK	@CBT	Z7 (3)	
1	US-380	97	88	79	91	94	97
2	S-4001	100	81	79	93	95	97
3	MP-3030	94	90	81	91	91	93
4	MRP-5626	84	77	74	78	81	84
5	VNR-2228	96	87	75	91	93	98
6	27P37	101	94	81	94	96	98
7	KPH-473	103	90	85	91	96	94
8	US-312	102	90	82	97	95	92
9	Gontra Bidhan-3	100	89	80	91	96	96
10	Local Check Variety	106	82	87	98	107	96
Exp. Mean		98	87	80	92	94	95

Appendix:14 (contd)Days to 50% flowering (DFF) of Medium duration hybrids in MLT, Kharif 2023

S		Z2					Z3 (contd.)					
		DL-Z2	HR-Z2	PB-Z2	UK-Z2		BR-Z3			JH-Z3	OD-Z3 (contd.)	
No.	Name	IAR	KUL	LDN	@PNT	Z2 (3)	SBR	BKG	BR-Z3 (2)	RCI	CHP	CTK
1	AZ 8433DT	100	100	107	110	104	100	103	102	112	107	108
2	MR-8666	111	111	114	116	112	100	94	97	112	113	114
3	SAVA-134	86	86	89	95	89	96	86	91	100	97	84
4	PAC-8744+	99	99	102	107	103	100	98	99	96	104	106
5	MRP-5408	93	93	99	103	98	102	96	99	101	104	106
6	Bio-799	107	107	123	114	112	101	99	100	106	111	112
7	28P67	105	105	107	112	107	104	96	100	111	109	110
8	CORH-4	94	94	98	100	99	101	92	97	107	103	100
9	ADV-8082	82	82	88	89	89	92	81	87	93	96	85
10	HRI-174	100	100	102	108	103	102	98	100	107	105	108
11	NDR-359	95	95	102	104	100	100	98	99	111	108	98
12	Local Check Variety	92	92	106	101	102	111	118	115	107	119	104
Exp. Mean		97	97	103	105	102	101	97	99	105	106	103

Appendix:14 (contd)Days to 50% flowering (DFF) of Medium duration hybrids in MLT, Kharif 2023

S		Z3					Z4	Z5 (contd.)				
			UP-Z3		WB-Z3		AS-Z4	CG-Z5	MH-Z5			MP-Z5(contd.)
No.	Name	OD-Z3 (2)	VRN	@MSD	CHN	Z3 (7)	@TTB	RPR	SKL	SND	MH-Z5 (2)	JBP
1	AZ 8433DT	108	86	102	107	103	105	101	95	99	97	110
2	MR-8666	114	94	111	114	106	120	101	97	113	105	101
3	SAVA-134	90	81	95	94	91	104	88	81	88	85	99
4	PAC-8744+	105	97	105	105	101	110	98	96	104	100	110
5	MRP-5408	105	95	99	101	101	108	93	92	99	96	105
6	Bio-799	112	94	116	109	105	128	100	96	104	100	112
7	28P67	110	96	108	111	105	116	98	92	102	97	112
8	CORH-4	102	91	92	100	99	108	93	87	92	90	103
9	ADV-8082	91	79	88	88	88	100	83	78	91	85	101
10	HRI-174	107	94	105	105	103	114	97	98	102	100	109
11	NDR-359	103	97	103	102	102	110	96	91	96	93	105
12	Local Check Variety	112	88	104	111	108	111	97	97	100	99	107
Exp. Mean		105	91	102	104	101	111	95	92	99	95	106

Appendix:14 (contd)Days to 50% flowering (DFF) of Medium duration hybrids in MLT, Kharif 2023

S No.	Name	Z5			Z6							Z7
		MP-Z5			GJ-Z6			MH-Z6				AP-Z7
		WRS	MP-Z5 (2)	Z5 (5)	NVS	NWG	GJ-Z6 (2)	PDG	KJT	MH-Z6 (2)	Z6 (4)	MTU
1	AZ 8433DT	90	100	99	97	103	99	109	89	99	99	95
2	MR-8666	100	101	102	102	106	104	109	102	106	105	97
3	SAVA-134	87	93	89	84	91	86	86	82	84	85	81
4	PAC-8744+	91	101	100	91	100	94	97	89	93	94	90
5	MRP-5408	97	101	97	92	100	95	94	93	94	94	88
6	Bio-799	90	101	100	95	100	97	108	101	105	101	90
7	28P67	87	100	98	90	106	96	103	91	97	97	92
8	CORH-4	90	96	93	89	92	90	89	83	86	88	91
9	ADV-8082	84	93	88	80	87	82	83	79	81	82	79
10	HRI-174	91	100	99	93	102	96	101	91	96	96	86
11	NDR-359	86	96	95	95	98	96	97	91	94	95	98
12	Local Check Variety	84	96	97	91	100	94	113	99	106	101	109
Exp. Mean		90	98	96	92	99	94	99	91	95	95	91

Appendix:14 (contd)Days to 50% flowering (DFF) of Medium duration hybrids in MLT, Kharif 2023

S No.	Name	Z7							Overall Mean (23)
		KA-Z7	TE-Z7			PY-Z7	TN-Z7		
		MND	IIRR	WGL	TE-Z7 (2)	@KRK	@CBT	Z7 (4)	
1	AZ 8433DT	94	106	103	105	87	97	99	101
2	MR-8666	95	104	105	104	87	100	100	105
3	SAVA-134	85	90	84	87	77	87	85	88
4	PAC-8744+	90	95	98	97	84	93	93	99
5	MRP-5408	88	102	88	95	81	93	92	97
6	Bio-799	85	99	105	102	76	93	95	102
7	28P67	94	111	100	105	82	96	99	101
8	CORH-4	89	100	90	95	82	90	93	95
9	ADV-8082	76	85	83	84	79	81	81	86
10	HRI-174	91	104	103	104	77	96	96	100
11	NDR-359	91	106	97	102	81	100	98	98
12	Local Check Variety	91	107	106	107	97	102	103	103
Exp. Mean		89	101	97	99	83	94	94	98

ADVANCE VARIETY TRIAL -2 AEROBIC (AVT 2-AEROB)

Locations: 25 **Test Entries: 18**

Checks: CR Dhan 201 (National); CR Dhan 202 (Northern, Eastern, North Eastern and Central), AAUDR-1 (Western), MAS 946-1 (Southern)- Zonal; and local check **Table: 9a**

The Advanced Variety Trial 2 - Aerobic (AVT -2- Aerobic) was constituted with 14 test entries among which 2 are repeat entries (IET Nos. 29410 & 29405) along with three checks (NC, ZC and LC). The trial was despatched to 25 locations but data was received from 22 locations except from Bhubaneswar, Cuttack, Hazaribagh**.** The data from six locations *viz.*, Masodha (2382 kg/ha), Rewa (508 kg/ha), Parbhani (2777 kg/ha) and Derol (1236 Kg/ha) was not included in analysis due to low mean yield (<3000 kg/ha); low CV at Jabalpur (CV: 3.41%) and non-significant data at Navasari. The experimental mean grain yield ranged from 3125 kg/ha (Arundhutinagar) to 6676 kg/ha (Mugad). The CV% at experimental locations ranged from 6.25 (Jabalpur) to 19.85 (Vyara).

The performance of 14 test entries across three years (2021, 2022 and 2023) is discussed below.

IET 30032 (BRR 0181-IR 93827-29-1-1-4) derived from the cross IR 81039-B-173-U 3-3 / IR 81063-B-94-U 3-1 recorded significant yield gain over the best check in overall mean yield for 2 years (1st year: 4320* kg/ha) and 2nd year: 4286* kg/ha). In Zone 6, it exhibited significant yield gain in one year (3rd year: 3581*kg/ha) but not in 1st and 2nd years. In Gujarat state, it significantly outperformed the best check in 1st year (6688*kg/ha) but could not out yielded the best check significantly in 2nd and 3rd year, and hence entry is not found promising in Gujarat in zone 6. In zone 3, it showed significant superiority in a single year (2nd year: 4178* kg/ha), and state wise in Bihar it out yielded the best varietal check in a single year (2nd year: 5087* kg/ha) and in Jharkhand, it was significantly superior in a single year (3rd year: 5153 kg/ha) and inconsistent in rest of the years. It showed low HRR (40%), intermediate amylose (25.78%), GC (48 mm), and ASV (7.0*).* ***Due to inconsistent performance over the years, it is discontinued.***

IET 30024 (NVSR 3110), a derivative of IR 28 / GAR 13 recorded significant yield superiority in overall mean yield in one among the three years of testing (2nd year: 4155* kg/ha). In zone 5, for one year (1st year: 4333* kg/ha) it recorded significant yield gain in zonal mean as well as Chhattisgarh state mean (1st year: 4333* kg/ha). In Zone 7, it showed significant yield superiority in 2nd year (5841* kg/ha) and state wise in Tamil Nadu (2nd year: 5841 kg/ha). It showed good quality parameters including high HRR (52.3%), amylose (26.19%), GC (60 mm) and ASV (3.0*).* ***Due to inconsistent performance over the years, it is discontinued.***

IET 30028 (CR 3937-1-1-1-1-1-2-3) derived from the cross IR 73895-33-1-3-2 / Lalat recorded significant yield improvement in overall mean yield for two years (1st year: 4107* kg/ha, 2nd year: 4146* kg/ha) and for one year in zonal mean yield (Zone 3) and in state mean yield (Bihar) *i.e.* 5331*kg/ha within zone 3 (2nd year: 4466* kg/ha). In zone 7, it could show

significant yield gain in Karnataka for a single year (3rd year: 7283* kg/ha). It showed low HRR (43.5%), intermediate amylose (22.73%), GC (69mm), and ASV (4.0*).* ***It's performance is not stable across years in zones and states, and hence discontinued.***

IET 30029 (BRR 2183), a derivative of IR 74355-CN3 / CN 6-78 cross performance is inconsistent across zones and states. In the 1st year, it recorded significant yield improvement in Chhattisgarh state (4323* kg/ha) of zone 5 (4323 *Kg/ha). However, in 2nd and 3rd years, it failed to show yield improvement in the same state and zone. Similarly in zone 3, it was significantly superior to the best varietal check in a single year (2nd year: 4100* kg/ha) and in Bihar state (5153* kg/ha) of zone 3; In 3rd year, significant yield superiority was found in Jharkhand (5237* kg/ha), another state of zone 3 and in Karnataka (3rd year: 7092* kg/ha) state of zone 7 (6649* kg/ha). It showed good quality parameters including high HRR (60.6%), amylose (26.63%), GC (47 mm), and ASV (4.0*).* ***Thus across the years, it showed yield gain in a single year in the states of Chhattisgarh, Bihar, Jharkhand, and Karnataka and therefore discontinued***.

IET 30008 (BRR 0180-IR14L157) derived from the cross I(R 81039-B-173-U 3-3 / IR 81063-B-94-U 3-1) was found to be significantly superior in the overall grain yield for two years (1st year: 4359* kg/ha and 2nd year: 4386* kg/ha) and also the zonal mean yield of zone 2 (1st year: 6900 *kg/ha and 2nd year: 4603* kg/ha). State wise it was significantly superior to the best varietal check for two years in Haryana (1st year: 6900* kg/ha and 3rd year: 5011* kg/ha). It showed good quality parameters including high HRR (55.1%), amylose (25.72%), GC (82 mm), and ASV (7.0*).* ***Therefore, it is identified as a promising entry for Haryana.***

IET 30004 **(**CSR PET 27) derived from CSR 30 / CSR 27 cross significantly outperformed the best varietal check in overall grain yield for 2 continuous years (1st year: 4281* kg/ha and 2nd year: 4113* kg/ha). The entry excelled significantly in yield performance in Haryana for the first 2 years (1st year 6500*kg/ha) and 2nd year: 4726* kg/ha) but failed in 3rd year in zone 2 and Haryana. In zone 6, in the 1st year, it registered significantly superior yield (5236*kg/ha) and in Gujarat for one year (1st year: 6854* kg/ha), and in zone 3 during second year (4111 *kg/ha) and in Bihar (5073* kg/ha). It showed HRR (54.5%), intermediate amylose (25.87%), GC (41mm) and ASV (7.0*).* ***It is discontinued as it has shown inconsistent performance in zones and states over 3 years.***

IET 30021 **(**HURS 21-2-IR15T1473), a derivative of the cross IR 11T252 / IR 09N522 could not show yield consistency as it registered significant yield improvement during one year in Zonal mean (second year: 5258* kg/ha) in zone 7 in Telangana state (5258 kg/ha). However, in 1st and 3rd years of testing, it failed to demonstrate yield superiority in Telangana as well as other states of the same zone. It showed low HRR (39.4%), intermediate amylose (21.88%), GC (58 mm), and ASV (3.0*).* ***Hence it is discontinued.***

IET 30034 **(**TRC 185-B-B-82-2-11) developed from the cross (Tripura Nirog / TRC 87-251) registered significant yield improvement in various states such as Bihar (1st year: 4671* kg/ha) in zone 3; Gujarat (1st year: 7576* kg/ha) in Zone 6 (5697* kg/ha); Haryana (2nd year: 5320* kg/ha) in zone 2 (4962* kg/ha). However, in the remaining two years of testing, it failed to establish yield superiority in the mentioned zones and states. It showed low HRR (42.8%), intermediate amylose (22.4%), GC (54 mm), and ASV (7.0*).* ***It is discontinued as it has shown inconsistent performance in zones and states over 3 years.***

IET 29410 (RP5594-147-23-1), a repeat entry derived from the cross MTU1010/RPHR1005 exhibited yield gain in the first two years in Odisha (2020:6377* kg/ha, 2021: 5726* kg/ha)) in Zone III. In the third year (2022) and 4th year (2023) it could not show significant yield improvement across different zones and states. It showed good quality parameters including high HRR (58%), intermediate amylose (24.14%), GC (26mm), and ASV (4.0*).* ***Due to inconsistent performance over the years, it is discontinued.***

IET 30041 (BRR 2184), a derivative of the cross HHZ 14-Sal-10-DT-1-DT-1-Selection (Huang-Hua-Zhan * 2 / IR 64) registered significant yield improvement in overall mean yield during 1st year (4250* kg/ha) and 2nd year (4099* kg/ha). It showed significant yield improvement in Gujarat state for a single year (1st year: 6347 * kg/ha**)** only in zone VI**.** It failed to demonstrate yield superiority in 2nd and 3rd years. **.** It showed high HRR (61.4%), low amylose (17.30%), GC (81 mm) and ASV (5.0*).* ***Due to inconsistent performance over the years, it is discontinued***

IET 30023 (TRC 184-B-B-76-1-1) derived from the cross Tripura Nirog / TRC 87-251 could not show significant and consistent yield advantage across years, zones and states. It demonstrated significant yield improvement in overall mean during first two years of testing (1st year: 4109* kg/ha, 2nd year: 4323* kg/ha). Zone wise, it established significant yield gain in zone 5 (4186 *kg/ha) and state wise in Chhattisgarh (4186*kg/ha) during 1st year only. In Zone 3, it's yield improvement (4340* kg/ha) was evident particularly in Bihar (5201* kg/ha) during 2nd year. It recorded good quality parameters including high HRR (55.7%), intermediate amylose (24.43%), GC (70 mm) and ASV (7.0*).* ***It lacked yield superiority in the 3rd year and therefore discontinued.***

IET 30020 (CRR 842-IR14L159) derived from the cross IR 10N102 / IR 86931-B-400 recorded consistent yield performance over best varietal check in overall mean during 1st year (2019: 4554* kg/ha)and 2nd year (4587* kg/ha) of testing. In zone 2, it was found promising and significantly superior to the best varietal check continuously for 3 years (1st year: 6300* kg/ha, 2nd year: 5478* kg/ha, and 3rd year: 5268* kg/ha). In zone 2, state wise it recorded significant yield superiority over the best check continuously for 3 years in Haryana (1st year: 6300* kg/ha), 2nd year: 5386* kg/ha, and 3rd year: 5350* kg/ha). However, in zone III, it was significantly superior to the best varietal check (2nd year: 3973* kg/ha) but failed in 2nd &3rd years. State wise, it was significantly superior in the 1st two consecutive years (1st year: 4624* kg/ha) & 2nd year: 4980* kg/ha) only in Bihar. It showed good quality parameters including high HRR (56.0%), intermediate amylose (23.37%), GC (92 mm), and ASV (7.0*).* ***Hence it is found promising in Haryana.***

IET 29405 (RCPR70-IR84899-B-184-16-1-1-1), a repeat entry derived from the cross IR78877-208-B-1-1/IRRI132 was found promising with significant yield superiority in a single state, Chattisgarh in zone V (5111* kg/ha) over the best check in the first year (2020) . In the second year (2021) it exhibited significant yield gain over the best check in zone VI (4461* kg/ha). State-wise it recorded significant yield advantage in Gujarat (5420*kg/ha). In the third year, (2022) it was found promising in zone 3 (4405*kg/ha) and in Jharkhand state (4698* kg/ha). In 4th year (2023), it has registered yield gain in zone 3 (5146*kg/ha) in Bihar state (5383 kg/ha). It exhibited good quality parameters including high HRR (57.2%), intermediate amylose (23.14%), GC (43 mm) and ASV (4.0*).* ***However as it showed inconsistent yield improvement in different zones (zone 5, 6, 3) in different years and states across different years and so discontinued.***

IET 30051 (CRR 790-69) derived from CR Dhan 40 / IR 73963-86-1-5-2-2 (NPT PSR 12) cross registered significant mean yield superiority in two 2 years in zone 2 (1st year: 6100*kg/ha, 2nd year: 4586* kg/ha) and state wise it was found promising in Haryana for 2 years (1st year: 6100* kg/ha, 2nd year: 5009* kg/ha). In other zones such as zone 5, it could exhibit significant yield gain in Chhattisgarh (4318* kg/ha) of zone 5 (4318* kg/ha) in 1st year but not in the rest of the 2 years. Similarly, it exhibited significant yield improvement in Bihar (5557* kg/ha) in 2nd year in Zone 3 (4311* kg/ha) but could not establish yield advantage in the rest of the 2 years. It had low HRR (47.6%), intermediate amylose (21.7%), GC (22 mm), and ASV (3.0*). **Hence it is discontinued***

Performance of entries in three years of testing 2021-2023

IET N0.	Year	Overall yield (Kg/ha)	Significant yield superiority over BVC	Zone (Locations)	Yield (kg/ha)	Significant yield superiority over BVC	States (Locations)	Yield (kg/ha)	Significant yield superiority over BVC	Remarks
IET 30032 (BRR 0181-IR 93827-29-1-1-4)	2021	4320	*	ZII (1)	5450	-	HA(1L)	5450	-	***Discontinued***
				ZIII(3)	4036	-	BI(2L)	3742	-	
							OD(1L)	4710	-	
							UP(1L)	4245	-	
				ZV(1)	4011	-	CH(2L)	4011	-	
				ZVI(2)	4684	-	MH(1L)	2680	-	
							GU(1L)	6688	*	
				ZVII(3)	4381	-	TE(1L)	3891	-	
							TN(1L)	4378	-	
							KA(1L)	4873	-	
	2022	4286	*	ZII (2)	4386	-	PU(1L)	4943	-	
							HA(2L)	4108	-	
				ZIII (4)	4178	*	OD(1L)	3368	-	
							BI(3L)	5087	*	
							JH(1L)	3356	-	
							UP(1L)	3081	-	
				ZV(1)	4343	-	CH(1L)	4343	-	
				ZVI (1)	4928	-	GU(1L)	4928	-	
				ZVII(1)	3943	-	TE(1L)	3943	-	
	2023	5011	-	ZII(2)	5599	*	PU(1L)	5724	-	
							HA(2L)	5537	-	
				ZIII(2)	4891	-	BI(3L)	4804	-	
							JH(1L)	5153	*	
				ZIV(1)	3596	-	TR(2L)	3596	-	
				ZV(1)	6365	-	CH(2L)	6365	-	
				ZVI(1)	3581	*	GU(1L)	3581	-	
				ZVII(2)	5098	-	TN(1L)	4360	-	
							KA(2L)	5468	-	
IET 30024 (NVSR 3110)	2021	4078	-	ZII (1)	5950	-	HA(1L)	5950	-	***Discontinued***
				ZIII(3)	4057	-	OD(1L)	3965	-	
							BI(2L)	4203	-	
							UP(1L)	3711	-	
				ZV(1)	4333	*	CH(2L)	4333	*	
				ZVI(2)	4676	-	MH(1L)	3102	-	
							GU(1L)	6250	-	
				ZVII(3)	2919	-	TE(1L)	3833	-	
							TN(1L)	2221	-	
							KA(1L)	2703	-	
	2022	4155	*	ZII (2)	3920	-	PU(1L)	4547	-	
							HA(2L)	3607	-	
				ZIII (4)	4105	*	OD(1L)	3709	-	
							BI(3L)	4722	-	
							JH(1L)	3156	-	
							UP(1L)	3597	-	
				ZV(1)	3960	-	CH(1L)	3960	-	
				ZVI(1)	3676	-	GU(1L)	3676	-	
				ZVII(1)	5841	*	TN(1L)	5841	*	
	2023	4288	-	ZII(2)	4705	-	PU(1L)	5360	-	

IET N0.	Year	Overall yield (Kg/ha)	Significant yield superiority over BVC	Zone (Locations)	Yield (kg/ha)	Significant yield superiority over BVC	States (Locations)	Yield (kg/ha)	Significant yield superiority over BVC	Remarks
							HA(2L)	4377	-	
				ZIII(2)	3877	-	BI(3L)	4465	-	
							JH(1L)	2112	-	
				ZIV(1)	3685	-	TR(2L)	3685	-	
				ZV(1)	5219	-	CH(2L)	5219	-	
				ZVI(1)	3948	-	GU(1L)	3948	-	
				ZVII(2)	4312	-	TE(1L)	3222	-	
							KA(1L)	4858	-	
IET 30028 (CR 3937-1-1-1-1-1-2-3)	2021	4107	*	ZII (1)	5650	-	HA(1L)	5650	-	***Discontinued***
				ZIII(3)	4321	-	OD(1L)	5076		
							BI(2L)	4433	-	
							UP(1L)	3229	-	
				ZV(1)	2768	-	CH(2L)	2768	-	
				ZVI(2)	4791	-	MH(1L)	4102	-	
							GU(1L)	5479	-	
				ZVII(3)	3672	-	TE(1L)	2487	-	
							TN(1L)	3929	-	
							KA(1L)	4599	-	
	2022	4146	*	ZII (2)	4184	-	PU(1L) HA(2L)	- 4184	-	
				ZIII (4)	4466	*	OD(1L)	3760	-	
							BI(3L)	5331	*	
							JH(1L)	3978	-	
							UP(1L)	3063	-	
				ZV(1)	2797	-	CH(1L)	2797	-	
				ZVI(1)	3775	-	GU(2L)	3775		
				ZVII(1)	3873	-	TN(1L)	3873	-	
	2023	4437	-	ZII(2)	3844	-	PU(1L)	-	-	
							HA(2L)	3844	-	
				ZIII(2)	3617	-	BI(3L)	3204	-	
							JH(1L)	4857	-	
				ZIV(1)	4140	-	TR(2L)	4140	-	
				ZV(1)	5649	-	CH(2L)	5649	-	
				ZVI(1)	2550	-	GU(1L)	2550	-	
				ZVII(2)	5947	-	TE(1L)	3275	-	
							KA(2L)	7283	*	
IET 30029 (BRR 2183)	2021	3790	-	ZII (1)	5100	-	HA(1L)	5100	-	***Discontinued***
				ZIII(3)	3293	-	OD(1L)	3194	-	
							BI(2L)	4289	-	
							UP(1L)	404	-	
				ZV(1)	4323	*	CH(1L)	4323	*	
				ZVI(2)	3556	-	MH(1L)	3778	-	
							GU(1L)	3333	-	
				ZVII (3)	3981	-	TE(1L)	3549	-	
							TN(1L)	3678	-	
							KA(1L)	4717	-	
	2022	3887		ZII(2)	3636	-	PU(1L) HA(2L)	- 3636	-	
				ZIII (4)	4100	*	OD(1L)	3360	-	
							BI(3L)	5153	*	
							JH(1L)	4333		
							UP(1L)	1450	-	
				ZV(1)	5120	-	CH(1L)	5120	-	
				ZVI(1)	2591	-	GU(2L)	2591	-	
				ZVII(1)	3173	-	TE(1L)	3173	-	
	2023	4974	-	ZII(2)	3484	-	PU(1L)	-	-	
							HA(2L)	3484	-	
				ZIII(2)	4715	-	BI(3L)	4541	-	
							JH(1L)	5237	*	
				ZIV(1)	3302	-	TR(2L)	3302	-	
				ZV(1)	6558	-	CH(2L)	6558	-	
				ZVI(1)	4144	*	GU(1L)	4144	-	
				ZVII(2)	6649	*	TE(1L)	5764	-	
							KA(2L)	7092	*	
IET 30008 (BRR 0180-	20 21	4359	*	ZII (1)	6900	*	HA(1L)	6900	*	***Promising in Haryana (Z II)***
				ZIII(3)	3787	-	OD(1L)	3245	-	

IET N0.	Year	Overall yield (Kg/ha)	Significant yield superiority over BVC	Zone (Locations)	Yield (kg/ha)	Significant yield superiority over BVC	States (Locations)	Yield (kg/ha)	Significant yield superiority over BVC	Remarks
IR14L157)							BI(2L)	3998	-	
							UP(1L)	3698	-	
				ZV(1)	4654	*	CH(2L)	4654	*	
				ZVI(2)	5228	*	MH(1L)	3649	-	
							GU(1L)	6806	*	
				ZVII(3)	3688	-	TE(1L)	2618	-	
							TN(1L)	3150	-	
							KA(1L)	5296	-	
	2022	4386	*	ZII(2)	4603	*	PU(1L)	4115	-	
							HA(2L)	4847	-	
				ZIII (4)	4085	*	OD(1L)	3273	-	
							BI(3L)	4574	-	
							JH(1L)	3778	-	
							UP(1L)	3736	*	
				ZV(1)	4950	-	CH(1L)	4950	-	
				ZVI(1)	5112	-	GU(2L)	5112	*	
				ZVII(1)	4255	-	TN(1L)	4255	-	
	2023	4815	-	ZII(2)	5029	-	PU(1L)	5066	-	
							HA(2L)	5011	*	
				ZIII(2)	4280	-	BI(3L)	4608	-	
							JH(1L)	3295	-	
				ZIV(1)	4700	-	TR(2L)	4700	-	
				ZV(1)	5240	-	CH(2L)	5240	-	
				ZVI(1)	4093	-	GU(1L)	4093	-	
				ZVII(2)	5351	-	TE(1L)	4457	-	
							KA(1L)	5798	-	
IET 30004 (CSR PET 27)	2021	4281	*	ZII (1)	6500	*	HA(1L)	6500	*	***Discontinued***
				ZIII(3)	4060	-	OD(1L)	5215	-	
							BI(2L)	3876	-	
							UP(1L)	3458	-	
				ZV(1)	3794	-	CH(2L)	3794	-	
				ZVI(2)	5236	*	MH(1L)	3618	-	
							GU(1L)	6854	*	
				ZVII(3)	3596	-	TE(1L)	3386	-	
							TN(1L)	5058	-	
							KA(1L)	2343	-	
	2022	4113	*	ZII(2)	4253	5.7	PU(1L)	3308	-	
							HA(IL)	4726	*	
				ZIII(4)	4111	*12.6	OD(1L)	3642	-	
							BI(3L)	5073	*	
							JH(1L)	2733	-	
							UP(1L)	3072	-	
				ZV(1)	2613	-	CH(1L)	2613	-	
				ZVI(1)	5280	*	GU(1L)	5280		
				ZVII (1)	4042	-	TE(1L)	4042	-	
	2023	4527	-	ZII(2)	4779	-	PU(1L)	5331	-	
							HA(2L)	4503	-	
				ZIII(4)	3861	-	BI(3L)	3698	-	
							JH(1L)	4350	-	
				ZIV(2)	4227	-	TR(2L)	4227	-	
				ZV(1)	5899	-	CH(2L)	5899	-	
				ZVI(2)	3362	-	GU(1L)	3362	-	
				ZVII(2)	4837	-	TE(1L)	4248	-	
							KA(2L)	5132	-	
IET 30021 (HURS 21-2-IR15T1473),	2021	3680	-	ZII (1)	-	-	HA(1L)	-	-	***Discontinued***
				ZIII(3)	3735	-	OD(1L)	3510	-	
							BI(2L)	3937	-	
							UP(1L)	3354	-	
				ZV(1)	2562	-	CH(2L)	2562	-	
				ZVI(2)	5106	*	MH(1L)	3969	-	
							GU(1L)	6243	-	
				ZVII(3)	3383	-	TE(1L)	3878	-	
							TN(1L)	5042	-	
							KA(1L)	1230	-	
	2022	3301	-	ZII(2)	2305	-	PU(1L)	1389	-	
							HA(IL)	3220	-	
				ZIII(4)	3165	-	OD(1L)	3040	-	

IET N0.	Year	Overall yield (Kg/ha)	Significant yield superiority over BVC	Zone (Locations)	Yield (kg/ha)	Significant yield superiority over BVC	States (Locations)	Yield (kg/ha)	Significant yield superiority over BVC	Remarks
							BI(3L)	3753	-	
							JH(1L)	2933	-	
							UP(1L)	1758	-	
				ZV(1)	2806	-	CH(1L)	2806	-	
				ZVI(1)	4646	-	GU(1L)	4646	-	
				ZVII(1)	5258	*	TE(1L)	5258	*	
	2023	3887	-	ZII(2)	2480	-	PU(1L)	1141	-	
							HA(2L)	3150	-	
				ZIII(4)	3128	-	BI(3L)	3227	-	
							JH(1L)	2830	-	
				ZIV(1)	3757	-	TR(2L)	3757	-	
				ZV(1)	5862	-	CH(2L)	5862	-	
				ZVI(2)	3114	-	GU(1L)	3114	-	
				ZVII(2)	5335	-	TE(1L)	5437	-	
							KA(2L)	5284	-	
IET 30034 (TRC 185-B-B-82-2-11)	2021	4210	*	ZII (1)	4650	-	HA(1L)	4650	-	***Discontinued***
				ZIII(3)	4206	-	OD(1L)	3826	-	
							BI(2L)	4671	*	
							UP(1L)	3190	-	
				ZV(1)	3832	-	CH(2L)	3832	-	
				ZVI(2)	5697	*	MH(1L)	3818	-	
							GU(1L)	7576	*	
				ZVII(3)	3333	-	TE(1L)	3596	-	
							TN(1L)	3035	-	
							KA(1L)	3369	-	
	2022	3917	-	ZII	4962	*	PU(1L)	4603	-	
							HA(2L)	5320	*	
				ZIII(4)	3504	-	OD(1L)	2793	-	
							BI(3L)	3773	-	
							JH(1L)	3822	-	
							UP(1L)	3092	-	
				ZV(1)	3138	-	CH(1L)	3138	-	
				ZVI(1)	5276		GU(1L)	5276	-	
				ZVII(1L)	3727	-	TE(1L)	3727	-	
	2023	4384	-	ZII(2)	3870	-	PU(1L)	4411	-	
							HA(2L)	3599	-	
				ZIII(2)	3875	-	BI(3L)	3547	-	
							JH(1L)	4857	-	
				ZIV(2)	3773	-	TR(2L)	3773	-	
				ZV(1)	6379	-	CH(2L)	6379	-	
				ZVI(1)	4659	-	GU(1L)	4659	-	
				ZVII(2)	4561	-	TE(1L)	3543	-	
							KA(2L)	5071	-	
IET 29410 (RP5594-147-23-1) **(Repeat entry)**	2020	3391	-	ZIII(3)	3553	*	OD(1L)	6377	*	***Discontinued***
							BI(2L)	2141	-	
				ZV(1)	2860	-	CH(1L)	2860	-	
				ZVI(2)	3439	-	MH(1L)	2057	-	
							GU(1L)	4821	-	
				ZVII(2)	3366	-	TN(1L)	4370	-	
							KA(1L)	2361	-	
	2021	3701	-	ZII(2)	3355	-	HA(2L)	3355	-	
				ZIII(4)	4715	-	OD(1L)	5726	*	
							BI(2L)	5053	-	
							UP(1L)	3027	-	
				ZIV(1)	2817	-	TRI(1L)	2817	-	
				ZV(2)	3052	-	CH(2L)	3052	-	
				ZVI(2)	3793	-	MH(1L)	2764	-	
							GU(2L)	4307	-	
				ZVII(2)	2970	-	TN(1L)	2464	-	
							KA(1L)	3475	-	
	2022	3434	-	ZII(2)	4436	-	PU(1L)	4780	-	
							HA(1L)	4092	-	
				ZIII(4)	3459	-	OD(1L)	2732	-	
							BI(3L)	3743	-	
							JH(1L)	2822	-	
							UP(1L)	3972	-	

IET N0.	Year	Overall yield (Kg/ha)	Significant yield superiority over BVC	Zone (Locations)	Yield (kg/ha)	Significant yield superiority over BVC	States (Locations)	Yield (kg/ha)	Significant yield superiority over BVC	Remarks
				ZIV(1)	2119	-	TR(1L)	2119	-	
				ZV(1)	3181	-	CH(1L)	3181	-	
				ZVI(2)	3141	-	GU(2L)	3141	-	
	2023	4281	-	ZII(2)	4232	-	PU(1L)	4263	-	
							HA(2L)	4217	-	
				ZIII(4)	3975	-	BI(3L)	4257	-	
							JH(1L)	3126	-	
				ZIV(1)	4168	-	TR(2L)	4168	-	
				ZV(1)	4799	-	CH(2L)	4799	-	
				ZVI(1)	2286	-	GU(1L)	2286	-	
				ZVII(2)	5135	-	TE(1L)	4205	-	
							KA(2L)	5601		
IET 30041 (BRR 2184)	2021	4250	*	ZII (1)	5500	-	HA(1L)	5500	-	***Discontinued***
				ZIII(3)	4046	-	OD(1L)	5000	-	
							BI(2L)	3666	-	
							UP(1L)	4232	-	
				ZV(1)	3792	-	CH(2L)	3792	-	
				ZVI(2)	4738	-	MH(1L)	3129	-	
							GU(1L)	6347	*	
				ZVII(3)	4513	-	TE(1L)	3773	-	
							TN(1L)	5136	-	
							KA(1L)	3549	-	
	2022	4099	*	ZII(2)	4555	-	PU(1L)	6504	-	
							HA(2L)	3581	-	
				ZIII(4)	3881	-	OD(1L)	2016	-	
							BI(3L)	4801	-	
							JH(1L)	3800	-	
							UP(1L)	3068	-	
				ZV(1)	4304	-	CH(1L)	4304	-	
				ZVI(1)	4574	-	GU(1L)	4574	-	
				ZVII(1)	3362	-	TN(1L)	3362	-	
	2023	4820	-	ZII(2)	4612	-	PU(1L)	6286	-	
							HA(2L)	3775	-	
				ZIII(4)	4553	-	BI(3L)	5029	-	
							JH(1L)	3126	-	
				ZIV(2)	3501	-	TR(2L)	3501	-	
				ZV(1)	6924	-	CH(2L)	6924	-	
				ZVI(1)	4354	-	GU(1L)	4354	-	
				ZVII(2)	5016	-	TE(1L)	4133	-	
							KA(2L)	5457	-	
IET 30023 (TRC 184-B-B-76-1-1)	2021	4109	*	ZII (1)	5550	-	HA(1L)	5550	-	***Discontinued***
				ZIII(3)	3923	-	OD(1L)	5051	-	
							BI(2L)	3600	-	
							UP(1L)	3763	-	
				ZV(1)	4186	*	CH(2L)	4186	*	
				ZVI(2)	4509	-	MH(1L)	4080	-	
							GU(1L)	4938	-	
				ZVII(3)	3621	-	TE(1L)	3829	-	
							TN(1L)	2631	-	
							KA(1L)	4403	-	
	2022	4323	*	ZII(2)	4586	*	PU(1L)	4940	-	
							HA(2L)	4409	-	
				ZIII(4)	4340	*	OD(1L)	3669	-	
							BI(3L)	5201	*	
							JH(1L)	3689	-	
							UP(1L)	3082	-	
				ZV(1)	4016	-	CH(1L)	4016	-	
				ZVI(1)	4660	-	GU(1L)	4660	-	
				ZVII(1)	3400	-	TN(1L)	3400	-	
	2023	4058	-	ZII(2)	3696	-	PU(1L)	5013	-	
							HA(2L)	3038	-	
				ZIII(2)	3703	-	BI(3L)	3867	-	
							JH(1L)	3210	-	
				ZIV(2)	4005	-	TR(2L)	4005	-	
				ZV(1)	5230	-	CH(2L)	5230	-	
				ZVI(2)	3136	-	GU(1L)	3136	-	

IET N0.	Year	Overall yield (Kg/ha)	Significant yield superiority over BVC	Zone (Locations)	Yield (kg/ha)	Significant yield superiority over BVC	States (Locations)	Yield (kg/ha)	Significant yield superiority over BVC	Remarks
				ZVII(2)	4457	-	TE(1L)	4657	-	
							KA(2L)	4357	-	
IET 30020 (CRR 842-IR14L159)	2021	4554	*	ZII (1)	6300	*	HA(1L)	6300	*	***Promising in Haryana (Z II)***
				ZIII(3)	4402	-	OD(1L)	5063	-	
							BI(2L)	4624	*	
							UP(1L)	3073	-	
				ZV(1)	4014	-	CH(2L)	4014	-	
				ZVI(2)	4872	-	MH(1L)	2667	-	
							GU(1L)	7076	*	
				ZVII(3)	4373	-	TE(1L)	4980	-	
							TN(1L)	4073	-	
							KA(1L)	4066	-	
	2022	4587	*	ZII(2)	5478	*	PU(1L)	5662	-	
							HA(2L)	5386	*	
				ZIII(4)	3973	*	OD(1L)	2580	-	
							BI(3L)	4980	*	
							JH(1L)	3222	-	
							UP(1L)	3093	-	
				ZV(1)	5246	-	CH(1L)	5246	-	
				ZVI(1)	4738	-	GU(1L)	4738	-	
				ZVII(1)	4794	-	TE(1L)	4794	-	
	2023	4899	-	ZII(2)	5268	*	PU(1L)	5106	-	
							HA(2L)	5350	*	
				ZIII(4)	4666	-	BI(3L)	4686	-	
							JH(1L)	4604	-	
				ZIV(2)	3550	-	TR(2L)	3550	-	
				ZV(1)	6271	-	CH(2L)	6271	-	
				ZVI(1)	3203	-	GU(1L)	3203	-	
				ZVII(2)	5393	-	TE(1L)	5028	-	
							KA(2L)	5576	-	
IET 29405 (RCPR70-IR84899-B-184-16-1-1-1) **(Repeat entry)**	2020	3644	*	ZIII(3)	3018	-	OD(1L)	4357	-	***Discontinued***
							BI(2L)	2349	-	
				ZV(1)	5111	*	CH(1L)	5111	*	
				ZVI(2)	4333	-	MH(1L)	2631	-	
							GU(1L)	6035	-	
				ZVII(2)	3162	-	TN(1L)	3569	-	
							KA(1L)	2755	-	
	2021	4225	-	ZII(2)	4469	-	HA(2L)	4469	-	
				ZIII(4)	3936	-	OD(1L)	3327	-	
							BI(2L)	4529	-	
							UP(1L)	3359	-	
				ZIV(1)	5067	-	TR(1L)	5067	-	
				ZV(2)	3944	-	CH(2L)	3944	-	
				ZVI(2)	4461	*	MH(1L)	2545	-	
							GU(2L)	5420	*	
				ZVII(2)	4064	-	TN(1L)	3263	-	
							KA(1L)	4864	-	
	2022	4193	*	ZII(2)	4641	-	PU(1L)	4699	-	
							HA(IL)	4583	-	
				ZIII(4)	4405	*	OD(1L)	3241	-	
							BI(3L)	4804	-	
							JH(1L)	4698	*	
							UP(1L)	4079	-	
				ZIV(1)	3025	-	TR(1L)	3025	-	
				ZV(1)	3446	-	CH(1L)	3446	-	
				ZVI(2)	4064	-	GU(2L)	4064	-	
	2023	4794	-	ZII(2)	4254	-	PU(1L)	4339	-	
							HA(2L)	4212	-	
				ZIII(2)	5146	*	BI(3L)	5383	*	
							JH(1L)	4435	-	
				ZIV(1)	4309	-	TR(2L)	4309	-	
				ZV(1)	4680	-	CH(2L)	4680	-	
				ZVI(1)	4065	-	GU(1L)	4065	-	
				ZVII(2)	5348	-	TE(1L)	5252	-	
							KA(2L)	5396	-	
IET 30051 (CRR 790-	2021	3778	-	ZII (1)	6100	*	HA(1L)	6100	*	***Discontinued***
				ZIII(3)	3493	-	OD(1L)	3838	-	

IET N0.	Year	Overall yield (Kg/ha)	Significant yield superiority over BVC	Zone (Locations)	Yield (kg/ha)	Significant yield superiority over BVC	States (Locations)	Yield (kg/ha)	Significant yield superiority over BVC	Remarks
69)							BI(2L)	3445	-	
							UP(1L)	3294	-	
				ZV(1)	4318	*	CH(2L)	4318	*	
				ZVI(2)	3977	-	MH(1L)	2551	-	
							GU(1L)	5403	-	
				ZVII(3)	2984	-	TN(1L)	4003	-	
							TA(1L)	1548	-	
							KA(1L)	3400	-	
	2022	4168	*	ZII(2)	4586	*	PU(1L)	3739	-	
							HA(2L)	5009	*	
				ZIII (4)	4311	*	OD(1L)	2459	-	
							BI(3L)	5557	*	
							JH(1L)	3622	-	
							UP(1L)	3116	-	
				ZV(1)	2967	-	CH(1L)	2967	-	
				ZVI(1L)	3764	-	GU(1L)	3764	-	
				ZVII(1)	3657	-	TN(1L)	3657	-	
	2023	4538	-	ZII(2)	3960	-	PU(1L)	4167	-	
							HA(2L)	3857	-	
				ZIII(2)	4326	-	BI(3L)	4135	-	
							JH(1L)	4900	-	
				ZIV(1)	3209	-	TR(2L)	3209	-	
				ZV(1)	6509	-	CH(2L)	6509	-	
				ZVI(1)	3193	-	GU(1L)	3193	-	
				ZVII(2)	4977	-	TE(1L)	3954	-	
							KA(2L)	5489	-	

ADVANCE VARIETY TRIAL-1- AEROBIC (AVT 1 -AEROB)

Locations: 25 **Test Entries: 33**

Checks: DRR Dhan 54 (National); CR Dhan 202 (Northern, Eastern, North Eastern and Central), AAUDR-1 (Western), MAS 946-1 (Southern)- Zonal; PA 6129 (Hybrid) and local check **Table:9b**

The Advance Variety Trial 1-Aerobic (AVT1-Aerobic) consisted of 29 test entries (2nd year of testing) including four checks (NC: DRR Dhan 54, ZC: CR Dhan 202 (Northern, Eastern, North Eastern and Central), AAUDR-1(Western), MAS 946-1(Southern), HC: PA 6129 and local check.AVT 1- Aerobic trial was sent to 25 locations but data was received from 20 centers. The data was not received from 5 locations *i.e.*, Karnal, Bhubaneswar, Hazaribagh, Arundhutinagar and Nagaland University. The data of 7 centers was not considered for analysis due to low experimental mean (<3000 kg/ha) at Masodha, Rewa, Parbhani, and Derol; and low CV% (<5) at Jabalpur and non-significant data from Jagadalpur. Among 29 test entries twenty six are entries while three are hybrids entries (IET 30919, 30892, and 30942) tested in 2nd year. The location wise experimental mean grain yield ranged from 1254 kg/ha at Rewa to 8245 kg/ha at Lembucherra. The CV% ranged from 3.66 (Jabalpur) to 23.26(Cuttack). (Table 9b)

Zonal performance of test entries

Zone II (Northern)

In Zone II, the trial was sent to 3 locations namely Ludhiana (Punjab); Kaul and Karnal (Haryana). However, Karnal centre could not send data. The mean CV ranged from 7.03% (Ludhiana) to 7.32% (Kaul). Fourteen entries and one hybrid (IET 30919) were evaluated in Zone II. The zonal mean yield ranged from 3355kg/ha (IET 30897) to 6121 kg/ha (PA 6129).The entries IET 30929 and 30897 did not flower at Ludhiana. Daysto50%flowering (DFF) ranged from 74 days (IET30904) to 97 days (IET30929).

Among the inbred checks, the local check was the best check (5508 Kg/ha) followed by DRR Dhan 54 (5169 kg/ha) and CR Dhan 202 (4594 Kg/ha).

None of the entries including hybrids exhibited significant superiority over the best check (LC)/hybrid check. Hence none of the entries promoted to AVT-2- Aerobic.

Zone III (Eastern)

The trial was sent to 8 centers across Odisha (Bhubaneswar & Cuttack), Bihar (Bikramganj, Pusa and Patna-ICAR), Jharkhand (Ranchi, Hazaribagh) and Uttar Pradesh (Masodha) states in Zone III. The data was received from 6 centers except Bhubaneswar, and Hazaribagh. The data obtained from Masodha was not included in the analysis due to low experimental yield (2705 kg/ha). There are 22 entries and two hybrids (IET 30919 and 30892).The mean yield of test entries in Zone III ranged from 3414 kg/ha (IET

30907) to 5182 kg/ha(PA-6129). Days to 50% flowering ranged from 75days (IET 30904) to 92 days (IET 30928 and 30927). Among the checks, local check exhibited a superior yield (4265 kg/ha) followed by DRR Dhan 54, (4111 kg/ha) and CR Dhan 202(3956 kg/ha).

None of the entries showed significant yield improvement over the best check* (LC) *and therefore they were not promoted to 3rd year of testing. While, hybrid, IET 30892 showed significant yield improvement (4669* kg/ha) over the varietal check but not on the hybrid check, hence, none are promoted.

Zone IV (North Eastern)

In Zone IV, the trial was sent to three centers, namely Lembucherra and Arundhutinagar (Tripura) and Nagaland University (Nagaland). Among the centers, Arundhutinagar and Nagaland University failed to send the data. There are twelve entries and one hybrid (IET 30919). The mean yield of test entries in Zone IV (Lembucherra in Tripura) ranged from 6267 kg/ha (IET 30935) to 11941kg/ha (IET 30932). Days to 50% flowering ranged from 33 days (IET 30907) to 85 days (IET 30939). Among the checks, the national check (DRR Dhan 54) exhibited a superior yield (8841 kg/ha) followed by PA 6129, hybrid check (8730Kg/ha), local check (8656 kg/ha) and CR Dhan 202 (6285 kg/ha).

Five entries namely IET 30932 (11941* kg/ha), IET 30910 (10916* kg/ha), IET 30911(*10477 kg/ha), IET 30939 (9755* kg/ha) and IET 30904(9712* kg/ha) recorded a significant yield gain over the best check, DRR Dhan 54 (8841kg/ha). Hence these entries are promoted for next year of testing.

Zone V (Central)

The trial was sent to 4 locations, Rewa and Jabalpur (Madhya Pradesh) and Raipur and Jagdalpur (Chhattisgarh). Data from Rewa could not be included due to low experimental yield (1254 kg/ha), low CV% (3.66) at Jabalpur, and non-significant F value at Jagadalpur. There are sixteen entries and two hybrids (IET 30919 and 30942) tested in Zone V. The Zonal mean yield ranged from 4144 kg/ha (IET 30939) to 7306 kg/ha (PA-6129 HC). The flowering duration ranged from 69 days (IET 30904) to 89 days (IET 30927).

Among the checks, PA 6129 exhibited superior yield (7306 kg/ha) followed by national check, DRR Dhan 54(6492 kg/ha), CR Dhan 202, ZC (5315 kg/ha) and local check, LC (5224 kg/ha).

None of the entries could show significant yield improvement over the best check (NC). Likewise, the hybrid entries (IET 30919 and 30942) could not record significant yield superiority over both the hybrid and best inbred checks. Hence, none are promoted.

Zone VI (Western)

In Zone VI, the trial was sent to 4 locations *i.e.*, Parbhani (Maharashtra), Navsari, Derol, and Vyara (Gujarat). Data from Parbhani, Derol, and Vyara was not included during the analysis because of the low experimental mean yield (<3000 kg/ha). There are

twelve entries and one hybrid (IET 30919). Zonal mean grain yield ranged from 3767 kg/ha (IET 30932) to 5525 kg/ha (IET 30911). Mean flowering duration ranged from 74 days (AAUDR-1) to 91 days (IET 30929). Among the checks, PA 6129 topped in yield performance (5477 Kg/ha) followed by the national check, DRR Dhan 54 (5067 kg/ha), AAUDR-1, ZC (4517 kg/ha), and local check, LC (4490 kg/ha).

None of the entries showed significant yield gain over the best check* (*DRR Dhan 54). IET 30919, the hybrid could not exhibit significant yield improvement over the hybrid check (PA-6129) as well as best varietal check (DRR Dhan 54). Hence none are promoted

Zone VII (Southern)

In Zone VII, the trial was sent to 3 locations, *i.e.,* Kampasagar (Telangana), Mandya, and Mugad (Karnataka). There are twelve entries and one hybrid (IET 30919). Data from obtained from all three locations is analyzed. Zonal mean yield ranged from 3817 kg/ha (IET 30929) to 5971 kg/ha (IET 30919).The flowering duration ranged from 85 days (IET 30917) to 98 days (PA-6129). Among the checks, hybrid check, PA 6129 ranked 1st (4914 Kg/ha) followed by a zonal check (MAS 946-1) exhibited superior yield (4839 kg/ha), national Check (4457 kg/ha) and Local check (4117 kg/ha).

Only one entry the hybrid, IET 30919 (IIRRH 159) with 96 days flowering duration recorded a significant yield advantage (5971$^{\#*}$ kg/ha) over the hybrid check, PA-6129, and best inbred check, MAS 946-1. Therefore, it is promoted to AVT-2-Aerobic.

Performance of the test entries in Zone VII (Southern)

S.No	Entry No / Designation	Yield (Kg/ha) DFF	Remarks
1	IET 30919 (Hybrid)	5971*# 96	Promoted
	National Check (NC) DRR Dhan 54	4457 96	
	Zonal Check(ZC) MAS 946-1	**4839** **93**	
	Hybrid Check (HC) PA 6129	5011 98	
	Local Check (LC)	4117 89	
	CD	441	

* Significant over inbred check (ZC- MAS 946-1)

\# Significant over hybrid check (PA 6129)

List of entries promoted to AVT-2-Aerobic

Zones /Locations	Number of entries promoted	Entries promoted
Zone VII (3L)	1 (Hybrid)	IET 30919 (***IIRRH 159)***

INITIAL VARIETY TRIAL - AEROBIC (IVT-AEROBIC)

Locations: 26 **Test Entries: 64**

Checks: **DRR Dhan 54 (National); CR Dhan 202 (Northern, Eastern, North Eastern and Central), AAUDR-1 (Western), MAS 946-1 (Southern)- Zonal; PA 6129 (Hybrid), DRRH 4(Hybrid Observational) and local check**

Table: 9c

The Initial Variety Trial- Aerobic (IVT-Aerobic) was constituted with 59 test entries and four checks *ie.*,National check: DRR Dhan 54; Zonal: CR Dhan 202 (Northern, Eastern, North Eastern& Central), AAUDR-1 (Western), MAS 946-1 (Southern); Hybrid Check: PA 6129; Observational Hybrid Check 1: DRRH 4; and Local Check. Among the 59 test entries, 54 are inbred entries and five are hybrid entries (IET nos. 31738, 31739, 31753, 31786, and 31763). Although the trial was sent to 26 locations, the data was received from 18 centers. The data not received from 8 centers viz. Kaul, Bhubaneswar, Bikramganj, Hazaribagh, Varanasi, Arundhuti Nagar, Nagaland University, and Kampasagar. The data received from 5/18 centers was not considered for analysis due to low mean yield (< 3000 Kg/ha) at Patna (2434 kg/ha), Masodha (2836 Kg/ha), Rewa (1277 Kg/ha), Parbhani (2223 Kg/ha) and Derol (1842Kg/ha); Data received from Mugad and Jagadalpur is non-significant. The CV% at experimental locations ranged from 6.25 (Jabalpur) to 19.85 (Vyara). The experimental mean grain yield ranged from 3302 kg/ha (Karnal) to 5219 kg/ha (Lembucherra).

Overall performance of entries

The overall mean grain yield ranged from 3135 kg/ha (IET 31792) to 5204 kg/ha (PA 6129); days to 50% flowering ranged from 71days (IET 31734) to 105 days (IET 31759); and number of panicles/m^2 ranged from 222 (IET 31762) to 313 (IET 31766). Among the varietal checks, the local check, topped in yield (4239 kg/ha) followed by the national check, DRR Dhan 54 (4201 kg/ha), and Zonal Check (3932 kg/ha). Among the hybrid checks, PA6129 showed superior yield (5204 kg/ha) compared to the observational hybrid check, DRRH 4 (4470 kg/ha). The data on yield, flowering duration, plant height and panicles/m^2 were presented in ***tables 9c.2 and 9c.3***

The inbred entries were compared with the best check among national, zonal and local checks while the hybrid entries were compared with the best hybrid check and the best varietal check for their promotion to 2^{nd} year of testing (AVT-1-Aerobic).

Among hybrids IET 31739 and 31738 although recorded significant yield gain over the best varietal check, they could not out yield the hybrid check; while IET Nos. 31763, 31786 and 31753 didn't exhibit significant yield gain over both hybrid (PA6129) and varietal check (LC). Therefore hybrids could not be qualified for promotion.

Based on significant yield superiority over the best check (LC) in overall mean, eight entries namely IET Nos. 31785, 31741, 31760, 31775, 31768, 31759, 31757 and 31765 are promoted to 2^{nd} year of testing (AVT-1-Aerobic).

Zone II (Northern)

The trial was sent to 3 centers, Ludhiana & Kaul (Punjab); and Karnal (Haryana). The data was received from 2 centers ie., Ludhiana and Karnal. The mean yield of test entries in Zone II ranged from 1056kg/ha (IET 31763) to 5448 kg/ ha (IET 31757). Days to 50% flowering ranged from 69 days IET 31734) to 134 days (IET 31774). Among the inbred checks, the local check exhibited a superior yield (4471 kg/ha) followed by CR Dhan 202, (3774 kg/ha) and DRR Dhan 54 (3728 kg/ha). Among hybrid checks PA 6129 topped in yield (5275 Kg/ha) followed by the observational hybrid check, DRR H 4 (4494 Kg/ha).

Two varietal entries namely IET* 31757 (5448* kg/ha) and *IET* 31790 (5290* kg/ha) recorded a significant yield gain over the best check, the local check (4471 kg/ha) and therefore, promoted to the next year of testing (AVT-1-Aerob).

Zone III (Eastern)

The trial was sent to 9 centers, Bhubaneswar & Cuttack (Odisha), Bikramganj, Pusa and Patna-ICAR (Bihar), Ranchi & Hazaribagh (Jharkhand), Masodha & Varanasi (UP). Six locations could send data *viz.*, Cuttack (Odisha), Bikramganj, Patna & Pusa (Bihar), Ranchi (Jharkhand) and Masodha (UP). Data is not received from Bhubaneswar, Hazaribagh and Varanasi, while data from two locations Patna and Masodha is not analysed due to low mean yield of 2434 kg/ha and 2836 kg/ha respectively. The mean yield of test entries in Zone II ranged from 2859 kg/ha (IET 31789) to 5315 kg/ ha (IET 31741). Days to 50% flowering ranged from 71 days (IET 31734) to 101 days (IET 31759).

Among the varietal checks, the DRR Dhan 54, national check exhibited a superior yield (4134 kg/ha) followed by CR Dhan 202, (4130 kg/ha) and local check (3678 kg/ha). Among hybrid checks PA 6129 topped in yield (4357 kg/ha) followed by the observational hybrid check, DRR H 4 (4109 kg/ha).

Nine inbred entries namely IET 31741 (5315* kg/ha), IET 31760 (4769* kg/ha), IET 31775 (4693* kg/ha), IET 31768 (4642* kg/ha), IET 31759 (4858* kg/ha), IET 31757 (4539* kg/ha), IET 31778 (4590* kg/ha), IET 31747 (4934* kg/ha) and IET 31740 (4739* kg/ha) were found significantly superior to the best check, DRR Dhan 54, National check (4134 kg/ha) and therefore, promoted to 2nd year of testing AVT-1 (Aerobic).

Zone IV (North Eastern)

The trial was sent to 3 centers, *ie*, Arundhutinagar & Lembucherra (Tripura), and Nagaland University (Nagaland). Data from two centers Arundhutinagar and Nagaland University was not obtained. Data from Lembucherra is analyzed. The mean yield of test entries ranged from 2416 kg/ha (IET 31792) to 9131 kg/ha (IET 31760). Days to 50% flowering ranged from 68 days (IET 31734) to 114 days (IET 31772). Among the inbred checks, the local check exhibited a superior yield (7497 kg/ha) followed by CR Dhan 202, (5415 kg/ha) and the national check, DRR Dhan 54 (5290 kg/ha). Among hybrid checks PA 6129 topped in yield (6414 Kg/ha) followed by the observational hybrid check, DRR H 4 (2791 Kg/ha).

Three entries, IET 31760, 31784, and 31785 exhibited significant yield gain over the best check (Local). Hybrids could not significantly out yield the hybrid and best varietal check. Hence, promoted for second year of testing.

Zone V (Central)

The trial was sent to 4 centers, Rewa & Jabalpur (Madhya Pradesh), Raipur & Jagadalpur (Chhattisgarh). All four locations had sent data. But data from Rewa was not considered for analysis due to low mean yield (1277 Kg/ha) and data received from Jagadalpur is recorded as non-significant. The mean yield of test entries ranged from 2116 kg/ha (IET 31774) to 5355 kg/ ha (IET 31761). Days to 50% flowering ranged from 81 days (IET 31734) to 105 days (IET 31773).

Among the inbred checks, the zonal check (CR Dhan 202) exhibited a superior yield (3985 kg/ha), while PA 6129 topped in yield (5234 Kg/ha) among hybrid checks.

Five entries namely IET 31761 (5355* kg/ha), IET 31777 (5077* kg/ha), IET 31783 (4860*), IET 31770 (4835* kg/ha) and IET 31745 (4768* kg/ha) recorded significant yield gain over the best check, CR Dhan 202 (3985 kg/ha) and therefore, promoted to AVT-1 (Aerobic).

Zone VI (Western)

The trial was sent to 4 centers, Parbhani (Maharashtra), Navsari, Derol, and Vyara (Gujarat). However the data from Parbhani and Derol was not included in the analysis due to low mean yield (2223 Kg/ha and 1842 Kg/ha) respectively.

The mean yield of test entries ranged from 2653 kg/ha (IET 31754) to 6252 kg/ ha (IET 31779). Days to 50% flowering ranged from 64 days (IET 31734) to 104 days (IET 31748). Among the inbred checks, the national check (DRR Dhan 54) exhibited top yield (**4823** kg/ha), while PA 6129 topped in yield (5861 Kg/ha) among hybrid checks.

Two entries namely IET* 31760 *(*6241* kg/ha) and IET* 31779 *(*6252**kg/ha), exhibited significant yield improvement over the best check, DRR Dhan 54 (4823 kg/ha), and therefore, promoted to AVT-1 (Aerobic).

Zone VII (Southern)

The trial was sent to 3 locations, Kampasagar (Telangana), Mandya, and Mugad (Karnataka). Data was received from Mandya and Mugad, but data of Mugad was recorded as non-significant. There was no data receipt from Kampasagar.

The mean yield of test entries ranged from 1295 kg/ha (IET 31750) to 6852 kg/ha (IET 31741). Days to 50% flowering ranged from 75 days (IET 31734) to 116 days (IET 31750). Among the inbred checks, the local check exhibited top yield (4749 kg/ha), while DRR H4, the observational hybrid check showed yield superiority (6141 Kg/ha) among hybrid checks.

Two entries namely IET Nos. 31741 and 31787 recorded significant yield superiority over the best check. Hence promoted for second year of testing.

Overall and zonal performance of entries in IVT-Aerobic, Kharif, 2023

IET No/Designation	Overall GY kg/ha/ DFF	Zonal Performance GY (Kg/ha/ DFF)				Remarks
		Zone II (2L)	Zone III (6L)	Zone V (2L)	Zone VI (2L)	
IET 31785 IR-14F-717	4944* 87					Promoted in Overall mean
IET 31741 CR 4457-IR 129477-4026-249-15-1-4	4865* 90		5315* 83			Promoted in Overall & Z III
IET 31760 RNR 28361	4636* 97		4769* 92		6241* 96	Promoted in Overall & Z III & Z VI
IET 31775 RP 6763-CGR 28 IR144572-20-4-1-1-B	4599* 86		4693* 84			Promoted in Overall & Z III
IET 31768 RP 6762-MSAC 16-24	4593* 104		4642* 99			Promoted in Overall & Z III
IET 31759 CR 4073-1339-2-3-4-5	4548* 105		4858* 101			Promoted in Overall & Z III
IET 31757 JDP 5925	4521* 85	5448* 90	4539* 78			Promoted in Overall & Z II, Z III,
IET 31765 PAU-IR 129477-1629-210-4-4-4 (RYT 4115)	4513* 99					Promoted in Overall
IET 31761 BKR 542 (IR 129477-3425-97-4-3-3)				5355* 85		Promoted in ZV
IET 31779 RNR 37982					6252* 81	Promoted in Z VI
IET 31777 R 2341-252-2-165-1				5077* 83		Promoted In ZV
IET 31778 HURS-23-3-IR18A1658			4590* 82			Promoted in Z III
IET 31783 R 2773-C-8-1-1				4860* 83		Promoted In ZV
IET 31770 NVSR 3674				4835* 79		Promoted In Z V
IET 31747 RP 6761-MSAC 26-IR144575-61-2-1-1-B			4934* 90			Promoted in Z III
IET 31745 CR 3426-225-65-11				4768* 93		Promoted in ZV
IET 31740 NVSR 1141			4739* 81			Promoted in Z III
IET 31790 CSR 2021-DSR-2-94-134		5290* 89				Promoted in Z II
National Check (NC) DRR Dhan 54	4201 84	3728 86	**4134** **83**	3761 83	**4823** **81**	
Zona Check(ZC)	3932 85	3774 92	4130 84	**3985** **92**	2897 68	
Hybrid Check (HC) PA 6129	**5204** **85**	**5275** **91**	**4357** **79**	**5234** **87**	**5861** **80**	
Observational Hybrid Check (OHC) DRR H4	4470 84	4494 94	4109 81	5047 89	4597 83	
Local Check (LC)	**4239** **85**	**4471** **89**	3678 78	3734 88	3747 80	
CD	272	596	381	686	898	

*Significantly superior to best varietal check # Significantly superior to best hybrid check

In overall mean yield performance, eight entries (7 entries and 01 hybrid) were significantly superior to the best check (local check), and zone-wise a set of 2, 9, 3, 5, 2 and 2 entries exhibited significant superiority over the best check in Zone nos. II, III, IV, V, VI and VII, respectively. Hence they are promoted to AVT-1 (Aerobic) trial.

List of entries promoted to AVT-1 (Aerobic)

Overall/Zones	Number of entries	Entries promoted
Overall	8	IETs 31785**,** 31741, 31760, 31775, 31768, 31759, 31757, 31765
Zone-II	2	IETs 31757, 31790
Zone III	9	IETs 31741, 31760, 31775, 31768, 31759, 31757, 31778, 31747, 31740
Zone IV	3	IETs 31760, 31784, and 31785
Zone-V	5	IETs 31761, 31777, 31783, 31770, 31745
Zone- VI	2	IETs 31760 and 31779
Zone VII	2	IETs 31741 and 31787

Table No. 9a.1 : Composition of entries in Advance Variety Trial 2 - Aerobic (AVT 2 – AEROB), Kharif 2023.

Entry No.	IET No.	Designation	Cross Combination	GT
3rd year of testing:				
4401	30032	BRR 0181-IR 93827-29-1-1-4	IR 81039-B-173-U 3-3 / IR 81063-B-94-U 3-1	LS
4402	30024	NVSR 3110	IR 28 / GAR 13	MS
4403	30028	CR 3937-1-1-1-1-1-2-3	IR 73895-33-1-3-2 / Lalat	SB
4404	30029	BRR 2183	IR 74355-CN3 / CN 6-78	MS
4405	**CR Dhan 201 (NC)**			
4406	30008	BRR 0180-IR14L157	IR 81039-B-173-U 3-3 / IR 81063-B-94-U 3-1	LS
4407	30004	CSR PET 27	CSR 30 / CSR 27	LS
4408	30021	HURS 21-2-IR15T1473	IR 11T252 / IR 09N522	MB
4409	30034	TRC 185-B-B-82-2-11	Tripura Nirog / TRC 87-251	MB
4410	**CR Dhan 202 (Northern, Eastern, North Eastern and Central), AAUDR-1 (Western), MAS 946-1 (Southern)-ZC**			
4411	29410 (R)	RP 5594-147-23-1	MTU 1010 / RPHR 1005	LS
4412	30041	BRR 2184	HHZ 14-Sal-10-DT-1-DT-1-Selection (Huang-Hua-Zhan * 2 / IR 64)	MS
4413	30023	TRC 184-B-B-76-1-1	Tripura Nirog / TRC 87-251	MB
4414	30020	CRR 842-IR14L159	IR 10N102 / IR 86931-B-400	LS
4415	29405 (R)	RCPR 70-IR 84899-B-184-16-1-1-1	IR 78877-208-B-1-1 / IRRI 132	LB
4416	30051	CRR 790-69	CR Dhan 40 / IR 73963-86-1-5-2-2 (NPT PSR 12)	MB
4417	**Local Check (LC)**			
4418	**DRR Dhan 54 (NC)**			

Table No. 9a.2 : Grain Yield (kg/ha) in AVT 2 – AEROB, Kharif 2023

Entry No	IET No	ZONE II NORTHERN									
		Punjab (1)		Haryana				Haryana (2)		Zone II (3)	
		Ludhiana		Kaul		Karnal (ICAR-CSSRI)		Mean		Mean	
4401	30032	5724	3	6001	1 *	5073	3 *	5537	1 *	5599	1 *
4402	30024	5360	5	4774	10	3980	5	4377	5	4705	6
4403	30028			5101	6	2587		3844	10	3844	
4404	30029			4474		2493		3484		3484	
4405	CR Dhan 201 (NC)	5622	4	4746		2460		3603		4276	9
4406	30008	5066	9	5674	2 *	4347	4	5011	3 *	5029	3
4407	30004	5331	6	3846		5160	1 *	4503	4	4779	4
4408	30021	1141		3792		2507		3150		2480	
4409	30034	4411		4965	8	2233		3599		3870	
4410	CR Dhan 202 (ZC)	4272		4992	7	2413		3703		3892	
4411	29410 (R)	4263		4774	10	3660	7	4217	7	4232	
4412	30041	6286	2	4583		2967	8	3775		4612	7
4413	30023	5013	10	3955		2120		3038		3696	
4414	30020	5106	7	5619	3 *	5080	2 *	5350	2 *	5268	2 *
4415	29405 (R)	4339		5456	4	2967	8	4212	8	4254	10
4416	30051	4167		5346	5	2367		3857	9	3960	
4417	Local Check (LC)	6541	1	4910	9	2720	10	3815		4724	5
4418	DRR Dhan 54 (NC)	5073	8	4719		3807	6	4263	6	4533	8
Exp. Mean		**4857**		**4874**		**3274**		**4074**		**4291**	
F Value		**27.68(p<0.0001)S**		**10.04(p<0.0001)S**		**8.69(p<0.0001)S**		**14.78(p<0.0001)S**		**23.56(p<0.0001)S**	
CD		630		532		974		489		406	
CV%		**7.78**		**6.58**		**17.93**		**7.23**		**5.7**	
D/P											
Local Check Name		PR 126		HKR 48		CSR 27					

Table No. 9a.2 (Contd).: Grain Yield (kg/ha) in AVT 2 – AEROB, Kharif 2023

Entry No	IET No	ZONE III - EASTERN											
		Bihar						Bihar (3)		Jharkhand (1)		Zone III(4)	
		Bikramganj		Pusa		Patna-ICAR		Mean		Ranchi		Mean	
4401	30032	5176	5	5060	5	4175	6	4804	4	5153	2 *	4891	2
4402	30024	5051	8	5357	1	2988		4465	8	2112		3877	
4403	30028	2377		4167		3067		3204		4857	4	3617	
4404	30029	7222	1 *	3452		2950		4541	7	5237	1 *	4715	4
4405	CR Dhan 201 (NC)	4593	9	4881	8	3050		4175		2239		3691	
4406	30008	4398		5000	6	4425	3	4608	6	3295		4280	8
4407	30004	2257		5119	3	3717	9	3698		4350	9	3861	
4408	30021	3782		4286		1613		3227		2830		3128	
4409	30034	4132		3571		2938		3547		4857	4	3875	
4410	CR Dhan 202 (ZC)	3076		4464	10	4208	5	3916		3168		3729	
4411	29410 (R)	5069	6	4524	9	3179		4257	9	3126		3975	10
4412	30041	6626	2 *	4286		4175	6	5029	2	3126		4553	6
4413	30023	4535	10	4048		3017		3867		3210		3703	
4414	30020	5060	7	4940	7	4058	8	4686	5	4604	6	4666	5
4415	29405 (R)	5676	3	5119	3	5354	1 *	5383	1 *	4435	7	5146	1 *
4416	30051	3736		4405		4263	4	4135		4900	3	4326	7
4417	Local Check (LC)	3822		5179	2	3588	10	4196	10	3463	10	4013	9
4418	DRR Dhan 54 (NC)	5606	4	4286		4788	2	4893	3	4393	8	4768	3
Exp. Mean		**4566**		**4563**		**3642**		**4257**		**3853**		**4156**	
F Value		**27.89(p<0.0001)S**		**3.92(p<0.0001)S**		**24.59(p<0.0001)S**		**23.63(p<0.0001)S**		**24.04(p<0.0001)S**		**24.02(p<0.0001)S**	
CD		676		767		483		340		563		300	
CV%		**8.92**		**10.13**		**7.99**		**4.82**		**8.81**		**4.35**	
D/P													
Local Check Name		Sabour Ardhjal		Rajendra Nilam		Rajendra Bhagwati				BVD-203			

Table No. 9a.2 (Contd).: Grain Yield (kg/ha) in AVT 2 – AEROB, Kharif 2023

Entry No	IET No	ZONE IV - NORTH EASTERN							
		Tripura				Tripura (2)		Zone IV (2)	
		Arundhatinagar		Lembucherra		Mean		Mean	
4401	30032	2934		4257	10	3596		3596	
4402	30024	3117	6	4253		3685	10	3685	10
4403	30028	3566	2	4714	4	4140	6	4140	6
4404	30029	3143	4	3460		3302		3302	
4405	CR Dhan 201 (NC)	3100	7	3796		3448		3448	
4406	30008	3549	3	5851	1 *	4700	2	4700	2
4407	30004	2872		5581	2 *	4227	4	4227	4
4408	30021	3031	9	4482	7	3757	9	3757	9
4409	30034	2931		4615	6	3773	8	3773	8
4410	CR Dhan 202 (ZC)	2843		3608		3226		3226	
4411	29410 (R)	2980	10	5356	3	4168	5	4168	5
4412	30041	2904		4098		3501		3501	
4413	30023	3711	1 *	4298	9	4005	7	4005	7
4414	30020	3056	8	4043		3550		3550	
4415	29405 (R)			4309	8	4309	3	4309	3
4416	30051			3209		3209		3209	
4417	Local Check (LC)	3139	5	3320		3230		3230	
4418	DRR Dhan 54 (NC)			4703	5	4703	1	4703	1
Exp. Mean		**3125**		**4331**		**3807**		**3807**	
F Value		**2.06(p<0.0453)S**		**6.00(p<0.0001)S**		**5.64(p<0.0001)S**		**5.64(p<0.0001)S**	
CD		564		857		568		568	
CV%		**10.79**		**11.92**		**8.99**		**8.99**	
D/P		08-11-2023							
Local Check Name				TRC 2015-5					

Table No. 9a.2 (Contd).: Grain Yield (kg/ha) in AVT 2 – AEROB, Kharif 2023

Entry No	IET No	ZONE V - CENTRAL								ZONE VI - WESTERN			
		Chattisgarh				Chattisgarh (2)		Zone V (2)		Gujarat (1)		Zone VI (1)	
		Raipur		Jagadalpur		Mean		Mean		Mean		Mean	
4401	30032	6308	3	6422	9	6365	5	6365	5	3581	8	3581	8
4402	30024	4350		6087		5219		5219		3948	6	3948	6
4403	30028	5294	10	6003		5649		5649		2550		2550	
4404	30029	5569	7	7547	1	6558	2	6558	2	4144	3	4144	3
4405	CR Dhan 201 (NC)	5191		7163	4	6177	8	6177	8	2950		2950	
4406	30008	5686	6	4794		5240		5240		4093	4	4093	4
4407	30004	6311	2	5487		5899	10	5899	10	3362	9	3362	9
4408	30021	4853		6871	6	5862		5862		3114		3114	
4409	30034	6165	4	6593	8	6379	4	6379	4	4659	1	4659	1
4410	CR Dhan 202 (ZC)	4646		7256	3	5951	9	5951	9	1015		1015	
4411	29410 (R)	3220		6377	10	4799		4799		2286		2286	
4412	30041	7917	1 *	5931		6924	1	6924	1	4354	2	4354	2
4413	30023	4469		5991		5230		5230		3136		3136	
4414	30020	5848	5	6693	7	6271	6	6271	6	3203		3203	
4415	29405 (R)	3909		5450		4680		4680		4065	5	4065	5
4416	30051	5517	9	7500	2	6509	3	6509	3	3193		3193	
4417	Local Check (LC)	4012		5069		4541		4541		3359	10	3359	10
4418	DRR Dhan 54 (NC)	5545	8	6939	5	6242	7	6242	7	3936	7	3936	7
Exp. Mean		**5267**		**6343**		**5805**		**5805**		**3386**		**3386**	
F Value		**5.96(p<0.0001)S**		**4.50(p<0.0001)S**		**5.65(p<0.0001)S**		**5.65(p<0.0001)S**		**7.92(p<0.0001)S**		**7.92(p<0.0001)S**	
CD		1271		1475		1031		1031		883		883	
CV%		**14.54**		**14.01**		**10.7**		**10.7**		**15.71**		**15.71**	
D/P													
Local Check Name		Indira Aerobic-1		Indira Aerobic 1						NAUR-1			

Table No. 9a.2 (Contd).: Grain Yield (kg/ha) in AVT 2 – AEROB, Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN										Overall Mean (15)	
		Telangana (1)		Karnataka				Karnataka (2)		Zone VII (3)			
		Kampasagar		Mandya		Mugad		Mean		Mean			
4401	30032	4360	10	4832	7	6103		5468		5098		5011	1
4402	30024	3222		3296		6419	9	4858		4312		4288	
4403	30028	3275		6662	1 *	7903	3	7283	1 *	5947	2	4437	10
4404	30029	5764	1	5854	2	8329	2	7092	2 *	6649	1 *	4974	3
4405	CR Dhan 201 (NC)	5514	2	4932	6	6216		5574	9	5554	3	4430	
4406	30008	4457	9	5820	3	5775		5798	5	5351	7	4815	6
4407	30004	4248		4352	10	5911		5132		4837		4527	9
4408	30021	5437	3	1662		8906	1	5284		5335	9	3887	
4409	30034	3543		3849		6292		5071		4561		4384	
4410	CR Dhan 202 (ZC)	5288	4			5638		5638	6	5463	4	4063	
4411	29410 (R)	4205		5641	4	5560		5601	7	5135		4281	
4412	30041	4133		4589	8	6325		5457		5016		4820	5
4413	30023	4657	7	2130		6584	6	4357		4457		4058	
4414	30020	5028	6	4141		7011	5	5576	8	5393	6	4899	4
4415	29405 (R)	5252	5	4339		6452	8	5396		5348	8	4794	7
4416	30051	3954		4487	9	6490	7	5489	10	4977		4538	8
4417	Local Check (LC)	3956		4106		7850	4	5978	3	5304	10	4336	
4418	DRR Dhan 54 (NC)	4511	8	5367	5	6411	10	5889	4	5430	5	5006	2
Exp. Mean		**4489**		**4474**		**6676**		**5608**		**5232**		**4531**	
F Value		**9.32(p<0.0001)S**		**30.89(p<0.0001)S**		**4.38(p<0.0001)S**		**4.31(p<0.0001)S**		**5.50(p<0.0001)S**		**17.96(p<0.0001)S**	
CD		682		632		1315		933		640		233	
CV%		**9.16**		**8.49**		**11.87**		**10.02**		**7.37**		**3.11**	
D/P													
Local Check Name		JGL-24423		KMP-175		MGD-101							

Table No. 9a.3 (Contd): Grain Yield (kg/ha) in AVT 2 – AEROB, (Trials not considered), Kharif 2023

Entry No	IET No	Trials not considered											
		Uttar Pradesh		Madhya Pradesh				Maharashtra		Gujarat			
		@Masodha		@Rewa		@Jabalpur		@Parbhani		@Navasari		@Derol	
4401	30032	2400	10	690	4	3757		3556	2	4580	9	1289	9
4402	30024	2864	5	465	10	4064	8	2667	7	5229	1	1036	
4403	30028	2209		263		4173	6	2644	9	4095		498	
4404	30029	1555		187		3792		2322		4579	10	556	
4405	CR Dhan 201 (NC)	3028	4	596	6	3909	10	2500		4856	4	1298	8
4406	30008	2510	9	508	9	4382	1	2433		4551		1573	5
4407	30004	1391		340		4081	7	2233		4552		1129	
4408	30021	1337		241		4310	3	2444		4980	2		
4409	30034	2700	7	534	8	3382		3333	3	4745	5	893	
4410	CR Dhan 202 (ZC)	2100		462		4337	2	2667	7	3130		596	
4411	29410 (R)	3191	2	458		4201	5	2511		4466		1418	7
4412	30041	3519	1 *	401		3519		3000	5	4543		1184	10
4413	30023	2673	8	584	7	4037	9	2400		4596	8	458	
4414	30020	2782	6	629	5	3601		2822	6	4273		1880	3
4415	29405 (R)	3082	3	786	2	3362		2600		4671	6	1622	4
4416	30051	1746		847	1	3392		2644	9	4670	7	1920	2
4417	Local Check (LC)	2373		764	3	3496		3244	4	4323		2164	1
4418	DRR Dhan 54 (NC)	1418		386		4215	4	3956	1	4866	3	1498	6
Exp. Mean		**2382**		**508**		**3889**		**2777**		**4539**		**1236**	
F Value		**23.63(p<0.0001)S**		**18.64(p<0.0001)S**		**19.62(p<0.0001)S**		**5.68(p<0.0001)S**		**1.85(p<0.060)NS**		**25.53(p<0.0001)S**	
CD		376		120		220		532		**NS**		279	
CV%		**9.52**		**14.25**		**3.41**		**11.55**		**11.8**		**13.59**	
D/P													
Local Check Name		Shushk Smart		JR206		JR 206		Avishkar		GNR-8		AAUDR 1	

Table No. 9a.3 : Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 – AEROB, Kharif 2023

Entry No	IET No	ZONE II NORTHERN														
		Punjab (1)			Haryana						Haryana (2)			Zone II (3)		
		Ludhiana			Kaul			Karnal (ICAR-CSSRI)			Mean			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4401	30032	90	108	617	83	95	285	97	80	540	90	87	412	90	94	480
4402	30024	85	94	573	87	87	279	92	74	415	90	81	347	88	85	422
4403	30028				98	108	286	118	89	392	108	98	339	108	98	339
4404	30029				106	107	263	121	76	378	114	92	321	114	92	321
4405	CR Dhan 201 (NC)	89	116	443	84	89	267	97	90	347	91	90	307	90	98	353
4406	30008	91	98	523	83	93	289	92	83	522	88	88	406	89	92	445
4407	30004	88	110	400	85	86	244	97	87	570	91	87	407	90	94	404
4408	30021	108	82	437	107	107	234	106	70	410	107	89	322	107	86	360
4409	30034	86	113	430	76	89	267	88	86	325	82	88	296	84	96	341
4410	CR Dhan 202 (ZC)	91	126	503	88	88	290	105	85	345	96	87	317	94	100	379
4411	29410 (R)	90	118	410	84	89	278	98	90	450	91	90	364	91	99	380
4412	30041	84	89	500	82	87	287	92	72	447	87	80	367	86	83	412
4413	30023	87	121	553	86	86	262	92	88	367	89	87	315	88	98	394
4414	30020	93	107	487	85	96	274	103	83	538	94	89	406	94	95	433
4415	29405 (R)	94	122	520	80	90	291	93	106	405	87	98	348	89	106	405
4416	30051	93	111	453	85	95	298	94	96	445	90	96	372	91	101	399
4417	Local Check (LC)	85	87	537	83	89	257	96	87	483	90	88	370	88	88	425
4418	DRR Dhan 54 (NC)	90	118	403	86	91	273	85	106	388	85	98	331	87	105	355
Exp. Mean		**90**	**107**	**487**	**87**	**93**	**274**	**98**	**86**	**431**	**93**	**89**	**353**	**93**	**95**	**392**

Table No. 9a.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 – AEROB, Kharif 2023

Entry No	IET No	ZONE III - EASTERN																	
		Bihar									Bihar (3)			Jharkhand (1)			Zone III(4)		
		Bikramganj			Pusa			Patna-ICAR			Mean			Ranchi			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4401	30032	79	116	264	75	96	271	89	87	439	81	100	325	86	88	167	82	97	285
4402	30024	77	97	264	75	99	225	84	79	362	79	92	284	83	74	123	80	87	244
4403	30028	97	125	284	92	128	231	106	83	229	98	112	248	93	105	130	97	110	219
4404	30029	99	89	278	104	111	226	121	88	315	108	96	273	107	88	166	108	94	246
4405	CR Dhan 201 (NC)	86	108	308	74	117	224	90	88	379	83	104	304	90	100	172	85	103	271
4406	30008	79	113	287	74	100	256	87	87	428	80	100	324	86	84	159	81	96	283
4407	30004	79	106	277	76	94	258	86	88	417	80	96	318	84	96	137	81	96	272
4408	30021	91	96	378	84	102	256	101	79	350	92	92	328	99	87	145	94	91	282
4409	30034	72	106	293	69	89	253	83	99	278	74	98	275	81	98	148	76	98	243
4410	CR Dhan 202 (ZC)	87	105	313	78	120	268	89	116	283	85	114	288	92	107	146	87	112	252
4411	29410 (R)	78	109	268	75	115	227	82	105	391	79	110	295	90	96	91	81	106	244
4412	30041	76	102	280	74	97	222	83	88	383	78	96	295	91	87	123	81	93	252
4413	30023	84	103	290	71	103	235	88	92	338	81	99	288	85	95	125	82	98	247
4414	30020	75	108	302	73	105	278	88	86	269	79	100	283	85	98	171	80	99	255
4415	29405 (R)	86	116	208	71	122	247	88	89	458	82	109	304	87	100	131	83	107	261
4416	30051	84	115	274	79	117	244	89	108	444	84	113	321	85	96	117	84	109	270
4417	Local Check (LC)	76	121	342	73	102	230	88	94	334	79	106	302	99	98	126	84	104	258
4418	DRR Dhan 54 (NC)	75	117	252	71	106	259	87	113	205	78	112	239	86	100	118	80	109	209
Exp. Mean		**82**	**109**	**287**	**77**	**107**	**245**	**91**	**93**	**350**	**83**	**103**	**294**	**89**	**94**	**139**	**85**	**101**	**255**

Table No. 9a.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 – AEROB, Kharif 2023

Entry No	IET No	ZONE IV - NORTH EASTERN											
		Tripura						Tripura (2)			Zone IV (2)		
		Arundhatinagar			Lembucherra			Mean			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4401	30032	71	85	233	66	98	258	68	92	246	68	92	246
4402	30024	74	117	304	65	73	192	70	95	248	70	95	248
4403	30028	71	95	313	70	96	267	70	95	290	70	95	290
4404	30029	64	91	259	70	103	175	67	97	217	67	97	217
4405	CR Dhan 201 (NC)	65	92	219	66	100	275	66	96	247	66	96	247
4406	30008	65	97	217	65	103	292	65	100	254	65	100	254
4407	30004	87	80	273	74	99	258	81	89	266	81	89	266
4408	30021	73	96	249	74	110	192	73	103	220	73	103	220
4409	30034	68	87	240	65	109	292	67	98	266	67	98	266
4410	CR Dhan 202 (ZC)	68	102	266	71	103	350	70	103	308	70	103	308
4411	29410 (R)	68	98	253	68	106	267	68	102	260	68	102	260
4412	30041	73	108	271	62	91	317	67	100	294	67	100	294
4413	30023	73	89	265	71	79	217	72	84	241	72	84	241
4414	30020	69	94	238	67	100	233	68	97	236	68	97	236
4415	29405 (R)				71	98	292	71	98	292	71	98	292
4416	30051				64	87	350	64	87	350	64	87	350
4417	Local Check (LC)	73	101	223	63	99	200	68	100	211	68	100	211
4418	DRR Dhan 54 (NC)				65	101	225	65	101	225	65	101	225
Exp. Mean		**71**	**95**	**255**	**68**	**97**	**258**	**69**	**96**	**259**	**69**	**96**	**249**

Table No. 9a.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 – AEROB, Kharif 2023

Entry No	IET No	ZONE V - CENTRAL												ZONE VI - WESTERN					
		Chattisgarh						Chattisgarh (2)			Zone V (2)			Gujarat (1)			Zone VI (1)		
		Raipur			Jagadalpur			Mean			Mean			Vyara			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4401	30032	76	114	211	90	61	217	83	88	214	83	88	214	80	73	383	80	73	383
4402	30024	76	108	157	90	66	214	83	87	186	83	87	186	66	93	303	66	93	303
4403	30028	90	137	208	102	75	242	96	106	225	96	106	225	90	120	316	90	120	316
4404	30029	96	114	230	92	66	222	94	90	226	94	90	226	104	100	284	104	100	284
4405	CR Dhan 201 (NC)	74	123	207	91	61	245	83	92	226	83	92	226	74	108	304	74	108	304
4406	30008	69	117	190	91	86	217	80	102	204	80	102	204	73	97	288	73	97	288
4407	30004	75	119	193	101	67	250	88	93	221	88	93	221	69	95	209	69	95	209
4408	30021	87	115	195	90	75	259	88	95	227	88	95	227	88	101	283	88	101	283
4409	30034	71	120	187	84	78	200	78	99	194	78	99	194	73	115	366	73	115	366
4410	CR Dhan 202 (ZC)	78	137	187	89	69	184	83	103	186	83	103	186	64	128	320	64	128	320
4411	29410 (R)	75	134	214	86	61	194	80	97	204	80	97	204	75	110	297	75	110	297
4412	30041	75	111	200	91	71	219	83	91	209	83	91	209	74	96	357	74	96	357
4413	30023	73	119	218	85	75	197	79	97	207	79	97	207	74	108	323	74	108	323
4414	30020	70	119	203	85	75	172	78	97	187	78	97	187	74	106	360	74	106	360
4415	29405 (R)	73	141	208	84	87	210	79	114	209	79	114	209	73	126	330	73	126	330
4416	30051	76	218	206	83	68	219	80	143	213	80	143	213	75	113	354	75	113	354
4417	Local Check (LC)	72	118	213	85	77	193	78	98	203	78	98	203	74	112	378	74	112	378
4418	DRR Dhan 54 (NC)	76	158	173	85	81	232	80	119	202	80	119	202	73	116	383	73	116	383
Exp. Mean		**77**	**129**	**200**	**89**	**72**	**216**	**83**	**101**	**208**	**83**	**101**	**208**	**76**	**107**	**324**	**76**	**107**	**324**

Table No. _9a.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 – AEROB, Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN															Overall Mean (15)		
		Telangana (1)			Karnataka						Karnataka (2)			Zone 7(3)					
		Kampasagar			Mandya			Mugad			Mean			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4401	30032	86	110	420	89	68	340	86	61	218	88	64	279	87	79	326	83	89	320
4402	30024	87	87	357	84	65	351	78	48	211	81	56	281	83	66	306	80	84	287
4403	30028	96	129	340	97	98	340	93	80	217	95	89	279	95	102	299	94	105	263
4404	30029	96	103	490	97	81	329	96	68	239	96	74	284	96	84	353	98	92	275
4405	CR Dhan 201 (NC)	85	124	473	87	83	317	85	60	222	86	71	270	86	89	338	83	97	295
4406	30008	85	112	423	87	73	306	82	60	219	85	67	263	85	82	316	81	94	308
4407	30004	90	107	453	91	80	351	81	56	224	86	68	288	87	81	343	84	91	300
4408	30021	96	102	487	112	64	283	83	66	253	98	65	268	97	77	341	93	90	288
4409	30034	79	115	420	82	81	340	81	65	203	82	73	272	81	87	321	77	97	277
4410	CR Dhan 202 (ZC)	91	102	463				90	78	219	90	78	219	90	90	341	84	105	292
4411	29410 (R)	82	120	390	88	88	351	80	78	210	84	83	281	83	95	317	81	101	278
4412	30041	87	102	370	94	74	329	88	53	213	91	64	271	90	76	304	82	89	292
4413	30023	83	118	443	115	80	317	83	63	200	99	72	259	93	87	320	83	95	286
4414	30020	84	109	470	90	74	317	83	67	235	87	71	276	86	83	341	82	95	297
4415	29405 (R)	87	142	467	82	62	295	84	77	253	83	69	274	84	93	338	82	106	301
4416	30051	85	119	413	89	80	283	83	63	226	86	72	255	86	87	308	83	106	304
4417	Local Check (LC)	85	102	360	85	92	317	86	76	213	86	84	265	85	90	297	82	97	285
4418	DRR Dhan 54 (NC)	85	140	427	88	93	329	89	71	248	88	82	288	87	102	334	81	108	269
Exp. Mean		**87**	**113**	**426**	**92**	**78**	**323**	**85**	**66**	**223**	**88**	**72**	**271**	**88**	**86**	**325**	**84**	**97**	**290**

Table No. 9a.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2-AEROB, (Trials Not Considered) Kharif 2023.

Entry No	IET No	Trials not considered																	
		Uttar Pradesh			Madhya Pradesh						Maharashtra			Gujarat					
		@Masodha			@Rewa			@Jabalpur			@Parbhani			@Navasari			@Derol		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4401	30032	73	66	210	92	73	104	102	103	212	91	50	383	79	107	262	91	82	187
4402	30024	78	66	224	87	75	182	91	93	222	82	42	303	78	102	238	85	74	175
4403	30028	81	66	213	104	84	160	89	92	180	96	64	316	82	131	217	94	106	197
4404	30029	102	50	196	103	83	82	93	105	154	103	44	284	95	120	235	95	77	216
4405	CR Dhan 201 (NC)	74	76	223	103	84	116	88	103	146	91	56	304	78	109	247	87	90	237
4406	30008	71	65	218	94	75	154	90	103	238	90	43	288	79	109	244	80	84	263
4407	30004	89	56	196	102	62	93	101	105	160	97	50	209	80	114	226	78	94	185
4408	30021	92	66	187	102	64	102	101	113	195	82	47	283	86	116	220			
4409	30034	75	61	216	88	84	112	100	100	213	83	58	366	79	124	224	77	93	191
4410	CR Dhan 202 (ZC)	79	70	211	101	76	156	102	101	183	65	66	320	72	156	224	62	112	193
4411	29410 (R)	72	60	243	102	84	171	98	111	194	90	64	297	74	124	230	81	104	209
4412	30041	74	64	242	92	64	106	100	101	124	91	45	357	79	116	245	84	84	205
4413	30023	75	78	226	89	82	162	87	108	126	89	65	323	78	122	227	90	88	211
4414	30020	69	72	215	95	74	149	95	107	166	89	50	360	78	116	251	86	90	196
4415	29405 (R)	75	77	243	93	92	154	82	110	163	90	61	330	79	121	231	85	99	205
4416	30051	91	65	207	94	84	130	84	98	172	90	51	354	76	127	230	83	83	207
4417	Local Check (LC)	71	82	224	92	74	154	87	103	186	91	67	378	81	136	237	61	112	185
4418	DRR Dhan 54 (NC)	90	72	210	91	86	132	95	96	180	88	71	383	80	139	228	80	94	189
Exp. Mean		**79**	**67**	**217**	**96**	**78**	**134**	**94**	**103**	**179**	**89**	**55**	**324**	**80**	**122**	**234**	**82**	**92**	**203**

Table No. 9a.4 : Grain quality characteristics of entries in AVT 2-Aerobic, kharif 2023

Entry No.	Designation/ IET No.	Hull	Mill	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
4401	30032	78.3	65.9	40.0	6.61	1.94	3.40	LS	VOC	7.0	25.78	48
4402	30024	78.9	66.8	52.3	5.82	1.87	3.11	SS	VOC	3.0	26.19	60
4403	30028	79.1	65.2	43.5	5.63	2.41	2.33	SB	VOC	4.0	22.73	69
4404	30029	80.0	70.3	60.6	5.36	1.99	2.69	MS	VOC	4.0	26.63	47
4405	CR Dhan 201 (NC)	77.9	64.6	55.0	6.40	1.91	3.35	LS	VOC	7.0	25.96	22
4406	30008	77.1	64.3	55.1	6.54	1.95	3.35	LS	VOC	7.0	25.72	82
4407	30004	75.7	66.3	54.5	7.92	1.84	4.30	LS	VOC	7.0	25.87	41
4408	30021	77.7	63.5	39.4	6.87	2.22	3.09	LS	A	3.0	21.88	58
4409	30034	79.2	66.3	42.8	5.63	2.11	2.66	MS	OC	7.0	22.44	54
4410	MAS 946-1 (ZC)	78.5	67.2	57.1	5.39	2.04	2.64	MS	VOC	4.0	24.69	22
4411	29410	78.2	66.7	58.0	6.10	1.95	3.12	LS	VOC	4.0	24.14	26
4412	30041	78.3	70.6	61.4	6.57	1.89	3.47	LS	VOC	5.0	17.30	81
4413	30023	79.4	66.6	55.7	7.14	1.89	3.77	LS	VOC	7.0	24.43	70
4414	30020	78.7	65.3	56.0	6.13	2.31	2.65	LB	OC	7.0	23.37	92
4415	29405	78.1	68.0	57.2	6.19	2.25	2.75	LB	VOC	4.0	23.14	43
4416	30051	78.3	64.7	47.6	5.70	2.03	2.80	MS	OC	3.0	21.70	22
4417	Local Check	75.6	63.8	55.4	6.83	2.03	3.36	LS	VOC	5.0	24.78	22
4418	DRR Dhan 54 (NC)	78.4	67.7	55.4	6.35	2.33	2.72	LB	OC	3.0	21.26	25

HULL: Hulling (%); MILL: Milling (%); HRR: Head Rice Recovery (%); KL: Kernel Length (mm); KB: Kernel Breadth (mm); L/B: Length and breadth ratio; Grain Chalk: Grain Chalkiness; VOC: Very occasionally present; A: Absent ASV: Alkali Spreading Value; AC: Amylose Content (%); GC: Gel Consistency; LB: Long Bold; SB: Short Bold; LS: Long Slender; MS: Medium Slender; SS: Short Slender.

Table No. 9b.1 : Composition of entries in Advance Variety Trial 1 - Aerobic (AVT 1 – AEROB), Kharif 2023.

Entry No.	IET No.	Designation	Cross Combination	GT
2nd year of testing:				
4501	30902	RCPR 93-IR 106312-50-1-1-1	IR06N155 / IR09L120	LS
4502	30897	CSR BT-252-201	CSR 89 IR15 / PB1	LS
4503	30893	RP 6616-CGR 7	Samba Mahsuri *2 / *Oryza rufipogon*-VN90-1032-58 (3)	MS
4504	30906	PAU 7592-366-1-1-B (RYT4009)	PR 123 / RYT 4051	LB
4505	30912	NVSR 911	IET 22121 / IET 24026	MS
4506	30901	RNR 28373	Bhadrakali / IR79216-141-1-3-3-3	LB
4507	30925	R 2220-39-1-4-1	R 1546-1328-1-40-1 / Mahamaya	SB
4508	30928	NWGR 17133	GR-12 / NWGR-7022 / 1-5-1-1-1-1-1	MS
4509	30933	NVSR 929	Gurjari / IR-28	LB
4510	**DRR Dhan 54 (NC)**			
4511	30939	RP 6327-13-171-3-2 (PSV-1128)	IR 79156B / Swarna	LS
4512	30932	CR 4402-(1,2,3,4)-89-1-3-1	IR 93312-30-101-20-13-66-6 / IR 94226 -B-177-B // WAB 880-1-27-9-2 / IR 94225-B-82-B	LS
4513	30910	IIABR-13/IIAB-4/IR15L1505	IR 10L411 / IR11L261	LS
4514	30904	CR 4403-5-1-IR117841-4-1 RGA-1 RGA-1 RGA-2	IR 91648-B-1-B-3-1 / Abhaya // IR11L101 /// IR 91648-B-1-B-3-1 / IRBB 23 // IR23 // IR 96322-34-223-B /// IR 91648-B-1-B-3-1 / IR BB60 (IR 72920-1-44-4) // Tadukan	LS
4515	30895	TRC GN 116-B-B-14-2	Gomati / Tripura Nirog	MB
4516	30890	CRR 806-2	IR 98003:257/MR 219	LS
4517	**CR Dhan 202 (Northern, Eastern, North Eastern and Central), AAUDR-1 (Western), MAS 946-1 (Southern)- Zonal**			
4518	30934	CR 3553-1-5-1-2-1-1	ADT 43 /Ananga	SB
4519	30918	RNR 39027	IR 14G3964	
4520	30907	RP 5594-97-5-1 (PSV 222)	MTU 1010 / RPHR 1005	MS

Entry No.	IET No.	Designation	Cross Combination	GT
4521	30917	RCPR 92-IR 97069-1-1-1-1	IR 09L317 / IR 10L137	LS
4522	30935	RP 6252-BV/RIL-BV2024	BPT 5204 / Varadhan	SB
4523	30929	CR 3516-11-2-2-1-1-1	Birupa / Pusa 44	SB
4524	30919	***IIRRH 159***	***Hybrid***	
4525	30937	CRR 790-43	CR Dhan 40 / NPT PSR12	MS
4526	*30892*	***IIRRH 161***	***Hybrid***	MS
4527	30927	CR 3561-5-2-1-1-1-1	Surendra / Annapurna	MS
4528	30942	***IIRRH 160***	***Hybrid***	LS
4529	30911	CR 4338-2-1-1	CR 3856-29-2-1-2 / Heera	LB
4530	**PA-6129 (HC)**			
4531	30938	CR 4121-142-36-24-1	CR 3856-44-22-2-1-11*3 / IRBB 60 / Swarna Sub1	LB
4532	30894	BRR 2162	CR 2582-2 / Varshadhan / IR 82809-237	MS
4533	**Local Check (LC)**			

Table No. 9b.2 : Grain Yield (kg/ha) in AVT 1 – AEROB, Zone 2, Kharif 2023

Entry No	IET No	ZONE II NORTHERN					
		Puducherry (1)		Haryana (1)		Zone II (2)	
		Ludhiana		Kaul		Mean	
4501	30902	4299		5456	8	4878	
4502	30897			3355		3355	
4505	30912	5269	5	5483	7	5376	5
4510	DRR Dhan 54 (NC)	4118		6219	2	5169	9
4511	30939	5080	7	5265		5173	8
4512	30932	3798		5646	6	4722	
4513	30910	5251	6	5128		5190	7
4514	30904	5338	4	5101		5220	6
4515	30895	3678		5456	8	4567	
4516	30890	4670	8	3901		4286	
4517	CR Dhan 202 (ZC)	3813		5374	10	4594	
4520	30907	5472	3	6165	3	5819	2
4521	30917	4506	9	6438	1	5472	4
4522	30935	4444	10	4910		4677	
4523	30929			4528		4528	
4524	30919	4270		5155		4713	
4529	30911	4172		6137	4	5155	10
4530	PA-6129 (HC)	6214	2	6028	5	6121	1 *
4533	Local Check (LC)	6242	1	4774		5508	3
Exp. Mean		**4743**		**5290**		**4975**	
F Value		**15.35(p<0.0001)S**		**11.23(p<0.0001)S**		**9.50(p<0.0001)S**	
CD		554		641		469	
CV%		**7.03**		**7.32**		**5.70**	
D/S		12-07-2023		07-07-2023			
D/P							
Local Check Name		PR 126		HKR 48			

Table No. 9b.2 (Contd) : Grain Yield (kg/ha) in AVT 1 – AEROB, Zone 3, Kharif 2023

Entry No	IET No	ZONE III - EASTERN												Trial not considered	
		Odisha (1)		Bihar					Bihar (3)		Jharkhand (1)		Zone III(5)	Uttar Pradesh (0)	
		CAR-NRRI (Cuttack		Bikramganj		Pusa		Patna-ICAR	Mean		Ranchi		Mean	@Masodha	
4501	30902	3086		3474		4896		4147	4172		4716	5	4064	3464	4
4503	30893	2357		3517		4688		2990	3732		3996		3510	3601	1
4504	30906	3272		3155		4375		4487	7	4006		2340		3526	3601	1
4505	30912	3440		3101		5313	4	4177		4197		3708		3948	1784	
4506	30901	3373		3753	10	5313	4	3303		4123		3816		3912	3355	5
4507	30925	3114		3239		5000		4230		4156		4500	9	4017	2782	
4508	30928	2666		4112	8	4167		4477	8	4252		3276		3740	1776	
4509	30933	3951	7	2693		5625	1	3670		3996		3960		3980	2234	
4510	DRR Dhan 54 (NC)	3373		3509		5104	9	4033		4215		4536	7	4111	10	3328	6
4511	30939	2890		3457		5521	3	2537		3838		3096		3500	2608	
4512	30932	3047		3382		5104	9	4663	4	4383	8	3816		4002	2769	
4513	30910	3294		3218		4479		3610		3769		4536	7	3827	2785	
4514	30904	3945	8	2736		4688		3897		3774		4392	10	3932	2837	
4515	30895	4282	4	4517	6	4063		4240		4273		4284		4277	5	3014	10
4517	CR Dhan 202 (ZC)	3114		2747		5000		3773		3840		5148	2	3956		3481	3
4518	30934	2334		2971		5104	9	4420	9	4165		5292	1	4024		3164	8
4519	30918	3176		5333	4	4896		3570		4600	4 *	3528		4101		1773	
4520	30907	3075		3339		4063		4000		3801		2592		3414		2864	
4521	30917	3479	10	3376		5208	6	4383	10	4322	10	4176		4124	9	3041	9
4522	30935	4473	3	4612	5	4583		4213		4469	6	3420		4260	7	2782	
4523	30929	4641	2	3684		5625	1	3860		4390	7	3996		4361	4	1533	
4524	30919	3266		5434	3	5104	9	4850	2	5129	1 *	4068		4544	3	2864	
4526	30892	4085	5	5454	2	5104	9	4777	3	5112	2 *	3924		4669	2 *	1528	
4527	30927	3395		2681		4688		3190		3520		4536	7	3698		1609	
4529	30911	3333		4374	7	4583		4500	6	4486	5	3492		4056		3191	7
4530	PA-6129 (HC)	5696	1 *	5684	1	4479		4903	1	5022	3 *	5148	2	5182	1 *	2755	
4531	30938	3967	6	4011	9	4479		4660	5	4383	8	4176		4259	8	2700	
4533	Local Check (LC)	3934	9	3583		5073		3657		4104		5076	4	4265	6	2523	
Exp. Mean		3502		3755		4869		4043	4222		4055		4045	2705	
F Value		2.22(p<0.0056)S		9.55(p<0.0001)S		5.96(p<0.0001)S		14.73(p<0.0001)S	9.18(p<0.0001)S		8.47(p<0.0001)S		6.77(p<0.0001)S	31.71(p<0.0001)S	
CD		1333		781		495		416	364		693		396	312	
CV%		23.26		12.7		6.21		6.28	5.27		10.44		5.98	7.05	
D/S		10-07-2023		17-07-2023		26-07-2023		12-07-2023			10-07-2023			20-.7-2023	
D/P															
Local Check Name		CR Dhan 212		Sabour Ardhjal		Rajendra Nilam		Rajendra Bhagwati			BVD-203			Shushk Smart	

Table No. 9b.2 (Contd) Grain Yield (kg/ha) in AVT 1 – AEROB, Zone 4, Kharif 2023

Entry No	IET No	IV - NORTH EASTERN	
		Tripura	
		Lembucherra	
4501	30902	7057	
4505	30912	8514	10
4510	DRR Dhan 54 (NC)	8841	6
4511	30939	9755	4 * #
4512	30932	11941	1 * #
4513	30910	10916	2 * #
4514	30904	9712	5 * #
4515	30895	6532	
4517	CR Dhan 202 (ZC)	6285	
4520	30907	6853	
4521	30917	6285	
4522	30935	6267	
4523	30929	8650	9
4524	30919	4698	
4529	30911	10477	3 * #
4530	PA-6129 (HC)	8730	7
4533	Local Check (LC)	8656	8
Exp. Mean		**8245**	
F Value		**48.17(p<0.0001)S**	
CD		769	
CV%		**5.61**	
D/S		24-07-2023	
D/P			
Local Check Name		TRC 2015-5	

Table No. 9b.2 (Contd) Grain Yield (kg/ha) in AVT 1 – AEROB, Zone 5, Kharif 2023

Entry No	IET No	Zone- V, Central			
		Chattisgarh (1)		Zone V(1)	
		Raipur		Mean	
4501	30902	6251	5	6251	5
4502	30897	4364		4364	
4505	30912	6345	4	6345	4
4510	DRR Dhan 54 (NC)	6492	2	6492	2
4511	30939	4144		4144	
4512	30932	5898	8	5898	8
4513	30910	5866	9	5866	9
4514	30904	4543		4543	
4515	30895	5784		5784	
4517	CR Dhan 202 (ZC)	5315		5315	
4520	30907	4756		4756	
4521	30917	5909	7	5909	7
4522	30935	5474		5474	
4523	30929	4698		4698	
4524	30919	4597		4597	
4525	30937	6472	3	6472	3
4527	30927	4860		4860	
4528	30942	4610		4610	
4529	30911	5853	10	5853	10
4530	PA-6129 (HC)	7306	1	7306	1
4532	30894	6134	6	6134	6
4533	Local Check (LC)	5224		5224	
Exp. Mean		**5495**		**5495**	
F Value		**3.72(p<0.0001)S**		**3.72(p<0.0001)S**	
CD		1218		1218	
CV%		**13.45**		**13.45**	
D/S		03-07-2023			
D/P					
Local Check Name		Indira Aerobic 1			

Table No. 9b.2 (Contd) : Grain Yield (kg/ha) in AVT 1 – AEROB, (Trials not considered) Zone 5, Kharif 2023.

Entry No	IET No	Trials not considered					
		Madhya Pradesh				Chattisgarh	
		@Rewa		@Jabalpur		@Jagadalpur	
4501	30902	1030		3881		4252	
4502	30897	385		3699		4984	7
4505	30912	1116		4129	9	4746	
4510	DRR Dhan 54 (NC)	1517	8	3725		5040	5
4511	30939	646		4201	7	4183	
4512	30932	1685	4	3983		5342	1
4513	30910	1375		3086		5009	6
4514	30904	983		3748		5095	4
4515	30895	1764	2	4709	1	4041	
4517	CR Dhan 202 (ZC)	1050		3301		4780	
4520	30907	1546	7	4054	10	4669	
4521	30917	1482	9	3427		4087	
4522	30935	1869	1	3737		4852	10
4523	30929	1242		4491	2	4932	8
4524	30919	697		4213	6	4128	
4525	30937	1711	3	3930		4821	
4527	30927	752		3546		5246	2
4528	30942	1235		4338	5	4908	9
4529	30911	1619	5	4446	3	5108	3
4530	PA-6129 (HC)	1592	6	3655		4764	
4532	30894	1392	10	4173	8	4673	
4533	Local Check (LC)	895		4446	3	4109	
Exp. Mean		**1254**		**3951**		**4717**	
F Value		**15.54(p<0.0001)S**		**22.81(p<0.0001)S**		**0.40(p<0.9887)NS**	
CD		284		238		1782	
CV%		**13.76**		**3.66**		**22.92**	
D/S		18-07-2023		22-06-2023		01-07-2023	
D/P							
Local Check Name		MTU 1010		JR 206		Indira Aerobic 1	

Table No. 9b.2 (Contd) Grain Yield (kg/ha) in AVT 1 – AEROB, Zone 6, Kharif 2023

Entry No	IET No				
		Gujarat (1)		Zone VI(1)	
		Navasari		Mean	
4501	30902	4268		4268	
4505	30912	5482	4	5482	4
4510	DRR Dhan 54 (NC)	5067	7	5067	7
4511	30939	4334		4334	
4512	30932	3767		3767	
4513	30910	4730	10	4730	10
4514	30904	5034	8	5034	8
4515	30895	5495	3	5495	3
4517	AAUDR-1 (ZC)	4517		4517	
4520	30907	5519	2	5519	2
4521	30917	5397	6	5397	6
4522	30935	5016	9	5016	9
4523	30929	4267		4267	
4524	30919	4689		4689	
4529	30911	5525	1	5525	1
4530	PA-6129 (HC)	5477	5	5477	5
4533	Local Check	4490		4490	
Exp. Mean		**4887**		**4887**	
F Value		**3.31(p<0.0015)S**		**3.31(p<0.0015)S**	
CD		846		846	
CV%		**10.41**		**10.41**	
D/S		13-07-2023			
D/P					
Local Check Name		GNR-8			

Table No. 9b.2 (Contd) Grain Yield (kg/ha) in AVT 1 – AEROB, (Trial not considered) Zone 6, Kharif 2023

Entry No	IET No	Trials not considered					
		Maharashtra		Gujarat			
		@Parbhani		@Derol		@Vyara	
4501	30902	2689	7	1569		2793	5
4505	30912	2089		1356		3625	1
4510	DRR Dhan 54 (NC)	2667	8	2622	3	2765	6
4511	30939	2400		2231	6	1823	
4512	30932	3467	1	3169	1	2575	8
4513	30910	2578	10	1609		1761	
4514	30904	2071		2013	7	1286	
4515	30895	2489		1827	9	2878	4
4517	AAUDR-1 (ZC)	2133		1200		1791	
4520	30907	2956	5	1653	10	2934	3
4521	30917	2489		969		2650	7
4522	30935	2733	6	1142		2372	9
4523	30929	1933		2364	5	1989	
4524	30919	2978	4	858		2014	
4529	30911	2622	9	1853	8	2994	2
4530	PA-6129 (HC)	3133	2	2409	4	2173	10
4533	Local Check	3133	2	2631	2	1906	
Exp. Mean		**2621**		**1852**		**2372**	
F Value		**6.67(p<0.0001)S**		**14.99(p<0.0001)S**		**5.16(p<0.0001)S**	
CD		474		458		727	
CV%		**10.86**		**14.89**		**18.42**	
D/S		07-08-2023		06-07-2023		05-07-2023	
D/P							
Local Check Name		Avishkar		AAUDR 1		NAUR-1	

Table No. 9b.2 : Grain Yield (kg/ha) in AVT 1 – AEROB, Zone 7, Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN									
		Telangana (1)		Karnataka				Karnataka (2)		Zone VII (3)	
		Kampasagar		Mandya		Mugad		Mean		Mean	
4501	30902	3460		4482	8	5242	5	4862	5	4395	10
4505	30912	3359		4528	6	4922	9	4725	8	4270	
4510	DRR Dhan 54 (NC)	3881		4268		5221	6	4745	7	4457	8
4511	30939	4042	9	4313	10	3665		3989		4007	
4512	30932	3692		4885	2	4857	10	4871	4	4478	7
4513	30910	3935	10	3437		5942	2	4690	9	4438	9
4514	30904	4644	6	3391		3535		3463		3857	
4515	30895	4365	7	3297		4281		3789		3981	
4517	MAS 946-1 (ZC)	5453	3			4225		4225		4839	5
4520	30907	4087	8	4640	4	4950	8	4795	6	4559	6
4521	30917	4756	4	4519	7	5901	3	5210	2	5059	2
4522	30935	5747	1 #	3884		5047	7	4466	10	4893	4
4523	30929	3775		3003		4672		3838		3817	
4524	30919	5454	2	5283	1	7176	1	6230	1 * #	5971	1 * #
4529	30911	3083		4568	5	4083		4326		3911	
4530	PA-6129 (HC)	4719	5	4713	3	5309	4	5011	3	4914	3
4533	Local Check	3922		4434	9	3994		4214		4117	
Exp. Mean		**4257**		**4228**		**4884**		**4556**		**4468**	
F Value		**6.36(p<0.0001)S**		**5.96(p<0.0001)S**		**6.80(p<0.0001)S**		**6.86(p<0.0001)S**		**12.13(p<0.0001)S**	
CD		854		714		1067		718		441	
CV%		**12.06**		**10.13**		**13.14**		**9.48**		**5.93**	
D/S		24-07-2023		05-07-2023		04-07-2023					
D/P											
Local Check Name		JGL-24423		KMP-175		MGD-101					

Table No.9b.3 : Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – Aerob, Zone -2 Kharif 2023

Entry No	IET No	ZONE II NORTHERN								
		Puducherry (1)			Haryana (1)			Zone II (2)		
		Ludhiana			Kaul			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4501	30902	74	97	477	80	97	278	77	97	378
4502	30897				96	78	258	96	78	258
4505	30912	88	104	460	86	96	271	87	100	365
4510	DRR Dhan 54 (NC)	78	115	500	76	115	313	77	115	407
4511	30939	74	91	493	77	90	256	76	91	375
4512	30932	83	108	347	85	94	275	84	101	311
4513	30910	75	92	483	82	79	282	79	85	383
4514	30904	72	98	450	75	96	249	74	97	350
4515	30895	77	106	407	81	104	265	79	105	336
4516	30890	76	93	470	87	72	261	82	82	365
4517	CR Dhan 202 (ZC)	82	104	373	83	98	289	82	101	331
4520	30907	86	93	503	84	101	303	85	97	403
4521	30917	78	100	517	77	108	303	77	104	410
4522	30935	83	104	427	87	93	280	85	98	353
4523	30929				97	94	274	97	94	274
4524	30919	91	88	387	99	78	295	95	83	341
4529	30911	82	90	390	88	94	313	85	92	351
4530	PA-6129 (HC)	87	86	317	78	100	294	83	93	306
4533	Local Check (LC)	78	84	440	85	81	277	82	82	358
Exp. Mean		**80**	**97**	**438**	**84**	**93**	**281**	**83**	**95**	**350**

Table No. 9b.3 (Contd) : Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – Aerob, Zone -3 Kharif 2023

Entry No	IET No	ZONE III - EASTERN																						Trial not considered		
		Odisha (1)			Bihar									Bihar (3)			Jharkhand (1)			Zone III(5)			Uttar Pradesh (0)		
		ICAR-NRRI (Cuttack)			Bikramganj			Pusa			Patna-ICAR			Mean			Ranchi			Mean			@Masodha		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4501	30902	67	109	315	77	111	405	80	87	193	79	97	301	79	98	300	85	103	136	78	101	270	61	61	245
4503	30893	67	97	292	79	113	342	82	94	175	86	87	240	82	98	252	86	92	105	80	97	231	78	54	230
4504	30906	68	87	227	82	107	378	84	75	185	84	92	271	84	91	278	86	93	137	81	91	240	85	59	254
4505	30912	79	112	234	82	107	301	83	77	187	90	100	268	85	94	252	86	95	107	84	98	220	90	56	179
4506	30901	67	101	268	82	122	301	81	72	186	86	86	280	83	93	255	83	96	144	80	95	236	86	65	246
4507	30925	76	101	292	79	98	395	83	91	181	82	105	279	81	98	285	83	97	123	81	98	254	81	59	245
4508	30928	82	91	264	89	95	396	93	75	154	97	91	283	93	87	278	100	79	169	92	86	253	101	50	170
4509	30933	68	100	260	79	96	340	83	81	194	85	97	204	82	91	246	86	96	132	80	94	226	79	67	217
4510	DRR Dhan 54 (NC)	72	108	227	77	128	381	81	109	195	82	115	314	80	117	297	84	114	100	79	115	243	73	56	232
4511	30939	65	99	299	76	108	311	81	81	197	75	87	276	77	92	262	82	83	102	76	92	237	73	61	227
4512	30932	79	108	192	78	115	404	85	107	177	89	114	281	84	112	287	87	99	127	84	108	236	74	55	198
4513	30910	67	97	300	76	104	383	82	88	179	80	92	300	79	95	287	84	95	138	78	95	260	78	55	218
4514	30904	65	97	297	73	105	366	79	95	169	74	105	331	75	102	288	85	101	107	75	101	254	86	64	243
4515	30895	69	111	258	78	113	433	80	91	156	76	110	231	78	105	273	78	99	114	76	105	238	74	54	229
4517	CR Dhan 202 (ZC)	82	110	306	82	133	386	82	120	192	89	118	185	84	124	254	85	104	170	84	117	248	75	76	257
4518	30934	81	100	264	91	110	298	91	75	179	97	107	324	93	97	267	96	98	165	91	98	246	74	72	244
4519	30918	67	94	299	82	106	405	85	83	171	86	84	220	84	91	265	87	85	138	81	90	247	94	60	207
4520	30907	77	99	242	79	114	364	86	75	155	84	95	234	83	95	251	86	95	65	82	96	212	96	56	223
4521	30917	63	108	300	80	114	332	77	95	182	83	87	231	80	99	248	84	99	169	77	101	243	76	60	241
4522	30935	80	120	247	84	127	398	83	94	160	91	109	192	86	110	250	88	97	112	85	109	222	78	59	213
4523	30929	80	115	223	92	116	394	89	94	158	96	103	322	92	104	291	98	98	130	91	105	245	85	62	184
4524	30919	82	114	263	88	108	418	88	77	187	89	93	239	88	93	281	89	93	126	87	97	246	82	66	226
4526	30892	77	109	277	88	111	382	91	81	178	88	110	285	89	101	282	88	92	128	86	101	250	98	55	178
4527	30927	82	84	200	92	106	357	91	75	168	100	96	223	94	92	250	95	88	123	92	90	214	101	60	154
4529	30911	74	102	326	85	125	318	83	75	193	84	94	208	84	98	240	87	65	109	83	92	231	74	61	253
4530	PA-6129 (HC)	73	103	241	80	103	368	81	75	183	83	90	242	81	90	264	86	99	149	81	94	237	81	60	248
4531	30938	73	110	180	84	110	380	84	83	182	90	107	251	86	100	271	88	96	102	84	101	219	81	56	223
4533	Local Check (LC)	78	101	269	88	112	373	81	93	196	84	110	318	84	105	295	88	99	130	84	103	257	69	75	233
Exp. Mean		**74**	**103**	**263**	**82**	**111**	**368**	**84**	**86**	**179**	**86**	**99**	**262**	**84**	**99**	**270**	**87**	**95**	**127**	**83**	**99**	**240**	**82**	**61**	**222**

Table No.9b.3 (Contd) : Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – Aerob, Zone -4 Kharif 2023

Entry No	IET No	IV - NORTH EASTERN		
		Tripura		
		Lembucherra		
		DFF	PH	PAN
4501	30902	60	106	292
4505	30912	71	94	258
4510	DRR Dhan 54 (NC)	78	120	225
4511	30939	85	99	275
4512	30932	75	116	217
4513	30910	71	92	225
4514	30904	72	111	283
4515	30895	68	102	275
4517	CR Dhan 202 (ZC)	56	88	283
4520	30907	33	112	358
4521	30917	58	109	267
4522	30935	64	105	333
4523	30929	77	121	300
4524	30919	77	104	367
4529	30911	79	104	233
4530	PA-6129 (HC)	61	113	317
4533	Local Check (LC)	84	98	217
Exp. Mean		**69**	**106**	**278**

Table No. 9b.3 (Contd) : Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – Aerob, Zone -5 Kharif 2023

Entry No	IET No	Zone V - Central Zone					
		Chattisgarh (1)			Zone V(1)		
		Raipur			Mean		
		DFF	PH	PAN	DFF	PH	PAN
4501	30902	72	124	207	72	124	207
4502	30897	88	117	226	88	117	226
4505	30912	80	118	222	80	118	222
4510	DRR Dhan 54 (NC)	79	127	217	79	127	217
4511	30939	73	112	223	73	112	223
4512	30932	78	125	224	78	125	224
4513	30910	75	115	219	75	115	219
4514	30904	69	117	221	69	117	221
4515	30895	74	118	224	74	118	224
4517	CR Dhan 202 (ZC)	78	134	237	78	134	237
4520	30907	81	121	199	81	121	199
4521	30917	70	119	221	70	119	221
4522	30935	80	186	224	80	186	224
4523	30929	88	188	227	88	188	227
4524	30919	86	123	217	86	123	217
4525	30937	74	113	233	74	113	233
4527	30927	89	114	224	89	114	224
4528	30942	73	249	219	73	249	219
4529	30911	78	116	223	78	116	223
4530	PA-6129 (HC)	77	114	207	77	114	207
4532	30894	82	113	232	82	113	232
4533	Local Check (LC)	71	97	227	71	97	227
Exp. Mean		**78**	**130**	**221**	**78**	**130**	**221**

Table No.9b.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1-Aerob, (Trials not considered) Zone 5, Kharif 2023

Entry No	IET No	Trials not considered								
		Madhya Pradesh						Chattisgarh		
		@Rewa			@Jabalpur			@Jagadalpur		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4501	30902	92	92	207	101	100	222	90	71	217
4502	30897	99	86	152	103	103	233	90	76	214
4505	30912	99	85	126	100	94	165	102	65	242
4510	DRR Dhan 54 (NC)	88	101	96	102	103	144	92	76	222
4511	30939	91	87	94	103	102	165	91	71	212
4512	30932	95	102	196	92	98	207	94	86	187
4513	30910	85	81	197	100	111	184	101	87	250
4514	30904	90	74	114	98	103	163	90	85	259
4515	30895	91	89	109	102	105	188	84	68	200
4517	CR Dhan 202 (ZC)	99	83	148	98	96	183	89	89	151
4520	30907	96	87	204	102	101	157	86	81	127
4521	30917	96	86	130	101	102	143	91	61	219
4522	30935	98	104	129	98	103	154	85	75	197
4523	30929	97	84	147	96	99	138	88	85	172
4524	30919	98	77	158	100	100	123	84	87	210
4525	30937	93	91	185	102	99	137	83	68	186
4527	30927	103	75	178	100	106	146	85	79	257
4528	30942	95	84	140	86	97	207	85	71	224
4529	30911	100	91	149	86	93	154	86	78	231
4530	PA-6129 (HC)	92	86	138	99	101	201	90	65	206
4532	30894	101	85	145	102	99	204	87	72	213
4533	Local Check (LC)	93	76	155	94	97	193	85	77	183
Exp. Mean		**95**	**86**	**150**	**98**	**101**	**173**	**89**	**76**	**208**

Table No.9b 3 (Contd) Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1– Aerob, Zone-6, Kharif 2023

Entry No	IET No	Zone VI - Western					
		Gujarat (1)			Zone VI(1)		
		Navasari			Mean		
		DFF	PH	PAN	DFF	PH	PAN
4501	30902	80	120	188	80	120	188
4505	30912	81	138	200	81	138	200
4510	National Check	84	148	196	84	148	196
4511	30939	78	114	206	78	114	206
4512	30932	79	125	186	79	125	186
4513	30910	79	115	205	79	115	205
4514	30904	75	111	197	75	111	197
4515	30895	80	110	211	80	110	211
4517	Zonal Check	74	111	192	74	111	192
4520	30907	81	116	234	81	116	234
4521	30917	78	121	218	78	121	218
4522	30935	88	122	206	88	122	206
4523	30929	91	115	202	91	115	202
4524	30919	89	104	194	89	104	194
4529	30911	87	123	219	87	123	219
4530	Hybrid Check	85	107	207	85	107	207
4533	Local Check	82	126	208	82	126	208
Exp. Mean		**82**	**119**	**204**	**82**	**119**	**204**

Table No. 9b.3 (Contd) : Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – Aerob, (Trial Not Considered) Zone -6, Kharif 2023

Entry No	IET No	Trials not considered								
		Maharashtra (0)								
		@Parbhani			@Derol			@Vyara		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4501	30902	91	50	295	83	98	200	81	90	153
4505	30912	93	47	243	86	95	243	85	96	204
4510	National Check	89	64	337	79	94	243	84	95	174
4511	30939	90	54	255	81	80	188	81	76	170
4512	30932	93	59	353	78	103	195	82	96	167
4513	30910	91	49	290	86	79	228	84	76	163
4514	30904	91	47	225	82	80	216	84	66	115
4515	30895	89	58	323	85	88	237	81	84	169
4517	Zonal Check	63	65	190	61	113	247	65	80	197
4520	30907	97	52	342	85	94	239	90	84	169
4521	30917	91	46	320	84	96	244	83	95	227
4522	30935	93	63	370	82	86	272	83	80	145
4523	30929	97	67	238	91	96	244	102	90	198
4524	30919	96	52	353	89	84	273	84	86	181
4529	30911	92	48	280	86	94	220	85	88	159
4530	Hybrid Check	93	53	337	81	93	272	84	77	127
4533	Local Check	88	66	353	60	115	217	82	80	165
Exp. Mean		**90**	**55**	**300**	**81**	**93**	**234**	**83**	**85**	**170**

Table No. 9b.3 (Contd) : Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – Aerob, Zone -7, Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN														
		Telangana (1)			Karnataka						Karnataka (2)			Zone VII(3)		
		Kampasagar			Mandya			Mugad			Mean			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4501	30902	85	115	413	85	69	351	89	50	173	87	60	262	86	78	312
4505	30912	87	112	380	92	79	340	92	63	154	92	71	247	90	84	291
4510	DRR Dhan 54 (NC)	85	140	479	92	90	351	89	58	213	91	74	282	89	96	348
4511	30939	85	107	430	95	71	363	92	47	142	94	59	253	91	75	312
4512	30932	89	127	380	100	90	351	94	55	195	97	72	273	94	91	309
4513	30910	86	108	487	89	70	340	85	50	203	87	60	271	87	76	343
4514	30904	83	105	463	90	73	374	85	48	149	87	60	261	86	75	328
4515	30895	87	121	430	86	76	351	85	51	245	86	63	298	86	82	342
4517	MAS 946-1 (ZC)	89	107	498				98	52	114	98	52	114	93	79	306
4520	30907	84	117	430	96	79	351	91	55	190	94	67	271	91	84	324
4521	30917	84	118	496	85	82	351	88	57	203	86	69	277	85	86	350
4522	30935	90	122	496	95	82	340	91	48	170	93	65	255	92	84	335
4523	30929	89	114	380	100	78	351	94	56	250	97	67	301	94	83	327
4524	30919	89	113	496	101	80	374	99	54	281	100	67	328	96	82	384
4529	30911	88	112	380	90	84	329	90	50	172	90	67	251	89	82	294
4530	PA-6129 (HC)	89	109	496	112	71	340	93	46	192	103	59	266	98	75	342
4533	Local Check	86	102	479	91	85	329	88	50	194	90	68	262	89	79	334
Exp. Mean		**87**	**115**	**448**	**94**	**79**	**349**	**91**	**52**	**190**	**92**	**65**	**263**	**90**	**82**	**328**

Table No. 9b.4 : Grain quality characteristics of entries in AVT 1-Aerobic, kharif 2023

Entry No.	Designation / IET No.	HULL	MILL	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
4501	30902	78.5	64.5	41.0	6.49	2.05	3.16	LS	OC	4.0	22.96	58
4502	30897	-										
4503	30893	78.5	66.4	28.9	5.47	1.63	3.35	SS	VOC	3.0	21.79	53
4504	30906	77.4	63.3	17.2	6.62	2.07	3.19	LS	VOC	7.0	25.57	52
4505	30912	79.7	64.9	14.5	6.32	2.33	2.71	LB	VOC	5.0	25.84	49
4506	30901	74.9	59.7	21.1	7.51	2.22	3.38	LS	VOC	4.0	26.51	22
4507	30925	79.9	71.5	59.7	5.18	1.71	3.02	SS	A	5.0	21.09	23
4508	30928	79.8	68.1	9.0	4.97	1.73	2.87	MS	A	5.0	23.87	31
4509	30933	79.2	58.9	6.0	6.63	2.19	3.02	LS	OC	4.0	25.63	38
4510	**DRR DHAN-54 (NC)**	76.3	59.7	55.9	6.06	2.25	2.69	LB	VOC	3.0	21.56	25
4511	30939	71.8	54.9	19.4	6.67	1.90	3.51	LS	VOC	7.0	23.84	22
4512	30932	76.8	63.2	43.6	6.50	2.13	3.05	LS	VOC	4.0	27.98	22
4513	30910	71.6	55.6	40.9	6.64	1.87	3.55	LS	VOC	4.0	25.19	55
4514	30904	77.0	61.2	39.1	6.82	1.94	3.51	LS	VOC	4.0	23.67	22
4515	30895	79.6	62.0	16.6	5.30	2.15	2.46	SB	VOC	4.0	25.13	43
4516	30890	74.7	57.1	17.6	6.18	2.11	2.92	LB	F	3.0	20.09	65
4517	**MTU - 1153**	78.1	69.1	63.7	5.49	2.09	2.62	MS	VOC	3.0	19.62	44
4518	30934	81.1	71.4	59.0	5.01	2.48	2.02	SB	VOC	5.0	24.58	24
4519	30918	77.4	65.2	48.1	6.61	1.78	3.71	LS	VOC	7.0	23.78	45
4520	30907	81.2	67.5	23.4	5.90	1.95	3.02	SS	VOC	4.0	23.61	60
4521	30917	75.0	61.3	24.0	6.34	1.99	3.18	LS	VOC	7.0	26.10	53
4522	30935	77.7	60.6	9.0	5.55	2.41	2.30	SB	VOC	5.0	28.42	42
4523	30929	81.4	58.4	49.1	5.42	2.53	2.14	SB	VOC	4.0	23.67	22
4524	30919	81.3	71.8	59.7	5.08	1.96	2.59	MS	VOC	5.0	26.54	39
4525	30937	77.2	61.8	35.3	6.22	1.99	3.12	LS	VOC	4.0	26.81	38
4526	30892	80.3	67.8	34.2	5.04	1.92	2.62	MS	A	4.0	25.63	22
4527	30927	80.2	72.5	64.1	5.2	1.79	2.90	MS	VOC	4.0	25.25	25
4528	30942	77.0	64.4	45.2	6.43	1.94	3.31	LS	VOC	5.0	25.25	22
4529	30911	83.2	69.2	51.6	6.30	2.04	3.08	LS	VOC	4.0	26.31	50
4530	**PA - 6129**	80.6	66.7	56.0	6.19	2.08	2.97	LB	VOC	7.0	25.87	56
4531	30938	82.4	70.9	35.9	5.95	2.20	2.70	MS	VOC	4.0	2405	47
4532	30894	83.4	72.0	61.4	6.00	1.78	3.37	LS	VOC	4.0	27.10	26
4533	**LOCAL CHECK**	77.6	61.8	56.9	6.31	2.06	3.06	LS	VOC	4.0	26.57	50

HULL: Hulling (%); MILL: Milling (%); HRR: Head Rice Recovery (%); KL: Kernel Length (mm); KB: Kernel Breadth (mm); L/B: Length and breadth ratio; Grain Chalk: Grain Chalkiness; VOC: Very occasionally present; A: Absent ASV: Alkali Spreading Value; AC: Amylose Content (%); GC: Gel Consistency; LB: Long Bold; SB: Short Bold; LS: Long Slender; MS: Medium Slender; SS: Short Slender

Table No.9c.1 : Composition of entries in Initial Variety Trial – Aerobic (IVT–AEROB), Kharif 2023.

Entry No.	IET No.	Designation	Cross Combination	GT
1st year of testing:				
4601	31734	CB 18920	ADT43 / CB 10550	MS
4602	31735	HTW 101-IR16A2106	IRRI 151/ IRRI 154	LS
4603	31736	BRR 2278	IR 825865 / IR 82861-B-1-20-1	MS
4604	31737	RP Bio 4919-NSR 96	KMR3 /O. rufipogon WR120	MS
4605	31738	***IIRRH-175***	***Hybrid***	
4606	31739	***ADVRH 200070***	***Hybrid***	LS
4607	31740	NVSR 1141	NAUR-1 / IR-28	LB
4608	31741	CR 4457-IR 129477-4026-249-15-1-4	IR 09N538 / IR 93312-30-101-20-3-66-6 // IR 09N538 / IR 11L101 /// IR 09N538 / Tadukan // IR 09N538 / Rathu Heenati / 4 / IR 09N538 / Abhaya // IR 09N538 / IRBB 60 (IR 72920-1-44-4) /// IR 09N538 /IR 94225-B-82-B // IR 09N538 / IR 94226-B-177-B / 5 / IR 09N538 / WHD IS-75-1-127 // IR 09N538 / IR 96322-34-223-B /// IR 09N538 / IR 91648-B-32-B	LS
4609	31742	TRC 2023-3 / TRC H2N 5421-B-B-3-7	Hakuchuk 2 / Naveen	LS
4610	31743	RP 6615-MK/RIL-FBMI-28-21-2	MTU 1010 / Karuppunel	MB
4611	31744	CB HTR 22001	CO 51 / Robin HTM	MS
4612	31745	CR 3426-225-65-11	Apo / *O. nivara*	MS
4613	31746	RCPL-1-443		
4614	31747	RP 6761-MSAC 26-IR144575-61-2-1-1-B	IR 91648-B-89*3 / IR 144557	LS
4615	31748	BRR 2274	IR 11A 257 Sel.	MS
4616	31749	ODR-1-2-18-2	Zhu 11-26 / Geetanjali	MS
4617	31750	RP 6460-C3-313	166S // 148S (Swarna / O. nivara)	LB
4618	31751	CR 4471-1-3-1-5-6	IR 93312-30-101-20-13-66-6 / IR 94225-B-82-B	MB
4619	31752	RCPR 100-IR83929-B-B-291-3-1-1	IR 78878-53-2-2-2 / CT 6510-24-1-2	LS
4620	**DRR Dhan 54 (NC)**			
4621	31753	***CRHR 189 (Hybrid)***	CRMS 32 / CR 1024-153-17-3-1	LS
4622	31754	NWGR-18096	Gurjari / Zinnia-31 / 2-9-1-1-2-1-1	M
4623	31755	IR 136734-53-1-1-1-1-1	From IRRI	LS
4624	31756	PAU-IR 129477-709-375-3-5-7 (RYT 4118)	IR 91648-B / IR 91648-B-13-B // IRBL-9 / Aganni /// Abhaya / Rathu Hannati // IR 91648-B-289-B / IR 91648-B-336-B /// IR 94225-B-82-B / IR 94226-B-177-B // IR 94226-B-177-B / IR 93312-30-101-20-13-66-6	
4625	31757	JDP 5925	IR64 / TRC 87-251	LS
4626	31758	RP 6759-CGR19-CGIL-68-CGK 2-1-2131-68-2	BPT 5204*1 / IR 53236-218-3 (TRP 38-5)	MS
4627	31759	CR 4073-1339-2-3-4-5	IET 22296 / RR 2-6	LS
4628	31760	RNR 28361	Bhadrakali / Rewa 671	LS
4629	31761	BKR 542 (IR 129477-3425-97-4-3-3)	IR 09N538 / IR 93312-30-101-20-3-66-6 // IR09N538 / IR11L101 /// IR 09N538 / Tadukan // IR 09N538 / Rathu Heenati / 4 / IR 09N538 / Abhaya // IR 09N538 /IRBB 60 (IR 72920-1-44-4) /// IR 09N538 / IR 94225-B-82-B // IR 09N538 / IR 94226-B-177-B / 5 / IR 09N538 / WHD IS-75-1-127 // IR 09N538 / IR 96322-34-223-B /// IR 09N538 / IR 91648-B-32-B	LS
4630	31762	RP 6238-RV/RIL-RV 132-1-1	Rasi / Vibhava	LS

Entry No.	IET No.	Designation	Cross Combination	GT
4631	31763	***CRHR 188 (Hybrid)***	CRMS 31 / CR 1024-76-8-1-2-1	LS
4632	31764	NWGR 19227	Jaya / IIRON-M-1-204 / 12-12-1-1-5-1-1-2	MB
4633	**CR Dhan 202 (Northern, Eastern, North Eastern and Central), AAUDR-1 (Western) and MAS 946-1 (Southern)-- ZC**			
4634	31765	PAU-IR 129477-1629-210-4-4-4 (RYT 4115)	IR 91648-B / IR 91648-B-13-B // IRBL-9 / Aganni /// Abhaya / Rathu Hannati // IR 91648-B-289-B / IR 91648-B-336-B /// IR 94225-B-82-B / IR 94226-B-177-B // IR 94226-B-177-B / IR 93312-30-101-20-13-66-6	
4635	31766	RP 6744-JBSM 3-3-1	Krishna Hamsa / IRBB60 // Krishna Hamsa / Tetep /// Krishna Hamsa / IR 96321-1447-561-B-1 // Krishna Hamsa / IR 81896-96-B-B-195 //// Krishna Hamsa / IR 74371-46-1-1-13 // Krishna Hamsa /DSB 2	LS
4636	31767	IR 18A1711	IR 95928-54-3-2-3- 3 / IR11A293	LS
4637	31768	RP 6762-MSAC 16-24	Swarna / DRR Dhan 44	LS
4638	31769	CR 4207-288-11-1	Selumpkit / Naveen	MS
4639	31770	NVSR 3674	Jaya / NVSR 2740	
4640	31771	IIABR-15/IIAB-304/IR12A223	IRR06M146 / BR 802-118-4-2	LS
4641	31772	CR 4399-4393-A13-16-N7-4	CR Dhan 303 / CR 4393-A13-16N7-4 // 2*R Dhan303	MB
4642	**PA 6129 (HC)**			
4643	31773	CR 4459-3-1-1-1-1	CR 3856-44-22-2-1-11-5 / CR 3856-44-22-2-1-11-3 / CR 4458-3-2-1-1-1	MS
4644	31774	TRC 2023-2 / TRC TJN5806-B-B-3-11	Tripura Jala / Naveen	LS
4645	31775	RP 6763-CGR 28-IR144572-20-4-1-1-B	MTU 1010*2 / IR 144560	LS
4646	31776	KMP 256	KMP-175 / DHMAS-70Q-164-1b-3	MS
4647	31777	R 2341-252-2-165-1	Indira Barani Dhan-1 / Guang jiang-1	LB
4648	31778	HURS-23-3-IR18A1658	IR 99085-B-B-82 / IR 09A224 (AGGRi Alliance)	LS
4649	31779	RNR 37982	PSBRC 68 / DSN 82 (K-18)	LS
4650	31780	CR 4474-1-1-3-1-1-1	Kasalath / CR Dhan 203	LS
4651	31781	RP 5976-26-30-12-16	Improved Samba Mahsuri / Wazuhophek	MS
4652	31782	CSR 2021-DSR-29-4-194	PR 126 / CSR 36	
4653	31783	R 2773-C-8-1-1	Samaleshwari / IR 64	MS
4654	31784	CR-4460-8-1-1-1-1	CR Dhan 206 / IET 26089	LB
4655	31785	IR-14F-717		
4656	**DRR H-4 (Hybrid Observational Check)**			
4657	31786	***IIRRH-176***	***Hybrid***	
4658	31787	CR 3783-3-2-1-1-1-2	Surendra / Abhaya	MS
4659	31788	HURS-23-13-IR18A1776	IR 95928-54-3-2-3-3 / IR 10A134 (AGGRi Alliance)	LS
4660	31789	CR 4399-4393-A13-7-N4-4	CR Dhan 303 / CR 4393-A13-7-N4-4 // 2* CR Dhan 303	LS
4661	31790	CSR 2021-DSR-2-94-134	IRRI 163 / CSR MAGIC 167	
4662	31791	RP 6238-RV/RIL-RV 14	Rasi / Vibhava	LS
4663	31792	RP 6529-RMS-88-1-2-4	MTU 1010*2 / Improved Samba Mahsuri	LS
4664	**Local Check (LC)**			

Table No. 9c.2 : Grain Yield (kg/ha) in IVT – AEROB, Kharif 2023

Entry No	IET No	ZONE II-NORTHERN						ZONE III-EASTERN							
		Punjab (1)		Haryana (1)		Zone 2(2)		Odisha (1)		Bihar				Bihar (2)	
		Ludhiana		Karnal (ICAR-CSSRI)		Mean		ICAR-NRRI (Cuttack)		Bikramganj (Dhangain)		Pusa		Mean	
4601	31734	1158		1510		1334		3472		5524		3281		4403	
4602	31735	2940		2000		2470		3944	#	4704		3125		3915	
4603	31736	2881		1870		2376		3544		8132	2	3281		5707	2 *
4604	31737			1900		1900		3644		4301		3750		4026	
4605	31738	3453		3840		3647		4856	6 * #	4301		4063	5	4182	
4606	31739	5924	4	4480	*	5202	4 *	3722		3535		3906	8	3721	
4607	31740	3490		3730		3610		4017	#	4644		3594		4119	
4608	31741	3893		2310		3102		5811	4 * #	4798		4219	4	4509	
4609	31742			2210		2210		3317		5242		4063	5	4653	
4610	31743	2265				2265		3672		4597		3750		4174	
4611	31744	2023		1430		1727		3044		3945		3281		3613	
4612	31745	3886		3250		3568		4422	#	4368		2813		3591	
4613	31746	3196		1970		2583		4822	7 #	3427		3281		3354	
4614	31747	1048		2440		1744		7861	1 * #	3925		3594		3760	
4615	31748							3683		8300	1	3594		5947	1 * #
4616	31749	4567	10	3940		4254		4978	5 * #	3179		3125		3152	
4617	31750	3702		2380		3041		3583		6364	6	2969		4667	
4618	31751	3116		1400		2258		4761	8 #	4590		3281		3936	
4619	31752	4831	9	3120		3976		4083	#	4415		3906	8	4161	
4620	DRR Dhan 54 (NC)	4076		3380		3728		4172	#	5753		2656		4205	
4621	31753	3394		4320	*	3857				6001	8	3750		4876	7
4622	31754	2594		2210		2402		4144	#	4335		3594		3965	
4623	31755	6202	2	3050		4626	6	4144	#	4556		3281		3919	
4624	31756	5484	6	3720		4602	8	4444	#	5652		3125		4389	
4625	31757	7075	1 * #	3820		5448	1 *	4578	9 #	4469		3750		4110	
4626	31758	3673		4980	8 *	4327		3633		4073		3906	8	3990	
4627	31759							7739	2 * #	5484		3594		4539	
4628	31760	1356		3270		2313		4144	#	6962	4	3281		5122	5 *
4629	31761	1540		3660		2600		4328	#	4758		3281		4020	
4630	31762							3400		3757		3438		3598	
4631	31763	1056				1056		4100	#	4845		2969		3907	
4632	31764	4538		4680	*	4609	7	4222	#	5766		2969		4368	
4633	Zonal Check	3937		3610		3774		3383		4140		4844	2	4492	
4634	31765	3526		5010	6 *	4268		4039	#	5591		3281		4436	
4635	31766	3394		5080	3 *	4237		3617		5558		3750		4654	
4636	31767	4201		1990		3096		3439		5625		3281		4453	
4637	31768							3656		7567	3	3594		5581	3 *
4638	31769	4245		2780		3513		2333		4859		3281		4070	
4639	31770	2375		3110		2743		4000	#	6250	7	3125		4688	9
4640	31771	2463		5060	5 *	3762		3739		4973		2656		3815	
4641	31772	2493		1740		2117		4556	10 #	5860	10	2969		4415	
4642	PA 6129 (HC)	5740	5	4810	9 *	5275	3 *	3028		5376		4938	1	5157	4 *
4643	31773							3489		5907	9	3125		4516	
4644	31774							3383		4005		3594		3800	
4645	31775	5176	8	4460	*	4818	5	7244	3 * #	4247		3125		3686	
4646	31776	2324		2950		2637		3939	#	3790		3594		3692	
4647	31777	3350		3130		3240		4222	#	3844		3281		3563	
4648	31778	2595		4740	10 *	3668				6378	5	3438		4908	6
4649	31779	1664		3170		2417		3333		4563		3281		3922	
4650	31780	3043		2580		2812		3050		3837		2969		3403	
4651	31781	3006		1970		2488		2561		3871		2969		3420	
4652	31782	3292		5080	3 *	4186		2633		4798		3594		4196	
4653	31783	4523		4120		4322		3467		4597		3438		4018	
4654	31784	2229		2510		2370		4150	#	5376		3906	8	4641	
4655	31785	3695		5010	6 *	4353		3411		5820		3594		4707	8
4656	DRR H-4 (Hybrid Observational Check)	3878		5110	2	4494	9	3189		5766		3594		4680	10
4657	31786	4421		2730		3576		2483		4066		3125		3596	
4658	31787	1928		2640		2284		3228		4536		3438		3987	
4659	31788	3534				3534		3356		4294		3281		3788	
4660	31789							3039		3501		3281		3391	
4661	31790	5330	7	5250	1 *	5290	2 *	3739		5370		3281		4326	
4662	31791	2287		2800		2544		3711		3515		3438		3477	
4663	31792	3211		3110		3161		2756		3535		2969		3252	
4664	Local Check	6041	3	2900		4471	10	4022	#	4261		4688	3	4475	
Exp. Mean		**3478**		**3302**		**3338**		**3943**		**4912**		**3456**		**4184**	
F Value		**17.55(p<0.0001)S**		**35.31(p<0.0001)S**		**25.72(p<0.0001)S**		**20.32(p<0.0001)S**		**8.65(p<0.0001)S**		**2.46(p<0.0002)S**		**7.49(p<0.0001)S**	
CD		922		540		596		656		1053		815		597	
CV%		**13.22**		**8.15**		**8.91**		**8.32**		**10.73**		**11.81**		**7.14**	
D/S		21-06-2023						01-07-2023		10-07-2023		06-07-2023			
D/P															
Local Check Name		PR 126		CSR 27				CR Dhan 211		Sabour Ardhjal		Rajendra Nilam			

Table No. 9c.2 (Contd): Grain Yield (kg/ha) in IVT – AEROB, Kharif 2023

Entry No	IET No	ZONE III-EASTERN				ZONE IV- NORTH EASTERN (1)		ZONE V- CENTRAL (2)					
		Jharkhand (1)		Zone 3 (4)		Tripura (1)		Madhya Pradesh (1)		Chhattisgarh (1)		Zone 5(2)	
		Ranchi		Mean		Lembucherra		Jabalpur		Raipur		Mean	
4601	31734	2278		3639		2457		4337		1381		2859	
4602	31735	2814		3647		7455	5 #	4822	4 * #	3516		4169	
4603	31736	2881		4460		4956		4654	6 #	3681		4168	
4604	31737	3216		3728		3957		3657		3879		3768	
4605	31738	4824	8 * #	4511		6456		4854	3 * #	5046		4950	5 *
4606	31739	5762	3 * #	4231		2791		4312		4826		4569	
4607	31740	6700	1 * #	4739	5 * #	5123		4500	#	4589		4545	
4608	31741	6432	2 * #	5315	1 * #	6997		3641		3894		3768	
4609	31742	2814		3859		5165		3559		2945		3252	
4610	31743	3216		3809		2832		4521	8 #	4016		4269	
4611	31744	2881		3288		2791		3923		3283		3603	
4612	31745	3953		3889		3832		4048		5488	8	4768	8 *
4613	31746	2747		3569		6289		4252		4348		4300	
4614	31747	4355		4934	2 * #	6289		4189		3037		3613	
4615	31748	2479		4514	10	7039	10	3907		1421		2664	
4616	31749	2680		3491		4582		4056		4913		4485	
4617	31750	2814		3933		3790		3650		5209	9	4430	
4618	31751	5360	4 * #	4498		5456		4002		3714		3858	
4619	31752	3216		3905		5664		3658		4657		4158	
4620	DRR Dhan 54 (NC)	3953		4134		5290		4192		3330		3761	
4621	31753	3350		4367		3582		4255		3489		3872	
4622	31754	2747		3705		3040		3723		4716		4220	
4623	31755	2747		3682		3582		4255		1773		3014	
4624	31756	3417		4160		4290		4189		3675		3932	
4625	31757	5360	4 * #	4539	9 *	6372		4359		4330		4345	
4626	31758	3618		3808		3749		3989		3438		3714	
4627	31759	2613		4858	3 * #	4748		4056		3024		3540	
4628	31760	4690		4769	4 * #	9131	1 * #	3997		3406		3702	
4629	31761	4958	6 * #	4331		5373		3843		6866	1 *	5355	1 *
4630	31762	3216		3453		2874		4521	8 #	3444		3983	
4631	31763	2077		3498		6414		4662	5 #	2879		3771	
4632	31764	2546		3876		7414	6 #	3422		3889		3656	
4633	Zonal Check	4154		4130		5415		3482		4488		3985	
4634	31765	4221		4283		6497		4245		4958		4602	10
4635	31766	2814		3935		5873		3887		2566		3227	
4636	31767	3618		3991		6164		4189		4225		4207	
4637	31768	3752		4642	7 *	6872		4430		1499		2965	
4638	31769	4824	8 * #	3824		4790		3833		2546		3190	
4639	31770	3618		4248		6622		3667		6003	6 *	4835	7 *
4640	31771	4690		4015		4956		3785		2969		3377	
4641	31772	4221		4402		6622		3514		5699	7	4607	9
4642	PA 6129 (HC)	4087		4357		6414		3987		6481	2 *	5234	2 *
4643	31773	2144		3666				4511	10 #	1511		3011	
4644	31774	2680		3416		2749		3648		584		2116	
4645	31775	4154		4693	6 *	7289	7 #	3927		4283		4105	
4646	31776	2278		3400		4748		4594	7 #	3522		4058	
4647	31777	4087		3859		6414		4142		6012	5 *	5077	3 *
4648	31778	3953		4590	8 *	4706		4388		4444		4416	
4649	31779	2881		3515		3249		5060	1 * #	2957		4009	
4650	31780	4556		3603		3707		4450		3399		3925	
4651	31781	3886		3322		4498		4233		2993		3613	
4652	31782	3618		3661		7205	8 #	3290		5011		4151	
4653	31783	4757	10 #	4065		3624		3457		6262	4 *	4860	6 *
4654	31784	4623		4514	10	8247	3 * #	4099		4594		4347	
4655	31785	4556		4345		8933	2 * #	4021		5174	10	4598	
4656	DRR H-4 (Hybrid Observational Check)	3886		4109		2791		3637		6457	3 *	5047	4 *
4657	31786	3484		3290		3374		3923		5071		4497	
4658	31787	4154		3839		7122	9 #	5053	2 * #	3735		4394	
4659	31788	4087		3755		4623		4322		4481		4402	
4660	31789	1615		2859				4486				4486	
4661	31790	4958	6 * #	4337		5498		4055		2568		3312	
4662	31791	4422		3772		4873		3508		2704		3106	
4663	31792	2513		2943		2416		3125		3413		3269	
4664	Local Check	1742		3678		7497	4 #	4280		3188		3734	
Exp. Mean		**3684**		**4003**		**5219**		**4082**		**3903**		**3997**	
F Value		**23.16(p<0.0001)S**		**13.27(p<0.0001)S**		**50.15(p<0.0001)S**		**5.51(p<0.0001)S**		**8.80(p<0.0001)S**		**7.24(p<0.0001)S**	
CD		632		381		671		510		1276		686	
CV%		**8.58**		**4.77**		**6.43**		**6.25**		**16.35**		8.59	
D/S		04-07-2023				11-07-2023		22-06-2023		04-07-2023			
D/P													
Local Check Name		BVD-110				TRC 2015-5		JR 206		Indira Aerobic-1			

Table No. 9c.2 (Contd): Grain Yield (kg/ha) in IVT – AEROB, Kharif 2023

Entry No	IET No	ZONE VI- WESTERN (2)								ZONE VII – SOUTHERN				Overall Mean (12)	
		Gujarat				Gujarat (2)		Zone 6(2)		Karnataka (1)		Zone 7(1)			
		Navasari		Vyara		Mean		Mean		Mandya		Mean			
4601	31734	3370		3335		3353		3353		6237	3	6237	3	3195	
4602	31735	3745		3765		3755		3755		4731		4731		3963	
4603	31736	3954		4317		4136		4136		4904		4904		4088	
4604	31737	2944		2783		2864		2864		4393		4393		3493	
4605	31738	5472	1	4180		4826		4826		5931	6	5931	6	4773	4 *
4606	31739	4556		6619	4	5588	7	5588	7	5926	8	5926	8	4697	5 *
4607	31740	3824		5364		4594		4594		4501		4501		4506	
4608	31741	4435		5099		4767		4767		6852	1	6852	1 *	4865	3 *
4609	31742	2801		2781		2791		2791		4289		4289		3562	
4610	31743	3412		2903		3158		3158		5163		5163		3668	
4611	31744	4046		4556		4301		4301		3157		3157		3197	
4612	31745	3088		2844		2966		2966		3925		3925		3826	
4613	31746	3630		4279		3955		3955		5929	7	5929	7	4014	
4614	31747	4060		4952		4506		4506		4246		4246		4166	
4615	31748	3153		3064		3109		3109		2054		2054		3869	
4616	31749	4940	6	3680		4310		4310		4395		4395		4086	
4617	31750	3306		3356		3331		3331		1295		1295		3535	
4618	31751	3796		3915		3856		3856		3758		3758		3929	
4619	31752	4324		4503		4414		4414		3626		3626		4167	
4620	DRR Dhan 54 (NC)	4713		4932		4823		4823		3965		3965		4201	
4621	31753	4398		6891	2	5645	4	5645	4	5616		5616		4459	
4622	31754	3477		1828		2653		2653		2927		2927		3278	
4623	31755	3319		3743		3531		3531		4171		4171		3735	
4624	31756	4153		4331		4242		4242		4111		4111		4216	
4625	31757			3161		3161		3161		2457		2457		4521	10 *
4626	31758	3028		3211		3120		3120		4774		4774		3839	
4627	31759	4940	6	6328	6	5634	5	5634	5	2956		2956		4548	9 *
4628	31760	5051	3	7431	1	6241	2 *	6241	2 *	2917		2917		4636	6 *
4629	31761	3134		3587		3361		3361		2641		2641		3997	
4630	31762	3278		4123		3701		3701		1343		1343		3339	
4631	31763	4458		5579		5019	9	5019	9	3368		3368		3855	
4632	31764	3894		4065		3980		3980		2989		2989		4200	
4633	Zonal Check	4009		1785		2897		2897						3932	
4634	31765	4056		5005		4531		4531		3732		3732		4513	*
4635	31766	4074		3920		3997		3997		2984		2984		3960	
4636	31767	2870		4013		3442		3442		3032		3032		3887	
4637	31768	3806		5345		4576		4576		5404		5404		4593	8 *
4638	31769	4190		4288		4239		4239		5823		5823		3983	
4639	31770	3574		4512		4043		4043		4232		4232		4257	
4640	31771	3333		4979		4156		4156		5168		5168		4064	
4641	31772	3583		2835		3209		3209		5848	10	5848	10	4162	
4642	PA 6129 (HC)	5046	4	6676	3	5861	3 *	5861	3 *	5863	9	5863	9	5204	1 *
4643	31773	3278		4963		4121		4121		3829		3829		3640	
4644	31774	3514		5761	8	4638		4638		1996		1996		3191	
4645	31775	3056		4644		3850		3850		3586		3586		4599	7 *
4646	31776	5014	5	1692		3353		3353		4788		4788		3603	
4647	31777	3685		4240		3963		3963		2586		2586		4083	
4648	31778	3093		5619	10	4356		4356		2351		2351		4155	
4649	31779			6252	7	6252	1 *	6252	1 *	3551		3551		3633	
4650	31780	4130		3616		3873		3873		3440		3440		3565	
4651	31781	5199	2	3585		4392		4392		1391		1391		3347	
4652	31782	4315		4257		4286		4286		4889		4889		4332	
4653	31783	4847	9	4809		4828	10	4828	10	4374		4374		4356	
4654	31784	3565		3473		3519		3519		4455		4455		4269	
4655	31785	4764	10	5571		5168	8	5168	8	4783		4783		4944	2 *
4656	DRR H-4 (Hybrid Observational Check)	4190		5003		4597		4597		6141	4	6141	4	4470	
4657	31786	3917		4640		4279		4279		4626		4626		3822	
4658	31787	4894	8	6371	5	5633	6	5633	6	6475	2	6475	2 *	4465	
4659	31788	4032		5507		4770		4770		6141	4	6141	4	4333	
4660	31789			3260		3260		3260						3197	
4661	31790	4171		4473		4322		4322		3652		3652		4362	
4662	31791	3292		5701	9	4497		4497		4433		4433		3724	
4663	31792	4023		4481		4252		4252		2073		2073		3135	
4664	Local Check	3625		3869		3747		3747		4749		4749		4239	
Exp. Mean		**3932**		**4385**		**4165**		**4165**		**4128**		**4128**		**4038**	
F Value		**3.87(p<0.0001)S**		**4.00(p<0.0001)S**		**6.99(p<0.0001)S**		**6.99(p<0.0001)S**		**5.51(p<0.0001)S**		**5.51(p<0.0001)S**		**24.19(p<0.0001)S**	
CD		954		1739		898		898		1628		1628		272	
CV%		**12.13**		**19.85**		**10.79**		**10.79**		**19.72**		**19.72**		**3.37**	
D/S		11-07-2023		28-06-2023						15-07-2023					
D/P															
Local Check Name		GNR-8		NAUR-1						KMP-175					

Table No. 9c.2 (Contd): Grain Yield (kg/ha) in IVT – AEROB, (Trials not considered), Kharif 2023

Entry No	IET No	Trial not considered							
		Bihar		Uttar Pradesh		Madhya Pradesh		Chattisgarh	
		@Patna-ICAR		@Masodha		@Rewa		@Jagadalpur	
4601	31734	426		3457		563		5225	
4602	31735	1100		3923	7	1412		5156	
4603	31736	1833		3191		1860		6719	
4604	31737	1179		3358		2078	7	7874	2
4605	31738	4158	3	4189	2	1109		5052	
4606	31739	4125	5	2068				6644	
4607	31740	3050		3125		597		6491	
4608	31741	2500		2128		1968		5622	
4609	31742	125		1809		4498	1	5635	
4610	31743	1942		2660		1990		5371	
4611	31744	1783		3324		196		6367	
4612	31745	2700		1330		1382		5618	
4613	31746	3092		3457		257		5182	
4614	31747	2450		3524		886		7868	3
4615	31748	436		3491		676		6335	
4616	31749	2250		3923	7	110		5247	
4617	31750	4133	4	2660		1191		6149	
4618	31751	367		3059		1415		6960	
4619	31752	3717	9	3059		1316		5638	
4620	DRR Dhan 54 (NC)	3333		2108		1740		6510	
4621	31753	2850		3976	5	788		5254	
4622	31754	2683		3324		1568		7318	7
4623	31755	1456		2926		1826		6195	
4624	31756	2767		3723		1048		7344	6
4625	31757			2899		429		5059	
4626	31758	3725	8	2992		1050		6361	
4627	31759	3375		1529		1006		5397	
4628	31760	1103		2041		802		5283	
4629	31761	3450		2327		1159		5404	
4630	31762	933		1456		2481	5	5094	
4631	31763	3642	10	1097		2014	8	5192	
4632	31764	3342		3590		216		6885	
4633	Zonal Check	3475		2859		2468	6	5277	
4634	31765	3508		1596		1382		5329	
4635	31766	1433		1182		964		6579	
4636	31767	733		1363		1398		6296	
4637	31768	1392		4255	1	1049		5273	
4638	31769	3025		1051		1252		5412	
4639	31770	3058		1828		145		5690	
4640	31771	1717		2281		1997	10	6712	
4641	31772	2058		4056	3	1566		6429	
4642	PA 6129 (HC)	3750	7	3723		892		5671	
4643	31773	2200		3457		868		5220	
4644	31774	533		3890	9	2858	3	6491	
4645	31775	2675		3956	6	854		6919	
4646	31776	2733		3823		489		7700	4
4647	31777	3108		2427		490		6974	10
4648	31778	2258		1403		544		5993	
4649	31779	1348		2826		717		7445	5
4650	31780	2592		1762		1536		5236	
4651	31781	1133		2028		1033		6999	9
4652	31782	4267	2	3989	4	1177		6060	
4653	31783	3967	6	3723		654		5576	
4654	31784	2633		3856	10	1656		5420	
4655	31785	910		2380		137		5316	
4656	DRR H-4 (Hybrid Observational Check)	5500	1	3391		1031		5534	
4657	31786	2742		3198		3116	2	9071	1
4658	31787	2758		951		1208		6502	
4659	31788	1625		3723		1139		5918	
4660	31789			3551		1760		5991	
4661	31790	2925		3059		1471		5737	
4662	31791	2375		3125		346		7119	8
4663	31792	1287		2128		2011	9	5169	
4664	Local Check	3167		2959		2599	4	6673	
Exp. Mean		**2434**		**2836**		**1277**		**6097**	
F Value		**52.38(p<0.0001)S**		**28.16(p<0.0001)S**		**29.40(p<0.0001)S**		**1.32(p<0.1338)NS**	
CD		453		491		417		2149	
CV%		**9.30**		**8.67**		**16.32**		**17.64**	
D/S		13-07-2023		18-07-2023		20-07-2023		02-07-2023	
D/P									
Local Check Name		Rajendra Bhagwati		Shushk Smart		MTU 1010		Indira Aerobic 1	

Table No. 9c.2 (Contd): Grain Yield (kg/ha) in IVT – AEROB, (Trials not considered), Kharif 2023

Entry No	IET No	Trial not considered					
		Maharashtra		Gujarat		Karnataka	
		@Parbhani		@Derol		@Mugad	
4601	31734	1867		990		2897	
4602	31735	1700				3554	
4603	31736	2867	1	1365		4695	
4604	31737	2267		776		3462	
4605	31738	2467		1396		7763	1
4606	31739	2267		2573		5321	
4607	31740	2000		1208		3045	
4608	31741	2600	7	1275		3809	
4609	31742	2333		990		4194	
4610	31743	2467		521		4925	
4611	31744	1900		1052		3837	
4612	31745	2700	5	1740		4872	
4613	31746	2033		1580		4288	
4614	31747	2300		985		3939	
4615	31748	2467				3532	
4616	31749	2133		1406		5054	
4617	31750	2433				3524	
4618	31751	2333		1750		4176	
4619	31752	2467		2635	10	5354	
4620	DRR Dhan 54 (NC)	2200		2188		3545	
4621	31753	2667	6	3917	1	3761	
4622	31754	2267		1917		4857	
4623	31755	2333				3713	
4624	31756	2133		1760		3532	
4625	31757	1400		3073	3	3899	
4626	31758	2600	7	2073		5954	5
4627	31759	2033		1146		5551	8
4628	31760	2033		2052		5914	6
4629	31761	2000		969		3374	
4630	31762	1933				3500	
4631	31763	2067		2240		3692	
4632	31764	1733				3011	
4633	Zonal Check	1733				2648	
4634	31765	2733	3	1208		4839	
4635	31766	2733	3	880		4069	
4636	31767	2367				2967	
4637	31768	1800				4701	
4638	31769	2533	9	1542		4950	
4639	31770	2333				5387	9
4640	31771	2200		2010		6168	3
4641	31772	2467		1844		4029	
4642	PA 6129 (HC)	2800	2	1521		3869	
4643	31773	2200		3115	2	3251	
4644	31774	1800		1656		3344	
4645	31775	2333		1318		5175	
4646	31776	2133		1514		3629	
4647	31777	2333		1964		5218	
4648	31778	2200		2385		2914	
4649	31779	2200		1396		6365	2
4650	31780	2400		1896		3696	
4651	31781	2133		1568		5362	10
4652	31782	2200		2781	7	4791	
4653	31783	1800		2948	4	4735	
4654	31784	2267		2688	9	6010	4
4655	31785	1467				4862	
4656	DRR H-4 (Hybrid Observational Check)	2333		2823	6	3770	
4657	31786	2333		2938	5	4032	
4658	31787	2133		2396		3982	
4659	31788	2400		1958		5327	
4660	31789	1667				2875	
4661	31790	2333		2760	8	3317	
4662	31791	2400		677		5908	7
4663	31792	2200				2881	
4664	Local Check	2333		2573		3092	
Exp. Mean		**2223**		**1842**		**4292**	
F Value		**3.42(p<0.0001)S**		**11.99(p<0.0001)S**		**1.48(p<0.0591)NS**	
CD		473		608		2512	
CV%		**10.65**		**16.43**		**29.28**	
D/S		07-06-2023		03-07-2023		04-07-2023	
D/P							
Local Check Name		Avishkar		AAUDR 1		MGD-101	

Table No. 9c.3 : Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – AEROB, Kharif 2023

Entry No	IET No	ZONE II-NORTHERN									ZONE III-EASTERN					
		Punjab (1)			Haryana (1)			Zone 2(2)			Odisha (1)			Bihar		
		Ludhiana			Karnal (ICAR-CSSRI)			Mean			ICAR-NRRI (Cuttack)			Bikramganj (Dhangain)		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4601	31734	62	98	315	76	89	304	69	94	309	84	106	301	71	103	400
4602	31735	93	79	485	100	74	355	96	77	420	84	110	284	78	97	412
4603	31736	101	98	425	110	83	328	105	91	377	85	123	253	92	111	388
4604	31737				110	91	323	110	91	323	83	115	296	92	126	386
4605	31738	95	112	465	97	111	462	96	111	463	87	117	275	78	121	365
4606	31739	81	93	395	85	76	482	83	85	438	75	103	384	71	105	406
4607	31740	93	95	455	97	88	456	95	91	456	70	111	401	78	109	324
4608	31741	91	105	390	103	91	366	97	98	378	78	103	310	83	119	422
4609	31742				129	77	363	129	77	363	72	104	358	102	120	365
4610	31743	95	88	550	104			100	88	550	73	120	293	92	48	374
4611	31744	69	87	325	80	79	284	75	83	304	72	128	242	72	103	364
4612	31745	94	122	485	101	122	439	98	122	462	70	115	213	86	120	373
4613	31746	89	129	470	86	120	343	87	124	406	71	105	305	74	125	428
4614	31747	100	90	490	100	88	369	100	89	429	95	114	255	92	106	388
4615	31748				127			127			84	119	272	102	100	407
4616	31749	86	107	405	90	100	465	88	103	435	83	117	263	74	131	360
4617	31750	95	95	475	105	70	366	100	83	420	83	113	336	81	107	359
4618	31751	101	106	360	112	80	275	107	93	317	87	111	357	85	108	440
4619	31752	89	120	445	92	118	420	90	119	432	82	106	210	76	125	310
4620	DRR Dhan 54 (NC)	87	119	390	85	114	442	86	116	416	94	110	284	75	126	393
4621	31753	86	98	380	103	84	458	95	91	419		.		85	115	330
4622	31754	90	90	420	97	83	376	94	87	398	78	105	308	78	111	365
4623	31755	90	94	380	97	74	406	93	84	393	84	120	264	93	88	392
4624	31756	84	106	400	99	94	454	91	100	427	84	113	245	76	118	418
4625	31757	81	89	480	99	76	459	90	82	470	71	100	314	80	93	205
4626	31758	85	119	465	92	109	507	89	114	486	71	107	390	71	117	443
4627	31759				128			128			93	122	429	97	105	361
4628	31760	104	87	420	107	81	440	105	84	430	70	124	294	94	104	366
4629	31761	92	112	450	92	101	478	92	107	464	83	104	394	75	108	378
4630	31762				126			126			94	111	287	99	99	364
4631	31763	109	85	540	127			118	85	540	76	104	333	94	112	345
4632	31764	88	91	430	95	84	485	91	87	457	70	108	272	72	107	420
4633	Zonal Check	89	119	375	95	117	448	92	118	411	85	133	292	78	131	415
4634	31765	89	94	550	100	92	513	94	93	531	74	108	373	78	109	444
4635	31766	92	92	460	86	74	542	89	83	501	78	94	325	80	100	419
4636	31767	93	95	475	104	76	354	99	86	414	94	103	246	80	112	453
4637	31768				127			127			84	135	288	99	110	405
4638	31769	86	127	480	97	100	391	91	113	436	71	122	317	77	118	394
4639	31770	96	91	490	101	90	417	98	90	453	84	113	359	90	111	441
4640	31771	91	95	400	92	99	521	91	97	461	70	121	314	76	105	331
4641	31772	79	100	380	106	94	315	92	97	347	82	99	449	92	122	421
4642	PA 6129 (HC)	90	90	430	92	87	478	91	88	454	84	105	333	74	117	384
4643	31773				131			131			71	95	288	101	107	337
4644	31774				134			134			70	87	254	99	121	473
4645	31775	81	99	400	106	92	470	94	95	435	94	113	221	73	104	367
4646	31776	73	130	420	80	121	403	76	125	411	84	104	245	72	124	468
4647	31777	91	101	535	90	95	438	90	98	487	86	107	255	71	106	412
4648	31778	103	77	485	103	69	487	103	73	486		.		78	102	451
4649	31779	85	88	385	92	83	434	89	86	409	94	103	207	73	105	361
4650	31780	76	99	380	84	99	386	80	99	383	80	108	272	72	126	444
4651	31781	109	86	465	108	79	326	108	83	396	84	101	236	94	93	366
4652	31782	87	104	455	99	99	555	93	101	505	84	100	266	75	114	419
4653	31783	92	99	510	92	96	467	92	97	489	92	92	243	78	105	459
4654	31784	96	93	495	103	84	391	99	88	443	84	100	260	82	120	464
4655	31785	89	94	470	99	112	516	94	103	493	82	106	288	78	105	461
4656	DRR H-4 (Hybrid Observational Check)	96	106	455	92	101	558	94	103	507	80	105	261	78	103	463
4657	31786	88	106	405	108	85	388	98	95	397	92	113	254	77	114	360
4658	31787	105	81	530	97	80	388	101	81	459	97	102	274	92	114	445
4659	31788	85	89	455				85	89	455	94	98	117	74	105	476
4660	31789										84	97	245	72	105	218
4661	31790	86	107	380	92	108	542	89	107	461	98	109	156	74	114	459
4662	31791	87	92	480	97	91	407	92	91	443	75	96	318	72	113	364
4663	31792	88	91	495	95	90	393	91	90	444	93	96	260	76	111	407
4664	Local Check	81	89	415	97	85	397	89	87	406	82	102	288	90	113	372
Exp. Mean		**89**	**99**	**443**	**101**	**92**	**422**	**97**	**95**	**433**	**82**	**109**	**289**	**81**	**110**	**394**

Table No.9c.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – AEROB, Kharif 2023

Entry No	IET No	ZONE III-EASTERN												ZONE IV- NORTH EASTERN (1)		
		Bihar			Bihar (2)			Jharkhand (1)			Zone 3 (4)			Tripura (1)		
		Pusa			Mean			Ranchi			Mean			Lembucherra		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4601	31734	66	75	159	68	89	279	65	92	170	71	94	257	68	111	325
4602	31735	81	82	176	79	90	294	80	88	199	81	94	267	71	85	313
4603	31736	86	110	162	89	110	275	93	93	182	89	109	246	76	101	263
4604	31737	87	111	154	89	118	270	103	103	247	91	114	271	107	128	300
4605	31738	80	113	162	79	117	263	86	112	242	82	116	261	94	126	325
4606	31739	72	81	159	71	93	282	81	103	238	74	98	296	69	75	363
4607	31740	85	105	160	81	107	242	90	92	171	81	104	264	79	108	300
4608	31741	86	93	156	84	106	289	85	103	265	83	104	288	85	106	400
4609	31742	95	124	156	98	122	260	97	113	241	91	115	280	102	121	363
4610	31743	91	84	173	92	66	273	85	104	229	85	89	267	94	72	488
4611	31744	73	92	165	72	97	264	75	96	212	73	105	245	72	78	388
4612	31745	90	114	173	88	117	273	93	113	247	85	116	251	99	119	413
4613	31746	81	120	148	77	123	288	81	123	196	77	118	269	85	106	175
4614	31747	88	96	162	90	101	275	84	95	187	90	103	248	100	99	250
4615	31748	110	100	157	106	100	282	78	87	235	93	102	267	103	104	313
4616	31749	82	101	168	78	116	264	87	101	189	81	112	245	90	115	263
4617	31750	93	100	176	87	104	267	86	89	174	85	102	261	102	97	263
4618	31751	94	93	158	89	100	299	93	110	208	90	105	291	97	106	175
4619	31752	82	105	171	79	115	240	78	105	181	79	110	218	94	128	363
4620	DRR Dhan 54 (NC)	84	88	166	79	107	279	81	104	276	83	107	279	87	109	250
4621	31753	95	90	168	90	103	249	93	100	240	91	102	246	78	107	288
4622	31754	93	86	151	85	99	258	88	100	181	84	101	251	88	125	300
4623	31755	98	75	160	95	82	276	85	90	212	90	93	257	88	79	263
4624	31756	84	92	168	80	105	293	84	102	219	82	106	262	94	108	313
4625	31757	82	81	171	81	87	188	79	95	167	78	92	214	80	97	288
4626	31758	81	94	190	76	106	316	84	104	210	76	106	308	70	113	263
4627	31759	105	81	169	101	93	265	109	86	206	101	98	291	102	89	288
4628	31760	102	89	157	98	96	261	102	90	274	92	102	273	102	91	288
4629	31761	73	105	165	74	107	271	76	106	217	76	106	288	91	108	238
4630	31762	104	92	165	101	95	265	108	92	147	101	98	241	82	94	288
4631	31763	106	90	156	100	101	251	108	100	315	96	102	287	104	97	313
4632	31764	79	90	155	75	98	288	84	93	172	76	99	255	72	102	313
4633	Zonal Check	86	110	161	82	120	288	88	96	251	84	117	280	92	132	250
4634	31765	89	87	152	83	98	298	82	97	228	81	100	299	100	118	225
4635	31766	84	86	125	82	93	272	88	98	243	82	94	278	74	85	375
4636	31767	94	88	156	87	100	305	93	115	252	90	104	277	93	89	275
4637	31768	108	95	152	103	102	278	105	100	232	99	110	269	102	107	313
4638	31769	83	100	171	80	109	282	86	106	327	79	111	302	76	109	350
4639	31770	94	99	155	92	105	298	88	109	256	89	108	303	94	102	188
4640	31771	83	92	177	79	99	254	85	98	191	78	104	253	80	97	300
4641	31772	94	92	157	93	107	289	93	82	197	90	99	306	114	119	275
4642	PA 6129 (HC)	78	75	180	76	96	282	80	102	280	79	100	294	83	106	325
4643	31773	112	86	155	106	97	246	106	99	163	97	97	236	103	102	288
4644	31774	107	94	148	103	107	310	104	110	161	95	103	259	102	93	225
4645	31775	86	80	163	79	92	265	85	103	212	84	100	240	80	95	238
4646	31776	72	105	153	72	115	310	71	91	158	74	106	256	103	121	350
4647	31777	78	78	164	74	92	288	80	85	203	78	94	258	72	96	263
4648	31778	84	87	155	81	95	303	84	96	212	82	95	273	98	85	300
4649	31779	81	87	155	77	96	258	86	99	153	83	99	219	69	82	375
4650	31780	81	94	177	76	110	310	78	102	176	78	107	267	91	117	300
4651	31781	100	95	147	97	94	256	104	100	251	95	97	250	87	103	213
4652	31782	85	102	151	80	108	285	83	90	150	81	102	246	92	113	338
4653	31783	81	92	160	79	98	309	85	99	220	84	97	270	80	80	300
4654	31784	95	95	171	88	107	317	84	105	236	86	105	282	72	97	263
4655	31785	83	96	160	80	101	311	86	106	196	82	103	276	87	92	213
4656	DRR H-4 (Hybrid Observational Check)	80	108	161	79	106	312	88	95	247	81	103	283	70	122	313
4657	31786	82	105	151	79	109	256	86	95	198	84	107	241	72	95	350
4658	31787	97	100	169	94	107	307	94	94	227	95	102	279	96	100	188
4659	31788	79	95	169	76	100	323	81	94	152	82	98	228	93	100	450
4660	31789	108	110	178	90	108	198	96	98	100	90	103	185	102	104	375
4661	31790	81	102	180	77	108	320	80	111	163	83	109	239	69	113	213
4662	31791	81	103	182	76	108	273	86	88	156	78	100	255	59	95	313
4663	31792	82	98	176	79	105	291	89	92	276	85	99	279	86	94	313
4664	Local Check	76	96	189	83	104	280	66	98	137	78	102	246	104	91	375
Exp. Mean		**87**	**95**	**163**	**84**	**103**	**278**	**87**	**99**	**210**	**85**	**103**	**264**	**88**	**102**	**299**

Table No. 9c.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – AEROB, Kharif 2023

Entry No	IET No	ZONE V- CENTRAL (2)									ZONE VI- WESTERN (2)					
		Madhya Pradesh (1)			Chhattisgarh			Zone 5(2)			Gujarat					
		Jabalpur			Raipur			Mean			Navasari			Vyara		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4601	31734	86	91	248	76	93	208	81	92	228	67	93	150	60	131	256
4602	31735	91	102	223	80	82	205	85	92	214	88	84	153	78	114	189
4603	31736	93	113	157	89	98	210	91	105	183	100	91	257	86	127	260
4604	31737	90	110	140	91	123	202	90	117	171	100	91	140	84	145	276
4605	31738	86	110	199	78	111	258	82	110	229	90	85	188	78	144	217
4606	31739	102	104	176	68	90	206	85	97	191	83	105	183	70	121	201
4607	31740	100	108	194	84	97	232	92	103	213	90	85	125	78	129	260
4608	31741	102	98	197	97	96	228	99	97	212	102	106	245	80	130	241
4609	31742	102	102	181	101	128	177	101	115	179	102	82	118	98	143	267
4610	31743	101	117	223	83	92	219	92	104	221	91	94	143	81	125	236
4611	31744	95	106	172	70	84	158	83	95	165	79	105	246	67	115	260
4612	31745	100	92	230	86	132	225	93	112	227	106	92	124	83	157	219
4613	31746	101	83	137	81	130	230	91	107	183	86	105	245	67	143	170
4614	31747	104	106	177	85	91	154	94	99	166	97	106	232	89	115	158
4615	31748	104	122	138	105	95	151	104	109	144	110	87	118	97	128	255
4616	31749	93	90	224	78	101	207	85	96	215	87	93	172	76	136	243
4617	31750	101	102	127	91	90	216	96	96	172	96	107	149	82	124	228
4618	31751	88	111	211	98	103	174	93	107	192	101	78	234	92	137	297
4619	31752	95	109	138	79	112	202	87	110	170	86	73	193	75	145	206
4620	DRR Dhan 54 (NC)	83	86	172	83	121	150	83	104	161	86	93	279	76	158	210
4621	31753	102	111	155	100	102	177	101	107	166	108	95	264	83	132	159
4622	31754	103	95	220	85	112	208	94	104	214	88	96	172	81	128	152
4623	31755	102	102	177	103	85	179	102	93	178	104	79	149	85	117	233
4624	31756	101	108	106	80	91	192	90	99	149	88	81	181	77	135	237
4625	31757	97	110	228	87	92	188	92	101	208				78	108	212
4626	31758	95	100	138	79	101	188	87	100	163	88	108	182	79	143	257
4627	31759	101	98	181	104	91	228	102	94	204	108	104	107	97	123	294
4628	31760	93	116	139	91	86	213	92	101	176	103	95	208	89	120	275
4629	31761	93	113	97	77	94	182	85	104	139	87	103	126	78	141	219
4630	31762	101	119	130	100	101	165	100	110	147	106	84	110	69	124	214
4631	31763	101	116	124	98	94	177	99	105	150	106	87	179	99	125	271
4632	31764	96	94	238	78	86	232	87	90	235	86	84	182	74	122	235
4633	Zonal Check	101	110	166	84	124	235	92	117	200	74	82	107	63	136	182
4634	31765	99	105	165	82	94	202	90	99	183	91	77	252	80	131	233
4635	31766	102	89	193	87	86	210	94	87	202	89	82	224	74	108	279
4636	31767	97	104	149	90	92	204	93	98	177	107	75	124	86	129	289
4637	31768	97	105	168	112	92	193	104	99	181	105	84	137	100	127	238
4638	31769	87	93	167	81	87	208	84	90	187	94	89	240	78	144	215
4639	31770	85	106	130	73	103	222	79	105	176	93	91	248	78	127	214
4640	31771	105	107	118	88	96	189	96	101	153	89	91	181	76	139	273
4641	31772	102	89	148	88	112	208	95	100	178	105	86	165	85	142	212
4642	PA 6129 (HC)	98	105	191	77	96	205	87	101	198	88	95	179	73	122	304
4643	31773	101	107	198	109	96	164	105	102	181	109	86	134	94	118	189
4644	31774	93	97	235	116	97	161	104	97	198	101	105	154	97	148	176
4645	31775	94	119	128	75	102	192	84	110	160	89	109	160	82	128	270
4646	31776	93	112	152	71	122	214	82	117	183	80	74	129	66	146	182
4647	31777	93	110	238	74	101	196	83	105	217	83	107	180	74	128	340
4648	31778	102	112	192	93	85	229	97	99	210	97	79	180	76	143	242
4649	31779	102	107	224	78	84	212	90	96	218				81	122	325
4650	31780	98	111	172	72	103	230	85	107	201	83	93	131	77	122	149
4651	31781	102	105	172	97	95	207	99	100	190	106	85	111	75	130	344
4652	31782	89	115	128	78	99	225	83	107	176	91	94	205	89	131	167
4653	31783	85	108	80	82	93	213	83	101	146	87	92	244	77	135	282
4654	31784	87	92	170	90	96	245	88	94	207	88	96	176	76	124	199
4655	31785	93	99	219	79	103	230	86	101	224	95	81	155	81	126	279
4656	DRR H-4 (Hybrid Observational Check)	97	97	222	81	104	215	89	101	218	87	92	238	80	124	255
4657	31786	96	109	233	79	92	232	87	101	233	79	93	138	79	140	279
4658	31787	92	113	232	103	88	216	97	101	224	106	86	114	86	124	242
4659	31788	102	104	159	75	92	205	88	98	182	90	73	229	76	128	226
4660	31789	103	115	247				103	115	247				88	132	140
4661	31790	103	102	191	76	88	179	89	95	185	85	104	169	77	140	221
4662	31791	101	103	190	91	85	156	96	94	173	87	96	158	79	137	217
4663	31792	97	116	218	79	94	190	88	105	204	93	85	125	78	117	296
4664	Local Check	102	115	180	74	89	206	88	102	193	84	108	187	75	135	288
Exp. Mean		**97**	**105**	**177**	**86**	**98**	**202**	**91**	**102**	**190**	**93**	**91**	**176**	**80**	**131**	**237**

Table No. 9c.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – AEROB, Kharif 2023

Entry No	IET No	ZONE VI- WESTERN (2)						ZONE VII – SOUTHERN						Overall Mean (12)		
		Gujarat (2)			Zone 6(2)			Karnataka			Zone 7(1)					
		Mean			Mean			Mandya			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4601	31734	64	112	203	64	112	203	75	87	340	75	87	340	71	97	264
4602	31735	83	99	171	83	99	171	84	69	374	84	69	374	84	89	280
4603	31736	93	109	259	93	109	259	101	89	357	101	89	357	92	103	270
4604	31737	92	118	208	92	118	208	103	84	323	103	84	323	95	112	253
4605	31738	84	114	202	84	114	202	87	83	357	87	83	357	86	112	293
4606	31739	76	113	192	76	113	192	83	66	323	83	66	323	78	94	293
4607	31740	84	107	193	84	107	193	90	84	323	90	84	323	86	101	283
4608	31741	91	118	243	91	118	243	91	80	357	91	80	357	90	102	298
4609	31742	100	112	192	100	112	192	107	93	357	107	93	357	100	110	267
4610	31743	86	109	189	86	109	189	83	68	357	83	68	357	89	92	298
4611	31744	73	110	253	73	110	253	83	60	340	83	60	340	75	94	263
4612	31745	95	125	171	95	125	171	103	96	357	103	96	357	92	116	291
4613	31746	77	124	207	77	124	207	83	112	340	83	112	340	82	117	265
4614	31747	93	111	195	93	111	195	84	82	340	84	82	340	93	99	263
4615	31748	104	108	186	104	108	186	105	75	391	105	75	391	102	102	243
4616	31749	82	115	207	82	115	207	90	88	357	90	88	357	84	107	276
4617	31750	89	115	189	89	115	189	116	71	340	116	71	340	94	97	267
4618	31751	97	107	266	97	107	266	88	80	323	88	80	323	95	102	268
4619	31752	80	109	199	80	109	199	83	98	357	83	98	357	84	112	266
4620	DRR Dhan 54 (NC)	81	126	244	81	126	244	88	87	340	88	87	340	84	110	279
4621	31753	95	114	211	95	114	211	92	89	357	92	89	357	93	102	270
4622	31754	85	112	162	85	112	162	103	88	374	103	88	374	89	102	269
4623	31755	94	98	191	94	98	191	105	70	374	105	70	374	94	90	265
4624	31756	82	108	209	82	108	209	84	87	357	84	87	357	86	103	274
4625	31757	78	108	212	78	108	212	101	85	306	101	85	306	85	93	274
4626	31758	83	125	219	83	125	219	89	175	374	89	175	374	82	116	300
4627	31759	103	114	200	103	114	200	114	79	408	114	79	408	105	98	267
4628	31760	96	107	241	96	107	241	106	66	323	106	66	323	97	96	283
4629	31761	82	122	172	82	122	172	82	77	323	82	77	323	83	106	272
4630	31762	88	104	162	88	104	162	102	74	357	102	74	357	99	99	222
4631	31763	102	106	225	102	106	225	103	64	374	103	64	374	102	98	284
4632	31764	80	103	209	80	103	209	91	64	323	91	64	323	82	94	288
4633	Zonal Check	68	109	144	68	109	144							85	117	262
4634	31765	85	104	242	85	104	242	91	80	340	91	80	340	88	99	306
4635	31766	82	95	252	82	95	252	105	59	357	105	59	357	86	88	313
4636	31767	96	102	206	96	102	206	107	79	391	107	79	391	95	96	281
4637	31768	102	106	187	102	106	187	103	81	357	103	81	357	104	104	248
4638	31769	86	117	227	86	117	227	91	83	391	91	83	391	84	107	304
4639	31770	86	109	231	86	109	231	104	82	374	104	82	374	90	102	291
4640	31771	82	115	227	82	115	227	84	99	340	84	99	340	85	103	278
4641	31772	95	114	188	95	114	188	83	92	408	83	92	408	93	102	278
4642	PA 6129 (HC)	80	109	241	80	109	241	100	74	374	100	74	374	85	98	305
4643	31773	101	102	161	101	102	161	104	89	340	104	89	340	103	98	225
4644	31774	99	126	165	99	126	165	103	91	340	103	91	340	102	104	232
4645	31775	85	119	215	85	119	215	88	71	391	88	71	391	86	101	267
4646	31776	73	110	155	73	110	155	108	104	323	108	104	323	81	113	266
4647	31777	79	117	260	79	117	260	84	75	323	84	75	323	81	99	295
4648	31778	87	111	211	87	111	211	105	62	340	105	62	340	93	91	297
4649	31779	81	122	325	81	122	325	100	55	323	100	55	323	85	92	286
4650	31780	80	108	140	80	108	140	90	75	340	90	75	340	82	104	263
4651	31781	90	107	227	90	107	227	109	81	391	109	81	391	98	96	269
4652	31782	90	112	186	90	112	186	82	81	357	82	81	357	86	103	284
4653	31783	82	114	263	82	114	263	91	80	357	91	80	357	85	98	294
4654	31784	82	110	187	82	110	187	91	63	340	91	63	340	87	97	284
4655	31785	88	104	217	88	104	217	90	72	306	90	72	306	87	99	291
4656	DRR H-4 (Hybrid Observational Check)	83	108	246	83	108	246	83	93	357	83	93	357	84	104	312
4657	31786	79	116	209	79	116	209	84	78	357	84	78	357	85	102	279
4658	31787	96	105	178	96	105	178	104	86	391	104	86	391	97	97	284
4659	31788	83	101	227	83	101	227	84	75	391	84	75	391	84	96	275
4660	31789	88	132	140	88	132	140							93	109	214
4661	31790	81	122	195	81	122	195	82	92	374	82	92	374	83	107	269
4662	31791	83	116	187	83	116	187	91	75	357	91	75	357	84	98	275
4663	31792	85	101	210	85	101	210	100	62	374	100	62	374	88	95	293
4664	Local Check	80	121	237	80	121	237	88	88	374	88	88	374	85	101	284
Exp. Mean		**86**	**112**	**207**	**86**	**112**	**207**	**94**	**81**	**355**	**94**	**81**	**355**	89	**101**	**276**

Table No. 9c.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – AEROB, (Trials not considered), Kharif 2023

Entry No	IET No	Trials not considered											
		Bihar @Patna-ICAR			Uttar Pradesh @Masodha			Madhya Pradesh @Rewa			Chattisgarh @Jagadalpur		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4601	31734	67	97	187	76	65	226	79	95	197	73	83	271
4602	31735	88	79	202	75	65	221	89	75	278	85	82	248
4603	31736	97	95	219	75	67	192	93	87	305	98	61	216
4604	31737	100	86	162	84	65	231	102	126	270	83	82	161
4605	31738	84	103	235	73	82	239	88	95	345	86	62	186
4606	31739	79	89	295	74	60	225		.		83	86	228
4607	31740	89	90	241	82	56	221	85	96	488	96	60	265
4608	31741	92	106	280	78	75	203	91	98	210	92	89	258
4609	31742	108	90	178	94	90	188	90	95	195	114	68	219
4610	31743	97	72	259	95	70	215	91	74	279	102	83	137
4611	31744	74	71	238	76	61	207	79	75	293	85	61	260
4612	31745	95	124	207	99	85	148	91	101	266	94	84	219
4613	31746	80	118	209	71	71	225	88	100	199	85	82	203
4614	31747	87	103	217	77	78	229	91	92	368	91	61	218
4615	31748	108	88	171	85	66	233	104	98	253	108	72	234
4616	31749	88	93	194	75	56	226	88	98	392	89	63	240
4617	31750	99	90	236	98	62	169	91	92	251	98	85	250
4618	31751	99	82	169	79	66	216	91	97	303	92	63	266
4619	31752	79	113	210	73	87	212	87	95	388	84	78	210
4620	DRR Dhan 54 (NC)	85	103	172	79	78	150	81	92	294	84	76	216
4621	31753	95	96	229	93	85	244	101	90	344	94	71	162
4622	31754	87	92	209	90	51	221	85	93	468	103	69	225
4623	31755	101	76	276	84	74	230	94	76	242	96	62	249
4624	31756	87	98	331	76	76	243	79	85	371	85	79	220
4625	31757				82	65	194	89	82	199	91	69	161
4626	31758	82	98	302	75	70	217	83	86	287	86	86	230
4627	31759	109	68	233	99	80	219	91	85	305	111	62	239
4628	31760	102	82	256	97	86	154	106	103	374	103	64	265
4629	31761	77	87	233	95	75	214	80	94	343	86	61	249
4630	31762	102	88	191	98	71	190	99	87	267	109	73	261
4631	31763	97	84	251	93	66	143	94	87	256	93	69	168
4632	31764	79	87	257	70	68	220	79	93	297	85	67	176
4633	Zonal Check	87	98	250	96	75	161	85	104	499	85	76	200
4634	31765	85	89	253	100	75	154	81	91	271	84	64	193
4635	31766	90	70	167	90	65	161	89	76	340	97	78	207
4636	31767	98	64	151	97	75	182	96	87	331	95	69	282
4637	31768	104	86	260	80	76	239	106	82	189	108	64	188
4638	31769	86	114	215	102	69	142	87	98	319	102	83	228
4639	31770	90	97	318	101	72	162	91	84	448	104	65	180
4640	31771	86	79	192	75	63	190	89	85	260	89	78	186
4641	31772	88	95	193	75	72	230	91	96	298	91	72	235
4642	PA 6129 (HC)	85	86	188	73	51	246	85	88	343	91	78	140
4643	31773	104	90	180	72	70	234	106	89	279	109	73	268
4644	31774	102	84	171	83	73	220	98	111	246	89	63	270
4645	31775	86	94	189	80	61	227	88	82	227	87	75	193
4646	31776	79	93	198	78	76	249	79	99	223	92	90	233
4647	31777	81	84	232	75	61	215	82	95	330	85	79	229
4648	31778	98	86	227	101	74	153	91	88	418	92	88	195
4649	31779	82	69	229	79	68	220	83	78	301	77	71	199
4650	31780	82	89	332	100	55	160	80	105	422	87	74	245
4651	31781	104	75	201	103	76	207	99	95	298	107	84	238
4652	31782	84	94	233	73	69	239	89	92	217	86	90	220
4653	31783	86	93	196	76	62	215	92	99	296	93	63	236
4654	31784	97	85	221	81	74	254	91	91	279	92	82	212
4655	31785	90	71	136	76	65	180	90	77	224	86	84	199
4656	DRR H-4 (Hybrid Observational Check)	77	107	313	65	72	240	83	98	320	86	69	275
4657	31786	86	77	275	77	75	191	85	96	315	92	70	213
4658	31787	105	85	219	100	71	168	103	93	305	95	88	218
4659	31788	83	78	243	75	60	228	81	89	467	85	64	176
4660	31789				78	79	243	100	93	60	84	64	165
4661	31790	77	98	199	75	59	223	81	96	285	82	76	193
4662	31791	86	81	161	76	72	220	94	77	350	97	86	168
4663	31792	87	78	201	96	55	168	73	88	426	86	85	183
4664	Local Check	85	95	199	74	85	238	82	95	259	85	69	283
Exp. Mean		**90**	**89**	**222**	**83**	**70**	**206**	**89**	**91**	**304**	**92**	**74**	**218**

Table No. 9c.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – AEROB, (Trials not considered), Kharif 2023

Entry No	IET No	Trials not considered								
		Maharashtra @Parbhani			Gujarat @Derol			Karnataka @Mugad		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4601	31734	82	65	284	69	105	182	85	78	202
4602	31735	92	44	260				89	62	149
4603	31736	94	63	395	90	106	284	102	68	226
4604	31737	101	68	365	84	105	216	96	60	174
4605	31738	93	68	391	84	87	208	89	70	205
4606	31739	85	46	365	87	86	270	92	61	217
4607	31740	94	43	315	85	83	236	92	51	160
4608	31741	98	61	382	90	91	212	91	52	135
4609	31742	99	62	350	67	90	262	98	69	226
4610	31743	92	60	385	74	80	260	92	64	165
4611	31744	86	49	265	90	81	264	88	57	217
4612	31745	104	87	398	82	124	230	101	85	252
4613	31746	91	88	320	93	123	244	88	80	209
4614	31747	93	54	360	89	91	254	89	53	137
4615	31748	97	50	365				103	65	197
4616	31749	97	53	375	93	100	260	96	83	276
4617	31750	103	44	362				101	52	163
4618	31751	97	59	370	85	102	286	89	65	179
4619	31752	91	73	388	79	114	238	89	76	210
4620	DRR Dhan 54 (NC)	93	66	355	85	103	222	89	56	142
4621	31753	101	57	398	85	96	192	96	58	190
4622	31754	102	50	351	86	89	200	103	74	173
4623	31755	97	37	373				110	66	180
4624	31756	95	47	265	82	90	228	89	61	192
4625	31757	96	45	240	78	104	200	94	62	171
4626	31758	94	57	385	89	83	272	104	75	176
4627	31759	104	37	305	91	104	204	108	54	190
4628	31760	97	46	334	83	96	358	105	61	204
4629	31761	84	47	273	89	108	196	74	50	150
4630	31762	97	44	255				95	67	191
4631	31763	101	40	258	86	95	244	108	53	190
4632	31764	93	44	210				89	64	133
4633	Zonal Check	65	74	200				91	63	210
4634	31765	90	52	358	85	86	302	93	54	145
4635	31766	88	43	395	85	94	314	99	62	188
4636	31767	103	52	360				89	54	177
4637	31768	103	47	263				105	58	172
4638	31769	98	59	395	85	115	322	91	72	213
4639	31770	97	48	390				94	68	197
4640	31771	97	62	355	89	107	290	90	74	184
4641	31772	98	63	395	89	77	264	90	62	153
4642	PA 6129 (HC)	99	52	391	79	95	246	88	51	148
4643	31773	103	45	382	83	93	316	104	51	178
4644	31774	104	51	275	89	112	240	94	49	141
4645	31775	93	60	384	90	116	214	89	66	202
4646	31776	82	84	308	67	76	206	82	41	186
4647	31777	86	58	368	86	102	260	85	63	195
4648	31778	98	34	353	90	75	278	105	51	172
4649	31779	92	44	243	83	78	262	89	63	151
4650	31780	89	63	360	80	91	248	73	55	195
4651	31781	103	48	373	89	88	274	107	56	184
4652	31782	95	57	355	88	98	262	91	75	263
4653	31783	92	58	305	84	113	272	89	55	163
4654	31784	97	48	338	79	89	292	108	51	165
4655	31785	101	42	120				95	62	188
4656	DRR H-4 (Hybrid Observational Check)	93	54	315	83	90	230	88	60	174
4657	31786	94	48	269	80	109	262	88	62	221
4658	31787	104	47	258	89	84	290	105	55	145
4659	31788	92	40	335	82	86	296	101	55	170
4660	31789	100	51	132				93	53	169
4661	31790	87	58	298	81	112	254	85	57	156
4662	31791	97	36	265	87	91	244	96	69	197
4663	31792	100	45	313				92	50	172
4664	Local Check	89	71	384	62	109	208	87	63	135
Exp. Mean		**95**	**54**	**327**	**84**	**97**	**252**	**94**	**61**	**182**

ADVANCE VARIETY TRIAL 2– MEDIUM SLENDER (AVT 2– MS)

Locations: 39 **Test Entries: 05**

Checks: **National: WGL 14 (NC-Medium), BPT 5204 (NC-Late); Zonal: Improved Samba Mahsuri (Eastern and Central), Ketekejoha (North Eastern), Karjat-6 (Western) & ADT49 (Southern); Local Check** **Table: 10a**

AVT 2 – MS trial is evaluated with 5 test entries along with 4 checks (two NCs, one each of ZC and LC). The trial was sent to 39 locations and data was not received from7centers (Shirgoan, Dabhoi, Kampasagar, Tirur, Sirsi, Kurumbapet and Puducherry). Though the data was received from 32 locations, data from 3 locations not considered due to low CV (Pusa,Masodha, and Jabalpur); data from NRRI, Cuttack was not considered due to high CV; data from 4 locations was not considered based on low experimental yield (Arundhatinagar, Lembucherra, Radhanagari and Sirsi); while 5 locations were dropped to non-significant F value (Chinsurah, Raipur, Pattambi, Mandya and Mugad).The experimental yield ranged from 3294 kg/ha at Arundhatinagar to 7788 kg/ha at Jabalpur. Similarly, the CV is in the range from 3.49% (Masodha) to 25.87% at Cuttack.

Performance of entries on Zonal basis during 3rd year of testing in Kharif 2023

In *Zone III*, IET 30083 was the highest yielder (6394 kg/ha), exhibited a significant yield advantage over the best varietal check (BVC; 5297 kg/ha). The mean days to 50% flowering, plant height and panicles/m^2 of IET 30083 were 113, 105 cm and 265 respectively.

In *Zone IV*, the national check (BPT 5204; 6024 kg/ha) was the best check and none of the entries exhibited significant yield advantage.

In Zone V also , the national check (BPT 5204; 4700 kg/ha) was the best check and none of the entries exhibited significant yield advantage.

Rank	IET No./ Designation/Cross Combination	GY DFF GT	Increase over BVC		
			Rank	Yield	BVC (kg/ha)
Zone III					
1	IET 30083	6394* 113 MS	BI – 1 UP - 1	7808 9479	1179 829
	WGL 14 (NC 1) *BPT 5204 (NC 2)* Zonal check (ZC) Local check (LC) CD	5237 5297 4727 5276 369			

Rank	IET No./ Designation/Cross Combination	GY DFF GT	Increase over BVC		
			Rank	Yield	BVC (kg/ha)
Zone VI					
1	IET 30107	6493* 104 MS	MH – 1	6005	324
	WGL 14 (NC 1) BPT 5204 (NC 2) Zonal check (ZC) Local check (LC) CD	5583 5031 4110 5171 589			

In Zone VI, IET 30107 (6493 kg/ha) exhibited significant superior yield over best performing check i.e., WGL 14 (5583kg/ha). The mean days to 50% flowering, plant height and panicles/m^2 of IET 30107 were 104, 111 cm and 293 respectively.

In *Zone VII*, the local check (5755 kg/ha) was the best check and none of the entries exhibited significant yield advantage.

Zonal performance of promising entries in Advance Variety Trial – 2 Medium Slender (AVT - 2 MS) during Kharif 2023

Performance of entries during IVT (2021), AVT 1 (2022) and AVT 2 (2023)

IET 30083(BRR 2152) a derivative of CR 2582-2 / Varshadhan / IR 82809-237 cross showed a yield advantage over the BVC during 2021 and 2022in Zone VII, and in 2023 in Zone III.Therefore, owing to inconsistent performance ***IET 30083 is discontinued*.**

IET 30107 (RP 6528-RMS 1421-43-25-9), a derivative of Improved SambhaMashuri*2//Habataki/ST 12 cross exhibited a significant yield advantage over the BVC during IVT (2021), and AVT 2(2023) in Zone VI. Further it has shown superior yield advantage in Maharashtra in Zone VI during 2021 and 2023 over the BVC. Also, it has shown superior yield advantage in Zone III and Zone VII during 2021 and 2022 respectively. The quality of IET 30107 is: HRR – 58.1%; AC – 24.64; GC – 22.0; ASV – 4.0. ***Based on its performance for the past three years, IET 30107 is found promising for Maharashtra State.***

Three-year performance of the entries on Zonal basis in IVT (2020), AVT – 1 (2021), AVT - 2 (2022)

S.No	Entry	Years	Zone II		Zone III		Zone IV		Zone V		Zone VI		Zone VII	
			Yield	BVC	Yield	BVC	Yield	BVC	Yield	BVC	Yield	BVC	Yield	BVC
1	30083	2021 2022 2023	- - -	- - -	- - 6394	- - 674	- - -	- - -	- - -	- - -	- - -	- - -	6511 7129 -	339 572 -
2	30107	2021 2022 2023	- - -	- - -	5386 - -	185 - -	- - -	- - -	- - -	- - -	6342 - 6493	231 - 321	- 6591 -	- 34 -

State level performance of entries during AVT-2 (2023), AVT-1 (2022) and IVT (2021)

Entry	Year	Zone	Yield (kg/ha)	Yield adv. over BVC	States	Yield (Kg/ha)	Yield adv. Over BVC	Remarks
30107	2021	ZVII	6342	231	MH	8078	1167	Exhibited yield advantage during IVT, and AVT 2 in Maharashtra
	2023	ZVII	6493	324	MH	8019	709	

ADVANCE VARIETY TRIAL 1 – MEDIUM SLENDER (AVT 1 – MS)

Locations: 49 **Test Entries: 27**

Checks: National: WGL 14 (NC-Medium), BPT 5204 (NC-Late); Zonal: Improved Samba Mahsuri (Eastern and Central), Ketekejoha (North Eastern), Karjat-6 (Western) & ADT49 (Southern); Hybrid: 27P63 and Local Check **Table: 10b**

The 'Advanced Variety Trial 1 –Medium Slender (AVT 1 – MS) was constituted with 22 test entries along with three national checks (Telangana Sona, WGL 14 and BPT 5204), one hybrid check (27P63), one zonal check and a local check. AVT 1 – MS was sent to 39 locations and data was received from 33 centers. The data was not received from: Chiplima, Arundhuti Nagar, Kampasagar, Tirur, Pattambi, and Kurumbapet. The zone-wise discussion along with the overall performance is presented below. The data was not considered from ICAR-NRRI, Cuttack, Pusa, Masodha, Jabalpur, and Radhanagari due to low/high CV and low mean.

Performance of entries on Zonal basis in AVT 1 – MS during Kharif 2019

Zone III

In Zone III, none of the entries exhibited superior yield performance over the best varietal check (BVC; 5360 kg/ha) or the hybrid check (HC; 5806 kg/ha), *hence none are promoted*.

Zone IV

In Zone IV, IET 30957 (6166 kg/ha), IET 30989 (5667 kg/ha), IET 30961 (5345 kg/ha), and IET 31001 (5144 kg/ha) exhibited superior yield performance over the BVC (Telangana Sona; 4590 kg/ha). But, none of the hybrid entries exhibited superior yield performance over the HC (6426 kg/ha). *Hence, IET 30957, IET 30961 and IET 31001 are promoted to AVT 2.* But, IET 30989 is dropped due undesirable quality.

Zone V

In Zone V, none of the varietal entries showed yield advantage over the BVC (BPT 5204; 5313 kg/ha). Among the hybrid entries, although IET 30623 and IET 29019, exhibited superior yield performance over the HC (27P63; 4067 kg/ha) but did not show yield advantage over the BVC (BPT 5204; 5313 kg/ha). *Hence neither any varietal nor hybrid entries are promoted.*

Zone VI

In Zone III, none of the varietal or hybrid entries exhibited superior yield performance over the BVC (LC; 5790 kg/ha) or the hybrid check (HC; 5887 kg/ha), *hence none are promoted*.

Zone VII

In Zone VII, IET 30961 (6090 kg/ha), a varietal entry showed superior yield performance over the BVC (LC; 5424 kg/ha), while IET 29019 (6328 kg/ha), a hybrid entry out-yielded the HC (5979 kg/ha). Among the two NIL entries, IET 32074 (5379 kg/ha), exhibited on par yield performance with the recurrent parent (MTU 1121; 5240 kg/ha).*Therefore, IET 30961 and IET 29019 is promoted to AVT 2*. But, IET 32074 is dropped due undesirable quality.

Table ___ Performance of entries on Zonal basis during Kharif 2023

Rank	IET No./Designation/Cross Combination	GY (kg/ha)/ DFF/GT	Remarks
Zone IV			
1	IET 30957 CR 4375-1-4-1-1-2-2 CR 3522-1-2-1-1-1-1-2 / CR 3497-7-1-3-2-2-1	6166* 91 MS	Promoted
2	IET 30989 WGL 1367 WGL 32100 / NR 6226	5667* 84 MS	*Dropped* (HRR – 40.0%; (AC – 25.66)
3	IET 30961 CR 4425-1-1-3-1-1 CR 3969-24-1-2-1-1-1 / CB 09 123	5345* 95 MS	Promoted
4	IET 31001 NVSR 934 NAUR-1 / Danteshwari	5144* 86 MS	Promoted
	Telangana Sona (NC 1) WGL 14 (NC 2) Zonal Check (ZC) *27P63 (HC)* BPT 5204 (NC 3) Local Check (LC)	*4590* 4368 3796 *6426* 4274 3617	
	CD	519	

Rank	IET No./Designation/Cross Combination	GY (kg/ha)/ DFF/GT	Remarks
Zone VII			
1	IET 30961 CR 4425-1-1-3-1-1 CR 3969-24-1-2-1-1-1 / CB 09 123	6090* 103 MS	Promoted
2	IET 29019 KAVERI-7623 Hybrid	6328* 102 MS	Promoted
3	IET 32074 RP6765-RAF 1012-30 MTU 1121*2 / Isogenic line of Akshyadhan	5379* 102 MS	Dropped (HRR – 28.5%)
	Telangana Sona (NC 1) WGL 14 (NC 2) Zonal Check (ZC) *27P63 (HC)* BPT 5204 (NC 3 & RP) *Local Check (LC)* MTU 1121 (RP)	4608 5092 4747 *5979* 4993 *5424* 5240	
	CD	262	

List of entries promoted to AVT 2 MS

Zone IV: IET 30957, IET 30989, IET 30961 and IET 31001
Zone VII: IET 30961, and IET 29019

INITIAL VARIETY TRIAL – MEDIUM SLENDER (IVT-MS)

Locations: **39** **Test Entries: 64**

Checks: **National: Telangana Sona (NC-Early), WGL 14 (NC-Medium), BPT 5204 (NC-Late); Zonal: Improved Samba Mahsuri (Eastern and Central), Ketekejoha (North Eastern), Karjat-6 (Western) & ADT49 (Southern) and Local Check.** **Table: 10c**

Initial Variety Trial–Medium Slender grain (IVT-MS) was constituted with 59 test entries and five checks.The trial was sent to 39 locations and data was not received from 7 locations Viz. Chiplima, Arundhutinagar, Dabhoi, Bapatla, Tirur, Kurumbapet and Puducherry. Data was not considered for analysis due to low experimental mean yield at following locations *viz.*,Geurua (3621 kg/ha), Shirgoan (3277 kg/ha), Radhanagari (3984 kg/ha), Vyara (3889 kg/ha), Sirsi (3166 kg/ha) and three locations due to low CV were not considered for analysis are Masodha (4.79 %), Kampasagar (4.01 %) and Aaduthurai (4.82

%). Critical difference value was found to be non-significant at Cuttack location, hence data was not considered for analysis.

Overall mean yield of the entries ranged from 6078kg/ha (IET31810) to 4378kg/ha (IET31838); days to 50% flowering from 85 days (IET 31809) to 121 days (IET 31803); plant height ranged from 78 cm (31809) to 109 cm (31831); panicles per meter square ranged from 251 (31798) to 294 (31795). Among the checks, NC-medium (WGL14) was the highest yielder (5645 kg/ha) followed by local check (5216 kg/ha), NC-late (BPT5204) (5063 kg/ha),Zonal check (4950 kg/ha) and NC-early (Telangana Sona) (4919 kg/ha). The data pertaining to yield, days to 50% flowering, plant height, panicles/m^2 and quality are presented in tables7.8,7.9, 7.10, 7.11 and 7.12 respectively.

Across the locations on overall basis, three entries showed significant yield gain, the first ranked entry was IET 31810 derived from R 1706-309-1-171-1 and IR 64 with 6078 kg/ha, 104 days to 50% flowering and MS grain type and also showed significant yield performance in Zones III, V and VII, the second ranked entry is IET 31808 was obtained from PRN 39and PRN 99 as parents with 5994 kg/ha, 112 days to 50% flowering and MS grain type, it has outperformed in Zone VII also. IET 31835 is the third ranked entry derived from cross between PNR 1026 and PNR 1061 showed significant yield advantage with 5982 kg/ha, 107 days to 50% flowering and MS grain type and performed well in Zone III and zone V with significant yield gain. The performance of the top 3 entries in overall mean is tabulated and described in detail as below.

Overall performance of the entries based on yield in Initial Variety Trial- Medium Slender grain(IVT-MS), Kharif2023

Rank	IET No/Designation/Cross Combination	GY/ FD/GT	Zone/ Rank/Yield (kg/ha)	State/rank/ yield (Kg/ha)	Remarks
1	IET 31810 (R 2370-115-1-93-1) R 1706-309-1-171-1 / IR 64	6078* 104 SB	Z III-2-6029 Z V-1- 6216 ZVII-4-6292	UP-8-5763 CG-2-7023 MH (1)-1-6761 TE-2-8247	Shift to IM due to SB grain type
2	IET 31808 (NP 9993) PRN 39/ PRN 99	5994* 112 MS	ZVII-2-6636	BI-2-5743 CG-4-6912 TE-1-8251 TN-3-7150	Promoted
3	IET 31835 (NP 6161) (PNR 1026 / PNR 1061)	5982* 107 MS	Z III-4-5808 ZV-3-5920	OD-4-6979 MH(1)-4-6001	Promoted
	NC Early (Telangana Sona)	4919 103			
	NC Medium(WGL14)	*5645* *109*			
	NC Late (BPT5204)	5063 111			
	Zonalcheck	4950 108			
	Localcheck	5216 105			
	CD	239			

Zonal performance of entries:

Zone III (Eastern)

The trial was evaluated at ten locations. Data from ICAR-NRRI Cuttack and Masodha was not included due to non-significant CD value and low CV%(4.79) respectively and from chiplima centre data was not received. Experimental mean yield across the locations ranged from 4007 kg/ha (Pusa) to 6490kg/ha (ICAR-NRRI Cuttack). Mean yield of the entries ranged from 3856 kg/ha (IET 31803) to 6050kg/ha (IET31816), days to 50% flowering ranged from 83days (IET31809) to 122 days (31803); plant height ranged from 82cm (IET31845, Zonal check)to107cm (IETs31820 and 31831) and panicles per square meter ranged from 228 (IETs 31809 and 31848) to 289 (IET 31816). Five entries namely IETNos.31816, 31810, 31820, 31835 and 31795 found to perform with significant yield advance, the details were furnished below

Performance of promising entries based on yield in Initial Variety Trial – Medium Slendergrain in Zone III kharif 2023

Rank	IET No/Designation/Cross Combination	GY/ FD/GT	Remarks
1	IET 31816 (CB 20143) CB 12132 / Sriramsena	6050* 103 MS	Promoted
2	IET 31810 (R 2370-115-1-93-1) R 1706-309-1-171-1 / IR 64	6029* 100 SB	Shift to IM due to SB grain type
3	IET 31820 (CR 3856-44-22-2-1-11-4-5-5) IR 73963-86-1-5-2-2 / CR 2324-1	5961* 106 MS	Promoted
4	IET 31835 (NP 6161) (PNR 1026 / PNR 1061)	5808* 104 MS	Promoted
5	IET 31795 (CB 20166) CO 52 // CO 52 / ISM	5779 109 MS	Promoted
	NC Early (Telangana Sona)	4383 104	
	NC Medium(WGL14)	*5310* *105*	
	NC Late (BPT5204)	4769 111	
	Zonalcheck	4954 106	
	Localcheck	4598 104	
	CD	384	

Central Zone (Zone V)

The trial was evaluated at three locations *viz*., Jabalpur, Raipur and Sindewahi. Experimental mean yield across the locations ranged from 4101 kg/ha (Sindewahi) to 5032 kg/ha (Raipur). Mean yield of the entries ranged from 3752 kg/ha (IET 31840) to 6216kg/ha (IET31810), days to 50% flowering ranged from 85 days (IET31809) to 127days (IET31803);plant height ranged from73 cm (IET31809) to 115 cm (IET 31841) and panicles per square meter ranged from 150 (IET 31798) to 287 (IET31817). Seven entries namely IET Nos. 31810, 31826, 31839, 31835, 31827, 31822 and 31806 recorded significant yield performance and the details were furnished below

Performance of promising entries based on yield in Initial Variety Trial – Medium Slendergrain in Zone V Kharif 2023

Rank	IETNo/Designation/CrossCombination	GY/ FD/GT	Remarks
1	IET 31810 (R 2370-115-1-93-1) R 1706-309-1-171-1 / IR 64	6216* 108 SB	Shift to IM due to SB grain type
2	IET 31826 RGL 7033 (MTU RM 428-2-1-1) MTU 1262 / MTU 1075	5984* 120 SS	Promoted
3	IET 31839 CRAC 3998-325-3 Doubled haploid of 27P63	5979* 107 MS	Promoted
4	IET 31835 (NP 6161) (PNR 1026 / PNR 1061)	5920* 111 MS	Promoted
5	IET 31827 (SYE 930-8-25) SKL 30-39-24-8-9 / SYE 273-7-9	5721* 111 MS	Promoted
6	IET 31822 MTU 1418 (MTU 2789-6-1-2) MTU 1224 / MTU 1075	5649* 122 MS	Promoted
7	IET 31806 CRAC 3998-128-2 Doubled haploid of 27P63	5524* 107 MS	Promoted
	NC Early (Telangana Sona)	4120 106	
	NC Medium(WGL14)	4402 114	
	NC Late (BPT5204)	4710 115	
	Zonalcheck	4921 109	
	Localcheck	*5031* *105*	
	CD	462	

Southern Zone (Zone VII)

The trial was sent to fifteen locations and data considered for analysis from eight locations *viz*., Maruteru, (AP), Rajendranagar, and Warangal (Telangana), Coimbatore (TN), Pattambi (Kerala) andMandya, Mugad and Malan (Karnataka).Data was not received from Bapatla, Tirur, Kurumbapet and Puducherry and data from three locations due to low CV were not considered for analysis are Masodha (4.79 %), Kampasagar (4.01 %) and Aduthurai (4.82 %). Experimental mean yield at the locations ranged from 3749.37kg/ha (Warangal) to 5521Kg/ha (Aduthurai) and CV% ranged from 5.65 (Maruteru) to19.46 (Coimbatore).
Mean yield of the entries ranged from 4075kg/ha (IET31838) to 6660kg/ha (IET31804); days to 50% flowering ranged from 87 days (IET 31809) to 121 days (IET 31803); plant height ranged from 71cm (IET31809) to 107cm (IETs 31794 and 31822) and panicles per square meter ranged from 276 (IET 31841) to 348 (IET 31834). Seven entries namely IETs 31804, 31808, 31795, 31810, 31850, 31822 and 31802 showed significant yield advantage and got promoted to second year of testing, the details were summarized as below.

Performance of promising entries based on yield in Initial Variety Trial – Medium Slender grain in Zone VII Kharif 2023

Rank	IET No/Designation/Cross Combination	GY/ FD/GT	Remarks
1	IET 31804 (NVSR-933) NAUR-1 / Danteshwari	6660 101 SS	Promoted
2	IET 31808 (NP 9993) PRN 39/ PRN 99	6636 111 MS	Promoted
3	IET 31795 (CB 20166) CO 52 // CO 52 / ISM	6316 109 MS	Promoted
4	IET 31810 (R 2370-115-1-93-1) R 1706-309-1-171-1 / IR 64	6292 104 SB	Shift to IM due to SB grain type
5	IET 31850 (RP 6769-1144-12-1-2-1-2) MTU 1121 / Chittimutyalu	6244 106 MS	Promoted
6	IET 31822 MTU 1418 (MTU 2789-6-1-2) MTU 1224 / MTU 1075	6146 117 MS	Promoted
7	IET 31802 (RP 6681-RMS-1-79-64-43) Improved Samba Mahsuri*2 / ST 12	6139 102 MS	Promoted
	NC Early (Telangana Sona)	5626 99	
	NC Medium(WGL14)	*5651* *109*	
	NC Late (BPT5204)	5096 110	
	Zonal check	5366 107	
	Localcheck	5620 106	
	CD	445	

Entries promoted to AVT 1-MS:

Zone		Entries
Overall basis	:	IET 31808 and IET 31835
Zone III	:	IETs 31816, 31820, 31835 and 31795
Zone V	:	IETs 31826, 31839, 31835, 31827, 31822 and 31806
Zone VII	:	IETs 31804, 31808, 31795, 31850, 31822 and 31802

Shifts: IET 31810 to IVT-IM

Table No.10a.1 : Composition of entries in Advance Variety Trial 2 – Medium Slender Grain (AVT 2 – MS), Kharif 2023.

Entry No.	IET No.	Designation	Cross Combination	GT
3rd year of testing:				
4701	30078	MTU 1382	MTU 1075 / MTU 1001	MS
4702	30083	BRR 2152	CR 2582-2 / Varshadhan / IR 82809-237	MS
4703	30107	RP 6528-RMS 1421-43-25-29	Improved Samba Mahsuri *2 // Habataki / ST 12	MS
4704	**WGL-14 (NC-Medium Duration)**			
4705	29492 (R)	CSR 27 SM160	CSR 27 / BPT 5204	MS
4706	**BPT 5204 (NC-Late Duration)**			
4707	29536 (R)	OR 2674-14-6-2	CRMS 32A / OR 1889-5	MS
4708	**Improved Samba Mahsuri (Eastern & Central), Ketekijoha (North Eastern), Karjat-6 (Western), ADT 49 (Southern)-- ZC**			
4709	**Local Check (LC)**			

Table No. 10a.2 : Grain Yield (kg/ha) in AVT 2 – MS, Kharif 2023

Entry No	IET No	ZONE III - EASTERN											
		Odisha						Odisha (3)		Bihar (1)		Jharrkhand (1)	
		Bhubaneswar		Jeypore		Chiplima		Mean		Bikramganj		Ranchi	
4701	30078	7034	1	4875	4	6220	1	6043	1 *	14815	8	4136	7
4702	30083	5271	7	5083	2	5286	3	5213	2	7808	1 *	5439	1
4703	30107	5298	6	4826	5	4931	4	5018	4	5687	4	5014	3
4704	WGL-14 (NC-Medium Duration)	4162	9	4733	6	4205	8	4367	8	5466	5	4844	4
4705	29492 (R)	5533	4	3570	8	4407	6	4503	7	6472	2	4759	5
4706	BPT 5204 (NC-Late Duration)	5362	5	4038	7	5400	2	4933	6	6006	3	3399	8
4707	29536 (R)	5596	3	5075	3	4185	9	4952	5	5133	7	4192	6
4708	Zonal Check (ZC)	5152	8	3101	9	4686	5	4313	9	5432	6	3144	9
4709	Local Check (LC)	5895	2	5304	1	4215	7	5138	3	4210	9	5070	2
Exp. Mean		**5478**		**4512**		**4837**		**4942**		**5670**		**4444**	
F Value		**5.68(p<0.0011)S**		**10.97(p<0.0001)S**		**5.01(p<0.0001)S**		**5.89(p<0.0001)S**		**20.33(p<0.0001)S**		**7.74(p<0.0002)S**	
CD		877		627		844		596		623		769	
CV%		**9.25**		**8.02**		**10.08**		**6.97**		**6.35**		**9.99**	
D/S		07-04-2023		07-06-2023		07-04-2023				26-06-2023		06-06-2023	
D/P		17-08-2023		08-08-2023		08-10-2023				27-07-2023		24-07-2023	
Local Check Name		Pratibha		Kalinga Dhan 1203		MTU-1156				R. Sweta		SWARNA	

Table No. 10a.2 (Contd).: Grain Yield (kg/ha) in AVT 2 – MS, Kharif 2023

Entry No	IET No	ZONE III - EASTERN				ZONE IV - NORTH EASTERN					
		Uttar Pradesh (1)		Zone III (6)		Assam				Assam (2)	
		Varanasi		Mean		Titabar		Gerua		Mean	
4701	30078	4412	9	5249	6	6014	6	4759	5	5387	7
4702	30083	9479	1 *	6394	1 *	6626	2	5917	1	6272	1
4703	30107	7495	4	5542	2	6820	1	4649	6	5735	4
4704	WGL-14 (NC-Medium Duration)	8009	2	5237	7	5732	7	5241	4	5487	5
4705	29492 (R)	7155	5	5316	3	6420	4	5310	3	5865	3
4706	BPT 5204 (NC-Late Duration)	7579	3	5297	4	6558	3	5489	2	6024	2
4707	29536 (R)	6558	8	5123	8	6222	5	4580	7	5401	6
4708	Zonal Check (ZC)	6849	7	4727	9	4652	8	3567	8	4110	8
4709	Local Check (LC)	6959	6	5276	5	4327	9	2346	9	3337	9
Exp. Mean		**7166**		**5351**		**5930**		**4651**		**5291**	
F Value		**35.24(p<0.0001)S**		**11.33(p<0.0001)S**		**7.21(p<0.0003)S**		**9.18(p<0.0001)S**		**21.70(p<0.0001)S**	
CD		641		369		902		976		557	
CV%		**5.17**		**3.98**		**8.78**		**12.12**		**6.08**	
D/S		06-07-2023				22-06-2023		07-06-2023			
D/P		07-04-2023				18-07-2023		45146			
Local Check Name		HUR-917				Ranjit Sub 1		Keteki Joha			

Table No. 10a.2 (Contd).: Grain Yield (kg/ha) in AVT 2 – MS, Kharif 2023

Entry No	IET No	Zone IV(2)		ZONE V - CENTRAL				ZONE VI -WESTERN			
				Maharashtra1 (1)		Zone V (1)		Maharashtra 2		Maharashtra 2 (1)	
		Mean		Sindewahi		Mean		Karjat		Karjat	
4701	30078	5387	7	4624	3	4624	3	5307	6	5307	6
4702	30083	6272	1	5387	1	5387	1	5377	5	5377	5
4703	30107	5735	4	3991	7	3991	7	8019	1 *	8019	1 *
4704	WGL-14 (NC-Medium Duration)	5487	5	4078	5	4078	5	6200	2	6200	2
4705	29492 (R)	5865	3	3996	6	3996	6	5144	8	5144	8
4706	BPT 5204 (NC-Late Duration)	6024	2	4700	2	4700	2	5556	3	5556	3
4707	29536 (R)	5401	6	4111	4	4111	4	5113	9	5113	9
4708	Zonal Check (ZC)	4110	8	3942	8	3942	8	5540	4	5540	4
4709	Local Check (LC)	3337	9	3639	9	3639	9	5167	7	5167	7
Exp. Mean		**5291**		**4274**		**4274**		**5714**		**5714**	
F Value		**21.70(p<0.0001)S**		**3.39(p<0.0146)S**		**3.39(p<0.0146)S**		**5.35(p<0.0016)S**		**5.35(p<0.0016)S**	
CD		557		788		788		1110		1110	
CV%		**6.08**		**10.65**		**10.65**		**11.22**		**11.22**	
D/S				29-06-2023				17-06-2023		17-06-2023	
D/P				21-07-2023				15-07-2023		15-07-2023	
Local Check Name				PDKV-KISAN				Karjat-9		Karjat-9	

Table No. 10a.2 (Contd).: Grain Yield (kg/ha) in AVT 2 – MS, Kharif 2023

Entry No	IET No	ZONE VI -WESTERN									
		Maharashtra (2)		Gujarat						Gujarat (3)	
		Mean		Navasari		Nawagam		Vyara		Mean	
4701	30078	4966	5	5120	5	5150	8	4985	2	5085	6
4702	30083	5382	2	5879	1	6246	4	4300	6	5475	2
4703	30107	6005	1 *	5711	2	6690	1	5552	1	5984	1
4704	WGL-14 (NC-Medium Duration)	5139	3	4802	7	6454	3	4877	3	5378	3
4705	29492 (R)	4570	8	4996	6	5212	7	4451	5	4886	7
4706	BPT 5204 (NC-Late Duration)	5128	4	4359	9	6512	2	3696	8	4856	8
4707	29536 (R)	4612	7	5521	3	5448	6	4778	4	5249	4
4708	Zonal Check (ZC)	4741	6	4523	8	4491	9	3085	9	4033	9
4709	Local Check (LC)	4403	9	5460	4	5775	5	4280	7	5172	5
Exp. Mean		**4994**		**5152**		**5775**		**4445**		**5124**	
F Value		**6.62(p<0.0005)S**		**3.08(p<0.0221)S**		**3.03(p<0.0235)S**		**4.59(p<0.0035)S**		**4.38(p<0.0044)S**	
CD		542		978		1219		916		733	
CV%		**6.28**		**10.97**		**12.2**		**11.9**		**8.27**	
D/S				06-06-2023		16-06-2023		20-06-2023			
D/P				07-05-2023		26-07-2023		21-07-2023			
Local Check Name				GNR-7		GAR 13		GNR-7			

Table No. 10a.2 (Contd).: Grain Yield (kg/ha) in AVT 2 – MS, Kharif 2023

Entry No	IET No	Zone VI(4)		ZONE VII - SOUTHERN							
				Andhra Pradesh				Andhra Pradesh (2)		Telangana	
		Mean		Maruteru		Bapatla		Mean		Rajendranagar	
4701	30078	5141	6	4456	8	5499	1	4978	5	5865	5
4702	30083	5451	3	4794	7	4124	4	4459	7	7015	2
4703	30107	6493	1 *	6576	1	3689	8	5133	2	5105	8
4704	WGL-14 (NC-Medium Duration)	5583	2	5208	6	3182	9	4195	8	6717	3
4705	29492 (R)	4951	8	6256	3	3708	7	4982	4	4873	9
4706	BPT 5204 (NC-Late Duration)	5031	7	6497	2	4389	3	5443	1	5434	7
4707	29536 (R)	5215	4	5378	5	3947	5	4663	6	7421	1
4708	Zonal Check (ZC)	4410	9	4233	9	3748	6	3991	9	5511	6
4709	Local Check (LC)	5171	5	5617	4	4512	2	5065	3	6488	4
Exp. Mean		**5272**		**5446**		**4089**		**4767**		**6048**	
F Value		**7.53(p<0.0002)S**		**10.19(p<0.0001)S**		**4.04(p<0.0066)S**		**3.92(p<0.0001)S**		**8.41(p<0.0076)S**	
CD		589		826		891		704		833	
CV%		**6.45**		**8.76**		**12.59**		**8.53**		**7.95**	
D/S				15-07-2023		08-02-2023				19-06-2023	
D/P				24-08-2023		26-08-2023				19-07-2023	
Local Check Name				MTU 1224		BPT 2782				RNR 11718	

Table No. 10a.2 (Contd).: Grain Yield (kg/ha) in AVT 2 – MS, Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN									
		Telangana		Telangana (2)		Tamilnadu				Tamilnadu (2)	
		Warangal		Mean		Aduthurai		Coimbatore		Mean	
4701	30078	6224	4	6045	6	6471	8	6106	6	6289	8
4702	30083	6922	2	6969	1 *	7199	4	7098	3	7149	2
4703	30107	7297	1	6201	4	6835	7	6626	4	6731	5
4704	WGL-14 (NC-Medium Duration)	5783	6	6250	3	7087	6	6117	5	6602	7
4705	29492 (R)	6592	3	5733	7	7451	2	5859	8	6655	6
4706	BPT 5204 (NC-Late Duration)	5777	7	5606	8	8403	1	5381	9	6892	4
4707	29536 (R)	6083	5	6752	2	7143	5	7147	1	7145	3
4708	Zonal Check (ZC)	4993	9	5252	9	6275	9	5950	7	6113	9
4709	Local Check (LC)	5615	8	6052	5	7227	3	7113	2	7170	1
Exp. Mean		**6143**		**6095**		**7121**		**6378**		**6749**	
F Value		**6.70(p<0.0004)S**		**6.34(p<0.0006)S**		**6.82(p<0.0004)S**		**4.55(p<0.0036)S**		**3.87(p<0.0080)S**	
CD		736		575		647		920		538	
CV%		**6.92**		**5.45**		**5.25**		**8.33**		**4.61**	
D/S		22-06-2023				16-09-2023		23-06-2023			
D/P		24-07-2023				27-10-2023		17-07-2023			
Local Check Name		WGL 32100				CO 52		CO 52			

Table No. 10a.2 (Contd).: Grain Yield (kg/ha) in AVT 2 – MS, Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN								Overall Mean (21)	
		Karnataka				Karnataka (2)		Zone VII (8)			
		Mandya		Malagi		Mean		Mean			
4701	30078	5064	4	3803	6	4434	6	5436	6	5283	6
4702	30083	5165	3	5063	1	5114	1 *	5923	1	5975	1 *
4703	30107	5269	1	4785	2	5027	2 *	5773	3	5755	2 *
4704	WGL-14 (NC-Medium Duration)	4409	9	4551	3	4480	5	5382	7	5327	5
4705	29492 (R)	4714	7	2968	9	3841	9	5303	8	5231	7
4706	BPT 5204 (NC-Late Duration)	5041	5	3645	8	4343	7	5571	5	5391	3
4707	29536 (R)	4947	6	4481	4	4714	3	5818	2	5384	4
4708	Zonal Check (ZC)	4711	8	3851	5	4281	8	4909	9	4640	9
4709	Local Check (LC)	5266	2	3715	7	4491	4	5694	4	5152	8
Exp. Mean		**4954**		**4096**		**4525**		**5534**		**5349**	
F Value		**2.79(p<0.0385)S**		**9.33(p<0.0001)S**		**6.87(p<0.0004)S**		**8.10(p<0.0001)S**		**50.94(p<0.0001)S**	
CD		**522**		605		411		302		142	
CV%		**6.08**		**8.53**		**5.25**		**3.15**		**1.53**	
D/S		07-07-2023		07-05-2023							
D/P		08-04-2023		30-07-2023							
Local Check Name		Thanu									

Table No. 10a.2 (Contd).: Grain Yield (kg/ha) in AVT 2 – MS, (Trial Not Considered) Kharif 2023

Entry No	IET No	Trials not considered											
		Odisha		Bihar		West Bengal		Uttar Pradesh		Tripura			
		@ICAR-NRRI (Cuttack)		@Pusa		@Chinsurah		@Masodha		@Arundhatinagar		@Lembucherra	
4701	30078	6930	3	4352	5	4778	1	3601	9	3303	4	3578	4
4702	30083	7690	2	5093	2	4296	6	4531	8	4177	1	5168	1
4703	30107	5690	5	3519	7	4481	4	6618	1	3953	3	3659	3
4704	WGL-14 (NC-Medium Duration)	7702	1	3056	8	4074	9	5281	5	3000	6	2962	6
4705	29492 (R)	4163	7	4352	5	4593	3	5357	4	2713	8	3147	5
4706	BPT 5204 (NC-Late Duration)	6422	4	2870	9	4704	2	5055	6	2637	9	5076	2
4707	29536 (R)	5314	6	5139	1	4333	5	6249	2	3967	2	1863	9
4708	Zonal Check (ZC)	3876	8	4676	3	4222	8	6099	3	2846	7	2807	7
4709	Local Check (LC)	3295	9	4630	4	4296	6	5011	7	3047	5	2103	8
Exp. Mean		**5676**		**4187**		**4420**		**5311**		**3294**		**3374**	
F Value		**3.55(p<0.0120)S**		**76.66(p<0.0001)S**		**1.39(p<0.2667)NS**		**60.15(p<0.0001)S**		**4.50(p<0.0039)S**		**22.24(p<0.0001)S**	
CD		2541		259		**NS**		321		750		662	
CV%		**25.87**		**3.58**		**7.21**		**3.49**		**13.16**		**11.33**	
D/S		25-06-2023		17-06-2023		07-06-2023		24-06-2023		30-06-2023		07-11-2023	
D/P		28-07-2023		14-07-2023		25-08-2023		08-01-2023		17-07-2023		08-02-2023	
Local Check Name		CR Dhan 910		Rajendra Sweta		SWARNA SHREYA		Sambha Mahsuri-Sub 1		Tripura Chikan Dhan (4709)		Hakuchuk-2	

Table No. 10a.2 (Contd).: Grain Yield (kg/ha) in AVT 2 – MS, (Trial Not Considered) Kharif 2023

Entry No	IET No	Trials not considered											
		Madhya Pradesh		Chattisgarh		Maharashtra 2		Kerala		Karnataka			
		@Jabalpur		@Raipur		@Radhanagari		@Pattambi		@Sirsi		@Mugad	
4701	30078	5627	9	6963	3	3498	4	8054	1	4556	3	5290	4
4702	30083	7283	8	7053	2	3070	8	7505	4	4933	1	4431	9
4703	30107	7597	7	8143	1	4087	3	7292	5	3511	7	5596	1
4704	WGL-14 (NC-Medium Duration)	8040	5	6621	8	3032	9	7270	6	3594	5	5014	5
4705	29492 (R)	8313	3	6887	4	4211	2	7156	9	2222	9	5374	3
4706	BPT 5204 (NC-Late Duration)	8897	1	5632	9	3386	5	7254	7	3422	8	4618	7
4707	29536 (R)	8097	4	6887	4	4555	1	7225	8	4367	4	5500	2
4708	Zonal Check (ZC)	7633	6	6770	6	3252	6	7714	2	4867	2	4560	8
4709	Local Check (LC)	8603	2	6659	7	3200	7	7508	3	3544	6	4737	6
Exp. Mean		**7788**		**6846**		**3588**		**7442**		**3891**		**5013**	
F Value		**39.46(p<0.0001)S**		**2.20(p<0.0769)NS**		**3.10(p<0.0213)S**		**1.40(p<0.2634)NS**		**7.56(p<0.0002)S**		**2.05(p<0.0974)NS**	
CD		410		**NS**		862		**NS**		1092		872	
CV%		**3.04**		**10.54**		**13.88**		**7.31**		**16.21**		**10.05**	
D/S		07-04-2023		07-10-2023		15-06-2023		07-11-2023		06-10-2023		07-10-2023	
D/P		26-07-2023		08-05-2023		21-07-2023		08-05-2023		07-06-2023			
Local Check Name		IR 64		Chhattisgarh Devbhog		Phule Radha		Red Mahsuri		Siri-1253		Siri-1253	

Table No. 10a.3 : Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 – MS, Kharif 2023

Entry No	IET No	ZONE III - EASTERN														
		Odisha									Odisha (3)			Bihar (1)		
		Bhubaneswar			Jeypore			Chiplima			Mean			Bikramganj		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4701	30078	121	115	378	110	85	302	126	109	25	119	103	235	133	104	403
4702	30083	113	114	347	114	83	344	113	116	25	113	104	239	111	105	403
4703	30107	106	95	338	113	74	313	109	109	24	109	93	225	108	107	374
4704	WGL-14 (NC-Medium Duration)	112	117	358	115	91	348	113	111	24	113	106	243	107	124	402
4705	29492 (R)	112	95	368	111	77	364	81	107	23	101	93	252	106	110	388
4706	BPT 5204 (NC-Late Duration)	115	86	333	109	73	393	117	98	22	114	85	249	110	125	385
4707	29536 (R)	113	114	336	113	89	354	109	123	26	112	109	239	99	125	384
4708	Zonal Check (ZC)	114	85	319	113	69	228	113	97	22	113	84	190	105	104	395
4709	Local Check (LC)	103	100	315	108	89	348	99	118	24	103	102	229	104	113	377
Exp. Mean		**112**	**102**	**344**	**112**	**81**	**333**	**109**	**110**	**24**	**111**	**98**	**233**	**109**	**113**	**390**

Table No. 10a.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 – MS, Kharif 2023

Entry No	IET No	ZONE III - EASTERN									ZONE IV - NORTH EASTERN					
		Jharrkhand (1)			Uttar Pradesh (1)			Zone III (6)			Assam					
		Ranchi			Varanasi			Mean			Titabar			Gerua		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4701	30078	132	82	220	129	108	190	125	100	253	141	115	372	125	105	254
4702	30083	113	94	224	112	121	245	113	105	265	123	119	330	111	122	253
4703	30107	116	72	185	113	102	214	111	93	241	117	115	358	106	111	260
4704	WGL-14 (NC-Medium Duration)	112	100	216	115	123	241	112	111	265	119	125	306	109	119	259
4705	29492 (R)	116	69	240	111	101	258	106	93	273	124	101	417	106	95	266
4706	BPT 5204 (NC-Late Duration)	126	63	183	116	98	269	116	90	264	127	101	367	113	95	269
4707	29536 (R)	107	88	171	99	117	208	107	109	247	112	128	328	103	128	263
4708	Zonal Check (ZC)	117	72	143	111	104	229	112	88	223	133	156	383	116	144	307
4709	Local Check (LC)	118	88	180	113	104	201	107	102	241	126	130	361	120	149	264
Exp. Mean		**118**	**81**	**196**	**113**	**109**	**228**	**112**	**99**	**252**	**125**	**121**	**358**	**112**	**119**	**266**

Table No. 10a.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 – MS, Kharif 2023

Entry No	IET No	ZONE IV - NORTH EASTERN						ZONE V- CENTRAL						ZONE VI - WESTERN		
		Assam (2)			Zone IV(2)			Maharashtra1 (1)			Zone V (1)			Maharashtra 2 (1)		
		Mean			Mean			Sindewahi			Mean			Karjat		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4701	30078	133	110	313	133	110	313	117	119	277	117	119	277	103	126	258
4702	30083	117	120	291	117	120	291	104	129	317	104	129	317	101	127	257
4703	30107	112	113	309	112	113	309	104	114	303	104	114	303	103	115	375
4704	WGL-14 (NC-Medium Duration)	114	122	283	114	122	283	103	123	275	103	123	275	100	123	290
4705	29492 (R)	115	98	342	115	98	342	102	101	346	102	101	346	103	114	258
4706	BPT 5204 (NC-Late Duration)	120	98	318	120	98	318	114	103	287	114	103	287	101	99	262
4707	29536 (R)	107	128	296	107	128	296	96	134	340	96	134	340	100	130	245
4708	Zonal Check (ZC)	124	150	345	124	150	345	105	101	433	105	101	433	108	115	285
4709	Local Check (LC)	123	140	313	123	140	313	102	130	239	102	130	239	103	125	310
Exp. Mean		**118**	**120**	**312**	**118**	**110**	**312**	**105**	**117**	**313**	**105**	**117**	**313**	**102**	**119**	**282**

Table No. 10a.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 – MS, Kharif 2023

Entry No	IET No	ZONE VI - WESTERN														
		Maharashtra (2)			Gujarat									Gujarat (3)		
		Mean			Navasari			Nawagam			Vyara			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4701	30078	110	123	267	122	115	269	103	131	277	118	119	225	114	122	257
4702	30083	103	128	287	103	124	271	110	127	284	109	117	303	107	123	286
4703	30107	103	115	339	107	108	271	107	112	286	100	110	242	105	110	266
4704	WGL-14 (NC-Medium Duration)	102	123	283	109	127	280	110	137	286	102	125	238	107	130	268
4705	29492 (R)	103	108	302	107	111	240	107	109	274	101	104	220	105	108	245
4706	BPT 5204 (NC-Late Duration)	108	101	274	112	113	302	111	107	289	106	95	271	110	105	287
4707	29536 (R)	98	132	293	99	130	279	105	125	280	99	121	209	101	126	256
4708	Zonal Check (ZC)	107	108	359	117	118	276	105	107	269	111	98	227	111	107	257
4709	Local Check (LC)	102	128	275	98	115	252	105	128	281	101	109	274	101	117	269
Exp. Mean		**104**	**118**	**298**	**108**	**118**	**271**	**107**	**120**	**281**	**105**	**111**	**245**	**107**	**116**	**266**

Table No. 10a.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 – MS, Kharif 2023

Entry No	IET No	Zone VI(4)			ZONE VII - SOUTHERN											
					Andhra Pradesh						Andhra Pradesh (2)			Telangana		
		Mean			Maruteru			Bapatla			Mean			Rajendranagar		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4701	30078	112	123	257	121	123	275	106	121	317	113	122	296	115	95	544
4702	30083	106	124	279	108	131	286	96	120	302	102	125	294	116	99	522
4703	30107	104	111	293	96	106	275	98	118	229	97	112	252	110	90	544
4704	WGL-14 (NC-Medium Duration)	105	128	273	107	121	319	99	130	264	103	125	292	114	94	522
4705	29492 (R)	105	110	248	108	114	297	97	106	300	103	110	298	113	82	656
4706	BPT 5204 (NC-Late Duration)	108	104	281	113	118	297	105	97	374	109	108	335	116	72	678
4707	29536 (R)	101	127	253	107	126	297	96	133	280	101	129	288	119	106	600
4708	Zonal Check (ZC)	110	109	264	107	120	297	97	121	278	102	121	288	116	96	578
4709	Local Check (LC)	102	119	279	110	107	308	108	108	310	109	107	309	113	93	567
Exp. Mean		**106**	**117**	**270**	**109**	**118**	**295**	**100**	**117**	**295**	**104**	**118**	**295**	**115**	**92**	**579**

Table No. __(Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 – MS, Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN														
		Telangana			Telangana (2)			Tamilnadu						Tamilnadu (2)		
		Warangal			Mean			Aduthurai			Coimbatore			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4701	30078	123	117	341	119	106	443	101	105	538	115	113	301	108	109	420
4702	30083	110	131	310	113	115	416	104	100	530	103	104	338	103	102	434
4703	30107	105	116	320	107	103	432	106	82	538	107	103	258	107	93	398
4704	WGL-14 (NC-Medium Duration)	106	126	304	110	110	413	105	95	533	108	109	303	106	102	418
4705	29492 (R)	106	113	312	110	97	484	102	85	507	105	85	274	104	85	391
4706	BPT 5204 (NC-Late Duration)	116	103	366	116	88	522	105	83	630	112	94	194	109	88	412
4707	29536 (R)	102	143	340	111	124	470	106	95	547	97	116	340	101	106	443
4708	Zonal Check (ZC)	107	123	337	111	110	457	105	101	478	108	110	266	107	106	372
4709	Local Check (LC)	106	121	370	110	107	468	105	97	507	106	117	356	105	107	431
Exp. Mean		**109**	**121**	**333**	**112**	**107**	**456**	**104**	**94**	**534**	**107**	**106**	**292**	**105**	**100**	**413**

Table No. 10a.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 – MS, Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN												Overall Mean (21)		
		Karnataka						Karnataka (2)			Zone VII (8)					
		Mandya			Malagi			Mean			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4701	30078	116	93	340	116	58	103	116	76	221	114	103	345	119	107	296
4702	30083	106	84	363	102	69	118	104	76	240	106	105	346	109	111	303
4703	30107	113	81	340	100	65	137	107	73	238	104	95	330	107	100	294
4704	WGL-14 (NC-Medium Duration)	114	96	340	106	63	106	110	80	223	107	104	336	109	113	296
4705	29492 (R)	106	75	329	118	57	131	112	66	230	107	90	351	107	96	308
4706	BPT 5204 (NC-Late Duration)	112	74	408	103	49	102	108	61	255	110	86	381	112	93	318
4707	29536 (R)	104	89	385	98	57	129	101	73	257	104	108	365	104	115	302
4708	Zonal Check (ZC)	111	83	363	114	55	100	113	69	231	108	101	337	111	104	296
4709	Local Check (LC)	104	103	374	105	57	146	105	80	260	107	100	367	107	110	303
Exp. Mean		**110**	**86**	**360**	**107**	**59**	**119**	**108**	**73**	**240**	**107**	**99**	**351**	**109**	105	**302**

Table No. 10a.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 – MS, (Trial Not Considered), Kharif 2023

Entry No	IET No	Trials not considered														
		Odisha			Bihar			West Bengal			Uttar Pradesh			Tripura		
		@ICAR-NRRI (Cuttack)			@Pusa			@Chinsurah			@Masodha			@Arundhatinagar		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4701	30078	67	126	363	103	100	238	91	109	235	122	79	217	84	114	233
4702	30083	54	118	368	102	116	265	76	84	222	120	82	245	100	115	304
4703	30107	50	116	372	102	112	263	75	105	241	106	86	295	105	111	313
4704	WGL-14 (NC-Medium Duration)	56	126	405	96	99	269	83	98	211	101	96	265	102	124	259
4705	29492 (R)	56	98	567	101	100	262	76	101	246	105	69	264	103	97	219
4706	BPT 5204 (NC-Late Duration)	66	107	473	97	83	249	83	98	235	94	82	256	96	84	217
4707	29536 (R)	48	125	380	99	116	244	76	93	231	97	110	291	88	102	273
4708	Zonal Check (ZC)	56	107	397	103	97	272	82	85	226	98	96	274	80	104	249
4709	Local Check (LC)	48	148	440	98	100	250	68	102	229	113	82	255	110	155	240
Exp. Mean		**55**	**119**	**418**	**100**	**103**	**257**	**79**	**97**	**231**	**106**	**87**	**262**	**96**	**112**	**256**

Table No. 10a.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 – MS, (Trial Not Considered), Kharif 2023

Entry No	IET No	Trials not considered																	
		Tripura			Madhya Pradesh(0)			Chattisgarh (0)			Maharashtra 2			Kerala			Karnataka		
		@Lembucherra			@Jabalpur			@Raipur			@Radhanagari			@Pattambi			@Mugad		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4701	30078	87	108	275	119	76	208	112	104	206	115	90	205	99	88	479	103	62	218
4702	30083	102	123	250	112	99	241	105	111	214	104	97	235	95	91	484	102	49	191
4703	30107	85	104	292	100	81	215	100	103	210	106	83	262	94	92	505	103	50	220
4704	WGL-14 (NC-Medium Duration)	83	102	292	99	89	223	103	107	224	104	100	272	98	92	422	102	64	219
4705	29492 (R)	86	93	317	111	71	303	101	95	208	102	86	253	98	97	438	100	47	219
4706	BPT 5204 (NC-Late Duration)	88	99	342	109	65	294	106	82	211	114	80	221	100	97	492	106	48	221
4707	29536 (R)	88	107	275	96	94	265	97	115	207	103	101	251	95	95	437	98	58	204
4708	Zonal Check (ZC)	101	105	233	109	70	267	104	105	207	114	96	222	97	89	453	103	46	228
4709	Local Check (LC)	88	115	283	126	87	242	104	85	213	90	96	220	96	90	431	101	56	229
Exp. Mean		**90**	**106**	**284**	**109**	**81**	**251**	**104**	**101**	**211**	**106**	**92**	**238**	**97**	**92**	**460**	**102**	**53**	**217**

Table No. 10a.4 : Grain quality characteristics of entries in AVT 2-MS, kharif 2023

Entry No.	Designation/IET No.	Hull	Mill	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
4701	30078	78.9	71.8	68.7	5.47	2.11	2.59	MS	A	7.0	27.60	33
4702	30083	80.2	72.5	64.5	5.30	1.99	2.66	MS	VOC	7.0	25.75	52
4703	30107	81.1	71.6	58.1	4.96	1.83	2.71	MS	A	4.0	24.64	22
4704	WGL 14 (NC)	79.3	70.2	63.0	5.22	1.91	2.73	MS	A	4.0	25.55	22
4705	29492	77.7	69.6	55.3	5.24	1.88	2.78	MS	A	7.0	24.31	22
4706	BPT 5204 (NC)	78.6	71.6	63.7	5.01	1.78	2.81	MS	A	4.0	24.55	22
4707	29536	78.7	69.9	56.8	5.41	2.02	2.67	MS	VOC	7.0	28.33	38
4708	ADT 49	76.6	68.9	64.8	5.00	1.85	2.70	MS	A	4.0	24.43	22
4709	Local Check	77.3	68.3	63.0	5.43	2.08	2.61	MS	VOC	4.0	27.01	22

HULL: Hulling (%); MILL: Milling (%); HRR: Head Rice Recovery (%); KL: Kernel Length(mm); KB: Kernel Breadth(mm); L/B: Length and breadth ratio; Grain Chalk: Grain Chalkiness; VOC: Very occasionally present; A: Absent ASV: Alkali Spreading Value; AC: Amylose Content (%); GC: Gel Consistency; LB: Long Bold; SB:Short Bold; LS: Long Slender; MS: Medium Slender; SS: Short Slender.

Table No.10b.1 : Composition of entries in Advance Variety Trial 1 – Medium Slender Grain (AVT 1 – MS), Kharif 2023.

Entry No.	IET No.	Designation	Cross Combination	GT	Zones	Trait
2nd year of testing:						
4801	30978	BPT 3284	BPT 2270 / BPT 2605	MS		
4802	30969	CR 3741-1-1-2-1-1-2	Pooja / Surendra	MS		
4803	30966	RP 6686-CGR 22	Samba Mahsuri / *Oryza rufipogon* 38-5	MS		
4804	30959	JGL 38105	CN 1757-5-3-7 / MTU 1075	MS		
4805	**Telangana Sona (National Early Duration)**					
4806	30949	NWGR 17123	GAR-13 / IET-2006 / 1-1-1-1-1-4-1	SS		
4807	31001	NVSR 934	NAUR-1 / Danteshwari			
4808	31002	RP Bio 4918-NPS 58-1-2	Swarna / O.nivara	MS		
4809	**WGL 14 (National – Medium Duration)**					
4810	30958	Pusa 2070-22-1	BPT 5204 / Swarna	MS		
4811	30957	CR 4375-1-4-1-1-2-2	CR 3522-1-2-1-1-1-1-2 / CR 3497-7-1-3-2-2-1	MS		
4812	30989	WGL 1367	WGL 32100 / NR 6226	MS		
4813	30981	NWGR 17111	GAR-13 / Yamini / 2-1-1-1-1-1-1	MS		
4814	**Improved Samba Mahsuri (Eastern & Central), Ketekijoha (North Eastern), Karjat-6 (Western), ADT 49 (Southern) – Zonal**					
4815	30961	CR 4425-1-1-3-1-1	CR 3969-24-1-2-1-1-1 / CB 09 123	MS		
4816	30623	***RALLIS-20609***	***Hybrid***	MS		
4817	29019	***KAVERI-7623***	***Hybrid***	MS		
4818	30629	***CRHR-168***	***Hybrid***	MS		
4819	**27P63 (HC)**					
4820	28184	***TNTRH-99***	***Hybrid***	MS		
4821	30622	***HRI-215***	***Hybrid***	MS		
1st year of testing (NIL):						
4822	32072	RP 6764-BGIR-7-26-3	Genome edited line of Samba Mahsuri (BPT 5204)	MS	III, V, VII	Yield
4823	**BPT 5204 (National Late Duration) and RP**					
4824	32073	RP 6765-RAF 999-41	MTU 1121*2 / Isogenic line of Akshyadhan		VII	BB+Bl
4825	32074	RP 6765-RAF 1012-30	MTU 1121*2 / Isogenic line of Akshyadhan		VII	BB+Bl
4826	**MTU 1121 (RP)**				VII	-
4827	**Local Check (LC)**					

Table No. 10b.2 : Grain Yield (kg/ha) in AVT 1 – MS, Zone 3, Kharif 2023

Entry No	IET No	ZONE III - EASTERN							
		Odisha				Odisha (2)		Bihar (1)	
		Bhubaneswar		Jeypore		Mean		Bikramganj	
4805	Telangana Sona (National Early Duration)	5351	10	2469		3910		5599	7 #
4808	31002	5165		3557		4361		6470	2 #
4809	WGL 14 (National – Medium Duration)	5180		4861	8	5021	9	5411	8
4811	30957	6761	1	4681	9	5721	2	6372	4 #
4812	30989	5044		5074	5	5059	7	3964	
4814	Zonal Check (ZC)	4681		5049	7	4865		6253	5 #
4815	30961	5727	5	5132	3	5430	4	7274	1 * #
4816	30623	5662	8	5145	2	5404	5	6050	6 #
4817	29019	5670	7	4417		5044	8	4685	
4818	30629	5678	6	5067	6	5373	6	4774	
4819	27P63 (HC)	5858	4	5194	1	5526	3	4795	
4822	32072	5866	3	2557		4212		5298	9
4823	BPT 5204 (National Late Duration) and RP	5433	9	4433	10	4933	10	6470	2 #
4827	Local Check (LC)	6377	2	5092	4	5735	1	4946	10
Exp. Mean		**5604**		**4481**		**5042**		**5597**	
F Value		**3.16(p<0.0049)S**		**29.83(p<0.0001)S**		**10.63(p<0.0001)S**		**15.66(p<0.0001)S**	
CD		824		468		464		640	
CV%		**8.76**		**6.23**		**5.48**		**6.82**	
D/S		04-07-2023		10-07-2023				01-07-2023	
D/P		14-08-2023		10-08-2023				28-07-2023	
Local Check Name		Pratikshya		Kalinga Dhan 1203				R. Sweta	

Table No. 10b.2 (Contd).: Grain Yield (kg/ha) in AVT 1 – MS, Zone 3, Kharif 2023

Entry No	IET No	ZONE III - EASTERN							
		Jharkhand (1)		West Bengal (1)		Uttar Pradesh (1)		Zone III (6)	
		Ranchi		Chinsurah		Varanasi		Mean	
4805	Telangana Sona (National Early Duration)	3656		3796		4368	10	4207	
4808	31002	5731	2 #	3907	9	4037		4811	9
4809	WGL 14 (National – Medium Duration)	3434		4148	6	4920	8	4659	10
4811	30957	3236		5074	3 *	5833	5	5326	4
4812	30989	2742		4648	4	5643	6	4519	
4814	Zonal Check (ZC)	3730	10	3426		4232		4562	
4815	30961	4891	6	4222	5	4711	9	5326	4
4816	30623	6028	1 #	3926	8	6345	3 *	5526	1 *
4817	29019	5040	5 #	6185	1 * #	6795	2 *	5465	3 *
4818	30629	4867	7	3889	10	5950	4 *	5038	7
4819	27P63 (HC)	4323	9	5407	2 *	7526	1 *	5517	2 *
4822	32072	4620	8	3815		4013		4362	
4823	BPT 5204 (National Late Duration) and RP	5380	4 #	3296		5099	7	5019	8
4827	Local Check (LC)	5621	3 #	4037	7	4353		5071	6
Exp. Mean		**4521**		**4270**		**5273**		**4958**	
F Value		**21.46(p<0.0001)S**		**12.65(p<0.0001)S**		**13.95(p<0.0001)S**		**17.49(p<0.0001)S**	
CD		604		614		803		289	
CV%		**7.96**		**8.56**		**9.07**		**3.47**	
D/S		29-06-2023		06-07-2023		01-07-2023			
D/P		20-07-2023		23-08-2023		23-07-2023			
Local Check Name				SWARNA SHREYA		HUR-917			

Table No. 10b.2 (Contd).: Grain Yield (kg/ha) in AVT 1 – MS, (Trial Not Considered) Zone 3, Kharif 2023

Entry No	IET No	Trials not considered					
		Odisha		Bihar		Uttar Pradesh	
		@ICAR-NRRI (Cuttack)		@Pusa		@Masodha	
4805	Telangana Sona (National Early Duration)	5788	1	4575	1	5158	9
4808	31002	5460	3	4150	4	4056	
4809	WGL 14 (National – Medium Duration)	4732	10	4052	6	3895	
4811	30957	4899	8	3954		5371	7
4812	30989	4717		4248	2	6249	3
4814	Zonal Check (ZC)	5086	6	4020	8	5237	8
4815	30961	5197	5	3987	10	4986	10
4816	30623	4970	7	4216	3	6094	4
4817	29019	5333	4	4118	5	6590	1
4818	30629	4384		4052	6	4536	
4819	27P63 (HC)	4475		4020	8	6476	2
4822	32072	4869	9	3039		5518	5
4823	BPT 5204 (National Late Duration) and RP	4015		3039		4479	
4827	Local Check (LC)	5692	2	3889		5472	6
Exp. Mean		**4973**		**3954**		**5294**	
F Value		**1.18(p<0.3427)NS**		**43.85(p<0.0001)S**		**141.30(p<0.0001)S**	
CD		1255		172		196	
CV%		**15.04**		**2.6**		**2.2**	
D/S		04-07-2023		04-07-2023		02--07-2023	
D/P		08-08-2023		26-07-2023		03-08-2023	
Local Check Name		CR DHAN 327		Rajendra Sweta		Sambha Mahsuri-Sub 1	

Table No. 10b.2 (Contd) :Grain Yield (kg/ha) in AVT 1 – MS, Zone 4, Kharif 2023

Entry No	IET No	ZONE IV - NORTH EASTERN									
		Assam				Assam (2)		Tripura (1)		Zone IV (3)	
		Titabar		Gerua-ICAR		Mean		Lembucherra		Mean	
4803	30966	5329	8	3861		4595		4942	9	4711	10
4805	Telangana Sona (National Early Duration)	4976	10	4252	10	4614		4542		4590	
4807	31001	4504		5121	6	4813	8	5808	5 *	5144	9 *
4808	31002	4857		4474	8	4666	10	3842		4391	
4809	WGL 14 (National – Medium Duration)	4098		4157		4128		4850		4368	
4811	30957	6679	1	5436	4	6058	1 *	6383	4 *	6166	2 *
4812	30989	5488	5	6447	1	5968	4 *	5067	8	5667	4 *
4814	Zonal Check (ZC)	4642		3004		3823		3742		3796	
4815	30961	5101	9	5326	5	5214	6	5608	6	5345	6 *
4816	30623	6311	3	5633	3	5972	3 *	4942	9	5629	5 *
4817	29019	5353	7	4394	9	4874	7	7333	1 *	5693	3 *
4819	27P63 (HC)	6346	2	5715	2	6031	2 *	7217	2 *	6426	1 *
4820	28184	5457	6	3917		4687	9	6650	3 *	5341	7 *
4821	30622	5584	4	5058	7	5321	5	5117	7	5253	8 *
4823	BPT 5204 (National Late Duration) and RP	4844		4120		4482		3858		4274	
4827	Local Check (LC)	4929		2039		3484		3883		3617	
Exp. Mean		**5281**		**4560**		**4920**		**5236**		**5026**	
F Value		**3.93(p<0.0005)S**		**6.09(p<0.0001)S**		**7.65(p<0.0001)S**		**4.97(p<0.0001)S**		**18.29(p<0.0001)S**	
CD		984		1255		810		842		519	
CV%		**11.18**		**16.51**		**9.87**		**9.64**		**6.19**	
D/S		22-06-2023		12-07-2023				20-07-2023			
D/P		18-07-2023		08-08-2023				10-08-2023			
Local Check Name		Ranjit Sub 1		Keteki Joha				Hakuchuk-2			

Table No. 10b.2 (Contd) Grain Yield (kg/ha) in AVT 1 – MS, Zone 5, Kharif 2023

Entry No	IET No	ZONE V-CENTRAL					
		Chattisgarh (1)		Maharashtra (1)		Zone V (2)	
		Raipur		Sindhewhi		Mean	
4804	30959	4590	#	3928	10	4259	9
4805	National Early Duration	4121	#	3606		3864	
4808	3102	4429	#	4083	6	4256	10
4809	National Medium Duration	4651	10 #	3950	9	4301	8
4811	30957	5551	1 #	4059	8	4805	4 #
4812	30989	4722	9 #	3723		4223	
4814	ZC	5247	3 #	4171	5	4709	5 #
4815	30961	4970	7 #	3712		4341	7
4816	30623	5462	2 #	4918	2	5190	2 #
4817	29019	5218	4 #	4525	4	4872	3 #
4819	HC	3599		4534	3	4067	
4822	32072	5056	5 #	1967		3512	
4823	RP	5042	6 #	5584	1 * #	5313	1 * #
4827	LC	4848	8 #	4081	7	4465	6
Exp. Mean		**4822**		**4060**		**4441**	
F Value		**9.69(p<0.0001)S**		**6.67(p<0.0001)S**		**6.16(p<0.0001)S**	
CD		461		845		541	
CV%		**5.7**		**12.4**		**7.26**	
D/S		10-07-2023		29-06-2023			
D/P		05-08-2023		26-07-2023			
Local Check Name		Chhattisgarh Devbhog		PDKV-KISAN			

Table No. 10b.2 (Contd).:Grain Yield (kg/ha) in AVT 1 – MS, (Trial Not Considered) Zone 5, Kharif 2023

Entry No	IET No	Trial not considered	
		Madhya Pradesh (0)	
		Jabalpur	
4804	30959	8940	4
4805	National Early Duration	9337	2
4808	3102	7530	9
4809	National Medium Duration	4013	
4811	30957	9530	1
4812	30989	8923	5
4814	ZC	9023	3
4815	30961	8423	7
4816	30623	7133	10
4817	29019	5147	
4819	HC	6393	
4822	32072	8303	8
4823	RP	4180	
4827	LC	8463	6
Exp. Mean		**7524**	
F Value		**156.37(p<0.0001)S**	
CD		409	
CV%		**3.24**	
D/S		04-07-2023	
D/P		26-07-2023	
Local Check Name		IR 64	

Table No. 10b.2 (Contd) : Grain Yield (kg/ha) in AVT 1 – MS, Zone 6, Kharif 2023

Entry No	IET No	ZONE VI -WESTERN									
		Maharashtra				Maharashtra (2)		Gujarat			
		Karjat		Shirgaon		Mean		Navasari		Nawagam	
4801	30978	3863		4640	5	4252		5162	5	5985	
4802	30969	4475	7	4372	7	4424	5	4611		5485	
4804	30959	4141		4391	6	4266	9	3625		8558	6
4805	Telangana Sona (National Early Duration)	5329	1	4062		4696	3 #	3687		7975	9
4806	30949	3807		4194		4001		5010	7	8819	5
4808	31002	5108	2	3560		4334	7	4901		7913	10
4809	WGL 14 (National – Medium Duration)	3637		4162		3900		4041		8077	8
4810	30958	4743	4	3786		4265	10	4731		8968	4
4811	30957	3771		4739	4	4255		5661	3	7285	
4812	30989	4403	8	4212	10	4308	8	5229	4	9311	2
4813	30981	4048		4073		4061		5750	1	7413	
4814	Zonal Check (ZC)	4275	10	3485		3880		3680		5821	
4815	30961	3904		4343	8	4124		4985	8	7507	
4816	30623	4321	9	4804	2	4563	4	5026	6	7417	
4817	29019	4727	6	4747	3	4737	2 #	4980	9	9108	3
4819	27P63 (HC)	3909		4306	9	4108		5730	2	9831	1
4823	BPT 5204 (National Late Duration) and RP	4743	4	4059		4401	6	4786		5046	
4827	Local Check (LC)	4846	3	5070	1	4958	1 #	4911	10	8350	7
Exp. Mean		**4336**		**4278**		**4307**		**4806**		**7715**	
F Value		**3.59(p<0.0006)S**		**2.80(p<0.0043)S**		**3.24(p<0.0014)S**		**4.18(p<0.0001)S**		**21.87(p<0.0001)S**	
CD		746		721		479		892		800	
CV%		**10.36**		**10.15**		**6.7**		**11.19**		**6.25**	
D/S		27-06-2023		27-06-2023				03-07-2023		07-04-2023	
D/P		21-07-2023		20-07-2023				31-07-2023		08-05-2023	
Local Check Name		Karjat-9		Ratnagiri 6				GNR-7		GAR 13	

Table No. 10b.2 (Contd).: Grain Yield (kg/ha) in AVT 1 – MS, Zone 6, Kharif 2023

Entry No	IET No	ZONE VI -WESTERN							
		Gujarat				Gujarat (4)		Zone VI (6)	
		Dhaboi		Vyara		Mean		Mean	
4801	30978	5359	3	4985		5373		4999	
4802	30969	4542		4947		4896		4739	
4804	30959	4150		5902	3	5559	10	5128	10
4805	Telangana Sona (National Early Duration)	5163	7	4342		5292		5093	
4806	30949	5359	3	5336	7	6131	6	5421	7
4808	31002	4101		5024	10	5485		5101	
4809	WGL 14 (National – Medium Duration)	4771		4932		5455		4937	
4810	30958	5523	2	5463	6	6171	4	5536	6
4811	30957	4837		4938		5680	9	5205	9
4812	30989	5294	6	5151	9	6246	2	5600	4
4813	30981	5065	8	5212	8	5860	8	5260	8
4814	Zonal Check (ZC)	4902	9	3626		4507		4298	
4815	30961	3529		4446		5117		4786	
4816	30623	4902	9	6754	1	6025	7	5537	5
4817	29019	4804		5737	4	6157	5	5684	3
4819	27P63 (HC)	5327	5	6219	2	6777	1 *	5887	1
4823	BPT 5204 (National Late Duration) and RP	4592		3700		4531		4488	
4827	Local Check (LC)	5882	1	5681	5	6206	3	5790	2
Exp. Mean		**4895**		**5133**		**5637**		**5194**	
F Value		**9.05(p<0.0001)S**		**3.61(p<0.0001)S**		**20.94(p<0.0001)S**		**18.05(p<0.0001)S**	
CD		526		1214		370		284	
CV%		**6.47**		**14.26**		**3.95**		**3.3**	
D/S		26-06-2023		03-07-2023					
D/P		25-07-2023		26-07-2023					
Local Check Name		GAR 13		GNR-7					

Table No. 10b.2 (Contd).: Grain Yield (kg/ha) in AVT 1 – MS, (Trial Not Considered), Zone 6, Kharif 2023

Entry No	IET No	Trial not considered	
		Maharashtra	
		@Radhanagari	
4801	30978	2895	
4802	30969	2215	
4804	30959	4575	1
4805	Telangana Sona (National Early Duration)	3164	8
4806	30949	4028	3
4808	31002	1669	
4809	WGL 14 (National – Medium Duration)	3104	9
4810	30958	2264	
4811	30957	1880	
4812	30989	4027	4
4813	30981	3005	10
4814	Zonal Check (ZC)	2721	
4815	30961	3706	5
4816	30623	3701	6
4817	29019	4130	2
4819	27P63 (HC)	3215	7
4823	BPT 5204 (National Late Duration) and RP	1985	
4827	Local Check (LC)	2549	
Exp. Mean		**3046**	
F Value		**12.01(p<0.0001)S**	
CD		673	
CV%		**13.32**	
D/S		26-06-2023	
D/P		23-07-2023	
Local Check Name		Phule Radha	

Table No. 10b.2 : Grain Yield (kg/ha) in AVT 1 – MS, Zone 7, Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN													
		Andhra Pradesh				Andhra Pradesh (2)			Telangana				Telangana (2)		
		Maruteru		Bapatla		Mean			Rajendranagar		Warangal		Mean		
4805	Telangana Sona (National Early Duration)	4198		3410		3804			4276		5612		4944		
4808	31002	5741	9	5147	1	5444	2	#	4970	9	6820	4	5895	6	#
4809	WGL 14 (National – Medium Duration)	6117	5	4319	7	5218	8		4989	8	4154		4572		
4811	30957	5595		4940	3	5268	4	#	4744	10	5859	8	5302	9	
4812	30989	6055	7	3190		4623			5072	7	6964	2	6018	4	#
4814	Zonal Check (ZC)	3925		2729		3327			3509		4787		4148		
4815	30961	6364	4	4100	9	5232	7		4340		6663	5	5502	8	
4816	30623	6459	3	2979		4719			6327	3	6945	3	6636	2	#
4817	29019	6077	6	5117	2	5597	1	#	6891	2 #	7037	1	6964	1 *	#
4819	27P63 (HC)	6027	8	3380		4704			6110	4	3823		4967		
4822	32072	6756	1	4113	8	5435	3	#	4068		5638	9	4853		
4823	BPT 5204 (National Late Duration) and RP	6470	2	4050	10	5260	5	#	4697		5329		5013	10	
4824	32073	3381		3482		3432			5646	5	6296	6	5971	5	#
4825	32074	5039		4521	6	4780	10		5161	6	5969	7	5565	7	#
4826	MTU 1121 (RP)	5687	10	4803	4	5245	6	#	4026		4358		4192		
4827	Local Check (LC)	5511		4567	5	5039	9		7073	1 #	5626	10	6350	3	#
Exp. Mean		**5588**		**4053**		**4820**			**5119**		**5743**		**5431**		
F Value		**9.36(p<0.0001)S**		**9.10(p<0.0001)S**		**12.75(p<0.0001)S**			**13.54(p<0.0001)S**		**13.23(p<0.0001)S**		**14.57(p<0.0001)S**		
CD		880		727		540			771		785		593		
CV%		**9.45**		**10.75**		**6.72**			**9.03**		**8.2**		**6.55**		
D/S		15-07-2023		02-08-2023					27-06-2023		22-06-2023				
D/P		24-08-2023		26-08-2023					02-08-2023		24-07-2023				
Local Check Name		MTU 1224		BPT 2782					RNR 11718		WGL 32100				

Table No. 10b.2___(Contd).: Grain Yield (kg/ha) in AVT 1 – MS, Zone 7, Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN									
		Tamil Nadu				Tamil Nadu (2)		Karnataka			
		Aduthurai		Coimbatore		Mean		Mandya		Sirsi	
4805	Telangana Sona (National Early Duration)	4188		3780		3984		3615		3644	
4808	31002	5042	4	4655		4849		3897		2544	
4809	WGL 14 (National – Medium Duration)	4244		5405	9	4825		4003		3511	
4811	30957	4482	9	6600	7	5541	7	5319	7	4633	5
4812	30989	4286		7610	2	5948	3	5457	6	3878	10
4814	Zonal Check (ZC)	4790	7	5575	8	5183	8	4846		3667	
4815	30961	4384	10	6938	5	5661	5	5734	3	5233	1
4816	30623	4230		7053	4	5642	6	5723	4	4933	3
4817	29019	4790	7	7220	3	6005	2	5976	2	4067	8
4819	27P63 (HC)	4958	6	7736	1	6347	1	6547	1	5178	2
4822	32072	5246	2	4745		4996	10	4787		3644	
4823	BPT 5204 (National Late Duration) and RP	5042	4	4666		4854		4205		3100	
4824	32073	4132		4735		4434		5226	9	4328	7
4825	32074	5546	1	4800		5173	9	5603	5	4367	6
4826	MTU 1121 (RP)	4342		5135	10	4739		4992	10	4678	4
4827	Local Check (LC)	5064	3	6751	6	5908	4	5276	8	4000	9
Exp. Mean		**4673**		**5838**		**5255**		**5075**		**4088**	
F Value		**2.59(p<0.0111)S**		**5.79(p<0.0001)S**		**5.15(p<0.0001)S**		**23.75(p<0.0001)S**		**14.20(p<0.0001)S**	
CD		747		1447		776		455		538	
CV%		**9.59**		**14.86**		**8.86**		**5.38**		**7.89**	
D/S		16-09-2023		28-06-2023				07-07-2023		27-06-2023	
D/P		25-10-2023		25-07-2023				04-08-2023		20-07-2023	
Local Check Name		CO 52		CO 52				Thanu			

Table No. 10b.2 (Contd).: Grain Yield (kg/ha) in AVT 1 – MS, Zone 7, Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN									
		Karnataka				Karnataka (4)		Puducherry (1)		Zone VII (11)	
		Mugad		Malag		Mean		Kurumbapet		Mean	
4805	Telangana Sona (National Early Duration)	5196		6310		4691		6458	4 #	4608	
4808	31002	4322		7488	10	4563		5052	10.5	5062	
4809	WGL 14 (National – Medium Duration)	5315		7476		5076		6479	3 #	5092	
4811	30957	7237	3	7637	9	6207	6 *	4842		5626	5
4812	30989	4139		8657	6	5533	9	5073	9	5489	6
4814	Zonal Check (ZC)	4229		6977		4930		7185	2 #	4747	
4815	30961	7067	4	8765	5	6700	3 *	7407	1 #	6090	2 *
4816	30623	6465	5	8954	2	6519	4 *	4569		5876	4 *
4817	29019	7959	2	8850	4	6713	2 *	5619	6	6328	1 * #
4819	27P63 (HC)	8096	1	8867	3	7172	1 *	5052	10	5979	3 *
4822	32072	6141	8	6927		5375	10	5304	8	5215	10
4823	BPT 5204 (National Late Duration) and RP	6229	6	7089		5156		4044		4993	
4824	32073	5764	9	9612	1	6233	5 *	4065		5152	
4825	32074	5482	10	8577	7	6007	7 *	4107		5379	8
4826	MTU 1121 (RP)	5304		7854	8	5707	8 *	6458	4.5 #	5240	9
4827	Local Check (LC)	6214	7	4275		4941		5309	7	5424	7
Exp. Mean		**5948**		**7770**		**5720**		**5439**		**5394**	
F Value		**4.59(p<0.0001)S**		**24.08(p<0.0001)S**		**29.69(p<0.0001)S**		**8.05(p<0.0001)S**		**25.21(p<0.0001)S**	
CD		1585		727		403		1053		262	
CV%		**15.98**		**5.61**		**4.23**		**11.62**		**2.91**	
D/S		12-07-2023		05-07-2023				03-10-2023			
D/P				30-07-2023				06-11-2023			
Local Check Name		Siri-1253		Siri-1253				ADT (R) 53			

Table No. 10b.3 : Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – MS, Zone -3, Kharif 2023

Entry No	IET No	ZONE III - EASTERN											
		Odisha						Odisha (2)			Bihar (1)		
		Bhubaneswar			Jeypore			Mean			Bikramganj		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4805	Telangana Sona (National Early Duration)	104	107	231	105	73	319	105	90	275	115	128	380
4808	31002	104	85	270	113	68	335	109	76	302	105	106	391
4809	WGL 14 (National – Medium Duration)	106	106	232	116	81	395	111	93	314	107	126	377
4811	30957	105	100	246	113	74	347	109	87	296	105	118	387
4812	30989	104	108	204	112	89	308	108	99	256	98	124	364
4814	Zonal Check (ZC)	105	87	193	113	68	342	109	77	267	107	99	416
4815	30961	107	105	242	123	80	296	115	92	269	105	124	411
4816	30623	101	101	209	110	80	362	105	91	285	96	117	434
4817	29019	99	109	228	113	75	337	106	92	282	97	124	406
4818	30629	105	110	216	123	87	357	114	99	286	103	113	393
4819	27P63 (HC)	105	100	235	113	79	433	109	90	334	100	122	390
4822	32072	100	97	222	108	72	316	104	85	269	116	109	378
4823	BPT 5204 (National Late Duration) and RP	114	85	316	112	69	319	113	77	317	110	97	373
4827	Local Check (LC)	111	100	278	109	86	330	110	93	304	107	129	365
Exp. Mean		**105**	**100**	**237**	**113**	**77**	**343**	**109**	**89**	**290**	**105**	**117**	**390**

Table No. 10b.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – MS, Zone -3,
Kharif 2023

Entry No	IET No	ZONE III - EASTERN											
		Jharkhand (1)			West Bengal (1)			Uttar Pradesh (1)			Zone III (6)		
		Ranchi			Chinsurah			Varanasi			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4805	Telangana Sona (National Early Duration)	110	110	180	63	100	229	110	103	183	101	104	254
4808	31002	102	88	224	71	91	238	114	84	166	101	87	271
4809	WGL 14 (National – Medium Duration)	103	102	200	71	110	229	109	100	167	102	104	267
4811	30957	103	96	167	66	106	229	103	96	181	99	98	260
4812	30989	97	107	157	63	106	150	99	110	142	96	107	221
4814	Zonal Check (ZC)	104	83	224	72	84	224	112	82	184	102	84	264
4815	30961	104	103	200	71	103	244	111	93	153	103	101	258
4816	30623	100	97	201	63	94	224	102	97	161	95	98	265
4817	29019	99	101	137	64	97	222	101	100	183	95	101	252
4818	30629	96	95	201	68	102	231	100	96	164	99	100	260
4819	27P63 (HC)	102	98	192	65	97	233	105	101	187	98	100	278
4822	32072	118	91	137	63	98	224	116	83	114	104	92	232
4823	BPT 5204 (National Late Duration) and RP	110	79	251	76	84	229	121	79	191	107	82	280
4827	Local Check (LC)	110	95	238	64	108	253	115	80	187	103	100	275
Exp. Mean		**104**	**96**	**193**	**67**	**99**	**226**	**108**	**93**	**169**	**100**	**97**	**260**

Table No. 10b.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – MS, (Trial Not Considered), Zone -3, Kharif 2023

Entry No	IET No	Trials not considered								
		Odisha			Bihar			Uttar Pradesh		
		@ICAR-NRRI (Cuttack)			@Pusa			@Masodha		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4805	Telangana Sona (National Early Duration)	102	127	446	108	119	250	114	90	267
4808	31002	102	108	508	104	97	243	97	91	242
4809	WGL 14 (National – Medium Duration)	111	144	437	108	114	255	119	83	212
4811	30957	101	125	289	95	116	253	107	92	254
4812	30989	103	123	389	92	132	254	106	269	283
4814	Zonal Check (ZC)	103	98	418	102	92	271	110	103	243
4815	30961	112	129	383	103	125	261	108	246	239
4816	30623	106	120	424	90	124	275	108	85	266
4817	29019	106	117	449	92	131	266	110	87	285
4818	30629	104	135	413	91	119	269	107	89	225
4819	27P63 (HC)	104	118	411	98	113	258	110	75	204
4822	32072	104	108	395	112	100	277	93	102	256
4823	BPT 5204 (National Late Duration) and RP	101	111	412	108	92	260	115	62	234
4827	Local Check (LC)	102	148	394	106	97	272	114	79	264
Exp. Mean		**104**	**122**	**412**	**101**	**112**	**262**	**108**	**111**	**248**

Table No.10b.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1– MS, Zone -4, Kharif 2023

Entry No	IET No	ZONE IV - NORTH EASTERN														
		Assam						Assam (2)			Tripura (1)			Zone IV (3)		
		Titabar			Gerua-ICAR			Mean			Lembucherra			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4803	30966	113	115	292	100	112	278	107	113	285	53	108	300	89	112	290
4805	Telangana Sona (National Early Duration)	105	118	295	100	116	253	103	117	274	64	112	250	90	116	266
4807	31001	106	107	286	98	121	285	102	114	286	53	105	283	86	111	285
4808	31002	108	92	313	100	102	292	104	97	303	61	90	283	90	95	296
4809	WGL 14 (National – Medium Duration)	114	112	275	103	114	271	109	113	273	61	104	300	93	110	282
4811	30957	109	109	329	100	111	274	105	110	302	64	102	300	91	107	301
4812	30989	108	119	282	103	121	248	106	120	265	40	121	267	84	120	266
4814	Zonal Check (ZC)	114	132	372	110	132	309	112	132	341	68	123	300	98	129	327
4815	30961	114	114	325	103	110	276	109	112	301	67	112	283	95	112	295
4816	30623	105	105	316	96	120	284	100	113	300	62	105	275	87	110	292
4817	29019	105	114	290	97	126	269	101	120	279	49	105	250	84	115	270
4819	27P63 (HC)	110	114	331	100	122	268	105	118	299	49	106	300	86	114	300
4820	28184	100	123	299	93	137	291	97	130	295	42	113	317	78	124	302
4821	30622	109	110	286	97	117	260	103	113	273	41	102	300	82	110	282
4823	BPT 5204 (National Late Duration) and RP	121	87	324	108	85	332	115	86	328	76	82	367	102	85	341
4827	Local Check (LC)	126	116	301	114	137	289	120	127	295	64	112	325	102	122	305
Exp. Mean		**111**	**112**	**307**	**101**	**118**	**280**	**106**	**115**	**294**	**57**	**106**	**294**	**90**	**112**	**294**

Table No. 10b.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – MS, Zone - 5,
Kharif 2023

Entry No	IET No	ZONE V- CENTRAL								
		Chattisgarh (1)			Maharashtra (1)			Zone V (2)		
		Raipur			Sindhewhi			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4804	30959	91	111	184	91	115	273	91	113	228
4805	National Early Duration	97	108	179	112	122	252	105	115	216
4808	3102	104	96	211	103	93	290	104	95	251
4809	National Medium Duration	109	110	208	106	119	275	108	114	242
4811	30957	104	107	209	106	109	241	105	108	225
4812	30989	100	113	204	93	128	256	96	120	230
4814	ZC	110	95	164	105	87	292	108	91	228
4815	30961	98	108	210	102	121	347	100	115	279
4816	30623	101	96	191	97	118	274	99	107	232
4817	29019	102	108	206	97	119	235	100	114	221
4819	HC	103	106	213	102	102	274	103	104	243
4822	32072	104	95	175	114	108	191	109	102	183
4823	RP	84	95	222	115	88	297	100	92	260
4827	LC	109	87	844	111	125	303	110	106	574
Exp. Mean		**101**	**103**	**244**	**104**	**111**	**271**	**103**	**107**	**258**

Table No. 10b.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – MS, (Trial Not Considered) Zone -5, Kharif 2023

Entry No	IET No	Trial not considered		
		Madhya Pradesh		
		Jabalpur		
		DFF	PH	PAN
4804	30959	89	88	203
4805	National Early Duration	101	97	317
4808	3102	92	70	291
4809	National Medium Duration	92	89	224
4811	30957	92	74	295
4812	30989	86	99	212
4814	ZC	102	68	333
4815	30961	107	93	247
4816	30623	93	88	262
4817	29019	88	95	258
4819	HC	86	89	311
4822	32072	93	89	163
4823	RP	109	69	307
4827	LC	86	84	200
Exp. Mean		**94**	**85**	**259**

Table No. 10b.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – MS, Zone - 6,
Kharif 2023

Entry No	IET No	ZONE VI -WESTERN														
		Maharashtra						Maharashtra (2)			Gujarat					
		Karjat			Shirgaon			Mean			Navasari			Nawagam		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4801	30978	97	126	220	97	113	200	97	120	210	97	112	290	104	113	279
4802	30969	98	138	224	87	127	161	93	132	192	90	118	249	99	119	273
4804	30959	95	124	225	78	114	173	87	119	199	79	99	238	100	116	292
4805	Telangana Sona (National Early Duration)	98	141	240	97	128	130	97	134	185	100	130	237	103	107	288
4806	30949	97	112	204	90	111	149	94	112	176	98	107	270	107	105	293
4808	31002	99	106	235	92	110	260	96	108	247	98	100	250	106	110	288
4809	WGL 14 (National – Medium Duration)	99	134	204	97	134	148	98	134	176	97	127	247	106	107	288
4810	30958	97	119	235	94	114	113	96	117	174	97	115	258	104	98	295
4811	30957	98	131	196	91	128	142	95	129	169	86	129	275	102	119	283
4812	30989	95	133	220	89	130	211	92	131	215	88	132	296	106	113	296
4813	30981	96	121	224	95	117	167	96	119	196	87	102	292	102	110	283
4814	Zonal Check (ZC)	98	113	227	103	108	131	101	110	179	103	100	274	101	120	280
4815	30961	103	133	194	93	123	133	98	128	163	97	114	274	101	118	287
4816	30623	96	127	258	87	125	176	92	126	217	89	103	290	106	107	286
4817	29019	99	132	231	90	124	176	95	128	204	92	108	270	103	121	296
4819	27P63 (HC)	96	132	200	91	122	164	94	127	182	90	125	284	108	111	298
4823	BPT 5204 (National Late Duration) and RP	104	108	234	98	110	171	101	109	203	107	106	287	106	107	271
4827	Local Check (LC)	97	124	243	95	125	160	96	124	202	105	120	299	104	122	291
Exp. Mean		**98**	**125**	**223**	**93**	**120**	**165**	**95**	**123**	**194**	**95**	**114**	**271**	**104**	**112**	**287**

Table No. 10b.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – MS, Zone - 6,
Kharif 2023

Entry No	IET No	ZONE VI -WESTERN											
		Gujarat						Gujarat (4)			Zone VI (6)		
		Dhaboi			Vyara			Mean			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4801	30978	101	116	174	95	130	235	99	118	244	99	119	233
4802	30969	96	133	187	97	136	268	95	126	244	94	128	227
4804	30959	84	117	171	87	126	251	88	115	238	87	116	225
4805	Telangana Sona (National Early Duration)	98	138	189	100	137	278	100	128	248	99	130	227
4806	30949	97	114	173	95	115	216	99	110	238	97	111	217
4808	31002	103	111	193	96	113	299	101	108	257	99	108	254
4809	WGL 14 (National – Medium Duration)	108	133	177	95	135	271	101	125	246	100	128	222
4810	30958	104	130	191	96	124	227	100	117	243	99	117	220
4811	30957	102	119	190	98	134	278	97	125	256	96	127	227
4812	30989	99	127	178	94	144	222	97	129	248	95	130	237
4813	30981	99	144	169	94	119	272	95	119	254	95	119	234
4814	Zonal Check (ZC)	99	121	171	100	115	263	101	114	247	101	113	224
4815	30961	98	116	177	100	126	307	99	119	261	99	122	229
4816	30623	100	131	184	94	125	217	97	116	244	95	120	235
4817	29019	98	134	195	96	131	258	97	123	255	96	125	238
4819	27P63 (HC)	98	132	188	93	131	268	97	125	260	96	126	234
4823	BPT 5204 (National Late Duration) and RP	103	107	182	103	108	326	105	107	266	103	108	245
4827	Local Check (LC)	99	121	194	94	127	255	100	123	260	99	123	240
Exp. Mean		**99**	**125**	**182**	**96**	**126**	**262**	**98**	**119**	**250**	**97**	**120**	**232**

Table No. 10b.3 (Contd):__(Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – MS, (Trial Not Considered), Zone -6, Kharif 2023

Entry No	IET No	Trial not consiered Maharashtra @Radhanagari		
		DFF	PH	PAN
4801	30978	105	78	230
4802	30969	94	82	258
4804	30959	87	83	220
4805	Telangana Sona (National Early Duration)	101	93	207
4806	30949	93	69	257
4808	31002	94	61	253
4809	WGL 14 (National – Medium Duration)	92	77	230
4810	30958	102	80	252
4811	30957	95	70	275
4812	30989	94	88	196
4813	30981	103	77	175
4814	Zonal Check (ZC)	89	59	265
4815	30961	97	78	184
4816	30623	91	84	210
4817	29019	95	79	274
4819	27P63 (HC)	101	76	190
4823	BPT 5204 (National Late Duration) and RP	90	62	256
4827	Local Check (LC)	91	75	153
Exp. Mean		**95**	**76**	**227**

Table No.10b.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1– MS, Zone -7, Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN																	
		Andhra Pradesh						Andhra Pradesh (2)			Telangana						Telangana (2)		
		Maruteru			Bapatla			Mean			Rajendranagar			Warangal			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4805	Telangana Sona (National Early Duration)	92	116	343	78	103	206	85	110	274	105	100	333	107	137	422	106	119	378
4808	31002	100	113	352	101	116	314	100	115	333	111	80	344	106	113	358	109	96	351
4809	WGL 14 (National – Medium Duration)	108	125	341	100	128	288	104	127	315	111	97	333	106	137	382	109	117	358
4811	30957	109	120	363	89	127	248	99	123	306	109	88	356	104	127	376	106	108	366
4812	30989	94	134	363	81	133	306	88	133	335	107	103	311	104	125	366	105	114	339
4814	Zonal Check (ZC)	108	124	341	79	107	244	94	116	293	105	78	384	110	136	405	107	107	395
4815	30961	112	132	341	90	123	323	101	128	332	116	94	400	115	130	438	116	112	419
4816	30623	94	123	352	86	112	287	90	118	319	107	85	356	103	122	317	105	104	336
4817	29019	99	125	352	87	119	305	93	122	329	107	94	322	104	133	389	106	113	356
4819	27P63 (HC)	99	121	341	81	118	252	90	119	297	105	91	356	106	127	383	105	109	369
4822	32072	92	117	352	86	102	276	89	110	314	112	84	311	111	121	370	112	102	340
4823	BPT 5204 (National Late Duration) and RP	114	116	341	105	101	307	110	109	324	114	74	322	117	109	408	116	91	365
4824	32073	113	127	341	88	108	292	100	118	316	111	84	333	110	121	330	111	103	332
4825	32074	111	123	341	88	112	278	99	118	310	112	90	344	112	127	439	112	108	392
4826	MTU 1121 (RP)	109	131	352	77	112	286	93	122	319	105	86	333	107	130	384	106	108	359
4827	Local Check (LC)	110	112	352	109	108	371	110	110	361	112	89	433	109	122	389	111	105	411
Exp. Mean		**104**	**123**	**348**	**89**	**114**	**286**	**97**	**118**	**317**	**109**	**89**	**348**	**108**	**126**	**385**	**109**	**107**	**367**

Table No. 10b.3 (Contd):Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1– MS, Zone -7, Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN														
		Tamil Nadu						Tamil Nadu (2)			Karnataka					
		Aduthurai			Coimbatore			Mean			Mandya			Sirsi		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4805	Telangana Sona (National Early Duration)	105	75	489	91	98	255	98	86	372	93	94	340	111	100	337
4808	31002	100	74	492	104	100	306	102	87	399	113	85	385	110	77	403
4809	WGL 14 (National – Medium Duration)	101	90	329	108	111	280	105	101	305	111	94	363	102	92	337
4811	30957	102	97	429	76	104	293	89	101	361	114	93	351	99	84	350
4812	30989	103	282	460	103	106	276	103	194	368	95	156	283	105	99	324
4814	Zonal Check (ZC)	100	73	442	111	107	300	106	90	371	106	88	340	109	86	317
4815	30961	100	77	315	103	104	346	102	90	331	103	103	351	110	96	340
4816	30623	105	92	490	104	96	255	105	94	373	104	87	363	108	83	347
4817	29019	104	91	443	106	110	347	105	101	395	108	85	374	106	91	317
4819	27P63 (HC)	101	74	342	100	107	340	101	91	341	106	98	363	104	84	350
4822	32072	100	62	393	95	104	234	98	83	313	102	85	340	104	85	330
4823	BPT 5204 (National Late Duration) and RP	106	74	413	112	94	244	109	84	328	115	76	351	100	73	377
4824	32073	105	87	496	98	94	241	102	90	368	104	88	374	101	84	307
4825	32074	102	76	462	102	104	224	102	90	343	102	95	317	102	89	301
4826	MTU 1121 (RP)	105	86	452	97	101	308	101	94	380	94	91	329	106	94	301
4827	Local Check (LC)	100	99	426	113	114	329	107	107	378	104	100	408	103	82	297
Exp. Mean		**103**	**94**	**430**	**101**	**104**	**286**	**102**	**99**	**358**	**105**	**95**	**352**	**105**	**87**	**333**

Table No. 10b.3 (Contd):Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1– MS, Zone -7, Kharif 2023

Entry No	IET No	ZONE VII - SOUTHERN														
		Karnataka						Karnataka (4)			Puducherry (1)			Zone VII (11)		
		Mugad			Malag			Mean			Kurumbapet			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4805	Telangana Sona (National Early Duration)	90	75	338	108	76	133	101	86	287	85	92	370	97	97	324
4808	31002	101	55	325	115	58	97	110	69	302	83	86	423	104	87	345
4809	WGL 14 (National – Medium Duration)	100	72	382	117	74	118	107	83	300	89	92	320	105	101	316
4811	30957	98	65	342	119	68	106	108	77	287	90	105	467	101	98	335
4812	30989	90	79	255	102	76	93	98	102	239	83	91	370	97	126	310
4814	Zonal Check (ZC)	97	63	306	112	72	109	106	77	268	86	101	370	102	94	323
4815	30961	97	75	278	106	78	108	104	88	269	85	106	447	103	102	335
4816	30623	97	66	389	113	85	145	105	80	311	81	87	413	100	94	338
4817	29019	98	67	332	113	71	105	106	79	282	84	90	390	102	98	334
4819	27P63 (HC)	98	72	341	110	81	114	105	84	292	81	85	357	99	96	322
4822	32072	101	71	331	113	75	114	105	79	279	81	75	347	100	89	309
4823	BPT 5204 (National Late Duration) and RP	102	61	375	107	54	82	106	66	296	84	89	400	107	84	329
4824	32073	96	68	329	114	75	153	104	79	291	90	97	347	103	94	322
4825	32074	96	71	327	111	68	126	103	81	268	86	101	370	102	96	321
4826	MTU 1121 (RP)	97	69	304	103	66	98	100	80	258	84	91	367	99	96	319
4827	Local Check (LC)	100	68	305	113	62	133	105	78	286	85	99	380	105	96	348
Exp. Mean		**97**	**69**	**329**	**111**	**71**	**115**	**104**	**80**	**282**	**85**	**93**	**384**	**102**	**97**	**327**

Table No. 10b.4: Grain quality characteristics of entries in AVT 1-MS, kharif 2023

Entry No.	Designation /IET No	HULL	MILL	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
4801	30978											
4802	30969	77.8	68.0	66.0	5.06	1.85	2.73	MS	A	4.0	23.73	22
4803	30966	75.7	65.1	58.1	5.60	1.72	3.25	SS	A	4.0	17.13	22
4804	30959	79.3	71.8	69.1	5.76	2.13	2.7	MS	A	4.0	20.59	22
4805	Telangana Sona (NC-Early)	80.8	72.3	59.2	4.98	1.52	3.27	SS	A	4.0	22.90	22
4806	30949	-	-	-								
4807	31001	79.7	70.1	53.5	5.00	1.52	3.28	SS	A	5.0	20.85	22
4808	31002	77.4	64.4	25.4	4.78	1.77	2.7	MS	F	4.0	22.85	22
4809	WGL-14 (NC-Medium)	80.4	69.8	60.0	4.60	1.74	2.64	MS	A	4.0	23.52	22
4810	30958	78.6	67.7	46.7	5.07	2.05	2.52	MS	VOC	4.0	24.02	22
4811	30957	79.5	71.5	59.3	5.15	1.89	2.72	MS	VOC	5.0	22.99	22
4812	30989	81.1	70.3	40.0	5.35	1.90	2.81	MS	VOC	4.0	25.66	22
4813	30981	78.5	70.4	63.2	5.03	1.83	2.74	MS	A	4.0	22.82	22
4814	ADT-49 (ZC)	76.7	68.0	55.1	5.27	1.91	2.75	MS	VOC	4.0	23.84	29
4815	30961	80.5	70.8	55.7	5.20	2.00	2.60	MS	VOC	4.0	21.50	43
4816	30623	80.3	68.2	46.8	5.01	1.89	2.65	MS	VOC	4.0	21.03	41
4817	29019	80.4	69.6	56.8	5.05	1.89	2.67	MS	VOC	7.0	26.16	22
4818	30629	78.2	69.3	65.2	5.50	1.93	2.84	MS	A	4.0	27.13	22
4819	27P63 (HC)	80.4	68.7	55.2	4.63	1.74	2.66	MS	VOC	4.0	22.96	22
4820	28184	77.4	69.6	68.6	5.44	2.01	2.70	MS	VOC	4.0	24.81	22
4821	30622	79.5	71.8	69.2	5.04	1.88	2.68	MS	A	7.0	26.89	43
4822	32072	81.3	68.6	57.1	4.82	1.67	2.88	MS	VOC	5.0	25.08	22
4823	BPT-5204 (NC-Late & RP)	80.3	70.8	59.9	4.58	1.70	2.69	MS	A	4.0	23.90	22
4824	32073	79.7	70.9	64.1	5.23	1.60	2.66	MS	A	4.0	20.53	42
4825	32074	80.5	67.4	55.2	5.32	1.99	2.67	MS	VOC	4.0	22.44	50
4826	MTU-1121(RP)	80.1	70.9	55.5	5.16	2.05	2.51	MS	VOC	4.0	20.35	22
4827	Local Check	77.4	68.9	59.4	5.27	2.02	2.60	MS	VOC	4.0	24.61	22

HULL: Hulling (%); MILL: Milling (%); HRR: Head Rice Recovery (%); KL: Kernel Length(mm); KB: Kernel Breadth(mm); L/B: Length and breadth ratio; Grain Chalk: Grain Chalkiness; VOC: Very occasionally present; A: Absent ASV: Alkali Spreading Value; AC: Amylose Content (%); GC: Gel Consistency; LB: Long Bold; SB:Short Bold; LS: Long Slender; MS: Medium Slender; SS: Short Slender.

Table No. 10c.1 : Composition of entries in Initial Variety Trial – Medium Slender Grain (IVT– MS), Kharif 2023.

Entry No.	IET No.	Designation	Cross Combination	GT
1st year of testing:				
4901	31793	AD 21039	WGL 32100 / ADT 53	MS
4902	31794	BPT 3159	Cult.01023 / RP Bio 226 / Cult.09100 23-8 // BPT5204 / Tetep	MS
4903	31795	CB 20166	CO 52 // CO 52 / ISM	MS
4904	31796	Pusa 5477-28-30-2-1-1-3-3	P 35S / BPT 5204	MS
4905	31797	RP 6747-19487-1-1	WGL 14 / ISM // WGL 14 / RP Patho-1 /// WGL 14 / Rathuheenati // WGL 14 / RP 5925-24 //// WGL 14 / RP 5925-23 // WGL 14 / IR 96321-1447-561-B-1 ///// WGL 14 / IR 81896-96-B-B-195 // WGL 14 / IR 74371-46-1-1-13 ///// WGL 14 / RP Patho-2 // WGL 14 / RP Patho-3	MS
4906	31798	KPS 10320	Akshyadhan / RNR-15048	MS
4907	31799	CSR-MGC-63	BPT5204 / CSR 36	
4908	31800	P.3334	BPT 5204 / ASD19 // BPT 5204	MS
4909	31801	TRC 2023-39 / TRC SMTC 5387-9-20	BPT 5204 / Tripura Chikan	MS
4910	31802	RP 6681-RMS-1-79-64-43	Improved Samba Mahsuri*2 / ST 12	MS
4911	31803	MTU 1419 (MTU 2632-43-2-2)	MTU 1166 / BPT 5204	MS
4912	31804	NVSR-933	NAUR-1 / Danteshwari	SS
4913	31805	NWGR 18121	GR-11 / Pusa Basmati / 1-5-2-1-2-1-1	MS
4914	31806	CRAC 3998-128-2	Doubled Haploid of 27P63	MS
4915	31807	CR 4479-3-2-1-1-1-1	CR 3516-11-2-2-1-1-2 / NDR 359	MS
4916	31808	NP 9993	PRN 39 / PRN 99	MS
4917	31809	BKR 245	BPT 5204 / Sahbhagidhan	MS
4918	31810	R 2370-115-1-93-1	R 1706-309-1-171-1 / IR 64	MS
4919	31811	RNR 41216	NLR 34449 / NLR 3513	MS

Entry No.	IET No.	Designation	Cross Combination	GT
4920	31812	BRR 0285	Rajendra sweta / Pusa 6B	MS
4921	**Telangana Sona (National Early duration Check)**			
4922	31813	WGL 1722	MTU 1081 / Gontrabidhan-3	MS
4923	31814	CR 3583-3-2-2-1-1-1	Surendra / Abhaya	MS
4924	31815	RP 6528-RMS-2-7-11-3	Improved Samba Mahsuri *2 // Habataki / ST 12	MS
4925	31816	CB 20143	CB 12132 / Sriramsena	MS
4926	31817	BPT 3127	BPT 5204 / MTU 1075	MS
4927	31818	AD 21193	Turantdhan / IET 22075	MS
4928	31819	RP 6460-C3-345-12	166S-Swarna / O.nivara // 148S-Swarna/ O.nivara	MS
4929	31820	CR 3856-44-22-2-1-11-4-5-5	IR 73963-86-1-5-2-2 / CR 2324-1	MS
4930	31821	RAU 1407-13-3		
4931	31822	MTU 1418 (MTU 2789-6-1-2)	MTU 1224 / MTU1075	MS
4932	**WGL-14 (National Medium duration Check)**			
4933	31823	NWGR 19219	Jaya / IIRON-M-1-204 / 4-8-1-5-1-1	MS
4934	31824	TRC 2023-37 / TRC TRCMTC 5516B-B-B5-7	Tripura Nirog / Tripura Chikan	MS
4935	31825	CR 4376-1-1-1-2-1-1	CR 3553-15-1-1-1-1-1 / CR 3759-1-1-2-1-1	MS
4936	31826	RGL 7033 (MTU RM 428-2-1-1)	MTU 1262 / MTU 1075	SS
4937	31827	SYE 930-8-25	SKL 30-39-24-8-9 / SYE 273-7-9	MS
4938	31828	CR 3573-3-1-3-1-1-1	Sasyasree / Naveen	MS
4939	31829	RP 6766-CGR 27-CGIL-92-CGK 143-2135-5	Samba Mahsuri*2 / Oryza Rufipogon-TRP-32	MS
4940	31830	Pusa 5377-4-1-1-2-2-1	P 5000-142-1-3 / Rajbhog	MS
4941	31831	AD 19566	AD 07302 / CO 52	MS
4942	31832	RP 6768-RMS 3-6-9-18	Swarna / Improved Samba Mahsuri	MS
4943	31833	KNM 12368	KNM 1638 / IET 23993 // RNR 15048	MS
4944	31834	CRAC 3998-247-2	Doubled Haploid of 27P63	MS
4945	31835	NP 6161	PRN 1026 / PRN 1061	MS
4946	31836	RGL 7034 (RGL 3035 – 56-4-1)	NLR 34449 / Chittimutyalu	SS
4947	31837	NVSR 3606	GAR 13 / NVSR 2077	
4948	31838	Samba Early	Mutant of Samba Sub-1	MS
4949	31839	CRAC 3998-325-3	Doubled Haploid of 27P63	MS
4950	31840	RP 6767-CGR 25-CGIL-70-CGK2-1-2131-21	BPT 5204*1 / IR 53236-218-3 (TRP 38-2)	MS
4951	31841	BRR 2135	Sita / Rajendra Sweta	MS
4952	31842	RP 6449-db-235	Vandana / NH 787	MS
4953	31843	KPS 10375	Akshyadhan / BM-71	MS
4954	31844	TRC 2023-26 / TRC SMTC 5488-B-B-11-41	BPT 5204 / Tripura Chikan	MS
4955	**BPT 5204 (National Late duration Check)**			
4956	31845	NDR 2022-1-2	BPT 242/Swarna	MS
4957	31846	NWGR 17121	GAR-13 / IET 2006/1-1-1-1-1-1	MS
4958	31847	RNR 38123	RNR 11718 / HMT Sona	MS
4959	31848	WGL 1724	MTU 1081 / Gontrabidhan-3	MS
4960	31849	NVSR 991	NAUR-1 / IET-25825	MS
4961	31850	RP 6769-1144-12-1-2-1-2	MTU 1121 / Chittimutyalu	MS
4962	**Improved Samba Mahsuri (Eastern & Central), Ketekijoha (North Eastern), Karjat-6 (Western), ADT 49 (Southern)-ZC**			
4963	31851	RP 6770-960-22-10-3-1	MTU 1121 / Samba Mahsuri	MS
4964	**Local Check (LC)**			

Table No. 10c.2 : Grain Yield (kg/ha) in IVT – MS, Kharif 2023

Entry No.	IET No.	Zone III - EASTERN									
		ODISHA				Odisha (2)		BIHAR			
		Bhubaneswar		Jeypore		Mean		Bikramgunj		Pusa	
4901	31793	5563		4048		4806		2803		4533	4
4902	31794	7148	7	4010		5579		4060		4396	5
4903	31795	8193	1	7456	3	7825	1 *	4475		4808	2
4904	31796	5243		6225	10	5734		6415		3984	
4905	31797	6878		3146		5012		4585		4258	
4906	31798	5458		5706		5582		3973		3984	
4907	31799	6468		5802		6135		3678		4121	
4908	31800	6632		5450		6041		5158		4258	
4909	31801	6759		4729		5744		4186		3984	
4910	31802	4701		6140		5421		5169		4258	
4911	31803	5728		2800		4264		3590		3709	
4912	31804	6479		5221		5850		6934	7	4258	
4913	31805	5262		5427		5345		3612		3984	
4914	31806	4045		4410		4228		3656		4258	
4915	31807	6320		5990		6155		6027		3022	
4916	31808	7328	5	4806		6067		8464	1	3022	
4917	31809	4180		6479	8	5330		3689		4258	
4918	31810	7063	10	5829		6446		7077	5	4258	
4919	31811	4259		5919		5089		3466		3709	
4920	31812	6720		4517		5619		7579	3	3709	
4921	Telangana Sona (National Early duration Check)	4960		3875		4418		6333		4121	
4922	31813	6132		3467		4800		6186		3709	
4923	31814			3313		3313		6109		3984	
4924	31815	5767		3823		4795		7749	2	4258	
4925	31816	7140	8	6796	5	6968	5 *	6448	10	4808	2
4926	31817	7090	9	3531		5311		5497		4121	
4927	31818	5794		4146		4970		5328		3984	
4928	31819	4709		6448	9	5579		7033	6	3846	
4929	31820	6614		7952	2	7283	2 *	6208		4945	1
4930	31821	5820		5454		5637		5596		3571	
4931	31822	7725	2	4569		6147		5814		3709	
4932	WGL-14 (National Medium duration Check)	6799		5004		5902		5973		3709	
4933	31823	4788		3760		4274		6000		3709	
4934	31824	6190		5235		5713		7230	4	4121	
4935	31825	7460	3	4902		6181	9	6279		4258	
4936	31826	5728		3515		4622		4715		3434	
4937	31827	5093		5840		5467		4404		3709	
4938	31828	6905		5969		6437		5071		3709	
4939	31829	5265		3394		4330		4415		4258	
4940	31830	5913		2823		4368		4426		4258	
4941	31831	7407	4	6777	6	7092	3 *	5607		3434	
4942	31832	5585		4990		5288		3962		4121	
4943	31833	5529		3175		4352		2978		3984	
4944	31834	6243		4627		5435		3902		4258	
4945	31835	5101		8856	1	6979	4 *	6760	8	4258	
4946	31836	6653		5123		5888		6082		3159	
4947	31837	5423		5019		5221		4738		4121	
4948	31838	5423		4479		4951		4109		4121	
4949	31839	5172		3729		4451		5169		3984	
4950	31840	4974		3667		4321		4372		3846	
4951	31841	7196	6	5146		6171		3902		3846	
4952	31842	5767		6540	7	6154		6596	9	3709	
4953	31843	6349		4365		5357		3683		3984	
4954	31844	5370		5179		5275		4448		3984	
4955	BPT 5204 (National Late duration Check)	6905		4046		5476		6344		3984	
4956	31845	6111		3000		4556		5492		4258	
4957	31846	6534		6900	4	6717		5765		4121	
4958	31847	5648		4113		4881		3689		3984	
4959	31848	5767		4079		4923		3913		4258	
4960	31849	7037		3354		5196		6033		4121	
4961	31850	5820		4027		4924		5011		3984	
4962	Zonal Check	5246		5427		5337		5880		3846	
4963	31851	5952		5448		5700		5393		3709	
4964	Local Check	6720		3885		5303		4238		4396	5
Exp. Mean		**6036**		**4904**		**5449**		**5211**		**4007**	
F value		**6.68(p<0.0001)S**		**8.72(p<0.0001)S**		**8.24(p<0.0001)S**		**14.98(p<0.0001)S**		**4.56(p<0.0001)S**	
CD		997		1236		827		928		480	
CV%		**8.27**		**12.62**		**7.59**		**8.91**		**6**	
D/S		19-07-2023		22-07-2023		**9.01**		28-06-2023		22-06-2023	
D/P		22-08-2023		21-08-2023				22-07-2023		14-07-2023	
Local Check Name		Pratikshya		Kalinga Dhan 1203				R. Sweta		Rajendra Sweta	

Table No. 10c.2 (Contd).: Grain Yield (kg/ha) in IVT – MS, Kharif 2023

Entry No.	IET No.	Zone III - EASTERN									
		Bihar (2)		JHARKHAND (1)		WEST BENGAL (1)		UTTARPRADESH		UTTARPRADESH (1)	
		Mean		Ranchi		Chinsurah		Varanasi		Mean	
4901	31793	3668		3620		3824		4290		4290	
4902	31794	4228		3239		3627		1000		1000	
4903	31795	4642		4382		6716	9	4425		4425	
4904	31796	5200		4890	6	6569		4230		4230	
4905	31797	4422		3937		3922		6078	4	6078	4 *
4906	31798	3979		3937		3333		4245		4245	
4907	31799	3900		5334	2 *	5147		4703		4703	
4908	31800	4708		4572		5882		4993		4993	
4909	31801	4085		4001		5657		4975		4975	
4910	31802	4714		4318		6569		5787	7	5787	7 *
4911	31803	3650		3239		4069					
4912	31804	5596	7	4255		4343		6627	1	6627	1 *
4913	31805	3798		4382		4402		4477		4477	
4914	31806	3957		4191		5049		5507		5507	
4915	31807	4525		4255		5235		4455		4455	
4916	31808	5743	2 *	4191		7578	1	983		983	
4917	31809	3974		3810		5049		4565		4565	
4918	31810	5668	4	4763	9	7451	2	5763	8	5763	8 *
4919	31811	3588		4636		6569		4707		4707	
4920	31812	5644	5	4763	9	4784		4906		4906	
4921	Telangana Sona (National Early duration Check)	5227		4382		4510		2500		2500	
4922	31813	4948		5398	1 *	5078		4164		4164	
4923	31814	5047		3937		6765	7	4350		4350	
4924	31815	6004	1 *	4255		5637		6300	2	6300	2 *
4925	31816	5628	6	4826	7	6520		5810	6	5810	6 *
4926	31817	4809		3556		6127		783		783	
4927	31818	4656		4255		5098		4633		4633	
4928	31819	5440	10	4445		6765	7	4006		4006	
4929	31820	5577	8	4509		6275		5227		5227	
4930	31821	4584		4636		5392		5542	10	5542	10
4931	31822	4762		4255		6373					
4932	WGL-14 (National Medium duration Check)	4841		3874		7108	4	4702		4702	
4933	31823	4855		4636		4902		4463		4463	
4934	31824	5676	3	4445		6078		6160	3	6160	3 *
4935	31825	5269		4509		7108	4	5052		5052	
4936	31826	4075		3302		4412					
4937	31827	4057		4509		7304	3	4538		4538	
4938	31828	4390		4572		5784		5308		5308	
4939	31829	4337		3810		3431		4747		4747	
4940	31830	4342		5080	4	5980		5122		5122	
4941	31831	4521		4445		7010	6	5027		5027	
4942	31832	4042		4382		4608		4117		4117	
4943	31833	3481		4445		5098		4392		4392	
4944	31834	4080		4572		5392		4562		4562	
4945	31835	5509	9	3683		6471		5530		5530	
4946	31836	4621		4572		5490					
4947	31837	4430		4509		5686		4895		4895	
4948	31838	4115		3937		4657		4410		4410	
4949	31839	4577		5144	3	5441		4913		4913	
4950	31840	4109		4191		3775		4117		4117	
4951	31841	3874		4382		5294		4425		4425	
4952	31842	5153		4382		5196		6067	5	6067	5 *
4953	31843	3834		4636		4843		4380		4380	
4954	31844	4216		3937		4745		5518		5518	
4955	BPT 5204 (National Late duration Check)	5164		4382		5882		1838		1838	
4956	31845	4875		4064		5000		4960		4960	
4957	31846	4943		4509		5588		5390		5390	
4958	31847	3837		4509		3922		4155		4155	
4959	31848	4086		4763	9	6520		4604		4604	
4960	31849	5077		4445		5882		5635	9	5635	9
4961	31850	4498		4445		5441		4728		4728	
4962	Zonal Check	4863		3683		6275		4320		4320	
4963	31851	4551		4953	5	5294		4640		4640	
4964	Local Check	4317		4699		4118		4133		4133	
Exp. Mean		**4609**		**4337**		**5470**		**4615**		**4615**	
F value		**12.04(p<0.0001)S**		**4.31(p<0.0001)S**		**3.14(p<0.0001)S**		**10.30(p<0.0001)S**		**10.30(p<0.0001)S**	
CD		508		632		1713		1020		1020	
CV%		**5.52**		**7.3**		**15.67**		**11.04**		**11.04**	
D/S				26-06-2023		06-07-2023		19-06-2023			
D/P				20-08-2023		23-08-2023		16-07-2023			
Local Check Name				Swarna		SWARNA SHREYA		HUR-917			

Table No. 10c.2 (Contd).: Grain Yield (kg/ha) in IVT – MS, Kharif 2023

Entry No.	IET No.	Zone III(8)		Zone IV NORTH EASTERN							
				ASSAM		Assam(1)		TRIPURA (1)		Zone IV(2)	
		Mean		Titabar		Mean		Lembuchhera		Mean	
4901	31793	4097		6279		6279		4575		5427	
4902	31794	3926		3877		3877		4050		3964	
4903	31795	5779	5 *	6214		6214		3275		4745	
4904	31796	5365		5929		5929		4425		5177	
4905	31797	4686		6016		6016				6016	
4906	31798	4377		6839		6839		8375	10	7607	4
4907	31799	5036		6551		6551		3775		5163	
4908	31800	5278		7194	7	7194	7	5000		6097	
4909	31801	4899		6089		6089		5650		5870	
4910	31802	5277		4174		4174		9535	1	6855	
4911	31803	3856		4619		4619		5113		4866	
4912	31804	5445		6228		6228		6550		6389	
4913	31805	4507		6527		6527		5950		6239	
4914	31806	4445		6642		6642		6750		6696	
4915	31807	5043		5797		5797		8450	8	7124	
4916	31808	5196		6873		6873		7400		7137	9
4917	31809	4576		2628		2628		7575		5102	
4918	31810	6029	2 *	6216		6216		6550		6383	
4919	31811	4752		5388		5388		2000		3694	
4920	31812	5283		6944		6944		3850		5397	
4921	Telangana Sona (National Early duration Check)	4383		5532		5532		4175		4854	
4922	31813	4876		6766		6766		7100		6933	
4923	31814	4743		6649		6649		2575		4612	
4924	31815	5398		7157	8	7157	8	4600		5879	
4925	31816	6050	1 *	7142	9	7142	9	4925		6034	
4926	31817	4386		5194		5194		8775	7	6985	
4927	31818	4748		4276		4276		3250		3763	
4928	31819	5322		5688		5688		4800		5244	
4929	31820	5961	3 *	5636		5636		4350		4993	
4930	31821	5144		7826	2	7826	2	4250		6038	
4931	31822	5408		4366		4366		6150		5258	
4932	WGL-14 (National Medium duration Check)	5310		7052		7052		9200	5	8126	1
4933	31823	4608		6294		6294		4800		5547	
4934	31824	5637	8	7562	5	7562	5	8350		7956	3
4935	31825	5653	7	7807	3	7807	3	5625		6716	
4936	31826	4184		6009		6009				6009	
4937	31827	5057		6610		6610		9400	3	8005	2
4938	31828	5331		5822		5822		6875		6349	
4939	31829	4189		5962		5962		3825		4894	
4940	31830	4800		6260		6260		3125		4693	
4941	31831	5672	6	7861	1	7861	1	4750		6306	
4942	31832	4538		5242		5242		5575		5409	
4943	31833	4229		4914		4914		9350	4	7132	10
4944	31834	4794		5339		5339		4150		4745	
4945	31835	5808	4 *	7102	10	7102	10	7925		7514	6
4946	31836	5180		5860		5860		6200		6030	
4947	31837	4913		4942		4942		9530	2	7236	8
4948	31838	4448		4806		4806		6600		5703	
4949	31839	4793		6376		6376		6400		6388	
4950	31840	4135		5196		5196		5675		5436	
4951	31841	4884		5058		5058		4400		4729	
4952	31842	5465	10	4443		4443		5500		4972	
4953	31843	4606		5950		5950		6225		6088	
4954	31844	4740		5851		5851		6650		6251	
4955	BPT 5204 (National Late duration Check)	4769		6698		6698		5900		6299	
4956	31845	4698		6031		6031		6675		6353	
4957	31846	5544	9	6002		6002		9125	6	7564	5
4958	31847	4289		6428		6428		4175		5302	
4959	31848	4843		7433	6	7433	6	5575		6504	
4960	31849	5215		6240		6240		8450	8	7345	7
4961	31850	4779		6859		6859		5425		6142	
4962	Zonal Check	4954		5264		5264		3900		4582	
4963	31851	5056		7688	4	7688	4	4675		6182	
4964	Local Check	4598		6647		6647		3725		5186	
Exp. Mean		**4937**		**6045**		**6045**		**5831**		**5941**	
F value		**14.68(p<0.0001)S**		**6.53(p<0.0001)S**		**6.53(p<0.0001)S**		**35.24(p<0.0001)S**		**20.11(p<0.0001)S**	
CD		384		1144		1144		914		658	
CV%		**3.89**		**9.47**		**9.47**		**7.83**		**5.54**	
D/S				30-06-2023				11-07-2023			
D/P				25-07-2023				01-08-2023			
Local Check Name				Ranjit Sub 1				Tripura Chikan			

Table No. 10c.2 (Contd).: Grain Yield (kg/ha) in IVT – MS, Kharif 2023

Entry No.	IET No.	Zone V CENTRAL							
		MADHYAPRADESH (1)		CHATTISGAHR (1)		MAHARASTRA (1)		Zone V(3)	
		Jabalpur		Raipur		Sindhewahi		Mean	
4901	31793	5270		4456		3324		4350	
4902	31794	4350		5981		3771		4701	
4903	31795	4280		5152		3075		4169	
4904	31796	4430		4315		3381		4042	
4905	31797	5770		3429		5845	6	5015	
4906	31798	4275		5821		3672		4589	
4907	31799	6060	7	3424		5007	10	4830	
4908	31800	6205	6	4649		4425		5093	
4909	31801	4520		4751		4822		4698	
4910	31802	4865		5794		4822		5160	
4911	31803	4255		6273	9	3814		4781	
4912	31804	5470		4284		3608		4454	
4913	31805	7065	2 *	4782		2834		4894	
4914	31806	6300	4	4748				5524	7 *
4915	31807	4535		5282		6428	2 *	5415	8
4916	31808	4480		6912	4 *	3821		5071	
4917	31809	4350		3831		3594		3925	
4918	31810	4865		7023	2 *	6761	1 *	6216	1 *
4919	31811	4835		4503		3139		4159	
4920	31812	5855	9	5121		4879		5285	10
4921	Telangana Sona (National Early duration Check)	4830		4368		3161		4120	
4922	31813	5800	10	4676		3636		4704	
4923	31814	5430		5448		2976		4618	
4924	31815	4610		4368		4261		4413	
4925	31816	4540		4705		4936		4727	
4926	31817	4475		5780		4986		5080	
4927	31818	4265		4640		3239		4048	
4928	31819	5160		4118		5661	8	4980	
4929	31820	4285		5444		3438		4389	
4930	31821	4360		5737		4609		4902	
4931	31822	4360		6643	7 *	5945	5 *	5649	6 *
4932	WGL-14 (National Medium duration Check)	4265		4288		4652		4402	
4933	31823	4990		4755		2692		4146	
4934	31824	4535		5128		3082		4248	
4935	31825	4950		5528		5291	9	5256	
4936	31826	6265	5	7056	1 *	4631		5984	2 *
4937	31827	7625	1 *	5517		4020		5721	5 *
4938	31828	4250		4355		4915		4507	
4939	31829	5060		4704		3267		4344	
4940	31830	4590		5200		3963		4584	
4941	31831	5260		6317	8	4183		5253	
4942	31832	5660		4366		3686		4571	
4943	31833	5575		4099		2763		4146	
4944	31834	5545		4637		3288		4490	
4945	31835	5790		5968		6001	4 *	5920	4 *
4946	31836	4285		6653	5 *	4581		5173	
4947	31837	5005		5570		3999		4858	
4948	31838	7050	3 *	3427		3771		4749	
4949	31839	5495		6065	10	6378	3 *	5979	3 *
4950	31840	4330		3965		2962		3752	
4951	31841	4530		4014		3757		4100	
4952	31842	5465		6922	3 *	3430		5272	
4953	31843	5435		4704		5788	7	5309	9
4954	31844	4350		3740		2955		3682	
4955	BPT 5204 (National Late duration Check)	4880		5790		3459		4710	
4956	31845	4550		4032		3040		3874	
4957	31846	4655		3965		3942		4187	
4958	31847	4675		4503		2990		4056	
4959	31848	4280		4993		3359		4211	
4960	31849	4290		5205		3899		4465	
4961	31850	4340		6653	5 *	2813		4602	
4962	Zonal Check	4900		5026		4837		4921	
4963	31851	4250		3965		3388		3868	
4964	Local Check	5900	8	4469		4723		5031	
Exp. Mean		**5018**		**5032**		**4101**		**4725**	
F value		**5.95(p<0.0001)S**		**12.33(p<0.0001)S**		**7.38(p<0.0001)S**		**12.72(p<0.0001)S**	
CD		549		760		1064		462	
CV%		**5.48**		**7.56**		**12.98**		**4.9**	
D/S		23-06-2023		10-07-2023		28-06-2023			
D/P		19-07-2023		02-08-2023		17-07-2023			
Local Check Name		JR 206		Karma Mahsuri		PDKV-KISAN			

Table No. 10c.2 (Contd).: Grain Yield (kg/ha) in IVT – MS, Kharif 2023

Entry No.	IET No.	ZONE VI – WESTERN									
		MAHARASTRA		Maharashtra 2(1)		MAHARASHTRA (2)		GUJARAT			
		Karjat		Mean		Mean		Navsari		Nawangdi	
4901	31793	3470		3470		3397		5104		5544	
4902	31794	5196		5196		4484		3627		6001	
4903	31795	5541		5541		4308		3097		2447	
4904	31796	4442		4442		3912		3349		3160	
4905	31797	4016		4016		4931		5985	2	5581	
4906	31798	4743		4743		4208		4455		5630	
4907	31799	4648		4648		4828		3925		3687	
4908	31800	4573		4573		4499		3660		7059	
4909	31801	3755		3755		4289		3837		5433	
4910	31802	3543		3543		4183		4044		7470	4
4911	31803	3814		3814		3814		2281		4296	
4912	31804	3872		3872		3740		5719	8	4519	
4913	31805	4263		4263		3549		2900		5656	
4914	31806	5933	7	5933	7	5933	3	3543		6844	
4915	31807	6513	3	6513	3	6471	1 *	5836	4	5185	
4916	31808	6897	1	6897	1	5359	7	4685		7326	5
4917	31809	2829		2829		3212		2675		3999	
4918	31810	4133		4133		5447	6	5282		6421	
4919	31811	3013		3013		3076		3901		5330	
4920	31812	5810	8	5810	8	5345	8	3875		4388	
4921	Telangana Sona (National Early duration Check)	3419		3419		3290		4772		7185	9
4922	31813	5243		5243		4440		4800		6712	
4923	31814	5355		5355		4166		4525		6164	
4924	31815	4997		4997		4629		5454		6907	
4925	31816	4809		4809		4873		4294		5027	
4926	31817	3954		3954		4470		3384		4510	
4927	31818	4842		4842		4041		3955		6222	
4928	31819	4398		4398		5030		5474	9	7193	8
4929	31820	3127		3127		3283		5010		7268	7
4930	31821	6818	2	6818	2	5714	4	5194		4667	
4931	31822	5197		5197		5571	5	3832		3223	
4932	WGL-14 (National Medium duration Check)	5995	6	5995	6	5324	9	4343		7667	2
4933	31823	4687		4687		3690		4224		4782	
4934	31824	5803	9	5803	9	4443		5307		4632	
4935	31825	4675		4675		4983		5994	1	5358	
4936	31826	3638		3638		4135		3513		3659	
4937	31827	6258	4	6258	4	5139		4227		5415	
4938	31828	5513		5513		5214	10	5166		7147	10
4939	31829	3222		3222		3245		4810		5596	
4940	31830	4134		4134		4049		4483		5553	
4941	31831	4573		4573		4378		4729		4624	
4942	31832	4534		4534		4110		3739		6341	
4943	31833	2927		2927		2845		4024		4519	
4944	31834	2989		2989		3139		4784		6478	
4945	31835	6015	5	6015	5	6008	2	4614		7629	3
4946	31836	5663		5663		5122		3955		4592	
4947	31837	4268		4268		4134		3401		5810	
4948	31838	2164		2164		2968		4077		5067	
4949	31839	3833		3833		5106		5074		3773	
4950	31840	5503		5503		4233		4312		5387	
4951	31841	3568		3568		3663		4637		3541	
4952	31842	3654		3654		3542		5818	5	6296	
4953	31843	4623		4623		5206		5079		6301	
4954	31844	5128		5128		4042		5799	6	4593	
4955	BPT 5204 (National Late duration Check)	5336		5336		4398		3503		6741	
4956	31845	5158		5158		4099		5190		4963	
4957	31846	4869		4869		4406		5750	7	7302	6
4958	31847	3481		3481		3236		3977		6621	
4959	31848	3844		3844		3602		5303		5185	
4960	31849	3980		3980		3940		5234		7672	1
4961	31850	4978		4978		3896		5889	3	5469	
4962	Zonal Check	3658		3658		4248		3375		5527	
4963	31851	5784	10	5784	10	4586		4640		6169	
4964	Local Check	4794		4794		4759		5473	10	7081	
Exp. Mean		**4569**		**4569**		**4349**		**4483**		**5602**	
F value		**7.27(p<0.0001)S**		**7.27(p<0.0001)S**		**7.15(p<0.0001)S**		**4.77(p<0.0001)S**		**3.88(p<0.0001)S**	
CD		1084		1084		853		1138		1798	
CV%		**11.87**		**11.87**		**9.81**		**12.71**		**16.06**	
D/S		18-06-2023						19-06-2023		16-06-2023	
D/P		14-07-2023						12-07-2023		05-08-2023	
Local Check Name		Karjat-9						GNR-7		GAR 13	

Table No. 10c.2 (Contd).: Grain Yield (kg/ha) in IVT – MS, Kharif 2023

Entry No.	IET No.	ZONE VI – WESTERN				ZONE VII – SOUTHERN					
		GUJARAT (2)		Zone VI(3)		ANDRAPRADESH (1)		TELANGANA			
		Mean		Mean		Maruteru		Rajendranagar		Warangal	
4901	31793	5324		4706		4932		3889		3416	
4902	31794	4814		4941		5121		4689		4677	
4903	31795	2772		3695		6659	3	5857		6641	
4904	31796	3255		3650		6742	1	5840		5248	
4905	31797	5783		5194		4152		7466	6	6272	
4906	31798	5043		4943		4636		4259		3350	
4907	31799	3806		4087		5053		6079		4837	
4908	31800	5360		5097		5629		6293		4959	
4909	31801	4635		4342		5568		6824		4627	
4910	31802	5757		5019		5250		6906		6766	
4911	31803	3289		3464		5841		4225		4197	
4912	31804	5119		4703		6576	5	7346	9	6414	
4913	31805	4278		4273		3939		4670		5850	
4914	31806	5194		5440		4848		6563		6052	
4915	31807	5511		5845	6	4189		7389	7	6248	
4916	31808	6006	10	6303	1	6159		7375	8	9127	2
4917	31809	3337		3168		4182		3577		3717	
4918	31810	5852		5279		6235	9	7041		9453	1
4919	31811	4616		4081		5439		6576		5626	
4920	31812	4132		4691		5159		6536		6344	
4921	Telangana Sona (National Early duration Check)	5979		5125		5508		5668		6031	
4922	31813	5756		5585		5985		4613		7750	5
4923	31814	5345		5348		6538	7	5607		6595	
4924	31815	6181	5	5786	7	4955		6480		7610	8
4925	31816	4661		4710		6311	8	6965		5611	
4926	31817	3947		3949		5326		6194		6321	
4927	31818	5089		5006		4689		5670		3728	
4928	31819	6334	3	5688	9	5765		6812		5206	
4929	31820	6139	7	5135		5242		7106		5841	
4930	31821	4931		5560		6205		6722		6414	
4931	31822	3528		4084		5795		5257		6848	
4932	WGL-14 (National Medium duration Check)	6005		6002	3	5667		6907		7694	6
4933	31823	4503		4564		5348		2760		5862	
4934	31824	4970		5247		5576		6565		4064	
4935	31825	5676		5342		5432		6279		5707	
4936	31826	3586		3603		4977		5835		5053	
4937	31827	4821		5300		5697		6701		5648	
4938	31828	6157	6	5942	5	4379		6951		6250	
4939	31829	5203		4543		4955		6353		3909	
4940	31830	5018		4723		4356		6488		6469	
4941	31831	4677		4642		4742		6509		5908	
4942	31832	5040		4871		5417		6539		4995	
4943	31833	4272		3823		5902		6682		4410	
4944	31834	5631		4750		6561	6	6691		5302	
4945	31835	6122	8	6086	2	6197		7036		7683	7
4946	31836	4274		4737		5947		6366		5729	
4947	31837	4606		4493		4356		5871		6318	
4948	31838	4572		3769		5152		4868		3956	
4949	31839	4424		4227		5795		6939		8749	3
4950	31840	4850		5067		4735		7657	3	3666	
4951	31841	4089		3915		4152		4599		3860	
4952	31842	6057	9	5256		5674		6059		7770	4
4953	31843	5690		5334		5485		6988		7055	10
4954	31844	5196		5173		4583		6475		5932	
4955	BPT 5204 (National Late duration Check)	5122		5193		6061		6311		5192	
4956	31845	5077		5104		6583	4	7237	10	5880	
4957	31846	6526	1	5974	4	6235	9	9047	1	5987	
4958	31847	5299		4693		5277		3917		4948	
4959	31848	5244		4777		5205		5079		5866	
4960	31849	6453	2	5629	10	6705	2	7513	5	6587	
4961	31850	5679		5445		6159		8520	2	7215	9
4962	Zonal Check	4451		4187		4394		6251		6376	
4963	31851	5405		5531		5652		7540	4	6502	
4964	Local Check	6277	4	5783	8	5523		6882		6206	
Exp. Mean		**5043**		**4885**		**5430**		**6233**		**5852**	
F value		**4.62(p<0.0001)S**		**5.53(p<0.0001)S**		**4.36(p<0.0001)S**		**5.87(p<0.0001)S**		**14.06(p<0.0001)S**	
CD		1137		856		1000		1357		1005	
CV%		**11.28**		**8.77**		**9.22**		**10.89**		**8.6**	
D/S						15-07-2023		19-06-2023		26-06-2023	
D/P						23-08-2023		15-07-2023		28-07-2023	
Local Check Name						MTU 1224		RNR 11718		WGL 32100	

Table No. 10c.2 (Contd).: Grain Yield (kg/ha) in IVT – MS, Kharif 2023

Entry No.	IET No.	ZONE VII – SOUTHERN									
		Telangana (2)		TAMILNADU		Tamil Nadu (1)		KERALA (1)		KARNATAKA	
		Mean		Coimbatore		Mean		Pattambi		Mandya	
4901	31793	3653		4102		4102		6632		4346	
4902	31794	4683		5775		5775		5673		4395	
4903	31795	6249		5158		5158		7365	4	4493	
4904	31796	5544		4261		4261		5872		5180	3
4905	31797	6869		2943		2943		5619		4423	
4906	31798	3805		3450		3450		5793		3486	
4907	31799	5458		4004		4004		6099		3935	
4908	31800	5626		6504	8	6504	8 *	6844		4581	
4909	31801	5726		5699		5699		5999		4058	
4910	31802	6836		6279		6279		7401	3	5038	5
4911	31803	4211		4464		4464		5926		2903	
4912	31804	6880		6312		6312		6705		4428	
4913	31805	5260		4059		4059		5786		4297	
4914	31806	6308		4132		4132		5753		4401	
4915	31807	6819		3509		3509		6265		4450	
4916	31808	8251	1 *	7150	3	7150	3 *	6079		4564	
4917	31809	3647		4486		4486		7282	5	3077	
4918	31810	8247	2 *	6385		6385		5800		5022	6
4919	31811	6101		4109		4109		7925	2 *	4058	
4920	31812	6440		5521		5521		6285		4842	7
4921	Telangana Sona (National Early duration Check)	5850		4333		4333		6873	10	3344	
4922	31813	6182		3972		3972		7145	6	4483	
4923	31814	6101		5408		5408		5559		3862	
4924	31815	7045	9	3884		3884		6126		4483	
4925	31816	6288		5800		5800		5400		4167	
4926	31817	6258		6336		6336		6019		4080	
4927	31818	4699		4161		4161		7013	8	3437	
4928	31819	6009		6666	6	6666	6 *	5839		4330	
4929	31820	6474		4522		4522		5606		3600	
4930	31821	6568		6430	9	6430	9	6897	9	3878	
4931	31822	6053		7251	2	7251	2 *	6006		3600	
4932	WGL-14 (National Medium duration Check)	7301	7	5224		5224		5753		3649	
4933	31823	4311		3427		3427		7014	7	4630	
4934	31824	5315		4563		4563		6106		4739	
4935	31825	5993		6628	7	6628	7 *	6339		4303	
4936	31826	5444		6990	4	6990	4 *	6812		3578	
4937	31827	6175		3698		3698		6792		4635	
4938	31828	6601		5970		5970		5893		5136	4
4939	31829	5131		6132		6132		6513		4150	
4940	31830	6479		4628		4628		6506		4161	
4941	31831	6209		6413	10	6413	10	6306		4254	
4942	31832	5767		5061		5061		8641	1 *	4194	
4943	31833	5546		4109		4109		5446		4090	
4944	31834	5997		4889		4889		5828		4254	
4945	31835	7360	6	5831		5831		5653		4417	
4946	31836	6048		6904	5	6904	5 *	6426		4586	
4947	31837	6095		3734		3734		5300		3911	
4948	31838	4412		4411		4411		480		5523	1
4949	31839	7844	4	5665		5665		5979		4755	10
4950	31840	5662		3958		3958		5599		4325	
4951	31841	4230		3828		3828		5810		4308	
4952	31842	6915		5466		5466		5744		3818	
4953	31843	7022	10	3556		3556		5761		4352	
4954	31844	6204		4216		4216		6286		4156	
4955	BPT 5204 (National Late duration Check)	5752		5252		5252		5579		3464	
4956	31845	6559		3984		3984		5147		3780	
4957	31846	7517	5	3998		3998		5846		4325	
4958	31847	4433		4545		4545		5565		4188	
4959	31848	5473		3597		3597		6506		4788	9
4960	31849	7050	8	3930		3930		5493		4809	8
4961	31850	7868	3	7647	1	7647	1 *	5871		4232	
4962	Zonal Check	6314		5484		5484		5566		3540	
4963	31851	7021		4027		4027		6173		3889	
4964	Local Check	6544		5542		5542		5886		5468	2
Exp. Mean		**6042**		**5006**		**5006**		**6097**		**4244**	
F value		**14.98(p<0.0001)S**		**11.65(p<0.0001)S**		**11.65(p<0.0001)S**		**9.02(p<0.0001)S**		**4.39(p<0.0001)S**	
CD		766		961		961		908		709	
CV%		**6.34**		**9.61**		**9.61**		**7.45**		**8.36**	
D/S				17-06-2023				11-07-2023		07-07-2023	
D/P				11-07-2023				05-08-2023		03-08-2023	
Local Check Name				CO 52				Red mahsuri		Thanu	

Table No. 10c.2 (Contd).: Grain Yield (kg/ha) in IVT – MS, Kharif 2023

Entry No.	IET No.	ZONE VII – SOUTHERN								Overall Mean (23)	
		KARNATAKA				Karnataka(3)		Zone VII(8)			
		Mugad		Malagi		Mean		Mean			
4901	31793	4090		7900	4	5445		4913		4609	
4902	31794	7353		4820		5523		5313		4645	
4903	31795	8157	7	6200	9	6283	2	6316	3 *	5394	
4904	31796	7139		5420		5913	6	5713		5073	
4905	31797	5337		7140	6	5633		5419		5127	
4906	31798	4590		8320	2	5465		4736		4884	
4907	31799	6962		7941	3	6279	3	5614		5097	
4908	31800	7282		5080		5648		5897	10	5517	
4909	31801	6121		6500	8	5560		5675		5154	
4910	31802	6246		5226		5503		6139	7 *	5665	6
4911	31803	6490		7784	5	5726	9	5229		4520	
4912	31804	6798		8700	1	6642	1 *	6660	1 *	5724	4
4913	31805	4661		5720		4893		4873		4805	
4914	31806	7306		5900		5869	7	5619		5311	
4915	31807	7470		3940		5287		5433		5513	
4916	31808	9210	1	3421		5732	8	6636	2 *	5994	2 *
4917	31809	4717		6160		4651		4650		4379	
4918	31810	6000		4400		5141		6292	4 *	6078	1 *
4919	31811	5840		5600		5166		5647		4806	
4920	31812	6908		4000		5250		5699		5361	
4921	Telangana Sona (National Early duration Check)	7067		6180	10	5530		5626		4919	
4922	31813	7242		3580		5102		5596		5376	
4923	31814	7716	8	4140		5239		5678		5137	
4924	31815	7266		2674		4808		5435		5375	
4925	31816	7491		3412		5023		5645		5560	10
4926	31817	7090		3940		5037		5663		5090	
4927	31818	5338		4260		4345		4787		4618	
4928	31819	6260		3640		4743		5565		5403	
4929	31820	6450		5100		5050		5433		5381	
4930	31821	5700		5520		5033		5971	9	5532	
4931	31822	8907	3	5500		6002	5	6146	6 *	5515	
4932	WGL-14 (National Medium duration Check)	5913		4400		4654		5651		5645	7
4933	31823	7550	9	6000		6060	4	5324		4873	
4934	31824	5698		4020		4819		5166		5443	
4935	31825	8926	2	2361		5197		5747		5686	5
4936	31826	8519	5	4400		5499		5771		5050	
4937	31827	7506		4420		5520		5637		5633	9
4938	31828	8177	6	3760		5691	10	5815		5560	10
4939	31829	5623		2600		4124		5029		4609	
4940	31830	7546	10	2623		4777		5347		4943	
4941	31831	6653		5000		5302		5723		5556	
4942	31832	5057		4060		4437		5496		4994	
4943	31833	4978		3700		4256		4915		4656	
4944	31834	5245		6520	7	5340		5661		5046	
4945	31835	6360		2700		4492		5735		5982	3 *
4946	31836	8715	4	3540		5614		6027	8	5504	
4947	31837	7227		3040		4726		4970		5073	
4948	31838	5093		3120		4579		4075		4378	
4949	31839	6282		3000		4679		5896		5396	
4950	31840	5438		5040		4934		5052		4639	
4951	31841	6140		5200		5216		4737		4591	
4952	31842	6594		3260		4557		5548		5399	
4953	31843	6630		5300		5427		5641		5281	
4954	31844	6561		2935		4551		5143		4930	
4955	BPT 5204 (National Late duration Check)	6192		2719		4125		5096		5063	
4956	31845	5360		3340		4160		5164		4949	
4957	31846	5742		4080		4716		5658		5638	8
4958	31847	6259		4420		4956		4890		4608	
4959	31848	6436		2461		4562		4992		4948	
4960	31849	5598		2900		4436		5442		5435	
4961	31850	6744		3560		4845		6244	5 *	5471	
4962	Zonal Check	6774		4300		4871		5336		4950	
4963	31851	5109		4038		4345		5366		5169	
4964	Local Check	5529		3921		4973		5620		5216	
Exp. Mean		**6522**		**4607**		**5124**		**5499**		**5185**	
F value		**2.13(p<0.0001)S**		**9.16(p<0.0001)S**		**3.37(p<0.0001)S**		**9.22(p<0.0001)S**		**22.49(p<0.0001)S**	
CD		2251		1437		885		445		239	
CV%		**17.28**		**15.6**		**8.64**		**4.05**		**2.3**	
D/S		11-07-2023		05-07-2023							
D/P		18-08-2023		02-08-2023							
Local Check Name		Siri-1253		Siri-1253							

Table No. 10c.2 (Contd).: Grain Yield (kg/ha) in IVT – MS, (Trial Not Considered), Kharif 2023

Entry No.	IET No.	Trial not considered							
		Odisha		Uttar Pradesh		Assam		Maharashtra	
		@NRRI Cuttack		@Masodha		@Geurua		@Shirgaon	
4901	31793	5985		5366		1571		3313	
4902	31794	5835		3032		2357		3343	
4903	31795	6485		3584		3351		3500	
4904	31796	5710		4555		3649		2235	
4905	31797	5395		4043		3630		3194	
4906	31798	8600	1	4275				3287	
4907	31799	6050		4382		4052		2954	
4908	31800			4634		4357	9	3207	
4909	31801	5380		4235		3922		3417	
4910	31802	6075		4734		3682		2849	
4911	31803	7170				2740		2753	
4912	31804	6580		5725	3	3831		3088	
4913	31805	6050		4448		3494		3374	
4914	31806	6680		4049		3734		3522	
4915	31807	8000	8	3391		4299		2810	
4916	31808	7080		5598	6	4623	7	4535	2
4917	31809	4815		4122		2338		1784	
4918	31810	6040		5040		4675	6	3713	
4919	31811	5285		4481		4968	4	3556	
4920	31812	6695		4794		4156		3690	
4921	Telangana Sona (National Early duration Check)	7050		3757		3578		2272	
4922	31813	6270		5399		4013		2685	
4923	31814	7205		3364		4305	10	2858	
4924	31815	7490	10	4289		3500		3927	6
4925	31816	6820		4262		3571		2998	
4926	31817	5490				3104		2522	
4927	31818			5519	8	2981		3517	
4928	31819	6760		4521		3968		3594	
4929	31820	5265		4987		3500		2753	
4930	31821	6830		4289		3721		2657	
4931	31822	7220				2714		3392	
4932	WGL-14 (National Medium duration Check)	5245		4368		3968		2787	
4933	31823	8395	4	5698	4	3656		3826	10
4934	31824	8445	3	4701		3305		4025	5
4935	31825	6995				3987		3915	7
4936	31826	8145	5	3358		2688		2310	
4937	31827	6075		4435		5260	1	3529	
4938	31828	6115		5572	7	3617		4039	4
4939	31829	6140		5386		1468		3849	9
4940	31830	6305		5372				3645	
4941	31831	4475		5372				4435	3
4942	31832	5915		5864	2	4026		2384	
4943	31833	6550		4375		5214	2	3088	
4944	31834	6790		3797		3409		2863	
4945	31835	8450	2	4435		3890		2767	
4946	31836	6215		1735		3747		3583	
4947	31837	5345		4694		4045		2579	
4948	31838	5920		4089		2857		3395	
4949	31839	6335		4348		2744		3056	
4950	31840	6045		5060		3838		3427	
4951	31841	6835		4309		3253		3796	
4952	31842	7575	9	4063		2773		3861	8
4953	31843	8055	7	5412	10	4877	5	3167	
4954	31844			4063		3558		4866	1
4955	BPT 5204 (National Late duration Check)	5985				4065		2582	
4956	31845	8115	6	4455		3870		3228	
4957	31846	4865		5459	9	4383	8	3551	
4958	31847	7005		4481		2123		3772	
4959	31848	5165		5299		5013	3	3137	
4960	31849	7350		4927		3734		3241	
4961	31850	6200		5691	5	3332		3199	
4962	Zonal Check	6590		3198		2968		2966	
4963	31851	5415		6051	1	3409		3816	
4964	Local Check	6510		5047		3396		3727	
Exp. Mean		**6490**		**4576**		**3621**		**3277**	
F value		**1.35(p<0.1226)NS**		**26.95(p<0.0001)S**		**3.49(p<0.0001)S**		**8.35(p<0.0001)S**	
CD		**NS**		439		1216		574	
CV%		**18.23**		**4.79**		**16.78**		**8.76**	
D/S		21-06-2023		29-06-2023		08-07-2023		16-06-2023	
D/P		03-08-2023		06-08-2023		23-08-2023		19-07-2023	
Local Check Name		CR Dhan 910		Sambha Mahsuri-Sub 1		Keteki Joha		Ratnagiri 8	

Table No. 10c.2 (Contd).: Grain Yield (kg/ha) in IVT – MS, (Trial Not Considered), Kharif 2023

Entry No.	IET No.	Trial not considered									
		Maharashtra		Navagam		Telangana		Tamil Nadu		Karnataka	
		@Radhanagari		@Vyara		@Kampasagar		@Aduthurai		@Sirsi	
4901	31793	4636		4060		4723		5252		1768	
4902	31794	4259		3604		6910		6134	7	3381	
4903	31795	2897		2198		7590	4	6008		2639	
4904	31796	3903		2929		6763		7815	2	2221	
4905	31797	2461		3810		6331		5000		3029	
4906	31798	4890		4555		6174		5294		1792	
4907	31799	4919		2999		4474		5000		2737	
4908	31800	3054		3286		6818		5017		3397	
4909	31801	5183	7	3704		7502	5	5294		3879	
4910	31802	4130		3370		5161		5399		2136	
4911	31803	2786		2554		6195		6050	10	2703	
4912	31804	4756		5554	2	7694	3	5630		2630	
4913	31805	4068		2461		4744		5525		3948	
4914	31806	4167		3466		4653		5483		2690	
4915	31807	5215	6	5276	3	5494		5546		1709	
4916	31808	4799		4676		4917		5042		3841	
4917	31809	3081		2821		4591		5084		1790	
4918	31810	5269	5	4675		6565		5294		4138	9
4919	31811	5075	8	2775		5047		3887		2740	
4920	31812	3435		3937		6580		4706		3982	
4921	Telangana Sona (National Early duration Check)	2086		4182		5141		3739		4408	5
4922	31813	5623	2	3558		4794		4202		2189	
4923	31814	3042		3968		6765		5294		3599	
4924	31815	4484		5107	6	4794		4832		3790	
4925	31816	4402		4720		6307		7227	5	3950	
4926	31817	1657		3836		6827		6008		708	
4927	31818	3466		3732		5489		5420		1394	
4928	31819	4948		4307		7132		7311	4	2502	
4929	31820	5610	3	3984		5486		5042		4127	10
4930	31821	5654	1	5036	7	8119	1 *	5504		4756	1
4931	31822	1900		4036		6704		5756		2620	
4932	WGL-14 (National Medium duration Check)	3711		3221		6234		5630		3505	
4933	31823	4592		2677		4831		3529		3797	
4934	31824	4515		5268	4	6503		4034		3140	
4935	31825	2997		3880		7804	2	5042		3555	
4936	31826	1226		3683		7463	7	5294		3599	
4937	31827	4715		3510		6039		5008		3273	
4938	31828	4579		4565		5075		4727		1845	
4939	31829	4898		3328		5853		3655		2096	
4940	31830	4580		4226		6725		4202		3003	
4941	31831	3768		3493		7304	9	7815	2	3692	
4942	31832	2830		3424		6131		6092	8	4086	
4943	31833	3292		2955		4901		5000		4208	7
4944	31834	5046	9	3153		7082		5126		3036	
4945	31835	5272	4	4763		4885		5336		3769	
4946	31836	2688		5859	1	5827		5185		2730	
4947	31837	2400		2324		4815		5126		3048	
4948	31838	4769		3758		6454		5294		686	
4949	31839	4686		4884	10	6332		6092	8	4285	6
4950	31840	3168		3904		5086		5399		4100	
4951	31841	4725		2740		5344		5420		3938	
4952	31842	3161		4371		7174	10	6660	6	4423	4
4953	31843	4060		2922		5606		5462		2818	
4954	31844	4535		5245	5	5684		5462		3751	
4955	BPT 5204 (National Late duration Check)	2069		4457		7443	8	5336		3510	
4956	31845	3981		3583		5325		5546			
4957	31846	5020	10	4913	9	6774		5176		3598	
4958	31847	4464		4331		5660		5311		2898	
4959	31848	5013		4961	8	5466		4874		1675	
4960	31849	4585		4071		6478		5210		3359	
4961	31850	2702		3674		7480	6	5189		4527	3
4962	Zonal Check	3953		3396		4584		5504		4174	8
4963	31851	3707		3700		5348		5462		3503	
4964	Local Check	3434		4496		5306		8025	1	4649	2
Exp. Mean		**3984**		**3889**		**6023**		**5391**		**3166**	
F value		**10.28(p<0.0001)S**		**4.11(p<0.0001)S**		**33.28(p<0.0001)S**		**23.03(p<0.0001)S**		**13.59(p<0.0001)S**	
CD		947		1166		483		519		828	
CV%		**11.89**		**15**		**4.01**		**4.82**		**13.08**	
D/S		19-06-2023		20-06-2023		29-06-2023		16-09-2023		14-06-2023	
D/P		13-07-2023		19-07-2023		21-07-2023		27-10-2023		05-07-2023	
Local Check Name		Phule Radha		GNR-7		RNR-15048		CO 52		SIRI 1253	

Table No. 10c.3 : Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – MS, Kharif 2023

Entry No.	IET No.	Zone III EASTERN														
		ODISHA						Odisha (2)			BIHAR					
		Bhubaneswar			Jeypore			Mean			Bikramgunj			Pusa		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4901	31793	90	91	255	114	74	425	102	83	340	90	108	411	82	104	230
4902	31794	113	105	354	118	93	436	116	99	395	118	117	369	123	96	230
4903	31795	108	104	348	126	88	429	117	96	389	117	107	426	109	106	232
4904	31796	109	98	356	122	76	342	115	87	349	115	113	438	109	109	233
4905	31797	98	108	284	104	68	348	101	88	316	99	115	371	101	98	235
4906	31798	89	90	329	118	78	281	104	84	305	96	105	382	81	122	226
4907	31799	95	105	350	117	88	345	106	96	347	96	127	363	92	101	240
4908	31800	100	110	350	119	84	362	109	97	356	106	125	392	101	120	237
4909	31801	95	95	319	108	94	364	101	95	341	103	128	383	96	115	241
4910	31802	100	98	330	120	75	369	110	87	349	101	99	435	96	116	238
4911	31803	121	95	355	127	73	342	124	84	348	142	104	382	131	105	190
4912	31804	92	85	343	114	72	352	103	79	347	98	120	385	99	111	234
4913	31805	93	90	235	121	72	368	107	81	302	94	122	384	84	108	235
4914	31806	92	100	213	120	85	343	106	93	278	94	123	387	88	120	228
4915	31807	98	100	359	114	76	369	106	88	364	98	123	387	101	103	199
4916	31808	107	95	250	121	82	332	114	88	291	118	107	375	118	103	189
4917	31809	82	89	269	109	69	221	95	79	245	92	96	369	77	79	222
4918	31810	98	108	329	109	81	333	103	94	331	105	126	396	100	119	231
4919	31811	97	90	320	107	67	415	102	78	368	96	107	386	95	105	227
4920	31812	105	110	333	118	77	368	111	94	351	111	126	377	113	110	236
4921	Telangana Sona (National Early duration Check)	89	110	249	107	66	389	98	88	319	118	117	392	120	119	243
4922	31813	90	103	232	104	70	313	97	86	273	92	119	421	81	109	233
4923	31814		.		115	66	317	115	66	317	110	105	426	113	110	252
4924	31815	104	90	254	115	72	312	110	81	283	105	113	387	112	105	246
4925	31816	104	103	366	117	75	479	110	89	422	103	118	402	101	107	259
4926	31817	115	107	319	125	82	322	120	94	320	122	115	392	128	109	250
4927	31818	87	85	350	106	68	328	97	76	339	93	116	401	86	102	244
4928	31819	107	97	269	120	82	401	113	90	335	107	109	427	114	103	234
4929	31820	105	107	331	122	90	372	114	98	351	108	125	411	108	141	254
4930	31821	108	106	226	116	78	523	112	92	374	108	115	383	108	110	219
4931	31822	113	105	249	126	97	288	120	101	269	141	127	382	100	111	210
4932	WGL-14 (National Medium duration Check)	105	105	321	118	75	299	112	90	310	107	123	412	112	114	231
4933	31823	98	96	211	106	70	305	102	83	258	101	112	412	96	108	241
4934	31824	99	104	321	114	83	380	107	94	350	103	125	384	101	110	241
4935	31825	109	97	319	119	74	312	114	86	315	110	116	426	106	116	261
4936	31826	115	95	248	125	80	364	120	87	306	126	110	397	128	106	216
4937	31827	110	105	230	118	78	377	114	92	303	121	122	375	101	121	233
4938	31828	100	110	251	112	91	305	106	101	278	99	125	416	99	120	242
4939	31829	86	91	301	117	65	325	101	78	313	98	115	383	94	108	237
4940	31830	103	87	277	124	68	343	114	77	310	98	117	376	97	113	245
4941	31831	107	115	222	120	101	369	113	108	295	117	123	407	116	110	202
4942	31832	95	105	270	115	79	248	105	92	259	101	114	408	96	97	240
4943	31833	87	85	262	112	69	352	100	77	307	101	111	363	96	97	237
4944	31834	100	90	260	112	72	360	106	81	310	101	120	388	97	111	258
4945	31835	100	98	220	122	88	358	111	93	289	105	119	387	108	108	230
4946	31836	113	104	250	127	82	355	120	93	302	122	105	395	123	107	233
4947	31837	99	98	272	108	77	392	104	88	332	96	123	369	85	117	241
4948	31838	85	105	230	119	74	308	102	89	269	92	117	401	89	107	231
4949	31839	98	85	334	123	69	318	110	77	326	103	109	358	89	110	240
4950	31840	90	100	279	110	70	239	100	85	259	94	113	363	95	100	238
4951	31841	105	85	338	119	76	327	112	81	332	105	109	381	101	106	241
4952	31842	103	85	365	120	67	365	111	76	365	106	109	332	103	113	228
4953	31843	91	90	344	119	77	336	105	84	340	106	115	372	94	100	235
4954	31844	98	100	330	117	86	382	107	93	356	105	106	377	101	105	243
4955	BPT 5204 (National Late duration Check)	111	86	349	126	65	328	118	76	339	113	108	392	112	120	235
4956	31845	91	85	357	112	63	359	101	74	358	103	97	389	97	99	243
4957	31846	92	95	337	118	69	367	105	82	352	101	108	373	100	108	245
4958	31847	98	90	318	120	67	359	109	78	338	96	111	366	90	110	251
4959	31848	91	100	251	115	72	241	103	86	246	94	105	365	83	111	227
4960	31849	92	92	305	103	73	342	97	83	323	98	118	415	99	117	241
4961	31850	110	95	323	119	74	288	115	84	305	110	101	406	103	100	250
4962	Zonal Check	104	85	316	119	67	304	112	76	310	110	96	395	112	98	227
4963	31851	98	90	300	114	72	323	106	81	312	106	119	388	100	106	241
4964	Local Check	102	95	345	119	72	334	110	84	339	106	108	399	99	97	246
Mean		**100**	**97**	**298**	**116**	**76**	**346**	108	87	322	**105**	**114**	**390**	**101**	**109**	**235**

Table No.10c.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT– MS, Kharif 2023

Entry No.	IET No.	Zone III EASTERN														
		Bihar (2) Mean			JHARKHAND (1) Ranchi			WEST BENGAL (1) Chinsurah			Uttar Pradresh (1) Varanasi			Zone III (7) Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4901	31793	86	106	320	99	67	94	56	96	244	76	79	135	87	88	256
4902	31794	121	107	299	112	68	106	85	85	231	99	88	135	110	93	266
4903	31795	113	107	329	118	65	140	79	114	241	104	90	144	109	96	280
4904	31796	112	111	335	123	68	147	74	93	234	105	90	126	108	92	268
4905	31797	100	106	303	125	63	115	69	85	218	99	100	178	99	91	250
4906	31798	88	114	304	98	73	93	56	92	218	72	85	118	87	92	235
4907	31799	94	114	301	118	69	130	69	115	223	96	94	157	97	100	258
4908	31800	104	123	314	124	70	116	73	105	218	99	96	121	103	101	256
4909	31801	99	122	312	116	74	131	73	114	231	92	108	132	97	104	257
4910	31802	99	107	336	117	67	145	42	103	231	88	96	121	95	93	267
4911	31803	137	105	286	124	61	137	90	96	216				122	89	270
4912	31804	99	115	309	119	70	114	68	103	215	93	107	115	97	95	251
4913	31805	89	115	309	118	69	130	65	100	234	86	96	177	94	94	252
4914	31806	91	122	307	123	62	162	68	112	220	92	106	161	97	101	245
4915	31807	99	113	293	118	67	161	69	101	218	92	91	150	98	94	263
4916	31808	118	105	282	122	63	118	77	97	231	118	89	130	112	91	232
4917	31809	84	87	295	98	62	124	54	72	241	67	73	147	83	77	228
4918	31810	103	122	313	123	71	116	70	103	244	97	106	159	100	102	258
4919	31811	95	106	306	118	53	118	66	99	234	91	82	154	95	86	265
4920	31812	112	118	307	124	68	106	74	102	235	101	95	144	106	98	257
4921	Telangana Sona (National Early duration Check)	119	118	317	116	73	165	65	97	238	111	98	164	104	97	263
4922	31813	86	114	327	116	68	123	66	117	212	73	79	128	89	95	237
4923	31814	112	107	339	123	54	140	77	87	221	110	77	174	108	83	255
4924	31815	108	109	316	122	57	108	68	94	238	101	80	161	104	87	243
4925	31816	102	112	330	126	69	133	73	96	243	100	87	140	103	94	289
4926	31817	125	112	321	124	59	113	84	94	225	113	90	162	116	94	254
4927	31818	90	109	322	111	73	127	69	110	238	87	93	165	91	92	264
4928	31819	111	106	331	127	51	113	75	83	243	110	78	187	108	86	268
4929	31820	108	133	333	124	72	149	74	109	231	103	103	131	106	107	268
4930	31821	108	113	301	126	70	137	73	102	240	99	101	175	105	97	272
4931	31822	121	119	296	118	60	101	90	114	211				115	102	240
4932	WGL-14 (National Medium duration Check)	109	119	321	123	69	110	75	107	221	98	92	176	105	98	253
4933	31823	99	110	326	118	61	143	66	93	221	96	99	128	97	91	237
4934	31824	102	118	312	123	63	140	69	111	231	94	109	165	100	101	266
4935	31825	108	116	343	118	62	102	74	104	218	107	85	156	106	93	256
4936	31826	127	108	307	115	61	123	91	94	241				117	91	265
4937	31827	111	121	304	122	69	132	74	113	225	98	99	132	106	101	243
4938	31828	99	122	329	122	66	171	73	119	235	96	110	147	100	106	252
4939	31829	96	111	310	126	56	122	65	99	218	90	98	164	96	90	250
4940	31830	98	115	310	120	63	154	72	96	231	96	102	161	101	92	255
4941	31831	116	117	304	118	74	115	80	117	235	99	111	139	108	107	241
4942	31832	98	105	324	124	72	119	71	103	238	95	92	123	99	94	235
4943	31833	98	104	300	123	60	119	66	85	221	92	85	164	96	85	245
4944	31834	99	116	323	117	70	147	72	112	224	100	97	175	100	96	259
4945	31835	107	114	309	117	74	127	72	107	215	105	87	142	104	97	240
4946	31836	122	106	314	116	60	144	78	95	241				113	92	270
4947	31837	91	120	305	119	62	131	66	103	218	85	103	153	94	98	254
4948	31838	91	112	316	119	58	91	63	93	231	89	94	129	94	92	232
4949	31839	96	110	299	118	83	160	69	101	222	98	101	174	100	94	258
4950	31840	95	106	300	118	62	145	64	93	228	97	86	141	95	89	233
4951	31841	103	108	311	122	66	132	73	110	218	99	97	155	103	93	256
4952	31842	104	111	280	123	65	115	80	96	236	94	89	152	104	89	256
4953	31843	100	108	303	122	60	116	69	101	235	95	96	146	99	91	255
4954	31844	103	106	310	124	69	161	73	102	225	96	108	217	102	97	276
4955	BPT 5204 (National Late duration Check)	112	114	313	118	60	134	80	56	228	116	101	155	111	85	260
4956	31845	100	98	316	118	59	123	66	82	224	93	90	163	97	82	265
4957	31846	101	108	309	116	62	128	66	99	238	98	96	143	99	91	261
4958	31847	93	110	308	118	67	115	65	95	208	82	97	159	95	91	254
4959	31848	88	108	296	115	82	153	69	125	235	76	88	123	92	97	228
4960	31849	99	118	328	118	64	123	65	105	240	98	105	133	96	96	257
4961	31850	106	101	328	126	58	145	70	96	238	99	96	147	105	89	257
4962	Zonal Check	111	97	311	124	58	122	73	94	228	102	77	181	106	82	253
4963	31851	103	113	314	122	58	112	76	97	228	95	88	135	101	90	247
4964	Local Check	102	102	322	127	65	129	70	105	238	109	75	151	104	88	263
Mean		103	111	312	**119**	**65**	**128**	**71**	**100**	**229**	**96**	**93**	**150**	101	94	254

Table No. 10c.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – MS, Kharif 2023

Entry No.	IET No.	Zone IV NORTH EASTERN									Zone V CENTRAL					
		Assam (1)			TRIPURA (1)			Zone IV (2)			MADHYAPRADESH (1)			CHATTISGAHR (1)		
		Titabar			Lembucherra			Mean			Jabalpur			Raipur		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4901	31793	109	110	314	73	105	238	91	107	276	104	80	255	83	124	182
4902	31794	124	109	289	116	104	263	120	107	276	108	77	220	120	122	201
4903	31795	132	109	298	105	98	313	118	103	305	125	61	178	103	122	211
4904	31796	132	110	292	104	101	288	118	106	290	126	57	242	105	107	179
4905	31797	110	118	373				110	118	373	118	73	249	99	111	172
4906	31798	114	107	264	75	106	288	94	107	276	109	73	136	84	111	148
4907	31799	108	119	373	72	98	263	90	108	318	105	81	257	94	118	232
4908	31800	120	116	278	53	103	300	86	109	289	123	78	182	98	122	184
4909	31801	114	116	256	103	116	225	108	116	240	121	66	145	98	116	213
4910	31802	108	111	284	95	103	250	102	107	267	121	72	161	94	115	164
4911	31803	143	94	267	85	89	225	114	91	246	127	55	156	126	97	248
4912	31804	110	112	275	91	106	200	100	109	238	117	70	223	95	106	208
4913	31805	108	107	365	81	109	300	94	108	333	109	74	241	90	105	201
4914	31806	109	120	323	73	93	275	91	107	299	122	71	203	93	131	174
4915	31807	116	120	300	81	97	313	98	109	306	122	73	258	96	113	158
4916	31808	133	104	303	85	102	313	109	103	308	127	61	144	111	114	184
4917	31809	84	86	357	81	107	350	82	97	353	99	51	150	80	94	177
4918	31810	116	118	351	103	106	275	110	112	313	125	69	203	98	116	193
4919	31811	106	95	393	100	72	300	103	84	347	118	65	253	96	95	216
4920	31812	126	116	289	102	76	238	114	96	263	127	74	224	102	126	209
4921	Telangana Sona (National Early duration Check)	119	123	328	81	77	300	100	100	314	116	85	235	95	125	187
4922	31813	108	119	331	87	120	250	97	120	291	114	74	236	86	106	193
4923	31814	125	91	303	122	83	300	123	87	302	126	54	224	107	95	225
4924	31815	116	107	264	78	121	275	97	114	270	118	61	208	101	113	171
4925	31816	125	110	273	90	93	250	108	101	261	125	67	226	101	116	169
4926	31817	138	108	236	100	102	288	119	105	262	126	62	211	117	108	471
4927	31818	105	106	337	131	106	338	118	106	337	106	63	217	88	106	183
4928	31819	125	98	373	78	98	225	101	98	299	128	54	271	102	95	196
4929	31820	126	119	272	105	90	250	115	105	261	124	80	241	104	127	220
4930	31821	125	124	303	100	108	200	112	116	252	124	71	243	103	123	212
4931	31822	146	119	295	102	119	225	124	119	260	125	75	195	119	127	167
4932	WGL-14 (National Medium duration Check)	122	114	261	123	102	275	122	108	268	118	77	212	105	100	188
4933	31823	108	111	281	91	107	325	99	109	303	120	71	220	96	114	214
4934	31824	116	117	301	80	102	200	98	109	250	118	74	188	97	127	240
4935	31825	123	110	292	104	105	263	113	107	277	124	54	227	102	96	189
4936	31826	143	104	247			204	143	104	225	127	56	212	115	111	188
4937	31827	115	126	238	105	97	245	110	112	243	123	76	204	102	114	289
4938	31828	119	128	288	116	91	179	117	110	254	118	74	201	95	116	272
4939	31829	108	111	188	99	104	182	104	108	242	110	69	182	91	117	313
4940	31830	110	106	325	79	115	230	94	110	279	123	58	180	95	106	242
4941	31831	129	124	250	93	89	146	111	107	197	126	77	198	104	115	233
4942	31832	108	119	238	101	119	186	104	119	246	116	73	122	95	111	302
4943	31833	107	105	288	79	98	231	93	101	251	113	59	185	92	86	315
4944	31834	115	110	300	83	92	232	99	101	271	125	75	199	99	115	237
4945	31835	121	114	263	92	103	225	107	109	257	127	63	196	103	117	174
4946	31836	139	103	225	92	92	218	115	97	275	129	60	231	99	115	200
4947	31837	106	113	288	89	99	273	98	106	288	120	69	157	93	124	239
4948	31838	107	116	275	79	104	251	93	110	271	109	76	205	89	125	146
4949	31839	114	114	263	82	99	254	98	106	304	120	67	210	100	107	240
4950	31840	107	110	300	101	103	207	104	106	255	110	67	221	94	110	261
4951	31841	111	99	375	104	104	217	108	102	287	123	56	165	97	200	179
4952	31842	127	101	313	82	105	256	104	103	281	126	55	178	100	87	234
4953	31843	121	101	338	90	112	239	105	106	277	121	66	206	93	115	225
4954	31844	115	121	275	79	104	233	97	113	296	118	81	183	98	135	255
4955	BPT 5204 (National Late duration Check)	126	93	250	100	89	269	113	91	329	124	52	218	112	88	179
4956	31845	113	106	250	79	78	188	96	92	248	115	56	187	90	92	221
4957	31846	113	108	238	77	89	225	95	99	271	115	63	180	94	106	167
4958	31847	108	110	275	94	97	205	101	104	263	119	60	214	95	110	184
4959	31848	108	113	275	76	95	212	92	104	251	111	71	186	85	107	243
4960	31849	113	112	288	75	100	172	94	106	231	108	73	203	92	121	215
4961	31850	120	111	250	108	102	170	114	107	241	125	61	194	104	107	193
4962	Zonal Check	125	145	300	102	134	260	114	140	290	123	57	209	101	118	230
4963	31851	115	106	350	78	90	184	96	98	253	116	61	190	96	104	277
4964	Local Check	123	121	350	102	98	198	113	109	260	109	80	229	97	110	176
Mean		**117**	**111**	**294**	**92**	**100**	**245**	105	106	276	**119**	**67**	**204**	**98**	**113**	**214**

Table No.10c.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – MS, Kharif 2023

Entry No.	IET No.	Zone V CENTRAL						Zone -VI WESTERN								
		MAHARASTRA (1)			Zone V(3)			Maharashtra 2(1)			Maharashtra (2)			GUJARAT		
		Sindewahi			Mean			Karjat			Mean			Navasari		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4901	31793	87	76	182	91	93	206	98	118	186	92	97	184	88	119	299
4902	31794	95	83	169	107	94	196	111	131	262	103	107	216	100	120	260
4903	31795	106	95	272	111	93	220	114	124	269	110	110	270	111	116	278
4904	31796	107	77	162	112	80	194	110	117	251	108	97	206	101	121	290
4905	31797	103	85	290	107	90	237	106	107	217	104	96	254	100	123	311
4906	31798	88	82	166	93	89	150	101	123	238	94	103	202	84	108	223
4907	31799	95	96	260	98	98	250	98	126	230	96	111	245	94	139	283
4908	31800	106	102	145	109	101	170	105	132	245	105	117	195	99	128	337
4909	31801	92	100	223	103	94	193	101	126	212	96	113	217	94	123	277
4910	31802	97	91	199	104	93	175	99	115	245	98	103	222	95	115	301
4911	31803	130	82	240	127	78	215	122	121	202	126	102	221	132	105	278
4912	31804	101	72	183	104	83	205	100	121	213	101	96	198	98	121	283
4913	31805	93	94	286	97	91	242	98	120	245	95	107	265	89	107	285
4914	31806				107	101	188	99	124	251	99	124	251	90	134	317
4915	31807	96	93	194	104	93	203	100	121	286	98	107	240	97	116	240
4916	31808	113	103	209	117	93	179	114	122	264	113	112	236	115	117	278
4917	31809	78	74	249	85	73	192	100	117	199	89	95	224	77	77	252
4918	31810	103	94	229	108	93	208	101	124	211	102	109	220	104	122	277
4919	31811	97	74	242	103	78	237	100	100	190	98	87	216	91	99	298
4920	31812	107	102	256	112	101	229	108	131	273	107	117	265	111	125	327
4921	Telangana Sona (National Early duration Check)	109	106	173	106	105	198	107	139	192	108	122	182	112	133	260
4922	31813	89	95	275	96	92	235	99	125	233	94	110	254	89	109	252
4923	31814	108	72	291	113	74	246	107	106	245	107	89	268	102	100	283
4924	31815	106	85	234	108	86	204	100	117	259	103	101	246	107	116	230
4925	31816	105	98	183	110	94	193	109	120	215	107	109	199	105	122	341
4926	31817	120	76	179	121	82	287	117	122	253	118	99	216	120	118	278
4927	31818	90	79	197	95	83	199	101	123	250	96	101	223	87	116	290
4928	31819	109	78	267	113	75	245	109	110	215	109	94	241	105	106	249
4929	31820	107	65	259	112	91	240	106	142	234	107	103	246	106	133	287
4930	31821	101	92	174	109	95	209	103	121	220	102	107	197	101	114	301
4931	31822	122	79	186	122	94	183	120	144	244	121	112	215	101	132	324
4932	WGL-14 (National Medium duration Check)	119	101	241	114	93	213	111	123	243	115	112	242	102	127	307
4933	31823	101	95	271	106	94	235	101	112	261	101	104	266	100	123	280
4934	31824	103	91	256	106	97	228	102	136	255	102	113	255	101	133	266
4935	31825	105	90	258	110	80	225	105	126	254	105	108	256	105	115	237
4936	31826	119	92	215	120	86	205	118	127	84	118	109	149	112	119	271
4937	31827	108	116	246	111	102	246	99	132	112	104	124	179	100	125	277
4938	31828	97	111	257	103	101	243	99	134	131	98	123	194	98	132	288
4939	31829	94	64	179	98	83	225	98	117	133	96	90	156	97	113	278
4940	31830	98	91	215	105	85	212	105	118	142	101	105	178	95	112	278
4941	31831	108	124	247	112	105	226	111	139	131	109	132	189	96	110	272
4942	31832	97	90	221	102	91	215	99	118	144	98	104	182	97	117	283
4943	31833	99	84	197	101	76	232	101	112	139	100	98	168	97	108	271
4944	31834	101	93	182	108	94	206	98	125	191	100	109	186	98	124	283
4945	31835	105	82	240	111	87	203	106	126	154	105	104	197	105	118	291
4946	31836	117	81	241	115	85	224	115	117	166	116	99	204	114	122	277
4947	31837	97	86	228	103	93	208	102	117	163	99	102	195	94	113	282
4948	31838	92	93	236	96	98	195	98	116	207	95	104	222	91	104	276
4949	31839	102	99	199	107	91	216	100	113	121	101	106	160	99	123	271
4950	31840	100	80	245	101	86	242	98	121	115	99	101	180	98	108	277
4951	31841	103	88	217	107	115	187	99	117	132	101	102	175	98	116	267
4952	31842	104	90	228	110	77	213	100	121	170	102	105	199	104	115	283
4953	31843	99	80	250	104	87	227	101	123	143	100	102	196	97	134	284
4954	31844	104	95	240	106	104	226	105	125	196	105	110	218	99	111	273
4955	BPT 5204 (National Late duration Check)	110	86	268	115	75	222	107	101	132	108	94	200	112	116	286
4956	31845	99	85	250	101	78	219	111	125	141	105	105	195	96	102	279
4957	31846	100	95	231	103	88	193	101	111	107	100	103	169	99	109	289
4958	31847	92	86	183	102	85	193	100	129	161	96	107	172	90	114	285
4959	31848	89	89	214	95	89	214	104	116	160	97	102	187	89	122	276
4960	31849	104	92	185	101	95	201	97	118	130	100	105	157	101	117	290
4961	31850	101	90	235	110	86	207	108	122	142	104	106	188	98	122	278
4962	Zonal Check	105	90	179	109	88	206	107	107	127	106	99	153	112	107	276
4963	31851	101	87	250	104	84	239	104	127	105	102	107	177	101	123	283
4964	Local Check	109	83	248	105	91	217	100	122	148	104	102	198	105	115	289
Mean		**102**	**89**	**224**	106	90	214	**104**	**122**	**193**	103	105	209	**100**	**117**	**281**

Table No. 10c.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – MS, Kharif 2023

Entry No.	IET No.	Zone -VI WESTERN									ZONE VII – SOUTHERN					
		GUJARAT			Gujarat (2)			Zone VI(3)			ANDRAPRADESH (1)			TELANGANA		
		Nawagam			Mean			Mean			Maruteru			Rajendranagar		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4901	31793	102	112	278	95	115	288	96	116	254	87	124	330	118	95	283
4902	31794	108	114	277	104	117	268	106	122	266	81	130	330	108	98	300
4903	31795	118	110	259	114	113	268	114	117	268	105	122	330	117	95	350
4904	31796	109	101	263	105	111	276	107	113	268	113	121	330	98	94	300
4905	31797	108	117	280	104	120	296	105	116	269	94	124	347	106	102	417
4906	31798	99	106	278	91	107	250	94	112	246	87	103	314	94	91	267
4907	31799	104	119	266	99	129	274	98	128	260	98	134	314	103	104	350
4908	31800	113	122	288	106	125	313	105	127	290	107	133	363	108	98	283
4909	31801	110	125	278	102	124	277	101	125	256	109	132	330	96	101	283
4910	31802	105	111	292	100	113	296	99	114	279	93	117	330	103	93	317
4911	31803	108	101	269	120	103	273	121	109	250	127	117	347	129	86	350
4912	31804	106	125	268	102	123	275	101	122	254	91	117	347	103	97	317
4913	31805	101	111	275	95	109	280	96	112	268	94	112	330	105	96	333
4914	31806	105	124	286	97	129	301	98	127	284	97	121	330	99	102	250
4915	31807	111	104	277	104	110	258	103	114	267	106	134	330	103	96	367
4916	31808	106	123	286	111	120	282	112	121	276	115	124	347	117	97	383
4917	31809	90	81	272	83	79	262	89	92	241	81	91	314	88	68	367
4918	31810	106	121	285	105	121	281	104	122	258	106	129	330	108	102	383
4919	31811	105	97	278	98	98	288	98	99	255	94	106	330	99	85	383
4920	31812	106	117	273	108	121	300	108	124	291	111	134	330	114	101	217
4921	Telangana Sona (National Early duration Check)	106	129	283	109	131	271	108	134	245	92	121	330	111	105	300
4922	31813	104	122	283	96	115	267	97	118	256	93	125	330	96	99	283
4923	31814	107	96	284	104	98	283	105	101	271	113	113	347	117	78	350
4924	31815	111	113	288	109	114	259	106	115	259	93	113	330	114	91	283
4925	31816	111	115	274	108	118	308	108	119	277	108	133	314	117	97	350
4926	31817	114	120	272	117	119	275	117	120	267	118	131	314	117	94	317
4927	31818	103	105	282	95	111	286	97	115	274	87	120	347	92	91	317
4928	31819	108	107	290	106	107	269	107	108	251	113	122	347	117	90	350
4929	31820	107	142	289	107	138	288	106	139	270	108	135	347	117	105	333
4930	31821	107	121	272	104	117	286	104	119	264	113	145	330	108	104	367
4931	31822	109	132	268	105	132	296	110	136	278	125	135	330	121	104	333
4932	WGL-14 (National Medium duration Check)	103	112	290	102	119	298	105	121	280	109	130	330	114	98	367
4933	31823	104	111	272	102	117	276	101	115	271	89	122	330	111	98	383
4934	31824	104	125	273	102	129	269	102	131	264	100	127	330	108	105	367
4935	31825	103	116	277	104	115	257	104	119	256	107	124	363	113	105	333
4936	31826	104	113	290	108	116	280	111	120	215	120	130	283	113	92	310
4937	31827	104	121	296	102	123	286	101	126	228	112	115	433	113	102	260
4938	31828	103	140	264	100	136	276	100	135	228	107	126	433	99	112	236
4939	31829	106	106	267	101	109	273	100	112	226	85	123	417	101	102	226
4940	31830	112	102	290	104	107	284	104	111	236	105	110	367	108	92	306
4941	31831	111	135	222	103	123	247	106	128	208	119	133	400	119	105	273
4942	31832	104	109	237	101	113	260	100	115	221	98	121	433	108	98	340
4943	31833	105	101	209	101	104	240	101	107	206	92	103	317	106	88	256
4944	31834	109	112	228	103	118	256	101	120	234	109	125	367	108	101	376
4945	31835	107	118	284	106	118	287	106	121	243	102	129	333	111	99	260
4946	31836	106	108	320	110	115	298	112	116	254	123	127	317	121	98	280
4947	31837	103	112	303	98	113	292	99	114	249	97	111	317	103	99	276
4948	31838	103	111	216	97	108	246	97	110	233	86	119	300	99	98	323
4949	31839	106	99	326	102	111	298	102	112	239	95	108	333	106	94	270
4950	31840	107	105	258	102	107	267	101	111	217	84	120	367	101	93	243
4951	31841	106	107	302	102	112	284	101	113	233	97	115	317	111	100	246
4952	31842	103	103	251	103	109	267	102	113	234	115	114	350	108	93	260
4953	31843	110	117	275	103	126	279	102	125	234	96	119	367	101	99	286
4954	31844	110	123	251	104	117	262	105	120	240	101	130	383	108	105	303
4955	BPT 5204 (National Late duration Check)	106	93	339	109	104	312	108	103	252	112	122	383	111	83	350
4956	31845	106	108	242	101	105	260	104	112	221	93	105	350	106	95	353
4957	31846	105	109	300	102	109	294	102	110	232	92	113	300	106	98	316
4958	31847	95	110	192	92	112	238	95	118	212	96	125	350	101	100	390
4959	31848	103	110	236	96	116	256	98	116	224	93	122	350	99	98	240
4960	31849	108	113	243	104	115	266	102	116	221	89	115	417	104	101	270
4961	31850	111	117	267	104	120	272	106	121	229	113	122	350	114	101	326
4962	Zonal Check	113	94	308	112	101	292	110	103	237	101	123	417	106	98	270
4963	31851	113	103	216	107	113	249	106	118	201	97	123	433	108	100	246
4964	Local Check	105	129	234	105	122	262	103	122	224	111	113	400	111	102	350
Mean		**106**	**113**	**272**	103	115	276	103	117	249	**101**	**122**	**348**	**108**	**97**	**312**

Table No.10c.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – MS, Kharif 2023

Entry No.	IET No.	ZONE VII – SOUTHERN														
		TELANGANA			Telangana (2)			Tamil Nadu (1)			KERALA (1)			KARNATAKA		
		Warangal			Mean			Coimbatore			Pattambi			Mandya		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4901	31793	94	125	403	106	110	343	91	96	334	107	121	343	86	94	255
4902	31794	121	129	366	114	113	333	102	137	268	96	83	223	115	113	425
4903	31795	113	123	376	115	109	363	108	112	287	100	95	410	106	94	408
4904	31796	112	117	403	105	105	351	111	106	291	99	129	355	108	92	425
4905	31797	102	124	406	104	113	411	104	103	260	103	86	283	113	96	374
4906	31798	99	119	424	97	105	345	91	86	310	96	76	320	86	83	357
4907	31799	102	119	408	103	111	379	97	102	264	116	96	376	108	107	357
4908	31800	106	133	393	107	115	338	108	114	306	113	96	220	110	97	323
4909	31801	104	119	355	100	110	319	96	135	297	100	92	240	98	109	374
4910	31802	102	114	393	102	103	355	103	100	271	115	93	323	104	93	255
4911	31803	123	108	388	126	97	369	127	114	298	100	98	293	125	90	340
4912	31804	101	119	391	102	108	354	98	88	346	107	87	233	105	86	323
4913	31805	101	114	384	103	105	359	100	95	262	99	83	350	105	99	408
4914	31806	99	133	406	99	117	328	89	107	260	116	87	276	96	95	357
4915	31807	103	123	388	103	110	377	103	97	231	99	82	320	99	84	357
4916	31808	115	119	403	116	108	393	107	112	339	98	86	263	113	93	340
4917	31809	90	89	381	89	78	374	80	78	240	105	72	433	84	65	272
4918	31810	106	129	396	107	116	390	99	106	340	101	81	236	96	95	272
4919	31811	98	108	401	99	96	392	97	82	206	117	83	253	96	77	306
4920	31812	107	123	404	110	112	310	111	98	285	97	100	240	104	96	306
4921	Telangana Sona (National Early duration Check)	104	138	408	108	121	354	95	106	205	97	92	356	90	97	340
4922	31813	96	124	401	96	111	342	90	97	190	102	80	284	90	85	374
4923	31814	113	104	403	115	91	376	111	88	233	99	82	276	115	74	255
4924	31815	104	117	386	109	104	335	108	113	213	101	69	226	111	79	340
4925	31816	105	118	394	111	107	372	108	113	312	99	83	243	110	93	323
4926	31817	121	113	384	119	103	351	121	121	340	101	90	243	119	95	306
4927	31818	93	114	401	93	102	359	91	96	200	101	85	420	92	85	340
4928	31819	110	109	404	113	99	377	111	106	313	99	85	311	109	69	391
4929	31820	109	138	393	113	122	363	116	121	236	101	92	356	112	100	357
4930	31821	110	133	389	109	119	378	102	120	312	105	79	331	105	96	374
4931	31822	123	129	393	122	116	363	121	133	309	101	101	280	118	104	306
4932	WGL-14 (National Medium duration Check)	107	129	396	110	113	381	112	106	260	96	88	230	115	105	306
4933	31823	101	118	398	106	108	390	102	97	177	96	101	314	108	84	357
4934	31824	103	124	394	106	115	381	101	112	272	99	85	280	111	89	374
4935	31825	111	133	401	112	119	367	109	118	340	103	82	260	112	71	306
4936	31826	124	119	475	118	106	392	116	118	243	112	92	272	117	91	413
4937	31827	108	131	471	111	116	365	110	123	243	103	89	357	112	95	273
4938	31828	102	138	458	101	125	347	98	116	240	102	94	391	96	96	239
4939	31829	95	114	350	98	108	288	103	94	306	105	74	340	108	83	367
4940	31830	104	118	362	106	105	334	105	104	246	97	80	374	115	85	376
4941	31831	115	128	563	117	116	418	107	123	270	104	99	340	105	98	309
4942	31832	103	118	423	106	108	381	101	98	250	122	80	340	103	95	419
4943	31833	99	105	438	102	96	347	103	87	230	97	72	374	102	82	322
4944	31834	102	118	458	105	109	417	108	108	344	104	84	357	106	93	366
4945	31835	110	124	433	111	111	346	108	116	260	99	84	306	112	94	402
4946	31836	122	113	361	121	105	320	118	118	356	105	89	340	116	95	397
4947	31837	102	116	443	103	107	360	99	106	216	103	79	340	108	94	425
4948	31838	94	123	350	97	110	337	97	98	333	102	82	374	99	95	279
4949	31839	114	124	463	110	109	366	105	108	263	99	85	391	109	94	364
4950	31840	95	114	398	98	103	321	98	100	219	103	66	391	108	86	357
4951	31841	103	108	214	107	104	230	108	102	210	101	87	289	111	87	323
4952	31842	111	108	353	109	101	306	111	111	260	103	77	306	102	85	319
4953	31843	102	124	388	101	111	337	99	96	256	103	85	374	94	99	278
4954	31844	104	143	452	106	124	377	101	142	246	103	75	425	106	94	357
4955	BPT 5204 (National Late duration Check)	114	114	433	113	98	391	114	91	303	105	71	357	115	74	424
4956	31845	102	109	244	104	102	298	96	85	283	102	62	374	95	75	411
4957	31846	102	118	298	104	108	307	104	95	250	103	74	374	103	74	376
4958	31847	98	114	416	99	107	403	97	93	353	103	76	357	98	84	310
4959	31848	98	128	424	98	113	332	93	98	296	100	85	357	90	94	348
4960	31849	102	120	366	103	110	318	103	104	276	102	74	374	102	85	354
4961	31850	106	127	365	110	114	346	104	114	200	103	86	374	108	89	394
4962	Zonal Check	108	123	413	107	111	341	116	107	216	103	80	391	115	84	427
4963	31851	103	118	425	106	109	335	99	107	316	103	81	391	105	85	370
4964	Local Check	106	129	586	109	115	468	105	115	323	101	103	391	106	110	257
Mean		**105**	**120**	**400**	107	109	356	**103**	**106**	**272**	**102**	**86**	**325**	**105**	**90**	**346**

Table No. 10c.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – MS, Kharif 2023

Entry No.	IET No.	ZONE VII – SOUTHERN												Overall Mean (23)		
		KARNATAKA						Karnataka (3)			Zone VII(8)					
		Mugad			Malagi			Mean			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4901	31793	89	70	260	98	76	192	91	80	235	96	100	300	92	98	266
4902	31794	99	98	369	119	65	195	111	92	330	105	107	310	108	103	273
4903	31795	103	70	402	122	58	173	110	74	328	109	96	342	111	99	294
4904	31796	102	67	415	124	62	165	111	74	335	108	98	335	109	97	284
4905	31797	103	66	402	118	67	176	111	76	317	105	96	333	104	97	287
4906	31798	87	58	254	98	63	135	90	68	249	92	85	297	91	93	251
4907	31799	96	86	393	105	86	181	103	93	310	103	104	330	99	106	287
4908	31800	96	71	300	113	83	222	106	84	282	107	103	301	104	106	268
4909	31801	90	71	384	107	78	174	98	86	311	100	104	305	100	107	264
4910	31802	95	67	353	106	61	205	102	74	271	102	92	306	100	97	270
4911	31803	116	75	379	121	62	241	120	75	320	121	94	329	121	92	279
4912	31804	96	68	400	107	68	160	102	74	294	101	91	314	100	97	266
4913	31805	95	68	241	107	68	212	102	78	287	100	92	315	97	97	282
4914	31806	90	73	273	108	66	199	98	78	276	99	98	294	98	104	268
4915	31807	91	59	429	105	54	200	98	66	329	101	91	328	101	97	282
4916	31808	101	72	329	122	67	193	112	77	287	111	96	324	112	98	269
4917	31809	84	63	445	89	45	177	85	58	298	87	71	328	85	78	271
4918	31810	95	74	287	119	63	137	103	77	232	104	97	298	104	103	270
4919	31811	95	50	394	114	46	142	102	57	281	101	79	302	99	84	280
4920	31812	97	71	300	125	67	129	109	78	245	108	99	276	108	102	265
4921	Telangana Sona (National Early duration Check)	92	76	329	113	61	136	98	78	268	99	100	300	103	104	269
4922	31813	84	69	318	105	66	128	93	73	273	94	93	288	93	99	262
4923	31814	101	60	387	121	52	114	112	62	252	111	81	296	111	84	275
4924	31815	101	73	355	122	56	152	111	69	282	107	89	286	105	94	257
4925	31816	98	73	356	120	61	162	109	76	280	108	96	307	107	98	278
4926	31817	110	77	346	128	45	107	119	72	253	117	96	295	117	97	275
4927	31818	87	63	353	106	51	177	95	67	290	93	88	319	95	94	282
4928	31819	106	57	327	123	48	135	113	58	284	111	86	322	109	88	284
4929	31820	103	83	399	121	69	142	112	84	299	111	105	320	109	108	282
4930	31821	98	58	378	118	62	122	107	72	291	107	100	325	107	102	279
4931	31822	108	88	382	121	61	136	116	85	275	117	107	309	117	109	264
4932	WGL-14 (National Medium duration Check)	102	73	449	118	61	189	112	79	315	109	99	316	109	101	274
4933	31823	97	64	358	115	66	176	106	72	297	102	94	312	101	97	273
4934	31824	94	57	368	110	46	162	105	64	301	103	93	318	102	102	277
4935	31825	100	61	368	124	43	127	112	59	267	110	92	312	108	96	273
4936	31826	105	74	342	129	47	177	117	71	310	117	95	314	118	97	264
4937	31827	97	71	309	121	59	123	110	75	235	109	98	309	107	104	264
4938	31828	89	74	357	105	53	161	96	74	252	100	101	314	102	108	270
4939	31829	98	62	380	106	57	176	104	67	307	100	89	320	99	93	267
4940	31830	101	60	370	90	72	171	102	72	306	103	90	321	102	94	272
4941	31831	104	75	320	125	78	196	111	83	275	112	105	334	110	109	263
4942	31832	95	69	314	113	51	142	104	72	291	105	91	332	102	98	265
4943	31833	94	59	363	112	68	165	102	69	283	100	83	308	99	87	261
4944	31834	98	63	302	119	66	217	107	74	295	107	95	348	103	99	281
4945	31835	98	68	281	129	65	181	113	76	288	108	97	307	107	100	260
4946	31836	102	67	363	121	55	176	113	72	312	116	95	324	114	96	281
4947	31837	96	63	429	112	77	276	105	78	377	102	93	340	99	98	280
4948	31838	87	65	264	102	51	200	96	70	247	96	91	303	95	97	255
4949	31839	97	64	281	110	59	369	105	72	338	104	92	342	102	96	283
4950	31840	98	61	380	113	59	179	106	69	305	100	87	317	99	92	263
4951	31841	99	60	330	109	66	281	106	71	311	105	91	276	104	98	254
4952	31842	95	59	320	104	61	137	100	68	259	106	89	288	105	92	261
4953	31843	90	63	391	112	71	209	99	78	293	99	94	319	101	98	272
4954	31844	95	70	406	120	50	192	107	71	318	105	101	345	103	103	291
4955	BPT 5204 (National Late duration Check)	104	51	335	106	52	130	108	59	296	110	82	339	111	86	288
4956	31845	101	65		104	62	149	100	67	280	100	82	309	99	86	265
4957	31846	98	58	292	106	74	129	102	69	265	102	88	292	100	93	260
4958	31847	94	63	385	98	65	175	97	70	290	98	90	342	97	94	272
4959	31848	89	67	271	106	57	176	95	73	265	96	93	308	94	98	255
4960	31849	95	69	287	113	59	153	103	71	265	101	91	312	99	98	262
4961	31850	98	59	342	107	62	151	104	70	295	106	95	313	107	96	265
4962	Zonal Check	94	65	358	112	52	199	107	67	328	107	92	336	108	94	277
4963	31851	96	55	302	112	48	147	104	63	273	103	90	329	102	93	269
4964	Local Check	99	61	297	107	77	217	104	82	257	106	101	353	105	99	283
Mean		**97**	**67**	**347**	**112**	**61**	**174**	105	73	289	104	94	315	103	97	271

Table No. 10c.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – MS, (Trial Not Considered), Kharif 2023

Entry No.	IET No.	Trial not considered														
		Odisha			Uttar Pradesh			Assam			Maharashtra					
		@NRRI Cuttack			@Masodha			@Gerua			@Shirgaon			@Radhanagari		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4901	31793	81	102	278	92	106	279	103	105	238	94	103	164	89	93	207
4902	31794	97	106	292	121	99	171	127	102	230	123	119	154	105	100	218
4903	31795	96	107	319	113	93	184	124	100	253	111	115	135	102	88	218
4904	31796	98	101	332	118	81	241	121	100	235	114	98	167	105	84	215
4905	31797	85	107	275	104	91	228	108	98	232	107	120	207	99	107	258
4906	31798	78	103	304	87	81	242				96	102	94	92	93	226
4907	31799	97	113	309	96	107	260	108	109	252	101	113	130	94	95	218
4908	31800				96	101	239	115	106	234	110	119	164	103	101	230
4909	31801	90	109	313	110	87	243	114	97	226	101	109	100	96	94	223
4910	31802	81	103	269	95	93	252	108	93	227	105	106	118	95	91	230
4911	31803	111	99	330	125			127	89	239	128	105	173	96	85	213
4912	31804	84	105	322	89	91	283	106	93	230	106	108	115	95	104	238
4913	31805	76	106	336	93	93	232	103	97	238	100	114	130	90	90	233
4914	31806	81	108	312	101	91	237	106	102	234	98	113	147	90	106	199
4915	31807	90	114	304	96	104	220	111	104	253	105	101	120	99	89	243
4916	31808	99	108	290	118	109	284	124	104	222	123	114	170	104	100	237
4917	31809	70	73	258	89	75	220	92	72	278	87	76	106	78	76	222
4918	31810	88	121	302	98	93	253	108	84	255	103	112	157	100	108	253
4919	31811	80	96	305	94	77	227	113	107	259	101	94	110	92	104	220
4920	31812	92	106	311	97	102	250	121	106	229	113	115	114	104	91	230
4921	Telangana Sona (National Early duration Check)	87	108	301	119	78	219	103	105	253	112	105	128	100	109	225
4922	31813	81	102	299	91	104	272	106	100	219	95	105	151	86	108	221
4923	31814	93	107	293	118	79	201	121	83	263	113	92	211	100	77	268
4924	31815	88	104	324	100	76	217	114	95	224	114	100	102	99	90	192
4925	31816	92	113	321	102	95	229	115	103	236	110	126	126	101	99	252
4926	31817	96	110	295	127	.		121	103	236	120	113	159	112	91	237
4927	31818		.		100	92	261	106	92	232	95	107	138	90	90	238
4928	31819	95	103	307	109	102	249	118	90	258	110	100	157	99	84	242
4929	31820	94	121	307	113	96	270	118	108	260	112	114	96	104	100	270
4930	31821	95	110	304	119	72	222	121	100	234	108	111	151	99	102	244
4931	31822	103	104	296	127			127	108	225	123	119	158	110	101	220
4932	WGL-14 (National Medium duration Check)	96	126	293	110	110	242	121	105	245	117	119	97	103	90	222
4933	31823	85	108	312	102	102	293	111	99	208	109	116	84	98	92	222
4934	31824	88	108	289	91	96	254	111	99	253	106	115	155	96	108	188
4935	31825	95	103	250	128			115	100	230	110	105	218	99	87	269
4936	31826	110	105	315	122	93	197	134	96	237	120	104	223	110	87	293
4937	31827	90	112	284	115	107	252	114	110	251	109	121	253	102	111	309
4938	31828	92	121	289	95	106	275	114	117	244	101	124	258	95	108	268
4939	31829	80	100	286	105	83	253	103	88	225	106	106	215	100	87	327
4940	31830	85	104	319	100	88	280				104	109	235	99	87	296
4941	31831	100	116	298	119	109	281				110	120	228	98	88	347
4942	31832	99	108	305	85	101	284	111	102	225	102	111	203	97	108	320
4943	31833	84	98	302	95	96	247	106	89	238	106	99	213	94	116	293
4944	31834	94	107	264	96	96	266	113	99	256	109	99	243	96	100	232
4945	31835	90	107	304	118	92	210	115	100	220	115	129	233	101	96	273
4946	31836	104	100	313	125	71	156	127	95	251	120	102	225	107	88	253
4947	31837	81	101	319	92	95	253	108	101	222	106	104	259	94	103	257
4948	31838	81	103	299	100	80	245	106	101	244	96	115	214	91	88	290
4949	31839	84	107	287	101	87	249	113	95	277	106	103	251	97	99	313
4950	31840	83	108	298	94	78	253	103	88	228	107	113	243	94	86	237
4951	31841	88	97	293	119	89	224	114	96	250	111	110	220	100	100	279
4952	31842	91	100	298	107	92	227	127	92	228	113	99	248	101	106	243
4953	31843	87	97	353	102	88	248	114	99	231	106	101	259	96	92	311
4954	31844				97	105	236	113	100	232	106	118	222	96	112	293
4955	BPT 5204 (National Late duration Check)	94	97	307	128			121	81	265	115	100	213	74	124	279
4956	31845	87	101	330	92	81	240	111	84	244	101	93	220	91	105	322
4957	31846	90	99	301	110	88	270	108	91	242	106	92	245	94	91	306
4958	31847	86	117	295	101	82	264	111	101	254	96	108	218	90	99	268
4959	31848	78	103	322	96	97	250	106	103	220	95	106	217	87	104	299
4960	31849	84	105	276	95	96	253	108	96	228	101	107	225	93	88	332
4961	31850	94	104	298	118	89	283	124	97	227	117	95	258	101	97	303
4962	Zonal Check	92	98	304	111	75	217	113	134	269	116	105	223	94	95	247
4963	31851	94	106	309	99	100	305	113	91	230	100	106	210	101	90	278
4964	Local Check	88	119	310	110	82	256	121	130	237	106	108	238	90	97	302
Mean		**89**	**106**	**302**	**105**	**92**	**245**	**114**	**99**	**239**	**107**	**108**	**181**	**97**	**96**	**256**

Table No. 10c.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – MS, (Trial Not Considered), Kharif 2023

Entry No.	IET No.	Trial not considered											
		Guiarat @Vyara			Telangana @Kampasagar			Tamil Nadu @Aduthurai			Karnataka @Sirsi		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4901	31793	82	118	281	94	109	330	101	84	431	89	92	363
4902	31794	106	130	189	112	121	256	102	106	457	114	96	259
4903	31795	108	115	300	115	115	276	104	85	476	115	94	281
4904	31796	108	119	297	118	103	270	103	101	615	115	93	258
4905	31797	99	125	302	107	115	286	108	75	390	107	104	325
4906	31798	91	127	306	93	106	226	112	77	360	86	86	281
4907	31799	98	148	210	103	119	310	100	87	360	101	110	297
4908	31800	98	129	206	106	125	256	105	94	419	107	107	271
4909	31801	91	141	321	107	116	236	108	83	420	94	95	363
4910	31802	97	121	279	105	107	216	107	77	391	103	94	269
4911	31803	131	112	318	133	105	303	107	95	400	132	82	325
4912	31804	98	121	299	103	107	266	100	84	433	107	85	297
4913	31805	96	123	203	104	109	256	110	85	483	103	107	325
4914	31806	87	133	243	101	117	243	106	85	428	94	97	208
4915	31807	98	124	306	104	114	293	107	70	458	101	78	353
4916	31808	113	121	276	119	114	283	110	86	358	113	96	276
4917	31809	70	87	290	116	88	416	101	52	335	84	72	391
4918	31810	98	137	297	107	121	296	104	76	411	107	100	314
4919	31811	90	113	305	100	97	340	105	76	421	103	74	264
4920	31812	109	138	258	110	122	250	100	86	453	113	104	314
4921	Telangana Sona (National Early duration Check)	106	145	273	103	127	303	100	75	220	103	100	368
4922	31813	86	121	252	105	109	263	100	73	333	89	90	297
4923	31814	108	103	266	115	92	420	101	86	450	113	73	309
4924	31815	99	113	255	109	108	213	102	75	363	111	81	335
4925	31816	99	129	297	113	113	270	104	82	441	113	87	309
4926	31817	115	130	299	124	114	290	104	107	505	121	98	324
4927	31818	82	121	309	96	104	316	105	71	325	92	80	353
4928	31819	107	113	236	113	107	293	106	85	505	113	82	281
4929	31820	107	146	305	114	131	260	106	97	406	115	105	271
4930	31821	105	129	288	114	125	270	105	94	453	112	100	319
4931	31822	115	139	312	125	124	266	103	106	490	121	108	325
4932	WGL-14 (National Medium duration Check)	101	139	188	111	116	306	106	91	545	111	97	253
4933	31823	98	123	306	108	113	233	105	77	460	105	80	352
4934	31824	101	126	297	107	116	250	107	92	458	103	97	385
4935	31825	108	106	257	118	105	253	102	71	460	111	78	292
4936	31826	117	126	314	128	125	393	105	97	308	121	99	177
4937	31827	99	132	330	114	117	391	106	87	224	114	89	123
4938	31828	98	128	347	105	133	393	105	94	296	99	91	161
4939	31829	90	122	347	103	102	384	104	70	329	103	92	176
4940	31830	101	114	330	106	107	394	104	77	245	111	82	171
4941	31831	111	137	314	119	129	399	108	111	284	115	115	196
4942	31832	98	122	314	105	112	376	108	82	242	103	106	142
4943	31833	95	104	314	104	106	394	110	71	220	101	84	165
4944	31834	97	141	347	107	116	393	106	101	268	103	90	217
4945	31835	102	131	347	114	116	381	106	95	296	113	97	181
4946	31836	115	116	347	119	106	393	106	90	312	119	85	176
4947	31837	95	127	330	104	117	393	105	83	179	107	92	276
4948	31838	89	123	363	96	107	391	106	75	203	92	92	200
4949	31839	97	133	380	106	112	393	100	88	323	105	92	369
4950	31840	90	125	347	104	108	375	103	77	219	105	85	179
4951	31841	98	110	297	109	107	391	101	80	165	113	89	281
4952	31842	99	114	330	111	107	396	100	92	280	107	85	137
4953	31843	98	126	330	104	115	393	103	77	189	92	84	209
4954	31844	98	143	330	108	128	388	100	92	229	103	99	192
4955	BPT 5204 (National Late duration Check)	108	108	330	118	99	426	101	70	263	113	72	130
4956	31845	92	105	347	104	98	434	104	65	178		.	149
4957	31846	97	123	314	106	106	409	103	75	200	105	84	129
4958	31847	89	124	330	103	109	401	103	82	267	101	88	175
4959	31848	86	120	330	97	105	396	105	85	190	89	84	176
4960	31849	96	121	330	105	109	399	106	77	242	103	94	153
4961	31850	106	134	347	113	121	411	104	86	299	112	93	151
4962	Zonal Check	111	106	330	111	117	406	105	86	315	111	89	199
4963	31851	101	116	314	108	114	399	106	85	235	103	84	147
4964	Local Check	101	123	363	107	126	401	105	96	242	111	83	217
Mean		**99**	**124**	**302**	**109**	**113**	**333**	**104**	**84**	**346**	**106**	**91**	**252**

Table No.10c.4 : Grain quality characteristics of entries in IVT-MS, kharif 2023

Entry No	Designation /IET No	KL	KB	L/B	Grain Type
4901	31793	5.11	1.86	2.74	MS
4902	31794	5.25	1.89	2.77	MS
4903	31795	5.04	1.74	2.89	MS
4904	31796	4.77	1.77	2.69	MS
4905	31797	5.22	1.83	2.85	MS
4906	31798	5.45	1.88	2.89	MS
4907	31799	5.50	1.98	2.77	MS
4908	31800	5.33	1.71	3.11	SS
4909	31801	5.34	2.07	2.57	MS
4910	31802	5.40	1.93	2.79	MS
4911	31803	4.60	1.85	2.48	SB
4912	31804	5.38	1.91	2.81	MS
4913	31805	5.27	1.69	3.11	SS
4914	31806	5.04	1.93	2.61	MS
4915	31807	5.09	1.99	2.55	MS
4916	31808	5.48	2.02	2.71	MS
4917	31809	5.88	1.93	3.05	SS
4918	31810	5.10	2.15	2.37	SB
4919	31811	5.20	1.85	2.81	MS
4920	31812	5.14	1.87	2.74	MS
4921	Telangana Sona (NC-Early)	5.04	1.56	3.23	SS
4922	31813	5.10	1.91	2.67	MS
4923	31814	4.93	1.77	2.78	MS
4924	31815	4.76	1.75	2.72	MS
4925	31816	4.92	1.85	2.65	MS
4926	31817	4.97	1.83	2.71	MS
4927	31818	5.07	1.70	2.98	MS
4928	31819	4.90	2.09	2.34	SB
4929	31820	5.29	2.02	2.61	MS
4930	31821	6.40	2.07	3.09	LS
4931	31822	5.03	1.78	2.82	MS
4932	WGL -14 (NC-Medium)	5.14	1.8	2.85	MS
4933	31823	5.39	2.14	2.51	MS
4934	31824	5.09	2.08	2.44	SB
4935	31825	5.29	2.05	2.58	MS
4936	31826	5.23	1.86	2.81	MS
4937	31827	4.90	1.85	2.64	MS
4938	31828	5.16	1.95	2.64	MS
4939	31829	5.13	1.97	2.6	MS
4940	31830	5.50	1.81	3.03	SS
4941	31831	5.07	1.64	3.09	SS
4942	31832	5.55	1.68	3.3	SS
4943	31833	4.79	1.7	2.81	MS
4944	31834	4.94	1.94	2.54	MS
4945	31835	5.52	1.87	2.95	MS
4946	31836	5.03	1.76	2.85	MS
4947	31837	5.44	1.9	2.86	MS
4948	31838	5.60	1.97	2.84	MS
4949	31839	5.19	2.03	2.55	MS
4950	31840	5.16	1.95	2.64	MS
4951	31841	5.04	1.86	2.7	MS
4952	31842	5.08	1.94	2.61	MS
4953	31843	5.29	1.81	2.92	MS
4954	31844	5.41	1.99	2.71	MS
4955	BPT-5204 (NC - Late)	5.15	1.87	2.75	MS
4956	31845	4.98	1.84	2.70	MS
4957	31846	5.08	1.98	2.56	MS
4958	31847	5.10	1.71	2.98	MS
4959	31848	5.13	1.92	2.67	MS
4960	31849	5.33	1.98	2.69	MS
4961	31850	4.98	1.82	2.73	MS
4962	ADT -49 (ZC)	4.88	1.78	2.74	MS
4963	31852	4.96	2.07	2.39	SB
4964	Local Check	5.13	2.16	2.37	SB

ADVANCE VARIETY TRIAL 1 BIOFORTIFICATION and INITIAL VARIETY TRIAL – BIOFORTIFICATION (AVT 1 &IVT-BIOFORT)

Locations: 39 **Test Entries: 52**

Checks: BPT 5204 (Yield), IR 64 (Yield), DRR Dhan 45 (Yield & Micronutrient) Chittimuthyalu (Micronutrient), DRR Dhan 48 (Yield & Micronutrient). **Table: 11b**

AVT 1-Biofort (3 entries) and IVT-Biofort (44) trial was conducted with a total 47 test entries along with two yield checks (BPT 5204 and IR 64), Chittimuthyalu as micronutrient check and DRR Dhan 45, and DRR Dhan 48 as yield and micronutrient checks. The biofortification trial was sent to 39 locations and data was received from 33 locations. Data from six locations (Karnal, Sabour, Waraseoni, Bapatla, Brahmavar and Puducherry) was not received. Data from Hatwara, Nellore and Sirsi was not considered due to low experimental yield (<4000 kg/ha) while data from Masodha, and Aduthurai not considered owing to low CV (<5.0%). The data from Kota and Jagdalpur was not considered owing to non-significant CD.

The content of micronutrients (Iron and Zinc) in polished rice samples of the test entries was estimated by X-ray fluorescence spectrophotometer (XRF) at IIRR, Hyderabad while protein content was analyzed at NRRI, Cuttack utilizing the seed samples received from test locations. As the XRF values of Zn analyzed at IIRR are 4 ppm lesser than ICP values of zinc, 4 ppm is added uniformly to the Zn content for each of the test entries. Based on the criteria set during 48thARGM, the entries possessing ≥24 ppm Zinc; ≥10 ppm protein and ≥10 ppm iron in polished rice; and yield on par or more than the best yielding check are eligible for promotion to the next tier of testing. The entries selected (≥24.0 ppm Zn, ≥10 ppm Fe or 10.0% protein) would then be checked for their yield performance among all the test centers across all the different zones and if found with yield advantage (CD @ 5.0% level of significance) over the best varietal check, they would be considered for promotion i.e., based on ≥24.0 ppm Zn, ≥10 ppm Fe or 10.0% protein and yield advantage over the BVC.

Performance of entries during Kharif 2023 (IVT – Biofort)

Zone II

IET 31927,and IET 31938 exhibited significantly higheror on par yield with duration checks (BPT 5204 or IR 64) and also had a zinc content of more than 24.0 ppm. Hen***ce they are promoted based on performance.***No entries were promoted based on the Fe content.

Zone III

Three entries (IET 31948, IET 31950 and 31925) exhibited significantly higher or on par yield in comparison to the yield checks (BPT 5204 and IR 64). Also, these entries had the required Zn content of ≥ 24.0 ppm, hence promote to AVT 1. No entries were promoted based on the Fe content.

IET 31929, a low glycemic index entry (GI ≤55) has exhibited on par yield with yield check (IR 64), ***hence promoted***.

Zone IV

Five entries (IET 31925, IET 31927, 31939 and 31961) showed on par yield in comparison to the yield checks (BPT 5204 and IR 64). Also, these entries had the required Zn content of ≥ 24.0 ppm, ***hence promoted to AVT 1***. No entries were promoted based on the Fe content.

IET 31929, a low glycemic index entry (GI ≤55) has exhibited on par yield with yield check (BPT 5204), ***hence promoted***.

Zone V

IET 31948 was the only entry which exhibited an on par yield with BPT 5204 and an Zn content of 24.0 ppm, ***hence promoted to AVT 1***.

Zone VI

IET 31925, IET 31927,IET 31937, IET 31938, IET 31947, IET 31948, and IET 31950 either out-yielded or exhibited on par yield with the yield checks (BPT 5204 or IR 64). All these entries had zinc content ≥ 24.0 ppm,***hence are promoted.***No entries were promoted based on the Fe content.

IET 31929, a low glycemic index entry (GI ≤55) has exhibited significant yield superiority over yield check (IR 64), ***hence promoted***.

Zone VII

IET 31925, IET 31927, IET 31937, IET 31938, IET 31939, IET 31946, IET 31947, IET 31950, IET 39151 and IET 31961 either out-yielded or exhibited on par yield with the yield checks (BPT 5204 or IR 64). All these entries had zinc content ≥ 24.0 ppm, ***hence are promoted.***No entries were promoted based on the Fe content.

IET 31929, a low glycemic index entry (GI ≤55) has exhibited significant yield superiority over yield check (IR 64), ***hence promoted***.

Performance of entries in AVT 1 (Kharif 2023)

Three entries, IET 31031, IET 31004 and IET 31027 were in AVT 1 evaluation. IET 31031 exhibited on par yield in Zone VI and significantly superior yield in comparison to the yield check in Zone VII, but it did have the requisite Zn content (≥ 24 ppm), ***hence IET 31031 is dropped***.

Similarly, IET 31004 showed significant yield advantage in Zone V, VI and VII and on par yield in Zone III over the yield check but it also did not have the desirable Zn content (≥ 24 ppm), ***hence IET 31004 is dropped***.

Though IET 31027 showed on par yield in Zone II and Zone VI and significant yield advantage in Zone VII over the respective yield checks, the Zn content was less than the desirable quantity (≥ 24 ppm), ***hence IET 31027 is dropped***.

Performance of entries in IVT 1 in different zones during Kharif 2023

S. No	IET Number	Yield / DFF	IR64 (≤100)	BPT5204 (>100)
Zone II				
1	IET 31927	5833 / 95	5091	-
2	IET 31938	6818 / 92		
Zone III				
1	IET 31929	5576 / 99	5314	4363
2	IET 31948	5057 / 103		
3	IET 31950	4969 / 102		
4	IET 31925	5070 / 102		
Zone IV				
1	IET 31925	6725 / 102	6419	5956
2	IET 31927	6603 / 105		
3	IET 31929	6995 / 101		
4	IET 31939	6005 / 102		
5	IET 31946	6329 / 101		
6	IET 31961	6775 / 100		
Zone V				
1	IET 31948	4502 / 106	-	4335
Zone VI				
1	IET 31925	5185 / 95	4514	-
2	IET 31927	5619 / 92		
3	IET 31929	6076 / 87		
4	IET 31937	4887 / 91		
5	IET 31938	4790 / 92		
6	IET 31947	5149 / 97		
7	IET 31948	6226 / 94		
8	IET 31950	4793 / 89		
Zone VII				
1	IET 31925	4340 / 89	4274	-
2	IET 31927	5170 / 97		
3	IET 31929	4792 / 94		
4	IET 31937	4947 / 100		
5	IET 31938	5196 / 98		
6	IET 31939	4341 / 97		
7	IET 31946	4995 / 93		
8	IET 31947	4683 / 100		
9	IET 31950	5160 / 89		
10	IET 31951	4826 / 98		
11	IET 31961	4937 / 91		

List of entries promoted to AVT 1 BIOFORT

Zone II: IET31927, IET 31938
Zone III: IET 31929,IET31948, IET 31950, and IET 31925
Zone IV:IET31925, IET 31927, IET 31929,IET 31939, IET 31946 and IET 31961
Zone V:IET 31948

Zone VI:IET31925, IET 31927, IET 31929,IET 31937, IET 31938, IET 31947, IET 31948, and IET 31950
Zone VII:IET31925, IET 31927, IET 31929, IET 31937, IET 31938, IET 31939, IET 31946, IET 31947, IET 31950, IET 31951 and IET 31961
List of entries promoted to AVT 2 BIOFORT: None

Table No.11b.1 : Composition of entries in Advance Variety Trial 1 & Initial Variety Trial –Biofortification (AVT 1 & IVT-BIOFORT), Kharif 2023.

Entry No.	IET No.	Designation	Cross Combination	GT
2nd year of testing:				
5001	31031	R-RHP-IC-148	IR13N134	MS
5002	31004	RNR 31668	TME 80518 / BPT 5204	LB
5003	31027	CSR HZR 1	IR 91145-AC26 / IRRI 123 // OM4498 /// IR58 / 4 / IR 69428-6-1-1-3-3 / IR 69807-13-2-1 // IR 58	
1st year of testing:				
5004	31923	AD 21270	Kodai / CO 51	MS
5005	31924	CK 145-3	CO50 / Kavuni	MS
5006	31925	RP 6731-BCRK/RIL-BCRK-4	RNR 15048 // RNR 15048 / Karuppunel	MS
5007	31926	RP Bio 4918-NPS 21	Swarna / O.nivara	MS
5008	31927	GNV 2076	Selection from IR93337:37-B-15-15-22-1RGA-2RGA-1-B	LS
5009	31928	CSR HZR 5	IR 05A199 / Joryeongbyeo // Ciherang / IR 75862-206-2-8-3-B /// IR05A193 / IR 68144-2B-2-2-3-1-166 // IR07F290 / IR 75862-206-2-8-3-B-B-B / 4 / IR 77298-5-6-18 / 5 / IR 68144-2B-2-2-3-1-166 / Joryeongbyeo // PSBRC 82 /// Ansanbyeo / IR 04N114 / 4 / IR 09L242 / 6 / IR05 A199 / IR 68144-2B-2-2-3-1-16	
5010	31929	RP 6771-IRRI-147	IR 51511-B-B-34-B / TCCP 266-2-49-B-B-3	SB
5011	31930	NVSR 649	NVSR 303-14 / IET 19347	LS
5012	31931	KMP 258	Bevubella Selection	MS
5013	31932	CR 4225-B-1-1-2	CR Dhan 310 / Bindli	LB
5014	**BPT 5204 (Yield Check)**			
5015	30159 (R)	RP 6514-IR128768-7-2-2-4	IR 68144-2B-2-2-3-1-166 / Samba Mahsuri	
5016	31933	RP 6615-MK/RIL-FBMI-2-1	MTU 1010 / Karuppunel	MB
5017	31934	NVSR 787	NVSR 303-14 / NAUR-1	SB
5018	31935	UPR 4640-11-1-1-1	Pant Sugandh Dhan 17 / UPR 3951-1-2-1	LS
5019	31936	Gurmatiya sel.1	Sel. from Gurmatiya Dhan Landrace	MB
5020	31937	IR 124041-B-3-1-1-B		LS
5021	31938	GNV 2075	Selection from IR 99637-123-1-3-B	LS
5022	31939	RP 6458-C1-151	Swarna // 166S-Swarna / O.nivara	LS
5023	**IR 64 (Yield Check)**			
5024	31940	HURS 23-10	Selection from local material	LS
5025	31941	RNR 31672	TME 80518 / BPT 5204	LS
5026	31942	RP 6731-BCRK/RIL-BCRK-9	RNR 15048 // RNR15048 / Karuppunel	MS
5027	31943	CK 35-3	CO 50 / Kavuni	MS
5028	31944	CSR 2021-294-164	IRRI 156 / DRR DHAN 45	
5029	31945	AD 21205	Kodai / IR36	MS
5030	31946	ORR 1814	Pateni selection-1 / MTU 1010	LS
5031	31947	RP 6195-MC/RIL-SM4A-A57	MTU1010 / Chittimuthyalu	LS
5032	31948	CB 21102	Paiyur 1 / kavuni	MS

Entry No.	IET No.	Designation	Cross Combination	GT
5033	**DRR Dhan 45 (Yield & Micro Nutrient Check)**			
5034	31949	SKL 10-15-593-162-25-106-70	Mahamaya / PKV HMT	LS
5035	31950	RP 6731-BCRK/RIL-BCRK-4-1-P	RNR 15048 // RNR 15048 / Karuppunel	MS
5036	31951	CR 4107-1-B-4-1-B	BPT 5204 Sub-1 / CR Dhan 310 // Kalinga III	LS
5037	31952	R-56		
5038	31953	R-RHP-IR-142	IR 14A1186	
5039	**DRR Dhan 48 (Yield & Micro Nutrient Check)**			
5040	31954	HURS 23-8	RP Bio 226 / IR 8484 2-131-1-2-1-1-3	LS
5041	31955	RNR 34998	AAGGP 9772 /IR-72	LS
5042	31956	RP 6615-MK/RIL-FBM1-45-1-5-1	MTU 1010 / Karuppunel	MB
5043	31957	RP 6167-RN-116	Swarna / O.rufipogon	MS
5044	31958	NVSR 658	GNR 4 / GAR 13	LB
5045	31959	CR 4199-2-B-1-2-B-2	Maudamani / CR Dhan 310	MS
5046	31960	Kalanamak 2020-3	BPT 5204/ Kalanamak	
5047	31961	CSR H3R 17-42		
5048	31962	RP 6195-MC/RIL-SM5A-60	MTU1010 / Chittimuthyalu	LS
5049	**Chittimuthyalu (Micro Nutrient Check)**			
5050	31963	UPR 2879-98-105	Pusa Basmati1 / UPRM 500	LS
5051	31964	RP 6733-SP-M-KS-57-4-5	TI-6 / BPT5204	MS
5052	31965	NDR 8418-3	Sambha Sub 1/Kalanamak	

Table No.11b.2 :Grain Yield (kg/ha) in AVT-1 and IVT (Bio-fortification), Kharif, 2023.

Entry No	IET No	ZONE II-NORTHERN				ZONE III-EASTERN					
		Punjab (1)		Zone II (1)		Odisha				Odisha (2)	
		Ludhiana		Mean		ICAR-NRRI (Cuttack		Jeypore		Mean	
5001	31031	4735		4735		4516		4639		4578	
5002	31004	4955		4955		4310		5833	7	5072	10
5003	31027	5273		5273		4103		4569		4336	
5004	31923	6795	4 *	6795	4 *	4175		3969		4072	
5005	31924					4913	6	3270		4092	
5006	31925					4317		3428		3873	
5007	31926					4397		4680		4539	
5008	31927	5833	10	5833	10	4579		5269		4924	
5009	31928	5545		5545		4397		4278		4338	
5010	31929	4258		4258		4611		2944		3778	
5011	31930	1803		1803		4524		3800		4162	
5012	31931	5106		5106		4690		5419		5055	
5013	31932	4689		4689		4635		5657	10	5146	9
5014	BPT 5204 (Yield Check)					4294		3566		3930	
5015	30159 (R)	3833		3833		4159		2183		3171	
5016	31933	4742		4742		4413		3483		3948	
5017	31934	1788		1788		4667		4824		4746	
5018	31935	4439		4439		4452		2165		3309	
5019	31936	3917		3917		4603		3532		4068	
5020	31937	3015		3015		4810		3223		4017	
5021	31938	6818	3 *	6818	3 *	4071		4174		4123	
5022	31939	3106		3106		5056	2	3472		4264	
5023	IR 64 (Yield Check)	5091		5091		4714		5738	8	5226	7
5024	31940	7917	1 *	7917	1 *	4563		7077	2	5820	3
5025	31941	5091		5091		4540		3273		3907	
5026	31942					4183		4298		4241	
5027	31943					4286		4172		4229	
5028	31944	6114	6	6114	6	4825	10	5934	6	5380	6
5029	31945	5894	7	5894	7	4762		4516		4639	
5030	31946	2091		2091		4611		6733	3	5672	4
5031	31947	2780		2780		4198		3894		4046	
5032	31948	2856		2856		5048	3	3850		4449	
5033	DRR Dhan 45 (Yield & Micro Nutrient Check)	4841		4841		4095		3646		3871	
5034	31949	4083		4083		4460		5516		4988	
5035	31950					3873		3816		3845	
5036	31951	4318		4318		4103		5509		4806	
5037	31952	5848	9	5848	9	4476		7308	1	5892	2 *
5038	31953	5280		5280		4897	7	3694		4296	
5039	DRR Dhan 48 (Yield & Micro Nutrient Check)					4690		4608		4649	
5040	31954	7508	2 *	7508	2 *	4754		5658	9	5206	8
5041	31955	6765	5 *	6765	5 *	5413	1	6651	4	6032	1 *
5042	31956	2864		2864		4516		4972		4744	
5043	31957	2356		2356		4635		2366		3501	
5044	31958	2659		2659		4262		4580		4421	
5045	31959					4976	5	3971		4474	
5046	31960					4865	9	2962		3914	
5047	31961	4932		4932		4675		5257		4966	
5048	31962	5894	7	5894	7	4897	7	6169	5	5533	5
5049	Chittimuthyalu (Micro Nutrient Check)					4524		3649		4087	
5050	31963	4152		4152		5000	4	3335		4168	
5051	31964	5212		5212		4278		5524		4901	
5052	31965					4413		3224		3819	
Exp. Mean		**4630**		**4630**		**4543**		**4428**		**4486**	
F Value		**17.49(p<0.0001)S**		**17.49(p<0.0001)S**		**1.75(p<0.0234)S**		**9.73(p<0.0001)S**		**8.19(p<0.0001)S**	
CD		1040		1040		679		1115		649	
CV%		**11.11**		**11.11**		**7.45**		**12.54**		**7.21**	
D/S		11/07/2023				06/07/2023		11/07/2023			
D/P		03/08/2023				04/08/2023		11/08/2023			

Table No. 11b.2 (Contd) :Grain Yield (kg/ha) in AVT-1 and IVT (Bio-fortification), Kharif, 2023.

Entry No	IET No	ZONE III-EASTERN							
		Bihar (1)		West Bengal (1)		Uttar Pradesh (1)		Zone III(5)	
		Bikaramganj		Chinsurah		Varanasi		Mean	
5001	31031	4629		3750		5292		4565	
5002	31004	5772		5667	2	6573		5631	3
5003	31027	4085		3250		4885		4178	
5004	31923	3205		4000		7677	1 *	4605	
5005	31924	2143		4458		1292		3215	
5006	31925	6563	3	3917		7125	7	5070	
5007	31926	6089	9	3917		7010	9	5219	10
5008	31927	6286	6	4958	7	5313		5281	8
5009	31928	8067	2 *	3000		6156		5180	
5010	31929	9460	1 *	4667	10	6198		5576	4
5011	31930	4362		3292		7563	2	4708	
5012	31931	5821		3250		7313	4	5299	7
5013	31932	4960		3292		7010	9.5	5111	
5014	BPT 5204 (Yield Check)	5933		3250		4771		4363	
5015	30159 (R)	2612		3917		3865		3347	
5016	31933	3884		3000		4969		3950	
5017	31934	2786		5083	4	6385		4749	
5018	31935	5013		4250		6208		4418	
5019	31936	5482		3458		5552		4525	
5020	31937	4612		4100		6635		4676	
5021	31938	6201	7	4917	8	5104		4893	
5022	31939	4585		4458		6052		4725	
5023	IR 64 (Yield Check)	5451		5000	6	5667		5314	6
5024	31940	5911		4375		6510		5687	2
5025	31941	4955		4000		4698		4293	
5026	31942	4188		3792		5052		4303	
5027	31943	3772		4583		5115		4386	
5028	31944	5179		3917		5448		5061	
5029	31945	3781		3500		7219	5	4756	
5030	31946	3647		4208		5906		5021	
5031	31947	4504		3875		5115		4317	
5032	31948	5406		4417		6563		5057	
5033	DRR Dhan 45 (Yield & Micro Nutrient Check)	4589		5167	3	6167		4733	
5034	31949	4125		4000		6708		4962	
5035	31950	5737		4792	9	6625		4969	
5036	31951	4210		3583		6094		4700	
5037	31952	4031		3833		6500		5230	9
5038	31953	2857		3833		4688		3994	
5039	DRR Dhan 48 (Yield & Micro Nutrient Check)	6161	8	5083	4	5156		5140	
5040	31954	5808		4333		7167	6	5544	5
5041	31955	6442	4	6292	1 *	7385	3	6437	1 *
5042	31956	2674		3625		4688		4095	
5043	31957	3263		4667	10	3417		3670	
5044	31958	6335	5	3750		7073	8	5200	
5045	31959	4978		3417		3990		4266	
5046	31960	4607		4292		4000		4145	
5047	31961	4147		3583		3594		4251	
5048	31962	5205		3667		4802		4948	
5049	Chittimuthyalu (Micro Nutrient Check)	2839				230		2811	
5050	31963	4054		3833		4781		4201	
5051	31964	5996	10	3500		5750		5010	
5052	31965	5076		3417		4865		4199	
Exp. Mean		**4855**		**4082**		**5575**		**4692**	
F Value		**13.35(p<0.0001)S**		**4.90(p<0.0001)S**		**8.59(p<0.0001)S**		**15.23(p<0.0001)S**	
CD		1071		903		1402		476	
CV%		**10.98**		**11.01**		**12.53**		**5.06**	
D/S		07/07/2023		14/07/2023		06/07/2023			
D/P		06/08/2023		22/08/2023		01/08/2023			

Table No. 11b.2 (Contd) :Grain Yield (kg/ha) in AVT-1 and IVT (Bio-fortification), Kharif, 2023.

Entry No	IET No	ZONE IV- NORTH EASTERN		ZONE-V – CENTRAL											
		Assam (1)		Madhya Pradesh (1)		Chattisgarh (1)		Maharashtra				Maharashtra 1(2)		Zone V(4)	
		Titabar		Jabalpur		Raipur		Sakoli		Sindewahi		Mean		Mean	
5001	31031	5435		5590		4789	6	4500		4091		4296		4743	
5002	31004	5410		8225	2 *	4902	5	4250		5930	2	5090	5	5827	2 *
5003	31027	4935		6040	9	4537		4200		4020		4110		4699	
5004	31923	7179	1	4450		5241	1	5600	2	4986	8	5293	3	5069	7
5005	31924	2531		7095	5 *	4907	4	4851		4134		4493		5247	5
5006	31925	6725	7	4630		4006		3423		3232		3328		3823	
5007	31926	4383		4420		5179	2	5100	10	4794		4947	9	4873	10
5008	31927	6603	9	5395		4034		4500		4396		4448		4581	
5009	31928	5983		4500		3745		4350		4808		4579		4351	
5010	31929	6995	3	5080		4216		4500		4041		4271		4459	
5011	31930	5138		4885		3805		4200		5866	4	5033	7	4689	
5012	31931	6020				4060		4700		4503		4602		4421	
5013	31932	5640		5600		4172		5300	5	4922	9	5111	4	4999	9
5014	BPT 5204 (Yield Check)	5956		4695		4198		4350		4098		4224		4335	
5015	30159 (R)	2498		4295		3630		3348		3061		3205		3584	
5016	31933	2948		5315		3208		3500		2962		3231		3746	
5017	31934	5819		4275		3725		4726		4354		4540		4270	
5018	31935	2467		6560	7 *	3640		4150		3438		3794		4447	
5019	31936	6525		4580		3713		3250		5085	6	4168		4157	
5020	31937	2881		4265		3967		3800		4105		3953		4034	
5021	31938	5591		4585		4723	9	5550	3	3679		4615		4634	
5022	31939	6005		4365		4755	7	4250		4013		4132		4346	
5023	IR 64 (Yield Check)	6419		4940		4698	10	4750		4851		4801		4810	
5024	31940	6172		7115	4 *	4688		5000		5916	3	5458		5680	3 *
5025	31941	5231		9100	1 *	4737	8	5150	8	4844		4997	8	5958	1 *
5026	31942	5520		5075		3934		2950		3288		3119		3812	
5027	31943	5900		4290		3759		3400		3224		3312		3668	
5028	31944	6956	4	5450		4403		5150	8	5007	7	5079	6	5003	8
5029	31945	6035		4490		4548		5077		3509		4293		4406	
5030	31946	6329		4260		4374		3950		4730		4340		4329	
5031	31947	5767		4615		3917		4000		4169		4085		4175	
5032	31948	5849		5380		4214		4350		4063		4207		4502	
5033	DRR Dhan 45 (Yield & Micro Nutrient Check)	6226		4330		4241		4675		3686		4181		4233	
5034	31949	7174	2	6240	8	3887		5700	1	3622		4661		4862	
5035	31950	5545		4260		3699		3503		3935		3719		3849	
5036	31951	5547		4315		4593		4950		4304		4627		4541	
5037	31952	5905		5200		4214		4750		4858	10	4804	10	4756	
5038	31953	5728		4300		4624		3100		3089		3095		3778	
5039	DRR Dhan 48 (Yield & Micro Nutrient Check)	5704		4535		4014		3550		3828		3689		3982	
5040	31954	6645	8	7270	3 *	5043	3	5250	7	4233		4742		5449	4 *
5041	31955	6779	5	5225		4383		5302	4	3935		4619		4711	
5042	31956	5883		4280		4186		4150		3466		3808		4021	
5043	31957	4935		5375		3466		4100		2940		3520		3970	
5044	31958	6579	10	4840		4507		5291	6	6136	1	5714	1 *	5194	6
5045	31959	4342		4285		4206		3750		4716		4233		4239	
5046	31960	5020		4495		4206		3100		3239		3170		3760	
5047	31961	6775	6	5745		4360		4150		3729		3940		4496	
5048	31962	5780		4355		3106		3250		5142	5	4196		3963	
5049	Chittimuthyalu (Micro Nutrient Check)	3526		5665		3310		3900		3388		3644		4066	
5050	31963	5003		6885	6 *	3325		3752		3906		3829		4467	
5051	31964	6437		5295		3919		3723		3494		3609		4108	
5052	31965	4979		5835	10	3997		3550		3210		3380		4148	
Exp. Mean		**5545**		**5221**		**4187**		**4301**		**4173**		**4237**		**4467**	
F Value		**6.00(p<0.0001)S**		**22.86(p<0.0001)S**		**3.69(p<0.0001)S**		**3.89(p<0.0001)S**		**4.18(p<0.0001)S**		**6.17(p<0.0001)S**		**11.91(p<0.0001)S**	
CD		1380		642		738		1048		1110		735		449	
CV%		**12.39**		**6.13**		**8.79**		**12.14**		**13.26**		**8.64**		**5**	
D/S		19/07/2023		04/07/2023		05/07/2023		01/07/2023		04/07/2023					
D/P		14/08/2023		13/08/2023		31/07/2023		21/07/2023		22/07/2023					

Table No. 11b.2 (Contd) :Grain Yield (kg/ha) in AVT-1 and IVT (Bio-fortification), Kharif, 2023.

Entry No	IET No	ZONE VI – WESTERN											
		Maharashtra 2(1)		Maharashtra (3)		Gujarat				Gujarat (2)		Zone VI(3)	
		Karjat		Mean		Navasari		Nawagam		Mean		Mean	
5001	31031	4634		4408		5216		5688	10	5452	8	5179	
5002	31004	7336	5	5839	2	5018		5077		5048		5810	6
5003	31027	3965		4062		4571		6029	6	5300	10	4855	
5004	31923	6515	10	5700	4	5435	7	4566		5001		5505	
5005	31924	4646		4544		3223		2292		2758		3387	
5006	31925	6439		4365		3785		5330		4558		5185	
5007	31926	6098		5331	8	4940		3553		4247		4864	
5008	31927	6351		5082		4554		5952	7	5253		5619	7
5009	31928	5177		4778		5522	6	5891	9	5707	5	5530	10
5010	31929	6338		4960		5317	9	6573	3 *	5945	2	6076	2 *
5011	31930	4823		4963		4907		4917		4912		4882	
5012	31931	7765	3	5656	5	4433		5346		4890		5848	4
5013	31932	4798		5007		4437		6836	1	5637	6	5357	
5014	BPT 5204 (Yield Check)	8056	2	5501	6	4189		3904		4047		5383	
5015	30159 (R)	4419		3609		3020		2809		2915		3416	
5016	31933	5013		3825		2540		3696		3118		3750	
5017	31934	4773		4618		5432	8	2731		4082		4312	
5018	31935	6212		4600		3915		5332		4624		5153	
5019	31936	5530		4622		5565	5	3326		4446		4807	
5020	31937	6048		4651		4551		4061		4306		4887	
5021	31938	4318		4516		4649		5404		5027		4790	
5022	31939	7563	4	5275		5988	1	3904		4946		5818	5
5023	IR 64 (Yield Check)	4798		4800		3872		4873		4373		4514	
5024	31940	4937		5284	9	5144		5605		5375	9	5229	
5025	31941	4495		4830				6638	2	6638	1 *	5567	9
5026	31942	4306		3515	51	3112		4018		3565		3812	
5027	31943	7033	6	4552		3952		3375		3664		4787	
5028	31944	6237		5465	7	5162		6400	5	5781	4	5933	3
5029	31945	4217		4268		5019		4000		4510		4412	
5030	31946	3939		4206		4903		3458		4181		4100	
5031	31947	5063		4411		5267		5117		5192		5149	
5032	31948	8838	1	5750	3	5865	3	3975		4920		6226	1 *
5033	DRR Dhan 45 (Yield & Micro Nutrient Check)	3712		4024		5884	2	5228		5556	7	4941	
5034	31949	6528	9	5283	10	4476		5513		4995		5506	
5035	31950	4104		3847		4376		5899	8	5138		4793	
5036	31951	4571		4608		4699		3885		4292		4385	
5037	31952	3788		4465	31	5105		6566	4	5836	3	5153	
5038	31953	4470		3553		5037		4429		4733		4645	
5039	DRR Dhan 48 (Yield & Micro Nutrient Check)	4293		3890		4077		3890		3984		4087	
5040	31954	5821		5101		5245		4309		4777		5125	
5041	31955	4343		4527		5297	10	4630		4964		4757	
5042	31956	3523		3713		3854		3794		3824		3724	
5043	31957	4015		3685		3052		3450		3251		3506	
5044	31958	6907	7	6111	1	5824	4	4097		4961		5609	8
5045	31959	4444		4303		4451		4261		4356		4385	
5046	31960	4003		3447		3983		3335		3659		3774	
5047	31961	6212		4697		3616		2932		3274		4253	
5048	31962	6553	8	4982				4360		4360		5457	
5049	Chittimuthyalu (Micro Nutrient Check)	3914		3734				2685		2685		3300	
5050	31963	4899		4186		3208		4032		3620		4046	
5051	31964	5960		4392		4291		4560		4426		4937	
5052	31965	5429		4063		4291		2762		3527		4161	
Exp. Mean		**5349**		**4608**		**4577**		**4525**		**4550**		**4821**	
F Value		**10.05(p<0.0001)S**		**8.94(p<0.0001)S**		**4.60(p<0.0001)S**		**7.15(p<0.0001)S**		**6.77(p<0.0001)S**		**10.13(p<0.0001)S**	
CD		1133		626		1158		1228		953		665	
CV%		**10.55**		**6.762**		**12.59**		**13.52**		**10.43**		**6.87**	
D/S		04/07/2023				06/07/2023		07/07/2023					
D/P		28/07/2023				03/08/2023		19/08/2023					

Table No. 11b.2 (Contd) :Grain Yield (kg/ha) in AVT-1 and IVT (Bio-fortification), Kharif, 2023.

Entry No	IET No	ZONE VIII - SOUTHERN											
		Andhra Pradesh (1)		Telangana				Telangana (2)		Tamil Nadu (1)		Kerala (1)	
		Maruteru		Rudrur		Rajendranagar		Mean		Coimbatore		Moncompu	
5001	31031	5265		4560		4852		4706		5148		4790	
5002	31004	6136	8	5315	8	5384	4	5350	4 *	4401		5567	6
5003	31027	5682		4921		5634	2	5278	7 *	4393		5252	
5004	31923	6250	4.5 *	5413	4	5335	6	5374	3 *	4413		9384	1 *
5005	31924	5636		4882		4786		4834		5777	8	6303	2
5006	31925	3908		3385		3934		3660		5786	7	3046	
5007	31926	4606		3990		4827		4409		5311		4167	
5008	31927	5174		4482		5192	9	4837		4951		4832	
5009	31928	6182	6 *	5354	6	5240	8	5297	5 *	5144		2731	
5010	31929	3811		3301		4490		3896		4539		6197	3
5011	31930	4326		3747		4203		3975		4224		4202	
5012	31931	5955		5157		4312		4735		5597	9	4307	
5013	31932	5962		5164		4541		4853		5802	5	4412	
5014	BPT 5204 (Yield Check)	4941		4280		4470		4375		5356		5882	5
5015	30159 (R)	3674		3182		2871		3027		4161		2493	
5016	31933	4159		3602		2873		3238		4287		2160	
5017	31934	4129		3576		3711		3644		5181		5287	10
5018	31935	4697		4068		3753		3911		4020		2225	
5019	31936	5233		4532		3344		3938		4248		2902	
5020	31937	6455	1 *	5591	1	4260		4926		5535	10	3571	
5021	31938	4950		4287		4524		4406		4796		4412	
5022	31939	4152		3596		4952		4274		5178		2815	
5023	IR 64 (Yield Check)	3220		2789		4324		3557		4471		4391	
5024	31940	6333	2 *	5486	2	5266	7	5376	2 *	5855	2	5410	8
5025	31941	3356		2907				2907		3719		3361	
5026	31942	3348		2900		3276		3088		4364		2934	
5027	31943	5206		4509		3902		4206		5815	3	3256	
5028	31944	5212		4514		5118		4816		4521		4622	
5029	31945	6250	4*	5413	4	4756		5085	9 *	4448		4062	
5030	31946	3970		3438		5665	1	4552		5042		5077	
5031	31947	5106		4423		3350		3887		5174		3641	
5032	31948	4023		3484		4605		4045		4750		3487	
5033	DRR Dhan 45 (Yield & Micro Nutrient Check)	4317		3740		4519		4130		4765		4307	
5034	31949	4320		3741		3843		3792		5797	6	3992	
5035	31950	6182	6*	5354	6	4614		4984	10	4039		3845	
5036	31951	4545		3937		4185		4061		5808	4	4097	
5037	31952	5826		5046		4149		4598		4040		3676	
5038	31953	3788		3281		2565		2923		3881		4412	
5039	DRR Dhan 48 (Yield & Micro Nutrient Check)	4389		3801		3542		3672		5427		5147	
5040	31954	6015	10	5210	10	5362	5	5286	6 *	3968		4517	
5041	31955	3765		3261		3155		3208		5867	1	5952	4
5042	31956	3463		2999		2362		2681		4626		3309	
5043	31957	3311		2867		3674		3271		4278		3256	
5044	31958	6038	9	5230	9	4491		4861		5141		4412	
5045	31959	6280	3 *	5440	3	4953		5197	8 *	4177		5392	9
5046	31960	3765		3261		2668		2965		4026		4034	
5047	31961	5871		5085		3963		4524		4510		4737	
5048	31962	6008		5203		5633	3	5418	1 *	5064		3466	
5049	Chittimuthyalu (Micro Nutrient Check)	3795		3287		3879		3583		3920		2626	
5050	31963	3636		3150		2304		2727		4682		2405	
5051	31964	4879		4226		5153	10	4690		5155		5567	6
5052	31965	4258		3688		4610		4149		4464		2962	
Exp. Mean		**4841**		**4193**		**4262**		**4215**		**4808**		**4217**	
F Value		**5.64(p<0.0001)S**		**5.64(p<0.0001)S**		**4.84(p<0.0001)S**		**11.7(p<0.0001)S**		**2.68(p<0.0003)S**		**8.59(p<0.0001)S**	
CD		1200		1039		1137		654		1089		1261	
CV%		**12.35**		**12.35**		**13.28**		**7.73**		**11.28**		**14.9**	
D/S		16/07/2023		14/06/2023		28/06/2023				10/07/2023		25/07/2023	
D/P		14/08/2023		12/07/2023		02/08/2023				07/08/2023		22/08/2023	

Table No. 11b.2 (Contd) :Grain Yield (kg/ha) in AVT-1 and IVT (Bio-fortification), Kharif, 2023.

Entry No	IET No	ZONE VII - SOUTHERN									
		Karnataka								Karnataka (4)	
		Mandya		Mugad		Gangavathi		Malagi		Mean	
5001	31031	5300	10	5244		5772		6460		5694	
5002	31004	6104	1	4181		7103	1	6680		6017	5
5003	31027	4662		5860	9	5631		6560		5678	
5004	31923	5598	3	4521		5442		5280		5210	
5005	31924	3866		3743		5933	9	3300		4211	
5006	31925	3516		4426		5500		4700		4536	
5007	31926	2637		6420	5	5343		3244		4411	
5008	31927	5047		6408	6	5212		4780		5362	
5009	31928	5360	8	5527		4404		5100		5098	
5010	31929	5230		5318		6603	4	4560		5428	
5011	31930	3559		3905		4423		5120		4252	
5012	31931	4999		4094		5772		4440		4826	
5013	31932	4589		5391		5410		6140		5383	
5014	BPT 5204 (Yield Check)	2480		5112		5853		5140		4646	
5015	30159 (R)	3305		3039		4500		4300		3786	
5016	31933	1407		3111		4647		4340		3376	
5017	31934	3456		4760		4744		5080		4510	
5018	31935	3375		4768		3856		5540		4385	
5019	31936	3219		5563		4478		5480		4685	
5020	31937	2788		4928		4542		5420		4420	
5021	31938	4745		6548	4	6202	6	6120		5904	8
5022	31939	3144		2913		5558		5480		4274	
5023	IR 64 (Yield Check)	4308		3232		5263		5740		4636	
5024	31940	5123		6245	7	5904	10	7700	7	6243	3
5025	31941	4972		4927		4994		7040		5483	
5026	31942	3009		5432		5301		5288		4758	
5027	31943	4400		4653		5042		3260		4339	
5028	31944	5327	9	4990		5205		8232	2	5939	7
5029	31945	5036		4738		5321		5460		5139	
5030	31946	4400		4884		6487	5	7240	10	5753	10
5031	31947	3877		4737		5276		6000		4973	
5032	31948	3257		4522		3929		4440		4037	
5033	DRR Dhan 45 (Yield & Micro Nutrient Check)	5403	7	3892		5654		8180	3	5782	9
5034	31949	4373		6018	8	4619		6780		5448	
5035	31950	4136		5815	10	5689		6300		5485	
5036	31951	4292		5055		4183		8160	4	5423	
5037	31952	5408	6	5046		6106	8	7740	6	6075	4
5038	31953	4249		3092		5449		4600		4348	
5039	DRR Dhan 48 (Yield & Micro Nutrient Check)	3526		5495		6179	7	3340		4635	
5040	31954	6064	2	5064		6651	3	8500	1	6570	2*
5041	31955	5484	5	6671	2	6737	2	8000	5	6723	1*
5042	31956	2993		3115		4500		3778		3597	
5043	31957	2475		5077		3571		5220		4086	
5044	31958	4087		6649	3	3593		6900		5307	
5045	31959	4023		6791	1	4667		6861		5586	
5046	31960	3343		3001		4564		5900		4202	
5047	31961	4583		4073		4872		7300	9	5207	
5048	31962	2739		3305		5356		4740		4035	
5049	Chittimuthyalu (Micro Nutrient Check)	2847		3229		3788		4260		3531	
5050	31963	4044		4522		3590		4920		4269	
5051	31964	5549	4	5467		5426		7440	8	5971	6
5052	31965	3796		3763		5292		4300		4288	
Exp. Mean		**4144**		**4794**		**5195**		**5709**		**4961**	
F Value		**37.29(p<0.0001)S**		**6.00(p<0.0001)S**		**6.78(p<0.0001)S**		**10.14(p<0.0001)S**		**20.34(p<0.0001)S**	
CD		487		1245		919		1282		503	
CV%		**5.86**		**12.93**		**8.81**		**11.18**		**5.05**	
D/S		28/07/2023		12/07/2023		01/08/2023		05/07/2023			
D/P		22/08/2023				30/08/2023		30/07/2023			

Table No.11b.2 (Contd) :Grain Yield (kg/ha) in AVT-1 and IVT (Bio-fortification),Kharif, 2023.

Entry No	IET No	ZONE VII - SOUTHERN				Overall Mean (24)	
		Puducherry (1)		Zone VII (10)			
		Karaikal		Mean			
5001	31031	5250		5264	8*	5006	
5002	31004	4125		5500	4*	5594	3*
5003	31027	4625		5322	6*	4903	
5004	31923	6125	3	5776	1*	5481	4*
5005	31924	5025		4925		4305	
5006	31925	5200		4340		4623	
5007	31926	4500		4505		4765	
5008	31927	5625	6	5170		5239	7*
5009	31928	4125		4917		5024	*
5010	31929	3875		4792		5130	10*
5011	31930	3750		4146		4389	
5012	31931	3875		4851		5084	*
5013	31932	5000		5241	10*	5182	9*
5014	BPT 5204 (Yield Check)	3750		4726		4718	
5015	30159 (R)			3503		3442	
5016	31933	3750		3434		3667	
5017	31934	4000		4392		4387	
5018	31935	3125		3943		4236	
5019	31936	2750		4175		4411	
5020	31937	6375	2	4947		4564	
5021	31938	5375	9	5196	*	5073	*
5022	31939	5625	6	4341		4624	
5023	IR 64 (Yield Check)	5000		4274		4733	
5024	31940	4250		5757	2 *	5771	1*
5025	31941	3500		4308		4797	
5026	31942	5750	4	4160		4144	
5027	31943	5000		4504		4431	
5028	31944	5250		5299	7 *	5382	6*
5029	31945	3625		4911		4820	
5030	31946	3750		4995		4712	
5031	31947	5250		4683		4546	
5032	31948	3875		4037		4627	
5033	DRR Dhan 45 (Yield & Micro Nutrient Check)	3500		4828		4782	
5034	31949	3500		4698		4959	
5035	31950	5625	6	5160		4859	
5036	31951	4000		4826		4706	
5037	31952	2750		4979		5090	*
5038	31953	3000		3832		4098	
5039	DRR Dhan 48 (Yield & Micro Nutrient Check)	6750	1	4760		4660	
5040	31954	5000		5635	3 *	5641	2*
5041	31955	3750		5264	8*	5479	5*
5042	31956	3125		3427		3781	
5043	31957	3250		3698		3709	
5044	31958	5500	8	5204	*	5203	8*
5045	31959	3625		5221	*	4695	
5046	31960	3750		3831		3931	
5047	31961	4375		4937		4712	
5048	31962	3875		4539		4720	
5049	Chittimuthyalu (Micro Nutrient Check)	3250		3488		3453	
5050	31963	4250		3750		4070	
5051	31964	5000		5386	5*	5075	*
5052	31965	4500		4163		4204	
Exp. Mean		**4382**		**4653**		**4685**	
F Value		**9.37(p<0.0001)S**		**25.73(p<0.0001)S**		**45.30(p<0.0001)S**	
CD		891		347		228	
CV%		**10.12**		**3.72**		**2.42**	
D/S		12/09/2023					
D/P		13/12/2023					

Table No. 11b.2 (Contd) :Grain Yield (kg/ha) in AVT-1 and IVT (Bio-fortification), Kharif, 2023.

Entry No	IET No	Trials not consdered							
		Rajastan (0) @Kota		West Bengal @Hatwara		Uttar Pradesh @Masodha		Chattisgarh @ Jagadalpur	
5001	31031	4023		4217		5638	10	4928	
5002	31004	4056		4370		5938	3	4896	
5003	31027	4754		4136		4967		6341	1
5004	31923	4069		4412		5911	4	4993	
5005	31924	5186	7	2690		2926		5036	
5006	31925	5120	8.5	3158		5725	8	5251	
5007	31926	5253	6	3084		5372		3496	
5008	31927	4388		4763	9	5359		4876	
5009	31928	4189		4552		5259		5501	3
5010	31929	4102		4496		5379		5394	7
5011	31930	4721		3638				5046	
5012	31931	4388		3854		5838	6	5212	
5013	31932	4089		5269	5	4209		4977	
5014	BPT 5204 (Yield Check)	5718	1	3480		5120		4453	
5015	30159 (R)	4122		2415		4229		5345	10
5016	31933	4455		3273		5206		5098	
5017	31934	4854		2877		5126		4626	
5018	31935	5652	2	3223		5073		4541	
5019	31936	4388		3541		5352		5169	
5020	31937	4455		2675		4368		4206	
5021	31938	5585	4	4473		6150	1	5065	
5022	31939	5053	10	3448		5499		3350	
5023	IR 64 (Yield Check)	5120	8.5	4706	10	5266		5133	
5024	31940	4588		5588	3	4973		5192	
5025	31941	4654				5731	7	5355	9
5026	31942	4162		4084		4269		4935	
5027	31943	5652	2	4212		4388		5452	5
5028	31944	5452	5	5191	6	4727		3730	
5029	31945	4235		3828		5126		3695	
5030	31946	4189		5169	7	5233		5472	4
5031	31947	4089		3615		4043		5267	
5032	31948	4634		2838		6057	2	4479	
5033	DRR Dhan 45 (Yield & Micro Nutrient Check)	4953		4688		4309		4906	
5034	31949	4987		3795		3823		3411	
5035	31950	4202		3981		5313		5303	
5036	31951	4255		4254		5698	9	4186	
5037	31952	4455		5693	2	4694		3971	
5038	31953	4142		3548		5279		5374	8
5039	DRR Dhan 48 (Yield & Micro Nutrient Check)	4255		3211		4069		5124	
5040	31954	4854		5504	4	4747		4967	
5041	31955	4255		5781	1	5432		4512	
5042	31956	4235		3509		4388		3105	
5043	31957	4322		2279		5040		5296	
5044	31958	4521		4132		4781		5592	2
5045	31959	4721		3936		3364		4275	
5046	31960	4189		3043		4854		3942	
5047	31961	4023		5017	8	5898	5	3828	
5048	31962	4555		3448		4388		4401	
5049	Chittimuthyalu (Micro Nutrient Check)	4388		1998		3856		5426	6
5050	31963	4096		4144		4900		5326	
5051	31964	4588		4263		5053		4473	
5052	31965	4016		3901		4907		4368	
Exp. Mean		**4566**		**3949**		**4966**		**4775**	
F Value		**1.40(p<0.1160)S**		**3.49(p<0.0001)S**		**20.30(p<0.0001)S**		**1.58(p<0.0520)NS**	
CD		NS		1456		440		**NS**	
CV%		**15.95**		**18.36**		**4.41**		**16.65**	
D/S		10/07/2023		25/07/2023		04/07/2023		14/07/2023	
D/P		04/08/2023		22/08/2023		09/08/2023		03/08/2023	

Table No. 11b.2 (Contd) :Grain Yield (kg/ha) in AVT-1 and IVT (Bio-fortification), Kharif, 2023.

Entry No	IET No	Trials not considered							
		Andhra Pradesh @Nellore		Tamil Nadu @Adhuturai		Kerala @Pattambi		Karnataka @Sirsi	
5001	31031	2516		4826		6029		6540	1
5002	31004	5300	2	5222		6692		5650	2
5003	31027	2380		4778		7080	8	4620	7
5004	31923	3532		5127		6883		5190	3
5005	31924	4918	6	5127		6019		4300	
5006	31925	2255		4525		5934		4370	
5007	31926	5202	4	5475		7956	2	4060	
5008	31927	4034	9	5127		6760		4370	
5009	31928	5479	1	5744	9	7198	6	3870	
5010	31929	3000		4652		6239		4300	
5011	31930	2593		4320		7349	4	3460	
5012	31931	2709		4937		7081	7	4570	9
5013	31932	3553		4272		6498		3580	
5014	BPT 5204 (Yield Check)	3829		6487	1	6066		3390	
5015	30159 (R)	3088		5174		5951		2080	
5016	31933	2887		4383		6202		2020	
5017	31934	5027	5	5854	6	5953		3970	
5018	31935	2703		4509		5143		3100	
5019	31936	3687		4573		6732		3180	
5020	31937	3415		5127		5945		3580	
5021	31938	2612		5728	10	6849		5060	4
5022	31939	2326		4826		6111		2430	
5023	IR 64 (Yield Check)	3083		4130		6714		3760	
5024	31940	2574		4699		6938	10	3680	
5025	31941	2969		4636		7367	3	4210	
5026	31942	3322		4937		5866		3530	
5027	31943	4874	7	6171	4	6848		4300	
5028	31944	3311		4668		6850		4350	
5029	31945	3154		4636		6143		4000	
5030	31946	3170		5016		6320		4920	5
5031	31947	3232		6329	2	7288	5	3840	
5032	31948	2947		6234	3	8012	1	4210	
5033	DRR Dhan 45 (Yield & Micro Nutrient Check)	3610		5253		6763		3500	
5034	31949	3460		5127		6530		4670	6
5035	31950	3186		4415		5837		3850	
5036	31951	3551		5633		5717		3770	
5037	31952	2965		4557		5983		4530	
5038	31953	2761		4604		5303		3010	
5039	DRR Dhan 48 (Yield & Micro Nutrient Check)	3154		5411		5856		2820	
5040	31954	3086		4794		6330		4540	10
5041	31955	3847		4797		5590		4610	8
5042	31956	3475		5079		5577		3280	
5043	31957	3415		5237		6963	9	1880	
5044	31958	5272	3	5854	6	5990		3350	
5045	31959	4174	8	6139	5	5657		3380	
5046	31960	3252		4763		5770		2520	
5047	31961	2898		5073		6217		4020	
5048	31962	3214		5759	8	5127		3190	
5049	Chittimuthyalu (Micro Nutrient Check)	2887		5063		5077		3360	
5050	31963	2530		4620		5060		3550	
5051	31964	4031	10	4747		5630		4200	
5052	31965	3655		4652				3430	
Exp. Mean		**3425**		**5074**		**6314**		**3845**	
F Value		**6.75(p<0.0001)S**		**26.04(p<0.0001)S**		**1.44(p<0.0998)S**		**9.75(p<0.0001)S**	
CD		891		316		1658		934	
CV%		**12.96**		**3.1**		**13.07**		**12.1**	
D/S		02/09/2023		31/08/2023		17/07/2023		03/07/2023	
D/P		07/10/2023		06/10/2023		10/08/2023		27/07/2023	

Table No.11b.3 : Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT-1 and IVT (Bio-fortification), Kharif 2023

Entry No	IET No	ZONE II-NORTHERN						ZONE III-EASTERN											
		Punjab (1)			Zone II (1)			Odisha						Odisha (2)			Bihar (1)		
		Ludhiana			Mean			ICAR-NRRI (Cuttack)			Jeypore			Mean			Bikaramganj		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5001	31031	87	103	291	87	103	291	87	95	265	103	89	311	137	92	288	95	107	416
5002	31004	104	85	238	104	85	238	93	87	263	105	89	415	137	88	339	108	108	417
5003	31027	87	112	297	87	112	297	94	93	277	110	97	349	143	95	313	96	120	410
5004	31923	91	94	330	91	94	330	95	96	271	108	75	342	142	85	307	95	106	360
5005	31924			.			.	86	81	271	107	90	372	136	85	321	124	109	330
5006	31925			.			.	87	102	247	101	71	325	134	86	286	108	112	376
5007	31926			.				106	101	280	109	63	436	149	82	358	116	101	394
5008	31927	95	96	225	95	96	225	99	91	291	114	100	379	149	95	335	97	122	362
5009	31928	90	98	301	90	98	301	105	110	259	106	90	355	145	100	307	96	107	402
5010	31929	99	96	268	99	96	268	94	107	241	104	75	342	136	91	291	100	106	359
5011	31930	90	96	324	90	96	324	94	96	262	106	87	412	139	91	337	100	116	363
5012	31931	105	107	284	105	107	284	97	91	271	108	89	358	142	90	315	101	116	366
5013	31932	91	107	271	91	107	271	93	91	241	116	106	392	135	98	316	97	134	357
5014	BPT 5204 (Yield Check)			.			.	111	102	261	111	67	469	146	84	365	124	83	376
5015	30159 (R)	74	95	274	74	95	274	81	114	245	96	66	322	134	90	283	82	95	389
5016	31933	90	85	333	90	85	333	87	103	266	107	68	322	141	85	294	98	101	399
5017	31934	102	107	347	102	107	347	98	105	276	111	99	499	147	102	388	102	116	389
5018	31935	90	101	284	90	101	284	92	98	279	103	73	332	143	85	305	96	117	363
5019	31936	107	85	262	107	85	262	95	97	264	103	67	355	139	82	309	98	103	331
5020	31937	102	86	347	102	86	347	95	95	292	107	92	443	147	93	367	102	109	359
5021	31938	92	107	297	92	107	297	92	99	261	108	82	361	140	90	311	98	115	394
5022	31939	97	78	272	97	78	272	95	99	267	115	65	446	144	82	356	96	99	385
5023	IR 64 (Yield Check)	89	91	284	89	91	284	94	101	243	107	76	438	136	88	341	95	111	355
5024	31940	86	112	261	86	112	261	88	90	268	109	92	326	139	91	297	95	127	432
5025	31941	83	96	238	83	96	238	91	101	290	105	70	312	146	85	301	94	99	387
5026	31942			.			.	93	106	278	103	75	429	145	90	353	100	111	362
5027	31943			.				105	101	281	117	79	439	151	90	360	110	98	349
5028	31944	88	97	317	88	97	317	95	109	276	109	85	439	147	97	357	94	114	360
5029	31945	88	94	350	88	94	350	91	112	298	106	91	345	152	101	321	96	111	388
5030	31946	102	115	274	102	115	274	96	128	289	102	115	352	153	122	320	98	138	323
5031	31947	97	96	268	97	96	268	92	105	266	108	88	392	143	96	329	99	127	391
5032	31948	107	80	271	107	80	271	93	102	281	113	82	402	147	92	342	106	107	402
5033	DRR Dhan 45 (Yield & Micro Nutrient Check)	87	103	271	87	103	271	94	107	290	104	94	319	149	100	305	96	117	358
5034	31949	96	96	242	96	96	242	93	102	261	105	70	402	140	86	332	99	103	368
5035	31950			.			.	96	97	296	97	77	265	146	87	280	110	112	373
5036	31951	95	112	311	95	112	311	103	99	284	111	102	315	149	101	299	99	124	397
5037	31952	84	100	271	84	100	271	91	72	270	106	79	345	134	75	308	89	114	365
5038	31953	70	93	383	70	93	383	87	97	260	100	70	295	136	83	277	105	85	358
5039	DRR Dhan 48 (Yield & Micro Nutrient Check)		.	.		.	.	79	108	290	108	79	379	146	93	334	104	109	417
5040	31954	87	105	261	87	105	261	106	95	293	107	88	335	150	91	314	96	115	371
5041	31955	90	103	261	90	103	261	96	97	285	108	85	346	146	91	315	97	121	360
5042	31956	82	92	278	82	92	278	92	88	288	102	78	342	142	83	315	93	106	393
5043	31957	92	82	320	92	82	320	87	92	278	100	69	309	139	80	294	100	98	368
5044	31958	105	109	268	105	109	268	92	95	294	110	87	392	148	91	343	108	107	370
5045	31959			.			.	96	105	261	115	85	315	144	95	288	116	103	377
5046	31960			.			.	107	90	276	97	98	355	142	94	316	111	135	394
5047	31961	82	104	274	82	104	274	103	87	252	108	95	429	137	91	340	88	113	344
5048	31962	100	87	274	100	87	274	90	97	269	113	100	293	142	98	281	109	129	327
5049	Chittimuthyalu (Micro Nutrient Check)			.			.	109	102	289	112	113	412	153	108	350	121	130	372
5050	31963	89	109	340	89	109	340	94	90	278	105	78	328	141	84	303	98	130	392
5051	31964	103	89	214	103	89	214	102	103	268	119	84	335	148	94	301	98	118	354
5052	31965			.				102	95	269	95	110	452	140	102	361	110	131	375
Exp. Mean		**92**	**97**	**287**	**92**	**97**	**287**	**95**	**98**	**272**	**107**	**84**	**369**	**143**	**91**	**321**	**101**	**112**	**374**

Table No.11b.3(Contd). : Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT-1 and IVT (Bio-fortification), Kharif 2023

Entry No	IET No	ZONE III-EASTERN														
		West Bengal			West Bengal (1)			Uttar Pradesh			Uttar Pradesh (1)			Zone III(5)		
		Chinsurah			Mean			Varanasi			Mean			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5001	31031	92	114	287	92	114	287	91	94	146	91	94	146	93	100	285
5002	31004	97	109	326	97	109	326	99	95	161	99	95	161	100	97	316
5003	31027	106	118	224	106	118	224	89	108	151	89	108	151	99	107	282
5004	31923	85	86	307	85	86	307	90	87	198	90	87	198	94	90	296
5005	31924	106	108	262	106	108	262	133	89	229	133	89	229	111	95	293
5006	31925	107	102	324	107	102	324	106	93	184	106	93	184	102	96	291
5007	31926	107	151	302	107	151	302	99	74	190	99	74	190	107	98	320
5008	31927	97	105	304	97	105	304	94	100	159	94	100	159	100	103	299
5009	31928	100	98	287	100	98	287	89	94	191	89	94	191	99	100	299
5010	31929	103	96	282	103	96	282	93	95	179	93	95	179	99	95	280
5011	31930	105	100	257	105	100	257	93	107	187	93	107	187	99	101	296
5012	31931	105	101	279	105	101	279	98	112	155	98	112	155	102	102	286
5013	31932	106	124	261	106	124	261	92	110	154	92	110	154	101	113	281
5014	BPT 5204 (Yield Check)	104	92	290	104	92	290	116	77	199	116	77	199	113	84	319
5015	30159 (R)	89	101	255	89	101	255	76	80	211	76	80	211	85	91	284
5016	31933	101	119	279	101	119	279	90	87	165	90	87	165	97	95	286
5017	31934	97	104	314	97	104	314	96	122	223	96	122	223	101	109	340
5018	31935	111	96	289	111	96	289	92	107	134	92	107	134	99	98	279
5019	31936	98	108	250	98	108	250	103	84	137	103	84	137	99	92	267
5020	31937	103	105	299	103	105	299	98	95	202	98	95	202	101	99	319
5021	31938	97	125	294	97	125	294	93	96	174	93	96	174	98	103	297
5022	31939	95	93	312	95	93	312	99	90	219	99	90	219	100	89	326
5023	IR 64 (Yield Check)	99	107	277	99	107	277	87	97	217	87	97	217	96	98	306
5024	31940	100	87	284	100	87	284	84	99	148	84	99	148	95	99	291
5025	31941	106	95	312	106	95	312	89	89	139	89	89	139	97	91	288
5026	31942	108	121	324	108	121	324	95	90	177	95	90	177	100	100	314
5027	31943	114	3	279	114	3	279	96	87	175	96	87	175	108	74	304
5028	31944	91	121	240	91	121	240	88	98	214	88	98	214	95	105	306
5029	31945	99	94	277	99	94	277	87	103	213	87	103	213	96	102	304
5030	31946	111	110	305	111	110	305	97	122	147	97	122	147	100	123	283
5031	31947	92	104	290	92	104	290	97	98	156	97	98	156	97	104	299
5032	31948	97	100	265	97	100	265	105	90	173	105	90	173	103	96	304
5033	DRR Dhan 45 (Yield & Micro Nutrient Check)	85	103	280	85	103	280	84	108	194	84	108	194	92	106	288
5034	31949	100	103	265	100	103	265	95	91	155	95	91	155	98	94	290
5035	31950	111	103	277	111	103	277	98	94	177	98	94	177	102	96	277
5036	31951	99	110	279	99	110	279	93	118	154	93	118	154	101	111	286
5037	31952	102	114	274	102	114	274	92	102	183	92	102	183	96	96	287
5038	31953	106	104	261	106	104	261	75	83	222	75	83	222	94	88	279
5039	DRR Dhan 48 (Yield & Micro Nutrient Check)	105	110	334	105	110	334	105	95	173	105	95	173	100	100	318
5040	31954	99	121	314	99	121	314	86	96	178	86	96	178	99	103	298
5041	31955	107	113	329	107	113	329	94	99	151	94	99	151	100	103	294
5042	31956	111	196	234	111	196	234	87	90	141	87	90	141	97	111	279
5043	31957	97	94	285	97	94	285	92	81	170	92	81	170	95	87	282
5044	31958	85	94	262	85	94	262	99	103	139	99	103	139	99	97	291
5045	31959	97	96	257	97	96	257	106	89	175	106	89	175	106	95	277
5046	31960	105	116	329	105	116	329	114	121	162	114	121	162	107	112	303
5047	31961	111	102	295	111	102	295	87	99	130	87	99	130	99	99	290
5048	31962	91	107	271	91	107	271	92	101	118	92	101	118	99	107	255
5049	Chittimuthyalu (Micro Nutrient Check)		.	.		.	.	132	133	193	132	133	193	118	120	316
5050	31963	85	98	287	85	98	287	94	103	141	94	103	141	95	100	285
5051	31964	111	90	275	111	90	275	109	101	128	109	101	128	108	99	272
5052	31965	103	141	253	103	141	253	113	127	207	113	127	207	104	121	311
Exp. Mean		**101**	**106**	**284**	**101**	**106**	**284**	**96**	**98**	**173**	**96**	**98**	**173**	**100**	**100**	**295**

Table No.11b.3(Contd). : Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT-1 and IVT (Bio-fortification), Kharif 2023

Entry No	IET No	ZONE IV- NORTH EASTERN			ZONE-V – CENTRAL															
		Assam (1)			Madhya Pradesh (1)			Chattisgarh			Chattisgarh (1)			Maharashtra					
		Titabar			Jabalpur			Raipur			Mean			Sakoli			Sindewahi		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5001	31031	102	106	295	94	80	235	91	109	268	91	109	268	88	115	217	85	108	319
5002	31004	112	107	306	108	61	180	99	108	227	99	108	227	100	94	241	97	95	227
5003	31027	107	114	279	94	86	206	91	128	314	91	128	314	90	125	271	85	95	268
5004	31923	102	92	285	98	73	280	91	93	243	91	93	243	87	115	325	85	101	245
5005	31924	130	96	270	123	65	260	124	107	278	124	107	278	116	125	300	112	114	248
5006	31925	102	95	277	103	74	221	98	108	254	98	108	254	100	126	232	97	103	272
5007	31926	121	74	254	128	41	231	103	84	235	103	84	235	110	96	294	111	85	312
5008	31927	105	106	287	102	82	193	92	127	232	92	127	232	88	126	298	91	117	191
5009	31928	115	101	293	103	73	240	96	106	248	96	106	248	86	125	267	89	118	273
5010	31929	101	94	306	98	81	176	90	106	232	90	106	232	90	119	280	87	119	225
5011	31930	101	104	261	102	75	220	92	108	217	92	108	217	92	108	295	93	117	222
5012	31931	109	117	264		.	.	99	113	239	99	113	239	99	123	292	96	109	312
5013	31932	108	115	282	105	101	173	93	134	218	93	134	218	91	134	285	95	127	240
5014	BPT 5204 (Yield Check)	121	89	293	114	49	257	115	83	248	115	83	248	106	96	296	111	88	264
5015	30159 (R)	89	81	301	91	62	176	83	93	283	83	93	283	105	87	280	80	86	257
5016	31933	103	94	302	101	63	270	89	95	237	89	95	237	81	93	280	85	110	270
5017	31934	103	110	248	104	91	267	98	123	256	98	123	256	96	126	238	94	130	249
5018	31935	85	89	270	103	70	255	98	115	271	98	115	271	93	106	299	95	113	255
5019	31936	99	88	285	97	68	161	98	106	240	98	106	240	100	96	197	98	109	218
5020	31937	104	104	268	106	66	173	102	110	245	102	110	245	98	115	281	94	107	229
5021	31938	113	109	289	106	71	191	96	107	317	96	107	317	88	113	301	91	107	255
5022	31939	102	87	301	105	67	244	98	101	273	98	101	273	94	97	283	97	92	306
5023	IR 64 (Yield Check)	108	91	300	103	66	192	90	100	266	90	100	266	87	96	287	83	114	245
5024	31940	103	107	273	97	64	210	91	112	248	91	112	248	85	116	277	88	113	241
5025	31941	93	78	288	91	86	190	88	98	157	88	98	157	89	94	270	89	91	161
5026	31942	98	97	286	98	77	259	91	103	252	91	103	252	92	97	219	92	104	242
5027	31943	105	100	281	113	70	228	102	96	224	102	96	224	99	105	258	100	109	280
5028	31944	103	109	292	105	73	236	92	105	238	92	105	238	85	115	284	87	116	317
5029	31945	101	94	281	104	69	237	90	101	264	90	101	264	81	101	308	85	116	242
5030	31946	101	122	286	99	106	177	98	154	209	98	154	209	98	152	153	94	167	241
5031	31947	103	110	299	106	66	263	96	109	246	96	109	246	97	111	192	96	101	295
5032	31948	108	104	280	109	59	231	103	95	294	103	95	294	101	96	297	110	101	265
5033	DRR Dhan 45 (Yield & Micro Nutrient Check)	103	109	276	100	83	293	91	115	239	91	115	239	83	114	234	86	119	186
5034	31949	103	94	267	105	56	278	92	97	199	92	97	199	90	95	318	91	108	265
5035	31950	102	90	294	103	68	278	99	108	234	99	108	234	102	115	263	98	117	260
5036	31951	107	116	260	101	95	261	93	143	220	93	143	220	88	126	303	87	146	247
5037	31952	100	99	290	95	76	237	90	104	196	90	104	196	86	105	255	87	117	153
5038	31953	96	91	299	91	68	281	78	92	294	78	92	294	72	85	208	78	105	229
5039	DRR Dhan 48 (Yield & Micro Nutrient Check)	112	91	263	109	63	255	103	105	222	103	105	222	101	96	272	102	94	219
5040	31954	101	92	282	99	79	243	91	106	250	91	106	250	83	93	307	87	117	263
5041	31955	101	108	269	103	80	240	96	107	246	96	107	246	91	107	297	99	119	219
5042	31956	99	94	302	97	69	234	89	104	270	89	104	270	76	112	264	80	109	260
5043	31957	106	94	289	101	61	282	90	89	274	90	89	274	79	94	194	84	78	232
5044	31958	107	106	275	106	68	297	101	105	260	101	105	260	99	118	278	99	120	247
5045	31959	106	106	278	114	80	306	120	104	224	120	104	224	119	116	270	84	127	271
5046	31960	104	162	274	100	110	241	120	104	224	120	104	224	106	145	224	109	140	258
5047	31961	100	100	266	94	91	240	86	109	273	86	109	273	74	125	198	82	105	248
5048	31962	112	107	268	98	74	151	91	121	129	91	121	129	91	125	162	95	119	194
5049	Chittimuthyalu (Micro Nutrient Check)	106	137	291	108	124	192	103	164	247	103	164	247	114	156	229	112	145	249
5050	31963	97	95	280	99	76	210	91	118	172	91	118	172	88	118	200	87	133	259
5051	31964	113	95	293	117	72	211	104	114	240	104	114	240	74	93	258	108	109	256
5052	31965	105	142	287	115	107	305	103	146	306	103	146	306	79	157	246	109	143	217
Exp. Mean		**104**	**102**	**282**	**103**	**75**	**232**	**96**	**109**	**244**	**96**	**109**	**244**	**92**	**112**	**261**	**93**	**113**	**248**

Table No.11b.3(Contd). : Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT-1 and IVT (Bio-fortification), Kharif 2023

Entry No	IET No	ZONE-V – CENTRAL						ZONE VI – WESTERN								
		Maharashtra 1(2)			Zone V(4)			Maharashtra 2(1)			Maharashtra (3)			Gujarat		
		Mean			Mean			Karjat			Mean			Navasari		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5001	31031	126	111	268	89	103	259	84	117	232	85	113	256	85	118	246
5002	31004	133	95	234	101	90	219	93	118	288	96	102	252	99	117	277
5003	31027	143	110	269	90	109	264	88	127	189	88	116	242	85	127	236
5004	31923	153	108	285	90	96	273	86	113	280	86	110	283	88	114	256
5005	31924	163	119	274	119	103	271	111	125	226	113	121	258	115	116	230
5006	31925	138	114	252	99	103	245	96	113	296	97	114	267	94	113	249
5007	31926	152	90	303	113	76	268	110	95	271	110	92	292	104	100	288
5008	31927	150	121	244	93	113	228	89	133	290	89	125	259	88	139	280
5009	31928	142	122	270	93	106	257	93	122	236	89	122	259	85	108	234
5010	31929	144	119	252	91	106	228	89	124	311	88	121	272	84	101	260
5011	31930	147	113	258	94	102	238	84	127	247	89	117	255	83	105	275
5012	31931	152	116	302	98	115	281	93	123	347	96	118	317	95	123	240
5013	31932	151	130	262	96	124	229	89	150	217	91	137	247	85	130	260
5014	BPT 5204 (Yield Check)	152	92	280	111	79	266	100	99	352	105	94	304	106	101	311
5015	30159 (R)	138	86	269	89	82	249	85	103	291	90	92	276	68	100	281
5016	31933	135	102	275	89	90	264	88	102	252	84	102	267	82	101	277
5017	31934	138	128	243	98	117	252	89	126	214	93	127	233	88	156	282
5018	31935	148	110	277	97	101	270	90	122	263	92	114	272	78	119	251
5019	31936	123	103	208	98	95	204	93	114	247	97	106	221	92	121	243
5020	31937	147	111	255	100	99	232	91	123	283	94	115	264	85	123	276
5021	31938	148	110	278	95	100	266	87	119	201	88	113	252	85	113	259
5022	31939	142	94	294	98	89	276	93	120	319	94	103	302	88	111	295
5023	IR 64 (Yield Check)	138	105	266	90	94	247	87	108	205	85	106	245	87	113	237
5024	31940	141	115	259	90	101	244	87	123	230	86	117	249	83	123	251
5025	31941	135	92	215	89	92	194	87	97	230	88	94	220		.	.
5026	31942	125	101	231	93	95	243	85	117	244	90	106	235	84	106	259
5027	31943	140	107	269	103	95	247	93	118	284	97	110	274	93	107	274
5028	31944	143	115	301	92	102	269	84	118	273	85	116	291	81	117	267
5029	31945	143	109	275	90	97	262	87	121	217	84	113	255	82	114	257
5030	31946	124	159	197	97	144	195	90	167	175	94	162	189	85	151	269
5031	31947	124	106	243	99	97	249	94	110	227	95	107	238	94	130	320
5032	31948	151	99	281	106	88	272	90	103	361	100	100	307	94	106	266
5033	DRR Dhan 45 (Yield & Micro Nutrient Check)	129	117	210	90	108	238	89	126	171	86	120	197	84	125	262
5034	31949	148	101	292	94	89	265	89	114	282	90	105	288	83	107	276
5035	31950	144	116	261	100	102	259	87	119	211	95	117	245	82	113	307
5036	31951	151	136	275	92	128	257	90	145	201	88	139	250	88	145	235
5037	31952	133	111	204	89	100	210	87	116	185	86	112	197	80	114	236
5038	31953	111	95	218	80	87	253	86	97	215	78	96	217	75	99	290
5039	DRR Dhan 48 (Yield & Micro Nutrient Check)	143	95	245	103	90	242	92	116	199	98	102	230	80	112	271
5040	31954	142	105	285	90	99	266	89	119	229	86	110	266	76	113	251
5041	31955	148	113	258	97	103	250	89	128	200	93	118	239	82	124	287
5042	31956	133	111	262	85	98	257	84	108	175	80	110	233	76	108	258
5043	31957	113	86	213	88	80	245	88	100	182	84	91	202	82	107	275
5044	31958	148	119	262	101	103	270	93	120	316	97	119	280	93	125	284
5045	31959	147	121	270	109	107	268	114	131	212	106	124	251	113	109	323
5046	31960	146	143	241	109	125	236	107	163	201	107	149	227	114	156	278
5047	31961	119	115	223	84	108	239	87	120	268	81	117	238	76	125	251
5048	31962	118	122	178	94	110	159	93	117	281	93	120	212		.	.
5049	Chittimuthyalu (Micro Nutrient Check)	153	150	239	109	147	229	108	194	198	111	165	225		.	.
5050	31963	123	126	229	91	111	210	87	130	233	87	127	230	79	119	282
5051	31964	133	101	257	101	97	241	90	689	266	91	297	260	99	118	237
5052	31965	148	150	232	101	138	268	118	165	245	102	155	236	100	165	275
Exp. Mean		**140**	**112**	**254**	**96**	**103**	**247**	**92**	**133**	**246**	**92**	**119**	**252**	**88**	**118**	**267**

Table No.11b.3(Contd). : Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT-1 and IVT (Bio-fortification), Kharif 2023

Entry No	IET No	ZONE VI – WESTERN									ZONE VII – SOUTHERN					
		Gujarat			Gujarat (2)			Zone 6(3)			Andhra Pradesh			Andhra Pradesh (1)		
		Nawagam			Mean			Mean			Maruteru			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5001	31031	97	108	279	6096	113	262	89	114	252	92	115	347	92	115	347
5002	31004	103	100	273	6100	108	275	98	111	279	100	121	356	100	121	356
5003	31027	99	115	279	6096	121	258	91	123	235	91	131	413	91	131	413
5004	31923	97	107	269	6247	110	262	90	111	268	118	110	327	118	110	327
5005	31924	105	108	254	6249	112	242	110	116	237	114	128	373	114	128	373
5006	31925	95	103	274	6247	108	261	95	110	273	95	115	380	95	115	380
5007	31926	109	88	264	6255	94	276	107	94	274	108	109	343	108	109	343
5008	31927	99	115	280	6257	127	280	92	129	283	96	122	426	96	122	426
5009	31928	106	105	278	6245	107	256	95	112	249	92	114	426	92	114	426
5010	31929	89	107	283	6245	104	271	87	111	284	88	119	370	88	119	370
5011	31930	96	113	272	6250	109	273	87	115	265	90	123	373	90	123	373
5012	31931	108	115	275	6252	119	257	99	120	287	93	119	350	93	119	350
5013	31932	97	132	285	6253	131	272	90	137	254	89	136	376	89	136	376
5014	BPT 5204 (Yield Check)	106	83	260	1128	92	285	104	95	308	106	109	426	106	109	426
5015	30159 (R)	87	89	255	1110	95	268	80	98	275	100	85	254	100	85	254
5016	31933	96	98	264	6251	100	270	88	100	264	89	114	366	89	114	366
5017	31934	101	112	256	6263	134	269	93	131	250	93	127	452	93	127	452
5018	31935	93	99	275	6249	109	263	87	113	263	85	108	353	85	108	353
5019	31936	99	90	263	6252	106	253	94	109	251	88	105	317	88	105	317
5020	31937	99	104	267	6256	114	271	91	117	275	85	122	380	85	122	380
5021	31938	104	105	277	6253	109	268	92	112	245	91	122	370	91	122	370
5022	31939	97	93	266	6259	102	280	92	108	293	88	100	337	88	100	337
5023	IR 64 (Yield Check)	102	97	272	1112	105	254	92	106	238	92	111	366	92	111	366
5024	31940	99	112	278	6253	117	264	89	119	253	85	129	340	85	129	340
5025	31941	89	92	281	12352	92	281	88	95	255	85	97	281	85	97	281
5026	31942	94	101	267	6252	103	263	88	108	256	85	117	363	85	117	363
5027	31943	106	97	262	6258	102	268	97	107	273	95	115	439	95	115	439
5028	31944	98	121	281	6256	119	274	88	119	274	89	108	356	89	108	356
5029	31945	97	111	266	6254	113	262	89	115	247	87	122	370	87	122	370
5030	31946	101	162	262	6264	157	265	92	160	235	91	161	383	91	161	383
5031	31947	103	116	273	6271	123	296	97	119	273	87	126	323	87	126	323
5032	31948	98	94	266	6257	100	266	94	101	298	100	111	366	100	111	366
5033	DRR Dhan 45 (Yield & Micro Nutrient Check)	101	113	274	1121	119	268	91	121	236	86	115	356	86	115	356
5034	31949	99	103	276	6258	105	276	90	108	278	90	112	343	90	112	343
5035	31950	99	96	280	6264	105	293	89	109	266	87	110	347	87	110	347
5036	31951	101	115	264	6259	130	250	93	135	233	89	141	380	89	141	380
5037	31952	98	98	283	6253	106	259	88	109	234	85	116	403	85	116	403
5038	31953	89	103	269	6257	101	279	83	100	258	104	84	337	104	84	337
5039	DRR Dhan 48 (Yield & Micro Nutrient Check)	102	97	265	1121	105	268	91	108	245	107	108	337	107	108	337
5040	31954	104	106	269	6256	109	260	90	112	250	93	122	403	93	122	403
5041	31955	90	120	272	6263	122	279	87	124	253	89	111	356	89	111	356
5042	31956	105	101	266	6257	105	262	88	106	233	83	105	327	83	105	327
5043	31957	100	96	261	6261	101	268	90	101	239	95	88	419	95	88	419
5044	31958	100	113	272	6267	119	278	95	119	290	89	120	413	89	120	413
5045	31959	103	118	274	6275	114	298	110	119	269	106	125	386	106	125	386
5046	31960	98	161	261	6275	158	270	106	160	247	92	156	360	92	156	360
5047	31961	94	107	259	6259	116	255	86	117	259	85	109	353	85	109	353
5048	31962	100	127	269	12370	127	269	96	122	275	96	138	442	96	138	442
5049	Chittimuthyalu (Micro Nutrient Check)	103	151	257	2576	151	257	106	172	227	91	145	370	91	145	370
5050	31963	94	118	267	6264	118	274	87	122	260	86	116	360	86	116	360
5051	31964	104	98	270	6262	108	253	98	302	257	100	126	297	100	126	297
5052	31965	104	155	256	6277	160	265	107	162	259	94	143	380	94	143	380
Exp. Mean		**99**	**109**	**269**	**5918**	**114**	**268**	**93**	**120**	**260**	**93**	**118**	**367**	**93**	**118**	**367**

Table No.11b.3(Contd). : Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT-1 and IVT (Bio-fortification), Kharif 2023

Entry No	IET No	ZONE VII – SOUTHERN														
		Telangana						Telangana (2)			Tamil Nadu			Tamil Nadu (1)		
		Rudrur			Rajendranagar			Mean			Coimbatore			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5001	31031	91	117	295	99	97	317	150	107	306	93	102	425	93	102	425
5002	31004	99	111	270	107	91	317	147	101	293	101	97	390	101	97	390
5003	31027	96	124	259	99	99	333	144	111	296	93	109	415	93	109	415
5004	31923	93	110	271	99	82	350	143	96	311	94	81	410	94	81	410
5005	31924	106	90	184	124	99	367	126	94	275	117	104	443	117	104	443
5006	31925	91	107	172	99	82	283	117	95	228	84	76	418	84	76	418
5007	31926	107	75	181	118	70	333	120	72	257	108	78	455	108	78	455
5008	31927	102	109	160	99	100	383	117	104	272	93	99	395	93	99	395
5009	31928	102	95	183	102	89	317	120	92	250	99	88	415	99	88	415
5010	31929	91	103	261	102	95	333	139	99	297	86	80	383	86	80	383
5011	31930	93	126	172	99	94	350	122	110	261	94	90	390	94	90	390
5012	31931	95	119	209	104	100	333	132	110	271	97	93	405	97	93	405
5013	31932	99	138	282	107	102	333	156	120	307	101	121	438	101	121	438
5014	BPT 5204 (Yield Check)	102	78	131	104	79	367	104	79	249	110	78	415	110	78	415
5015	30159 (R)	106	120	187	87	66	433	125	93	310	83	73	398	83	73	398
5016	31933	94	98	251	99	78	383	135	88	317	85	68	375	85	68	375
5017	31934	98	145	240	99	97	300	145	121	270	99	112	385	99	112	385
5018	31935	93	100	235	99	92	383	132	96	309	91	83	410	91	83	410
5019	31936	92	91	270	107	68	333	140	80	302	94	66	415	94	66	415
5020	31937	101	111	263	103	93	317	144	102	290	104	93	443	104	93	443
5021	31938	99	102	252	104	92	400	139	97	326	96	89	413	96	89	413
5022	31939	99	96	192	104	87	433	123	92	312	100	78	415	100	78	415
5023	IR 64 (Yield Check)	94	99	194	100	97	317	121	98	255	94	84	383	94	84	383
5024	31940	90	102	207	99	102	333	124	102	270	92	83	435	92	83	435
5025	31941	89	92	189		.	.	123	92	189	99	85	305	99	85	305
5026	31942	88	111	150	99	95	383	112	103	267	85	81	398	85	81	398
5027	31943	106	83	140	110	90	400	110	86	270	102	90	425	102	90	425
5028	31944	98	103	162	99	96	450	115	100	306	97	82	418	97	82	418
5029	31945	89	117	201	100	89	350	127	103	276	95	84	378	95	84	378
5030	31946	94	158	242	102	128	350	149	143	296	93	124	370	93	124	370
5031	31947	101	104	141	101	95	350	112	99	246	100	93	420	100	93	420
5032	31948	97	100	281	104	87	367	145	93	324	101	90	420	101	90	420
5033	DRR Dhan 45 (Yield & Micro Nutrient Check)	93	113	180	99	98	333	121	105	256	92	89	400	92	89	400
5034	31949	91	107	214	100	81	333	128	94	273	91	73	413	91	73	413
5035	31950	99	102	188	99	92	383	122	97	285	82	73	385	82	73	385
5036	31951	97	134	193	101	103	350	131	119	272	94	105	378	94	105	378
5037	31952	99	105	162	99	92	367	116	99	264	92	82	378	92	82	378
5038	31953	84	99	180	89	76	350	113	88	265	81	62	390	81	62	390
5039	DRR Dhan 48 (Yield & Micro Nutrient Check)	94	87	149	101	78	350	108	83	249	104	86	393	104	86	393
5040	31954	93	108	300	100	93	383	150	100	342	91	83	383	91	83	383
5041	31955	94	121	286	99	84	367	150	103	326	95	102	418	95	102	418
5042	31956	91	86	237	100	80	350	128	83	294	84	80	378	84	80	378
5043	31957	96	78	243	100	88	417	129	83	330	92	69	390	92	69	390
5044	31958	94	112	194	104	97	367	126	104	280	98	99	423	98	99	423
5045	31959	98	116	283	118	102	567	153	109	425	99	84	398	99	84	398
5046	31960	92	139	249	107	107	350	146	123	299	93	113	393	93	113	393
5047	31961	91	119	216	99	98	333	131	108	275	90	84	398	90	84	398
5048	31962	99	100	235	104	103	450	134	101	343	105	114	395	105	114	395
5049	Chittimuthyalu (Micro Nutrient Check)	99	149	232	111	128	350	148	138	291	99	150	370	99	150	370
5050	31963	96	106	214	99	95	333	129	101	273	93	100	415	93	100	415
5051	31964	98	113	205	104	100	317	130	107	261	105	99	395	105	99	395
5052	31965	96	143	209	104	113	333	138	128	271	92	112	408	92	112	408
Exp. Mean		**95**	**109**	**215**	**102**	**93**	**360**	**130**	**101**	**286**	**95**	**91**	**402**	**95**	**91**	**402**

Table No.11b.3(Contd). : Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT-1 and IVT (Bio-fortification), Kharif 2023

Entry No	IET No	ZONE VII – SOUTHERN														
		Kerala			Kerala (1)			Karnataka								
		Moncompu			Mean			Mandya			Mugad			Gangavathi		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5001	31031	95	107	233	95	107	233	89	120	357	88	75	413	96	118	365
5002	31004	103	98	250	103	98	250	95	98	357	86	53	377	101	112	269
5003	31027	99	113	206	99	113	206	90	95	306	85	70	331	95	113	291
5004	31923	95	95	200	95	95	200	93	91	374	88	59	326	94	88	282
5005	31924	125	114	176	125	114	176	116	98	374	115	74	418	95	101	317
5006	31925	95	97	223	95	97	223	80	89	340	87	59	353	82	88	288
5007	31926	115	103	233	115	103	233	108	85	391	99	51	388	114	75	269
5008	31927	100	110	170	100	110	170	93	110	340	82	72	430	98	110	336
5009	31928	101	106	170	101	106	170	98	101	306	87	65	390	99	102	286
5010	31929	100	110	196	100	110	196	92	102	357	90	63	358	96	111	243
5011	31930	99	108	176	99	108	176	93	100	357	94	62	362	103	91	321
5012	31931	115	107	203	115	107	203	95	101	357	100	67	352	100	115	292
5013	31932	101	133	200	101	133	200	97	132	306	96	86	339	104	121	364
5014	BPT 5204 (Yield Check)	115	101	206	115	101	206	105	86	374	105	54	273	110	83	288
5015	30159 (R)	91	87	226	91	87	226	85	88	289	81	50	274	84	81	341
5016	31933	94	93	213	94	93	213	84	90	357	89	51	329	90	91	392
5017	31934	115	133	186	115	133	186	100	111	340	90	66	328	105	128	286
5018	31935	95	107	167	95	107	167	97	99	323	93	67	364	96	105	325
5019	31936	95	94	157	95	94	157	90	70	306	91	53	368	96	79	326
5020	31937	100	113	183	100	113	183	102	102	357	94	67	372	108	98	261
5021	31938	100	103	226	100	103	226	93	87	323	84	58	373	99	102	345
5022	31939	100	97	160	100	97	160	101	99	340	99	58	406	99	92	363
5023	IR 64 (Yield Check)	95	101	200	95	101	200	88	90	306	84	48	374	91	99	316
5024	31940	95	107	186	95	107	186	88	97	323	96	66	389	92	110	270
5025	31941	95	91	236	95	91	236	93	90	323	91	59	280	97	89	285
5026	31942	95	89	230	95	89	230	83	86	323	86	68	401	86	88	300
5027	31943	115	106	230	115	106	230	98	98	374	93	61	393	104	106	325
5028	31944	99	105	203	99	105	203	90	92	340	87	57	358	94	102	371
5029	31945	95	101	216	95	101	216	91	99	340	86	55	381	94	100	332
5030	31946	95	147	216	95	147	216	87	126	323	95	82	317	93	154	360
5031	31947	96	110	253	96	110	253	99	97	340	99	58	339	103	113	375
5032	31948	103	98	206	103	98	206	103	90	340	94	59	359	108	100	337
5033	DRR Dhan 45 (Yield & Micro Nutrient Check)	95	105	193	95	105	193	89	102	357	92	67	362	96	103	301
5034	31949	96	103	246	96	103	246	97	91	374	89	59	354	97	103	343
5035	31950	97	95	186	97	95	186	82	98	374	86	65	388	83	97	250
5036	31951	97	125	203	97	125	203	96	129	340	91	74	435	102	129	429
5037	31952	95	104	220	95	104	220	93	99	340	85	74	380	94	103	260
5038	31953	91	89	196	91	89	196	80	93	323	82	51	324	82	89	383
5039	DRR Dhan 48 (Yield & Micro Nutrient Check)	115	108	167	115	108	167	103	98	357	98	60	407	104	97	251
5040	31954	93	100	190	93	100	190	89	99	323	84	59	373	91	103	324
5041	31955	95	111	220	95	111	220	97	97	306	99	69	305	96	121	325
5042	31956	91	101	186	91	101	186	81	102	357	92	84	256	87	103	319
5043	31957	99	98	263	99	98	263	89	106	374	88	56	327	92	91	455
5044	31958	103	125	223	103	125	223	103	208	340	97	66	398	106	100	304
5045	31959	100	106	196	100	106	196	95	97	340	102	63	419	100	112	276
5046	31960	98	131	216	98	131	216	86	118	340	94	68	355	92	119	278
5047	31961	91	110	233	91	110	233	89	97	357	88	57	319	93	100	343
5048	31962	100	122	176	100	122	176	97	111	323	94	65	278	104	107	315
5049	Chittimuthyalu (Micro Nutrient Check)	115	164	240	115	164	240	97	105	391	100	89	396	99	128	286
5050	31963	95	116	233	95	116	233	94	102	357	93	75	411	98	104	280
5051	31964	125	112	170	125	112	170	101	99	306	98	79	331	102	102	259
5052	31965	95	131	240	95	131	240	87	100	323	93	81	310	95	113	329
Exp. Mean		**100**	**108**	**207**	**100**	**108**	**207**	**93**	**101**	**342**	**92**	**65**	**358**	**97**	**103**	**316**

Table No.11b.3(Contd). : Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT-1 and IVT (Bio-fortification), Kharif 2023

Entry No	IET No	ZONE VII – SOUTHERN												Overall Mean (24)		
		Karnataka			Karnataka (4)			Puducherry (1)			Zone VII (10)					
		Malag			Mean			Karaikal			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5001	31031	99	86	134	3154	100	317	86	85	295	93	102	318	92	103	291
5002	31004	103	66	126	3138	82	282	101	101	359	99	95	307	100	97	288
5003	31027	98	73	122	3134	88	262	101	102	351	95	103	303	94	108	282
5004	31923	105	68	236	3211	77	304	98	99	380	98	88	316	95	93	298
5005	31924	102	71	158	3228	86	317	97	97	368	111	98	318	113	100	291
5006	31925	99	58	204	3208	73	296	78	78	305	89	85	296	95	94	282
5007	31926	104	59	160	3218	67	302	109	109	348	109	81	310	109	85	298
5008	31927	104	75	130	3226	92	309	102	103	393	97	101	316	96	107	289
5009	31928	101	73	144	3214	85	281	111	111	341	99	94	298	98	100	285
5010	31929	102	63	150	3213	85	277	96	96	373	94	94	302	94	99	282
5011	31930	99	71	148	3218	81	297	86	86	314	95	95	296	95	100	282
5012	31931	104	79	152	3219	90	288	97	96	360	100	100	301	100	106	291
5013	31932	105	97	158	3225	109	292	105	104	379	100	117	317	98	119	284
5014	BPT 5204 (Yield Check)	91	57	162	598	70	274	110	109	329	106	83	297	109	84	298
5015	30159 (R)	92	57	100	589	69	251		.	.	90	79	278	86	85	275
5016	31933	104	56	194	3219	72	318	101	101	352	93	84	321	93	90	297
5017	31934	104	93	118	3217	99	268	103	102	358	100	111	299	99	114	294
5018	31935	105	73	130	3219	86	285	80	79	357	93	91	305	94	97	286
5019	31936	114	54	120	3212	64	280	76	76	347	94	75	296	97	87	267
5020	31937	109	66	104	3219	83	273	97	96	362	100	96	304	99	100	292
5021	31938	112	56	132	3219	76	293	103	102	306	98	91	314	97	99	292
5022	31939	97	59	172	3226	77	320	84	83	297	97	85	311	97	89	304
5023	IR 64 (Yield Check)	99	61	154	601	74	287	96	96	339	93	88	295	94	94	282
5024	31940	99	71	146	3216	86	282	101	102	336	94	97	296	93	102	279
5025	31941	95	67	128	3206	76	254	86	87	338	92	84	263	92	88	255
5026	31942	113	81	122	3217	81	286	105	104	337	92	92	301	94	97	287
5027	31943	96	82	224	3226	87	329	98	99	312	101	93	326	103	91	299
5028	31944	99	76	184	3222	82	313	94	93	290	94	91	313	93	100	298
5029	31945	104	79	154	3221	83	302	100	101	317	94	95	304	93	99	291
5030	31946	107	117	142	3227	120	285	81	81	339	93	128	304	96	133	271
5031	31947	113	85	162	3226	88	304	101	101	331	100	98	303	99	102	288
5032	31948	101	54	205	3222	76	310	103	103	327	101	89	321	102	92	302
5033	DRR Dhan 45 (Yield & Micro Nutrient Check)	104	87	88	609	90	277	103	103	345	95	98	291	93	105	273
5034	31949	99	63	180	3224	79	313	87	88	350	93	88	315	95	92	292
5035	31950	102	79	172	3217	85	296	75	76	347	89	89	302	94	95	284
5036	31951	99	104	168	3242	109	343	111	111	360	98	116	323	97	119	290
5037	31952	80	77	130	3216	88	277	83	83	357	90	94	299	91	98	272
5038	31953	99	59	138	3216	73	292	77	77	360	87	78	298	86	85	285
5039	DRR Dhan 48 (Yield & Micro Nutrient Check)	91	61	166	609	79	295	96	96	348	101	88	292	100	94	282
5040	31954	99	68	144	3220	82	291	94	94	318	93	93	314	93	99	291
5041	31955	89	74	128	3217	90	266	87	88	374	94	98	308	95	104	285
5042	31956	94	71	182	3214	90	279	79	79	362	88	89	295	90	98	277
5043	31957	113	58	176	3232	78	333	103	102	370	96	83	343	94	86	298
5044	31958	115	65	118	3236	110	290	100	100	317	101	109	310	100	107	294
5045	31959	99	76	174	3226	87	302	96	96	336	101	97	337	105	102	301
5046	31960	89	119	172	3220	106	286	102	102	383	94	117	309	101	125	286
5047	31961	97	83	162	3220	84	295	93	93	359	91	95	307	91	101	283
5048	31962	115	89	162	3218	93	270	98	99	384	101	105	316	99	107	268
5049	Chittimuthyalu (Micro Nutrient Check)	91	117	246	621	110	330	103	103	291	100	128	317	106	135	290
5050	31963	113	76	171	3228	89	305	82	82	356	95	97	313	93	104	283
5051	31964	109	71	167	3217	88	266	109	109	346	105	101	279	104	124	266
5052	31965	107	85	183	3221	95	286	101	102	311	96	112	302	101	126	292
Exp. Mean		**101**	**74**	**156**	**2914**	**86**	**293**	**95**	**95**	**343**	**96**	**96**	**306**	**97**	**101**	**286**

Table No.11b.3(Contd). : Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT-1 and IVT (Bio-fortification), Kharif 2023

Entry No	IET No	Trial Not Considered											
		Rajastan (0) @Kota			West Bengal @Hatwara			Uttar Pradesh @Masodha			Chattisgarh @ Jagadalpur		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5001	31031	85	106	201	94	100	256	95	91	272	118	77	247
5002	31004	105	110	195	101	102	248	115	82	251	118	79	254
5003	31027	93	115	222	98	115	320	105	96	239	110	66	277
5004	31923	93	94	160	93	98	360	106	96	280	112	74	233
5005	31924	111	106	234	115	102	368	129	87	180	116	86	249
5006	31925	99	110	211	89	99	264	113	96	258	111	74	288
5007	31926	104	75	266	110	75	368	111	78	254	114	78	299
5008	31927	91	115	174	95	112	296	106	96	284	112	80	295
5009	31928	86	104	134	98	104	272	104	82	260	111	84	187
5010	31929	84	111	201	93	112	208	99	96	252	114	77	230
5011	31930	83	123	187	92	107	360		.	.	119	74	237
5012	31931	98	118	192	99	113	296	103	126	272	120	74	208
5013	31932	94	121	139	97	111	224	105	96	239	117	89	246
5014	BPT 5204 (Yield Check)	106	81	285	107	79	296	109	97	224	110	72	273
5015	30159 (R)	79	90	138	81	89	256	100	105	226	101	68	253
5016	31933	82	88	178	88	104	312	111	100	252	120	77	227
5017	31934	93	102	191	98	124	320	96	106	261	115	73	202
5018	31935	92	104	256	96	102	304	114	106	255	109	72	228
5019	31936	101	89	170	91	87	312	112	86	243	108	77	264
5020	31937	94	103	193	96	102	328	111	92	254	109	77	234
5021	31938	93	109	264	98	97	384	105	87	292	123	78	204
5022	31939	104	91	262	97	85	400	111	89	284	117	67	202
5023	IR 64 (Yield Check)	80	98	243	93	93	288	100	96	250	120	69	238
5024	31940	84	109	210	92	111	312	102	102	252	118	84	237
5025	31941	93	99	184		.	.	99	72	259	108	77	263
5026	31942	82	103	142	86	107	304	114	78	278	112	79	215
5027	31943	105	97	275	104	99	264	124	145	254	120	71	272
5028	31944	90	100	288	91	109	280	103	87	267	118	71	222
5029	31945	87	95	188	92	109	384	113	109	258	112	79	196
5030	31946	107	136	148	87	141	256	108	122	241	113	77	222
5031	31947	105	101	131	97	100	312	116	97	221	114	77	274
5032	31948	106	102	245	105	98	336	114	85	249	121	75	268
5033	DRR Dhan 45 (Yield & Micro Nutrient Check)	83	109	252	89	105	272	110	90	249	112	75	193
5034	31949	86	95	251	94	100	304	112	85	218	118	85	266
5035	31950	105	102	180	94	102	288	113	96	247	106	79	220
5036	31951	92	124	193	92	122	248	107	109	249	120	77	277
5037	31952	82	110	211	88	103	280	99	96	251	104	81	306
5038	31953	79	103	194	81	91	248	89	85	284	99	68	246
5039	DRR Dhan 48 (Yield & Micro Nutrient Check)	105	95	212	102	89	320	116	87	221	121	70	284
5040	31954	84	96	260	91	103	336	101	96	265	120	74	248
5041	31955	92	101	202	94	106	280	101	97	253	114	69	258
5042	31956	79	94	204	85	101	280	96	96	223	112	88	232
5043	31957	82	96	223	94	.	304	105	95	253	117	72	235
5044	31958	101	108	266	100	100	336	111	103	213	120	73	303
5045	31959	102	110	269	103	101	304	119	106	232	113	77	245
5046	31960	99	154	193	95	131	320	116	126	251	100	76	288
5047	31961	82	107	140	87	109	312	111	106	291	108	82	285
5048	31962	95	114	224	95	107	168	112	96	226	120	82	289
5049	Chittimuthyalu (Micro Nutrient Check)	108	159	194	103	139	320	125	129	202	112	74	238
5050	31963	86	124	170	88	102	200	99	89	246	109	77	234
5051	31964	104	110	196	102	104	256	116	97	282	119	78	230
5052	31965	100	155	162	94	130	408	113	128	252	101	82	232
Exp. Mean		**93**	**107**	**206**	**95**	**105**	**299**	**108**	**98**	**250**	**114**	**76**	**247**

Table No.11b.3(Contd). : Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT-1 and IVT (Bio-fortification), Kharif 2023

Entry No	IET No	Trial Not Considered											
		Andhra pradesh @Nellore			Tamil Nadu @Adhuturai			Kerala @Pattambi			Karnataka @Sirsi		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5001	31031	116	95	370	97	97	301	113	105	319	89	99	373
5002	31004	103	96	420	115	115	337	111	98	357	94	98	335
5003	31027	102	100	393	95	95	329	113	111	472	86	104	294
5004	31923	101	85	407	95	94	376	113	88	473	89	92	377
5005	31924	125	118	367	121	120	375	119	109	458	122	98	360
5006	31925	98	63	367	93	93	269	110	87	553	92	87	331
5007	31926	114	81	480	95	94	344	117	91	534	107	65	365
5008	31927	100	104	523	94	95	346	112	105	366	89	91	332
5009	31928	117	95	437	111	111	320	109	97	464	92	91	381
5010	31929	107	92	387	113	112	299	114	95	467	94	90	324
5011	31930	100	99	393	111	111	342	110	99	370	96	92	327
5012	31931	119	104	393	95	95	328	113	100	283	96	91	294
5013	31932	100	116	390	95	95	301	114	127	402	96	97	297
5014	BPT 5204 (Yield Check)	114	77	423	94	94	433	114	90	400	107	71	286
5015	30159 (R)	117	61	333	93	92	388	96	80	336	82	72	373
5016	31933	98	79	430	98	97	315	97	80	552	82	68	302
5017	31934	107	109	357	93	93	401	113	122	407	96	92	398
5018	31935	104	91	333	91	91	326	111	95	353	96	93	388
5019	31936	90	64	430	111	110	283	97	80	346	98	86	355
5020	31937	116	96	447	121	120	370	114	103	441	105	83	327
5021	31938	102	96	347	98	98	403	115	96	455	92	82	381
5022	31939	118	70	373	98	97	299	113	88	393	105	82	310
5023	IR 64 (Yield Check)	101	87	430	97	97	299	111	92	423	89	84	401
5024	31940	104	98	457	121	120	313	111	95	297	89	93	319
5025	31941	120	90	420	95	94	305	115	88	383	92	73	299
5026	31942	95	80	383	95	95	299	112	85	407	89	85	368
5027	31943	106	93	407	112	111	432	113	98	461	101	85	331
5028	31944	99	91	387	95	94	320	112	93	466	89	89	447
5029	31945	104	91	400	91	90	301	110	92	393	88	87	409
5030	31946	99	115	407	102	102	407	113	136	336	102	111	365
5031	31947	108	95	417	95	95	441	115	101	474	102	92	291
5032	31948	102	92	400	113	113	434	113	94	307	106	81	344
5033	DRR Dhan 45 (Yield & Micro Nutrient Check)	104	97	337	92	92	393	107	97	310	89	88	339
5034	31949	101	84	267	98	98	407	113	88	370	92	83	322
5035	31950	92	77	370	99	99	282	115	84	370	89	89	335
5036	31951	103	125	323	98	98	399	113	115	300	96	103	421
5037	31952	97	92	320	95	95	319	105	93	500	93	86	340
5038	31953	103	72	337	93	93	356	115	75	237	80	79	388
5039	DRR Dhan 48 (Yield & Micro Nutrient Check)	100	87	450	98	98	392	118	97	360	100	84	352
5040	31954	95	89	437	130	130	314	114	91	327	89	83	423
5041	31955	96	97	393	95	95	322	115	106	293	99	89	377
5042	31956	103	81	380	113	113	346	116	91	374	84	82	310
5043	31957	125	89	443	98	97	389	112	84	397	86	67	332
5044	31958	104	102	383	115	115	375	115	112	422	96	80	286
5045	31959	106	87	437	111	111	418	112	95	393	109	96	360
5046	31960	95	110	393	95	95	303	118	122	333	96	123	319
5047	31961	101	100	420	92	92	375	123	97	232	87	87	410
5048	31962	126	97	430	111	111	387	115	118	297	96	109	314
5049	Chittimuthyalu (Micro Nutrient Check)	90	126	333	115	115	360	111	157	419	105	137	360
5050	31963	122	89	463	96	96	326	119	108	423	95	101	360
5051	31964	118	96	343	116	116	303	94	106	263	102	103	256
5052	31965	95	104	370	98	98	323		.	.	100	121	373
Exp. Mean		**105**	**93**	**395**	**102**	**102**	**348**	**112**	**99**	**388**	**95**	**90**	**347**

Table No. 11c.1: Grain quality characteristics of entries in AVT 1 & IVT - BIOFORT, kharif 2023

Entry No.	Designation / IET No.	HULL	MILL	HRR	KL	KB	L/B	Grain Type	Grian Chalk	VER	WU	KLAC	ER	ASV	AC	GC	AROMA
5001	31031	78.6	66.4	25.9	6.26	2.24	2.79	LB	VOC	4.2	285	10.5	1.67	4.0	26.04	25	NS
5002	31004	80.1	67.3	31.6	6.23	2.21	2.81	LB	OC	4.5	260	10.4	1.66	4.0	26.89	22	NS
5003	31027	77.8	66.8	43.7	5.96	2.07	2.87	MS	VOC	4.7	295	10.7	1.79	4.0	23.40	71	NS
5004	31923	79.7	69.2	31.7	5.00	2.09	2.39	SB	VOC	4.2	235	9.6	1.92	4.0	26.63	22	NS
5005	31924	76.0	66.5	50.6	5.17	2.00	2.58	MS	VOC	4.9	340	7.5	1.45	7.0	22.90	22	NS
5006	31925	80.0	66.5	58.7	4.58	1.75	2.61	MS	A	4.5	320	8.9	1.94	4.0	27.28	27	NS
5007	31926	78.1	68.4	54.2	5.14	2.02	2.54	MS	VOC	5.5	225	9.6	1.86	4.0	26.63	32	NS
5008	31927	76.8	66.5	57.6	5.39	1.97	2.73	MS	VOC	4.4	340	9.0	1.66	7.0	26.89	22	NS
5009	31928	78.1	60.5	13.5	6.10	2.36	2.58	LB	VOC	5.6	260	10.5	1.72	4.0	24.66	72	NS
5010	31929	81.5	67.6	57.6	5.33	2.68	1.98	SB	OC	5.1	245	8.2	1.53	4.0	25.57	61	NS
5011	31930	79.0	67.7	55.5	5.82	2.15	2.70	MS	VOC	5.6	225	9.6	1.64	4.0	26.86	47	NS
5012	31931	76.4	65.0	56.3	4.87	1.63	2.98	MS	A	5.6	250	9.0	1.84	5.0	26.81	41	NS
5013	31932	78.4	66.1	22.0	5.34	2.17	2.46	SB	VOC	5.1	245	9.8	1.83	4.0	24.64	60	NS
5014	**BPT -5204 (Y.C)**	79.0	68.1	58.9	4.92	1.73	2.84	MS	VOC	4.7	295	9.5	1.93	4.0	24.28	24	NS
5015	30159 R	76.6	56.6	12.6	4.59	1.69	2.71	MS	A	4.4	255	9.3	2.02	7.0	23.52	22	NS
5016	31933	78.6	65.2	19.4	5.95	2.27	2.62	MS	OC	5.5	305	10.3	1.73	4.0	26.31	42	NS
5017	31934	76.4	65.2	42.5	5.17	2.19	2.36	SB	VOC	4.3	290	8.3	1.60	4.0	26.22	22	NS
5018	31935	74.4	61.0	40.5	7.15	1.77	4.03	LS	VOC	5.2	390	10.8	1.51	7.0	23.58	22	SS
5019	31936	78.2	60.7	10.9	4.80	2.18	2.20	SB	VOC	5.1	250	10.0	2.08	4.0	25.60	23	NS
5020	31937	78.3	61.4	56.7	5.72	1.99	2.87	MS	VOC	4.3	315	9.7	1.69	4.0	22.70	79	NS
5021	31938	76.2	65.1	57.9	4.86	2.03	2.39	SB	VOC	4.2	240	9.6	1.97	4.0	24.64	48	NS
5022	31939	78.9	69.0	58.4	5.46	1.93	2.82	MS	A	4.4	235	8.2	1.50	4.0	25.75	23	NS
5023	**IR -64 (Y.C)**	79.4	62.1	56.6	6.70	2.03	3.30	LS	VOC	5.5	265	9.5	1.41	4.0	25.93	44	NS
5024	31940	76.7	62.5	13.8	6.92	2.00	3.46	LS	VOC	4.7	325	10.4	1.50	7.0	27.19	47	NS
5025	31941	77.7	71.0	66.3	6.47	2.03	3.18	LS	A	5.5	225	9.5	1.46	4.0	23.02	22	NS
5026	31942	78.5	67.1	26.3	5.25	1.69	3.10	SS	VOC	5.6	295	8.5	1.61	4.0	26.10	22	NS
5027	31943	77.5	67.1	52.2	6.13	1.91	3.20	LS	VOC	5.3	230	9.8	1.59	4.0	20.41	22	NS
5028	31944	77.3	62.1	22.0	6.27	2.06	3.04	LS	VOC	5.6	250	9.6	1.53	4.0	21.88	51	NS
5029	31945	79.4	69.7	61.0	6.57	1.93	3.40	LS	A	5.0	180	11.3	1.71	3.0	16.36	22	NS
5030	31946	79.7	68.7	58.7	6.33	2.18	2.90	LB	VOC	5.0	240	10.6	1.67	5.0	23.08	22	NS
5031	31947	78.7	66.9	56.6	5.31	2.10	2.52	MS	VOC	5.1	330	10.2	1.92	7.0	22.08	22	NS
5032	31948	75.9	65.5	56.6	5.24	1.95	2.68	MS	VOC	4.7	225	8.8	1.67	4.0	24.64	22	NS
5033	**DRR DHAN -45**	78.2	65.6	57.3	6.45	2.13	2.02	LB	VOC	5.0	295	10.5	1.62	4.0	23.93	51	NS
5034	31949	79.2	64.1	29.0	5.81	1.81	3.20	SS	VOC	5.5	260	10.3	1.77	5.0	26.13	22	NS
5035	31950	78.6	62.2	57.3	4.61	1.77	2.60	MS	A	5.1	345	7.6	1.64	5.0	25.46	22	NS
5036	31951	74.3	59.7	56.2	5.46	2.16	2.52	MS	OC	4.7	345	9.4	1.72	4.0	28.16	46	NS
5037	31952	80.7	66.6	33.4	6.46	1.90	3.07	LS	VOC	4.4	240	11.6	1.79	4.0	22.55	51	NS
5038	31953	75.5	49.7	4.1	6.76	1.82	3.71	LS	VOC	5.5	285	10.8	1.59	4.0	23.87	22	NS
5039	**DRR DHAN -48**	78.1	70.6	56.7	4.89	1.75	2.79	MS	A	4.6	290	8.6	1.75	7.0	25.40	25	NS
5040	31954	78.4	66.6	32.4	6.30	1.91	3.29	LS	VOC	5.6	330	11.7	1.85	7.0	24.99	30	NS
5041	31955	77.8	60.8	12.6	6.50	2.31	2.81	LB	OC	5.5	320	11.6	1.78	4.0	28.36	44	NS
5042	31956	75.4	59.1	9.2	6.04	2.14	2.82	LB	VOC	5.5	195	10.3	1.70	4.0	23.02	53	NS
5043	31957	78.1	66.9	4.9	5.52	2.17	2.54	MS	VOC	4.6	315	10.0	1.81	7.0	26.75	22	NS
5044	31958	79.4	66.1	57.4	5.60	2.14	2.61	MS	VOC	5.3	260	9.7	1.73	4.0	26.81	51	NS
5045	31959	77.8	66.4	41.6	5.14	2.27	2.26	SB	VOC	5.3	185	9.2	1.78	4.0	23.61	28	NS
5046	31960	79.2	65.2	18.8	4.70	1.89	2.48	SB	VOC	5.0	255	9.8	2.08	4.0	22.64	35	SS
5047	31961	81.6	67.2	59.5	6.38	1.79	3.56	LS	VOC	4.7	225	10.9	1.70	4.0	28.27	68	NS
5048	31962	79.6	65.5	40.7	5.70	2.13	2.67	MS	OC	5.5	295	9.7	1.70	4.0	26.22	22	NS
5049	**CHITTIMUTYALU**	78.9	68.5	60.0	3.94	2.14	1.84	SB	VOC	4.7	250	6.4	1.62	5.0	23.02	25	SS
5050	31963	72.7	55.6	57.3	7.19	1.76	4.08	LS	VOC	5.5	370	13.8	1.91	7.0	26.28	22	MS
5051	31964	81.1	72.8	54.6	5.38	1.73	3.10	SS	A	5.6	230	9.0	1.67	4.0	24.08	22	NS
5052	31965	79.5	67.6	17.6	4.83	2.03	2.37	SB	VOC	5.5	285	9.3	1.92	4.0	23.23	42	SS

HULL: Hulling (%); MILL: Milling (%); HRR: Head Rice Recovery (%); KL: Kernel Length(mm); KB: Kernel Breadth(mm); L/B: Length and breadth ratio; Grain Chalk: Grain Chalkiness; VOC: Very occasionally present; A: Absent ASV: Alkali Spreading Value; AC: Amylose Content(%); GC: Gel Consistency; LB: Long Bold; SB:Short Bold; LS: Long Slender; MS: Medium Slender; SS: Short Slender

Table No.11c.2: Zinc content in ppm for polished rice samples of entries in AVT 1& IVT-Biofort analyzed at IIRR, Hyderabad Kharif 2023

IET Numbers	LDN	CTK	JYP	BKG	CHP	MSD	NVS	NWG	ADT	MGD	MNC	PTB	SRS	MEAN
31031	27.11	22.68	19.45	20.99	20.39	24.50	20.28	16.09	21.18	20.00	24.66	24.42	24.38	22.01
31004	26.60	23.79	17.99	21.54	20.44	19.13	19.33	17.87	20.08	22.49	24.03	21.66	21.62	21.27
31027	29.52	20.55	21.94	21.86	20.67	23.00	21.98	20.04	20.75	21.26	25.25	23.63	24.27	22.67
31923	23.23	15.80	16.48	18.29	17.94	16.95	14.82	15.21	14.26	16.04	18.88	18.64	16.24	17.13
31924		20.24	23.91	26.72		18.93	18.34	20.95	18.97	18.62	22.57	22.13	23.16	21.32
31925		22.84	26.16	21.38		19.21	24.58	22.49	26.79	25.89	27.63	28.53	25.81	24.66
31926		15.09	17.82	18.65	17.22	14.66	14.62	20.35	19.56	17.23	20.62	17.93	17.58	17.61
31927	31.73	25.45	22.25	24.54	20.00	23.36	24.11	21.62	23.64	23.16	27.63	24.82	24.58	24.37
31928	29.56	21.26	25.49	24.27	23.48	26.48	23.32	20.95	22.88	22.06	28.06	25.45	23.99	24.40
31929	30.55	21.89	19.57	22.17	20.24	22.45	20.35	18.93	18.97	23.04	25.65	22.92	23.16	22.30
31930	26.36	17.94	21.42	20.12	22.02	19.13	19.84	17.95	21.15	23.12	22.85	23.16	21.74	21.29
31931	22.40	16.59	17.30	17.62	19.59	19.87	19.04	17.74	17.27	18.61	21.37	19.43	18.21	18.85
31932	23.98	17.22	18.06	17.74	15.88	19.32	19.28	15.49	16.83	16.31	18.85	21.57	18.25	18.37
BPT 5204 (Yield Check)		18.41	17.70	20.27	21.13	19.91	18.85	19.32	19.04	17.78	21.05	21.09	21.22	19.65
30159 (R)	29.04	22.67	23.70	27.26	20.31	20.94	22.08	21.97		21.25		28.05	22.04	23.57
31933	25.68	26.07	25.28	23.19	21.33	23.74	24.10	24.02	22.99	27.30		27.10	32.27	25.25
31934	29.80	21.10	19.05	23.36	20.59	19.81	21.62	22.96	21.15	20.24	24.90	22.05	22.05	22.20
31935	23.75	20.71	21.50	20.43	19.88	17.32	21.46	19.61	21.82	18.26	23.79	19.45	17.51	20.42
31936	26.80	20.16	21.54	22.13	22.06	20.95	20.28	19.29	20.47	21.70		23.87	20.43	21.64
31937	28.29	23.55	22.77	22.09	23.04	25.22	24.34	23.67	21.98	23.87	26.75	25.05	24.47	24.24
31938	31.30	23.95	22.45	23.83	19.92	24.03	23.95	22.14	23.83	21.58	27.31	27.27	24.50	24.31
31939	33.67	21.26	24.82	23.20	27.94	21.42	19.96	22.96	25.97	26.08	27.55	23.24	24.46	24.81
IR 64 (Yield Check)	26.11	18.64	17.78	16.24	17.82	18.88	18.69	17.50	19.24	19.56	22.60	20.62	19.04	19.44
31940	24.54	21.26	17.98	18.85	17.20	20.63	20.71	21.62	19.81	21.90		23.71	21.94	20.84
31941	24.23	19.52	17.87	18.97	15.85	22.45		18.85	18.22	19.56	21.93	22.13	20.04	19.97

IET Numbers	LDN	CTK	JYP	BKG	CHP	MSD	NVS	NWG	ADT	MGD	MNC	PTB	SRS	MEAN
31942		21.66	21.94	21.78	21.50	23.04	23.91	21.97	23.16	21.15		26.56	23.79	22.77
31943		15.96	16.75	16.79	18.53	18.45	16.16	16.00	17.58	16.63	20.35	24.10	17.42	17.89
31944	26.56	20.47	19.88	19.72	21.22	20.00	20.20	18.66	17.16	20.24	23.36	21.97	22.33	20.90
31945	25.93	20.63	19.80	20.95	21.42	21.35	19.41	19.25	21.15	20.95	24.39	23.40	20.56	21.47
31946	28.61		18.06	22.45	23.36	25.05	22.88	23.64	21.70	20.52	27.19	28.06	26.20	23.97
31947	32.24	23.08	24.94	25.02	24.03	18.97	23.75	24.42	21.86	22.69	28.57	27.03	25.37	24.77
31948	29.48	21.74	23.79	22.85	23.63	19.01	21.74	23.40	23.44	22.96	26.64	25.05	23.44	23.63
DRR Dhan 45 (Yield & Micro Nutrient Check)	27.78	22.53	20.24	21.58	21.11	19.29	20.83	21.50	20.20	20.55	24.66	23.32	22.73	22.02
31949	26.64	20.63	16.33	21.38	21.58	20.71	20.43	19.92	21.03	19.25	26.36	24.58	22.89	21.67
31950		21.58	21.89	20.47	22.41	20.63	22.29	21.26	23.52	24.74	31.02	27.50	25.53	23.57
31951	27.19	22.53	22.61	23.44	24.74	22.96	20.24	24.82	21.62	21.11	24.19	27.98	22.37	23.52
31952	28.73	23.16	21.15	20.75	20.79	24.39	20.47	21.11	21.54	19.92	27.23	27.19	23.52	23.07
31953	32.68	24.03	24.03	25.33	23.68	26.99	17.99	24.46	21.42	21.34		30.90	26.76	24.97
DRR Dhan 48 (Yield & Micro Nutrient Check)		23.24	23.20	21.03	25.14	23.24	21.31	23.71	25.18	23.48	26.56	26.24	25.69	24.00
31954	27.31	22.68	21.34	21.50	18.26	22.49	19.01	18.26	20.87	21.38		25.69	22.02	21.73
31955	24.35	19.13	18.02	20.12	19.53		19.84	18.66	19.96	17.95	24.47	26.71	21.94	20.89
31956	36.62	28.99	30.06	24.89	22.00	29.55	24.41	25.88	26.19	16.32	29.87	22.99	18.61	25.87
31957	29.68	21.03	27.59	25.10	26.68	24.78	20.67	23.48	21.50	23.79	25.02	20.47	20.32	23.85
31958	20.66	14.85	16.59	14.62	15.92	13.47	14.58	15.68	14.78	13.43	18.84	19.67	19.76	16.37
31959		18.33	19.08	20.58	19.51	21.09	19.83	22.95	23.51	19.16	23.67	22.04	21.06	20.90
31960		20.63	18.62	20.63	18.22	16.96	19.49	22.45	22.45	19.25	25.77	28.29	25.49	21.52
31961	32.25	23.55	23.04	23.75	23.04	30.15	23.87	23.75	23.87	26.28	27.63	23.40	22.29	25.14
31962	29.00	23.47	17.59	22.57	21.07	18.27		24.23	21.03	20.04	26.79	24.50	22.53	22.59
Chittimuthyalu (Micro Nutrient Check)		22.37	20.35	24.11	15.66			23.95	21.42	18.82	24.50	22.21	20.36	21.37
31963		21.97	21.50	21.42	17.43	22.37	20.20	21.50	21.70	19.84	26.72	23.16	24.19	21.83
31964	23.44	19.84	19.37	20.75	19.57	21.18	22.33	21.94	22.41	19.25	22.57	26.16	29.44	22.17

IET Numbers	LDN	CTK	JYP	BKG	CHP	MSD	NVS	NWG	ADT	MGD	MNC	PTB	SRS	MEAN
31965		18.25	17.74	18.13	17.22	16.51	16.55	21.37	19.04	15.64			19.83	18.03
MEAN	**27.78**	**21.08**	**20.88**	**21.49**	**20.64**	**21.26**	**20.58**	**20.92**	**21.10**	**20.64**	**24.78**	**24.06**	**22.49**	**21.98**

Table No.11c.3: Protein content in ppm for polished rice samples of entries in AVT 1& IVT-Biofort analyzed at IIRR, Hyderabad Kharif 2023 (NRRI Cuttack)

Entry no		Locations															
	Kernel colour	Jeypore	Sakoli	Gangavati	Masodha	Nawagam	Varanasi	Maruteru	Cuttack	Mandya	Jagdalpur	Coimbatore	Titabar	Mugad	Sindewahi	Moncompu	Mean
5001		8.11	4.34	5.61	10.87	8.30	7.52	7.11	8.31	5.73	7.32	5.72	8.20	6.72	7.41	7.73	7.27
5002	Red	8.37	7.72	6.84	11.48	8.56	8.67	8.31	8.62	7.13	8.83	8.24	8.57	9.70	7.14	7.78	8.40
5003		8.07		5.88	8.51	8.97	7.91	8.28		5.48	6.10	5.76	7.44	8.11	8.01	6.70	7.33
5004		6.18	4.30	4.25	8.06	8.08	7.68	6.23	7.04	5.45	6.89	6.17	7.30	7.90	7.99	7.51	6.73
5005	Black	10.31	8.65	8.38	10.31	7.69	10.58	10.29	9.42	8.84		9.00	8.60	9.82	8.57	7.71	9.15
5006		8.02	5.50	5.09	7.04	8.07	7.43	7.78	6.78	7.17	6.42	8.25	7.41	8.39	6.82	7.46	7.17
5007		10.92		6.91	11.45	7.38	8.50	11.21	8.71	5.60	11.05	5.55	8.66	9.32	7.03	7.66	8.57
5008		8.35	6.80	5.38	8.87	6.34	7.61	8.69	8.66	6.62	7.56	6.60	8.60	7.43	7.46	7.55	7.50
5009			4.99	3.92	10.37	7.17	8.51	8.15	7.38	7.09	7.17	6.67	7.43	8.26	8.20	8.39	7.41
5010		8.14	5.14	4.21	8.74	6.90	8.87	7.51	8.23	6.35	7.98	5.64	8.38	7.97	8.31	7.52	7.33
5011	Red	8.44	7.09	6.80	9.13	7.42	8.79	9.24	8.81	7.57	7.97	7.25	8.84	11.78	8.79	8.48	8.43
5012		9.14	4.52	4.91	8.91	7.50	8.04	9.08	7.32	5.43	8.06	5.88	7.33	9.69	7.95	8.45	7.48
5013		6.72		5.27	7.77	6.71	7.53	7.71	8.23	6.53	7.80	6.14	8.39	8.12	8.38	8.48	7.41
5014		7.93	6.44	5.97	12.90	6.35	10.05	10.14	8.51	7.81	8.79	6.58	8.50	7.79	7.49		8.23
5015		10.25	6.84	7.00	8.26		10.52	8.82	9.63	5.60	8.82	7.16	9.08	8.39	6.89		8.25
5016		8.30	6.82	6.53	9.39	7.27	8.61	9.63	8.10	5.28	7.96	7.30	8.11	10.78	6.92		7.93
5017	Red	10.46	7.36	8.60	10.49	7.49	10.17	9.50	8.32	6.13	9.55	8.70	8.31	9.36	7.75	8.42	8.71
5018		6.70	3.29	4.51	6.17	8.01	6.31	4.88	6.18	3.02	5.08	2.57	6.58	8.09	7.80	8.25	5.83
5019		9.73	4.32	7.18	11.30	6.78	9.91	8.50	7.94	6.65	8.89	8.46	7.91	9.34	8.23		8.22

Entry no		Locations															
	Kernel colour	Jeypore	Sakoli	Gangavati	Masodha	Nawagam	Varanasi	Maruteru	Cuttack	Mandya	Jagdalpur	Coimbatore	Titabar	Mugad	Sindewahi	Moncompu	Mean
5020		8.76	5.69	5.86	9.32	7.05	6.98	7.97	7.83	5.83	6.78	6.26	7.85	7.31	7.54	7.67	7.25
5021		8.53	6.31	5.51	9.33	8.20	9.04	8.90	8.45	5.95	9.08	6.48	8.40	7.55	6.79	7.76	7.75
5022		8.63	5.81	5.53	11.10	8.43	8.38	8.33	9.82	6.68	8.25	6.93	9.46	9.19	6.83	7.10	8.03
5023		7.00	4.91	6.56	9.38	8.62	9.16	8.51	7.45	5.00	5.64	5.68	7.43	8.69	7.42	6.83	7.22
5024		5.67	4.91	4.91	8.29	9.28	7.03	6.98	7.26	3.66	6.35	5.19	7.32	5.71	7.77		6.45
5025		7.46	5.55	5.54	7.57	8.47	8.24	7.25	7.41	5.82	6.26	5.97	7.43	8.07	7.88	7.70	7.11
5026		7.57	6.47	4.66	7.89	8.65	7.39	7.30	6.10	6.38	5.68	6.98	6.49	7.14	8.00		6.91
5027	Black	10.62	7.80	8.27	12.31	7.22	10.60	9.58	8.74	7.48	9.32	7.20	8.67	8.08	7.10	7.68	8.71
5028		6.91	4.63	7.14	8.76	7.75	7.70	8.12	7.97	5.60	5.35	6.41	8.00	7.54	6.62	7.80	7.09
5029		7.16	6.40	6.81	10.13	6.89	8.95	8.24	6.43	5.77	6.42	6.44	7.31	8.50	6.85	8.38	7.38
5030	Red	8.96	6.18	8.66	10.56	6.77	10.01	7.56	9.20	5.72	5.53	7.20	9.03	7.89	7.89		7.94
5031		7.50	5.01	5.98	8.31	7.05	6.41	6.69	8.00	5.36	8.62	5.09	8.20	8.02	8.02	7.57	7.05
5032	Black	9.99	9.07	10.08	9.79	6.95	10.67		10.57	8.11	8.77	8.51	9.19	10.49	7.95	7.00	9.08
5033		7.22	4.55	6.62	9.15		8.83	7.78	8.73	5.00		4.91	8.27	9.21	7.96	6.56	7.29
5034		9.31	5.43	6.21	8.62	8.40	8.33	7.38	7.48	5.05	7.28	5.45	7.50	5.52	7.31	7.86	7.14
5035		7.86	3.52	6.60	7.40	7.60	7.92	7.47	6.86	4.55	6.95	7.34	7.79	7.39	6.84	7.79	6.92
5036	Red	8.64	6.38	6.78	8.47	7.54	8.55	8.51	9.05	6.53	7.41	6.35	8.98	7.98	7.60	7.70	7.76
5037		7.81	4.96	8.24	7.65	7.68	8.05	9.41	7.43	5.94	8.83	6.36	7.50	5.92	8.09	8.43	7.49
5038		7.28	4.88	5.83	8.69	6.39	7.63	9.38	7.06	5.49	6.08	6.94	7.37	7.88	7.65		7.04
5039		9.07	6.05	7.29	9.96	6.29	7.70	9.74	8.80	8.14	8.69	6.34	8.79	9.21	8.24	7.01	8.09
5040		6.53	3.92	7.79	9.94		7.88	7.84	8.03	3.92	6.17	5.13	8.06	7.94	7.58		6.98
5041		6.26	4.38	5.84	9.47	8.21	7.32	8.15	7.26	4.50	6.44	5.33	7.32	7.36	7.66	7.64	6.88
5042		8.59	5.83	8.25	9.95	7.22	8.68	7.43	7.84	6.26	7.91	6.03	7.89	10.04	6.89	6.61	7.69
5043		10.18	6.20	7.31	10.61	7.49	9.69	9.08	9.88	6.26	8.00	6.61	8.95	11.19	6.81	7.62	8.39
5044	Red	10.10	5.81	7.07	10.78	7.55	12.04	8.80	8.59	6.31	8.01	7.59	8.69	10.73	7.55	7.07	8.45

Entry no		Locations															
	Kernel colour	Jeypore	Sakoli	Gangavati	Masodha	Nawagam	Varanasi	Maruteru	Cuttack	Mandya	Jagdalpur	Coimbatore	Titabar	Mugad	Sindewahi	Moncompu	Mean
5045		8.76	5.18	6.78	10.67	6.44	10.44	11.19	8.29	5.36	7.11	6.77	8.41	7.39	7.58	7.04	7.83
5046		7.61	5.71	7.49	8.94	6.75	9.90	9.58	7.17	5.09	8.30		7.66	9.66	7.46	7.73	7.79
5047		7.74	7.30	7.83	9.77	6.71	8.71	9.65	10.72	5.81	6.17	5.99	8.60	10.92	6.58	7.45	8.00
5048		7.70		6.61	9.32	7.36	8.90	9.50	8.78	7.65	9.36		8.89	6.67	8.57	8.48	8.29
5049		8.94	5.73	5.76	9.95	8.31		7.93	7.31	5.57	7.22	5.55	7.41	7.51	8.87	7.72	7.41
5050		8.34	4.45	5.28	7.07	9.15	7.67	7.87	7.70	3.52	5.20	5.11	7.64	8.29	6.88	8.30	6.83
5051		8.75	6.48	6.87	9.30	7.94	7.95	7.52	5.72	4.98	8.62	6.61	7.66	9.39	7.97	8.40	7.61
5052		8.31		7.23	10.22	8.32	9.62	9.19	6.67	5.18	7.33		7.32	8.75	8.03		8.01
Mean		8.31	5.74	6.47	9.40	7.59	8.62	8.43	8.05	5.92	7.51	6.46	8.06	8.46	7.61	7.69	

VARIETY TRIALS-HILLS

The variety trials under hill ecology were conducted in different elevations to identify high yielding cultures with cold, drought tolerance and resistance to pests and diseases under irrigated as well as rainfed uplands. The early and medium duration trials were evaluated under irrigated transplanted conditions, whereas, the upland trials were conducted at direct seeded rainfed situation. The trials were evaluated under low hills (≤ 950 msl), medium hills (951 to 1500 msl) and high hills (≥ 1501 msl). The trial was sent for evaluation under low elevation hills at Malan, Sundernagar, Dhaulakaun, Bhertin, CAU-Umiam, Lamphalpet, Wangbal, CAU-Imphal, ICAR- Nagaland, Sirsi and Ponnampet; Medium elevation hills-Rajouri, Bajaura, Palampur, Almora, Bageshwar, Gangtok and Gudalur; and High elevations hills-Khudwani, Wadura, Pombay, Bandipore, Larnoo, Baderwah and Upper Shillong. However, at ICAR-Barapani, the trial was conducted at high elevation instead of medium elevation.

A total of 5 trials viz., IVT-E(H), IVT-M(H), AVT 2 & 1-M(H), IVT-U(H) and IVT –J were conducted with 22, 12, 22, 14 and 07 entries, respectively, thus making a total of 77 entries. Each trial was evaluated at low, medium and high hills: IVT-E (H) at 14 locations (4 low, 5 medium, 5 high), IVT M (H) and AVT 2 & 1-M (H) at 32 locations (13 low, 7 medium, 12 high), IVT-U (H) at 7 locations (4 low, 2 medium and 1 high) and IVT –J at 3 locations (1 low, 1 medium and 1 high). The trials were sent to 27 locations to conduct 123 experiments. The data of 58 experiments received from 23 locations indicating 77.33% (Funded 94.11%, Voluntary 76.36%).

List of centres and elevations

I. Low Elevation:			
Northern Hills:			
ICAR-Nagaland	295 msl	Sundernagar	870 msl
Dhaulakaun	350 msl	Bhertin	870 msl
ICAR- Lamphelpat	774 msl	CAU, Barapani	940 msl
Wangbal	781 msl	Malan	950 msl
CAU-Imphal	808 msl		
Southern Hills:			
Sirsi	697 msl	Ponnampet	867 msl
II. Medium Elevation:			
Northern Hills:			
Rajouri	915 msl	Palampur	1267msl
Bajaura	1080 msl	Bageshwar	1320 msl
ICAR- Almora	1250 msl	Gangtok	1322 msl
Southern Hills:			
Gudalur	1300 msl		
III. High Elevation:			
Khudwani	1560 msl	Upper Shillong	1735 msl
Wadura	1590 msl	ICAR- Barapani	1735 msl
Baderwah	1613 msl	Pombay	1990 msl
Bandipore	1680 msl		
Larnoo	2150 msl		

Summary:

IVT – E (H)

- IVT-E (H) trial was constituted with 19 test entries of first year of testing and 3 checks (Vivekdhan 86 (National), Shalimar Rice-3 (Zonal) and local check) under low, medium and high elevations. Among the entries in first year of testing, three entries got promoted in Northern medium elevation and one entry got promoted in Southern medium elevation

  - Northern medium elevation IETs 31382, 31381 and 31389
  - Southern medium elevation IET 31386

AVT 2 & 1 – M (H)

- AVT 2&1–M(H) trial was constituted with 12 entries including 6 test entries, 3 checks – Vivekdhan 62 (NC), VL Dhan 68 (ZC for North and South) and RC Maniphou 11 (North East), a Local Check, one recurrent parent (K-343) and two donor parents (DHMAS and RML-22). Among 3 test entries in second year of testing, only one entry IET 30513 is promoted to AVT 2 M (H) for third year of testing under high altitude region. NIL (IET 30503) is found superior in yield when compared to recurrent parent K 343 at Lower Northern and Medium northern altitudes for grain yield. But NIL (IET 20503) has shown moderately susceptibility reaction and did not performance better than recurrent parent and hence discontinued. Among 2 test entries in 3rd year of testing, the entry IET 29654 is discontinued due to inconsistent performance and IET 28906 is found promising for High hill situation for the state of Jammu and Kashmir.

IVT – M (H)

- IVT-M (H) consisted of 21entries including 19 test entries and three checks evaluated at 20 locations spanning low northern, medium northern and southern and high northern elevations across the country. Of the 19 test entries, IET 31415 in low northern elevation and IET 31413 in medium northern elevations were promoted to second year of testing.

IVT – U (H)

- IVT-U(H) The trial comprised of 11 test entries and three checks and tested in 12 locations.

- **List of the entries promoted in IVT-U(H)**
- **Overall:** IET 31424, IET 31420
- **Low altitude Northern Hills:** IET 31424, IET 31420
- **Medium altitude Northern Hills:** None of the entries promoted

IVT – Japonica

- IVT-J trial was constituted with 3 test entries and 4 checks (Bhrigudhan, Varundhan, Shalimar Rice-5 and local check) evaluated at 8 centres. Among the test entries.Based on three locations data, IET 31431 (Koshikari) recorded significant superiority over the best check in Zone-1 and hence IET 31431 promoted to second year of testing in AVT-1 Japonica in Zone 1 of Low Northern hills.

INITIAL VARIETY TRIAL- EARLY (HILLS) IVT-E (H)

Locations : 17 **Test Entries:19**

Checks : Vivekdhan 86 (NC), Shalimar Rice 3 (ZC) and Local check (LC) **Table: 12.1**

Initial Variety Trial – Early Hills, IVT- E (H) was constituted with 19 test entries and three checks namely Vivekdhan 86 (NC), Shalimar Rice 3 (ZC) and local check. The trial wassent to 17 locations and data was received from fourteen locations. The data from three locations (Bandipore, Sundernagar Badarwa) was not received. Data from three locations were not considered for analysis due to low experimental yield *viz.,* Dhulakan (Himachal Pradesh), Mediziphema- ICAR (Nagaland) and Upper Shillong (Meghalaya) and eleven locations was analyzed under three elevations namely Low elevation (Northern Low and Southern Low), Medium elevation ((Northern medium and Southern medium) and High elevation.

Overall, mean grain yield ranged from 3433 kg/ha (IET 31398) to 5394 kg/ha (IET 31382); days to 50% flowering from 88 days (IET 31392 and IET 31398) to 104 days (IET 31395); plant height from 94 cm (IET 31386) to 129 cm (IET 31385); and number of panicles/m^2 from 281 (IET 31398) to 361 (IET 31386). **On over all mean basis, none of the entries were promoted to second year of testing**. The data pertaining to grain yield, days to 50% flowering, plant height and panicles/m^2 are presented in tables 6.2 and 6.3. The performance of test entries is described below.

Low Elevation

In Northern low elevation, data from Malan of Himachal Pradesh was considered for analysis. The mean grain yield of entries ranged from 5265 kg/ha (Vivekdhan 86-NC) to 2013 kg/ha (IET 31398), while days to 50% flowering ranged from 72 days (IET 31398) to 96 days (IET31395). **No entry recorded significant yield superiority in this northern low elevation**.

Under Southern low elevation, the trial was conducted at only one location i.e. Ponnampet in Karnataka state. The mean grain yield of entries ranged from 954 kg/ha (IET 31392) to 4648 kg/ha (Local check), while days to 50% flowering ranged from 83 days (IET 31383) to 107 days (Local check). **None of the entries were found to have significant yield gain in southern low elevation.**

Northern Medium Elevation

Data from four locations *viz.,* Rajouri (JK), Almora-ICAR (UK), Bajura (HP) and Palampur (HP) was considered for analysis under northern medium elevation. The mean grain yield of the locations ranged from 1905 kg/ha (IET 31398) to 4745 kg/ha (IET 31382); whereas, days to 50% flowering from 81 days (IET 31383) to 100 days (IET 31395). Plant height ranged from 99 cm (IET 31393) to 126 cm (IETs 31388, 31396 and 31398); and number of panicles/m^2 from 227 (Zonal check) to 335 (IET 31381). Among the checks, National check (Vivekdhan 86) recorded highest grain yield of 4135 kg/ha with 90 days to 50% flowering followed by local check 3352 kg/ha with 84 days to 50% flowering.

Performance of superior test entries at Northern Medium Elevation in IVT-E (H)during Kharif 2023

IET No. / Designation/Cross combination	Grain Yield (Kg/ha) / Days to 50% Flowering/Grain type
IET 31382 SKUA-575 (K12-5-1-8-1-1) Jhelum / VL Dhan 86	4736* 88 -
IET 31381 VL 32945 VL Dhan 87 / VL 32063	4745* 86 LS
IET 31389 VL 32933 VL Dhan 87 / VL 31743	4557* 89 SB
Vivekdhan 86 (NC)	***4135*** ***90***
Shalimar Rice 3 (ZC)	3327 87
Local Check (LC)	3452 84

Among the test entries at Northern Medium Elevation, 3 test entries viz., IETs 31382, 31381 and 31389 recorded significant yield advantage over the best check (National check, Vivekdhan 86); hence they have been promoted to second year of testing.

Southern Medium Elevation:

In this elevation, one location Gudaluru (TN) was considered for analysis. The mean grain yield of entries ranged from 2547 kg/ha (IET 31398) to 6539 kg/ha (IET 31386), while days to 50% flowering ranged from 76 days (IETs 31380, 31383, 31392, 31394 and 31398) to 90 days (IETs 31381, 31389 and 31395). Plant height ranged from 77 cm (IET 31386) to 120 cm (IET 31385); and number of panicles/m^2 from 209 (IET 31398) to 595 (IET 31386).

Performance of superior test entries at Southern Medium Elevation in IVT-E (H) during Kharif 2023

IET No. Designation/ Cross Combination	Grain Yield (Kg/ha) Days to 50% FloweringGrain Type
IET 31386 VL 32934 VL Dhan 87 / VL 31743	6539 92 LS
Vivekdhan 86 (NC)	4154 79
Shalimar Rice 3 (ZC)	4308 82
Local Check (LC)	***5547*** ***89***

Among the test entries, one entry namely IET 31386 recorded required yield advantage against the best check (LC), and hence, IET 31386 has been promoted to second year of testing in Southern Medium Elevation

High Elevation

At high elevation, the trial IVT E (H) was conducted at four locations viz., Khudwani, Pombay, Wadura and Larnoo. Mean grain yield ranged from 5319 kg/ha (IET 31392) to 7792 kg/ha (IET 31394), while, days to 50% flowering from 101 days (IETs 31392, 31396 and 31398) to 127 days (Vivekdhan 86, NC). Plant height ranged from 90 cm (IET 31386) to 134 cm (NC) and number of panicles/m^2 from 266 (IET 31381) to 370 (LC). Among the checks, local check recorded maximum grain yield (7307 kg/ha with 104 days to 50% flowering) followed by zonal check, Shalimar Rice 3 (6920 kg/ha with 102 days to 50% flowering).

None of the entries showed significant yield advantage over the best check (Local check). **Hence, none of the entries got promoted in high altitude hills.**

List of test entries promoted to AVT-1 E (H) for second year of testing is mentioned below

Elevation	Entries promoted to AVT-1 E (H)
Northern medium elevation	IETs 31382, 31381 and 31389
Southern medium elevation	IET 31386

Table No. 12.1: Composition of entries in Initial Variety Trial- Early (Hills) (IVT- E (H)),Kharif 2023.

Entry No.	IET No.	Designation	Cross Combination	GT
1st year of testing:				
2301	31380	HPR 3224	HPR 2748 / Kasturi	LS
2302	31381	VL 32945	VL Dhan 87 / VL 32063	LS
2303	31382	SKUA-575 (K12-5-1-8-1-1)	Jhelum / VL Dhan 86	
2304	**Vivekdhan 86 (NC)**			
2305	31383	SKUA-580 (K17-19-20-2)	Jhelum / IR 64 // Jhelum /// Jhelum	
2306	31384	RCPL 1-440	IURON-44 / Bhalum-3	
2307	31385	SKUA-586 (K16-11-4-2-2)	K-39 / VL dhan 85 // K-39 /// K-39	
2308	31386	VL 32934	VL Dhan 87 / VL 31743	LS
2309	31387	SKUA-583(K17-24-7-3)	Jhelum / S-54 // Jhelum	
2310	**Shalimar Rice-3 (ZC)**			
2311	31388	SKUA-573 (K12-13-1-2-2-2)	K39 / SR-3	
2312	31389	VL 32933	VL Dhan 87 / VL 31743	LS
2313	31390	SKUA-578 (K17-10-15-1)	Pusa 3 / M.budji // M.budji /// M.budji //// M.budji	
2314	31391	HPR 3213	HPR 2863 / HPR 2216	LS
2315	31392	SKUA-585 (K16-3-1-7-1)	M.budji / S-54 // M.budji /// M.budji	
2316	31393	VL 32942	VL Dhan 87 / VL 32058	LS
2317	31394	SKUA-574 (K12-3-1-5-1-3)	Jhelum / SR-2	
2318	31395	RCPL 1-448	IR 64 / Shahsarang	
2319	31396	SKUA-582 (K17-24-7-1)	Jhelum / S-54 // Jhelum	
2320	31397	HPR 3240	HPR 2216 / HPR 2668	LS
2321	31398	SKUA-577 (K17-3-4-1)	M.budji / S-54 // M.budji /// M.budji //// M.budji	
2322	**Local Check (LC)**			

Table No. 12.2: Grain Yield (kg/ha) in IVT – E (H), Kharif 2023

ENTRY NO	IET No.	Low Northern (1)		Low Southern (1)		Medium Northern							
		Himachal Pradesh 1(1)		Karnataka (1)		Himachal Pradesh 2				Himachal Pradesh 2(2)		Himachal Pradesh (3)	
		Malan		Ponnampet		Palampet		Bajura (Malan)		Mean		Mean	
2301	31380	3318		3542	10	3833		2343		3088		3165	
2302	31381	4066		3709	6	4303	9	4983	2	4643	2 *	4451	2
2303	31382	4413	9	3574	9	4985	2	5358	1	5172	1 *	4918	1*
2304	Vivekdhan 86 (NC)	5265	1	3880	3	4849	4	2865	8	3857	5	4326	5
2305	31383	3940		1047		4137		2432		3285		3503	
2306	31384	4190	10	2556		4091		1865		2978		3382	14
2307	31385	4966	4	3273		3845		1310		2578		3374	
2308	31386	4944	5	4315	2	5334	1	2730	9	4032	4	4336	4
2309	31387	3340		1843		3938		3295	5	3617	7	3524	
2310	Shalimar Rice-3 (ZC)	3543		3750	5	4939	3	1797		3368	9	3426	
2311	31388	4590	8	3301		4349	8	2720	10	3535	8	3886	7
2312	31389	4867	6	3810	4	4425	6	3861	3	4143	3	4384	3
2313	31390	3489		2019		4394	7	1613		3004		3165	
2314	31391	3692		3593	8	4273	10	781		2527		2915	
2315	31392	2468		954		2056		1355		1706		1960	
2316	31393	4990	3	3222		4667	5	2568		3618	6	4075	6
2317	31394	4140		1782		2682		3020	6	2851		3281	
2318	31395	3441		3648	7	2394		1965		2180		2600	
2319	31396	5113	2	1732		2621		3418	4	3020		3717	8
2320	31397	4091		2334		3985		2670		3328	10	3582	10
2321	31398	2013				1440		436		938		1296	
2322	Local Check (LC)	4591	7	4648	1	3303		2958	7	3131		3617	9
Exp. Mean		**4067**		**2977**		**3856**		**2561**		**3209**		**3495**	
F Value		**9.02(p<0.0001)S**		**29.08(p<0.0001)S**		**8.02(p<0.0001)S**		**19.03(p<0.0001)S**		**15.08(p<0.0001)S**		**21.58(p<0.0001)S**	
CD		822		568		1041		791		685		511	
CV%		**9.72**		**9.14**		**12.98**		**14.85**		**10.26**		**7.03**	
D/S		14-06-2023		12-07-2023		08-06-2023							
D/P		07-07-2023		27-08-2023		05-07-2023		04-07-2023					
LOCAL CHECK		HPR-1068		KPR 1		HPR1068		HPR1068					

Table No. 12.2 (Contd): Grain Yield (kg/ha) in IVT – E (H), Kharif 2023

ENTRY NO	IET No.	Medium Northern						Medium Southern(1)		High			
		Uttarakhand (1)		Jammu & Kashmir1(1)		Medium Northern (4)		Tamilnadu(1)		Jammu & Kashmir 2(4)			
		Almora- ICAR		Rajouri		Mean		Gudaluru		Khudwani		Pombay (khudwani)	
2301	31380	4445	5 *	4540	6	3790	7	2992		7260		5970	6
2302	31381	4167	8 *	5489	3	4736	2 *	5308	3	6836		4345	
2303	31382	4306	7 *	4330		4745	1 *	4693	7	8978	6	5750	9
2304	Vivekdhan 86 (NC)	3542		5284	4	4135	6	4154		7135			
2305	31383	2257		6034	1	3715	10	2600		9251	3	6815	1
2306	31384	4028	9 *	4262		3562		4846	5	7214		4230	
2307	31385	3438		4120		3178		4770	6	9070	4	6440	3
2308	31386	4827	3 *	3711		4151	5	6539	1 *	6964		4060	
2309	31387	938		4273		3111		3000		8205	8	5825	8
2310	Shalimar Rice-3 (ZC)	2326		4245		3327		4308	10	8995	5	5025	
2311	31388	2848		5136	5	3763	8	2693		7635			
2312	31389	5556	1 *	4387	10	4557	3 *	5000	4	7006		6040	5
2313	31390	3264		5665	2	3734	9	3616		8025	9	5250	
2314	31391	3820	10	4500	8	3344		4000		9427	1	5940	7
2315	31392	2153		4296		2465		3385		6618		4205	
2316	31393	5209	2 *	4517	7	4240	4	3539		7775	10	5655	10
2317	31394	1077		4216		2749		2769		9261	2	6610	2
2318	31395	4479	4 *	3688		3132		4616	9	6118			
2319	31396	4375	6 *	4438	9	3713		2769		7618		5495	
2320	31397	3125		4136		3479		4693	7	7566		3600	
2321	31398	1528		4216		1905		2547		6934		4200	
2322	Local Check (LC)	3230		3915		3352		5547	2	8978	6	6103	4
Exp. Mean		**3406**		**4518**		**3585**		**4017**		**7857**		**5345**	
F Value		**58.24(p<0.0001)S**		**2.30(p<0.0307)S**		**36.50(p<0.0001)S**		**139.79(p<0.0001)S**		**4.20(p<0.0008)S**		**6.25(p<0.0001)S**	
CD		483		1223		334		270		1437		1137	
CV%		**6.83**		**13.02**		**4.48**		**3.23**		**8.8**		**10.13**	
D/S		24-05-2023		29-05-2023				07-07-2023		03-05-2023		11-05-2023	
D/P		27-06-2023		26-06-2023				08-08-2023		08-06-2023		17-06-2023	
LOCAL CHECK		VLD 85		K-39				CO 51		Shalimar Rice 4		Shalimar Rice 4	

Table No. 12.2 (Contd): Grain Yield (kg/ha) in IVT – E (H), Kharif 2023

ENTRY NO	IET No.	High										Overall Mean(11)	
		Jammu & Kashmir 2(4)				Jammu & Kashmir 2(4)		Jammu & Kashmir (5)		High (4)			
		Wadura (khudwani)		Larnoo		Mean		Mean		Mean			
2301	31380	7320	9			6850	9	6272		6850	9	4556	
2302	31381	5998				5726		5667		5726		4920	8
2303	31382	6936		6015	10	6920	7	6402	8	6920	7	5394	1
2304	Vivekdhan 86 (NC)	6555				6845	10	6325	10	6845	10	4837	10
2305	31383	8235	2	6850	2	7788	2	7437	1	7788	2	4873	9
2306	31384	6395				5946		5525		5946		4368	
2307	31385	8258	1	6755	3	7631	3	6928	3	7631	3	5113	4
2308	31386	5794				5606		5132		5606		4922	7
2309	31387	8073	4	6470	8	7143	6	6569	7	7143	6	4473	
2310	Shalimar Rice-3 (ZC)	7863	6	5795		6920	7	6384	9	6920	7	4781	
2311	31388	6682		5785		6701		6309		6701		4574	
2312	31389	7314	10			6787		6186		6787		5227	2
2313	31390	7489	8	6555	7	6830		6597	6	6830		4671	
2314	31391	8015	5	6695	4	7519	4	6915	4	7519	4	4976	6
2315	31392	5762		4690		5319		5114		5319		3449	
2316	31393	6987		6305	9	6681		6248		6681		5039	5
2317	31394	8085	3	7210	1	7792	1	7076	2	7792	1	4623	
2318	31395	5121				5620		4975		5620		3941	
2319	31396	7220		5775		6527		6109		6527		4598	
2320	31397	5662		6680	5	5877		5529		5877		4413	
2321	31398	6498		4520		5538		5274		5538		3433	
2322	Local Check (LC)	7500	7	6645	6	7307	5	6628	5	7307	5	5220	3
Exp. Mean		**6989**		**6183**		**6630**		**6164**		**6630**		**4655**	
F Value		**4.78(p<0.0003)S**		**7.27(p<0.0003)S**		**7.02(p<0.0001)S**		**7.90(p<0.0001)S**		**7.02(p<0.0001)S**		**31.03(p<0.0001)S**	
CD		1229		884		857		704		857		267	
CV%		**8.45**		**6.67**		**6.21**		**5.49**		**6.21**		**2.75**	
D/S		11-05-2023		13-05-2023									
D/P		14-06-2023		19-06-2023									
LOCAL CHECK		Shalimar Rice 4		Shalimar Rice 5									

Table No. 12.2 (contd): Grain Yield (kg/ha) in IVT – E (H), (Trials Not Considered) Kharif 2023

ENTRY NO	IET No.	TRIAL NOT CONSIDERED					
		Himachal Pradesh (0)		Nagaland (0)		Megalaya (0)	
		@Dhaulakaun		@Nagaland- ICAR		@Upper Shillong	
2301	31380	2972	8	633		70	
2302	31381	3237	5	634	10		
2303	31382	2764		800	3	500	
2304	Vivekdhan 86 (NC)	3292	4	467		1650	6
2305	31383	2542		367		775	
2306	31384	4306	2	800	3	650	
2307	31385	4972	1	900	1	1260	10
2308	31386	4014	3	767	6	1875	2
2309	31387	1750		667	9	500	
2310	Shalimar Rice-3 (ZC)	1528		767	6	1850	3
2311	31388	1778		534		1800	4
2312	31389	2750		634	10	1800	4
2313	31390	3195	6	834	2	1050	
2314	31391	2639		633		1100	
2315	31392	1445		300		585	
2316	31393	2667		633		575	
2317	31394	2028		567		1300	8
2318	31395	2972	8	700	8	899	
2319	31396	2806	10	467		1200	
2320	31397	3084	7	533		1300	8
2321	31398	2361		400		1446	7
2322	Local Check (LC)	2584		767	6	2000	1
Exp. Mean		**2804**		**627**		**1152**	
F Value		**229.21(p<0.0001)S**		**2.72(p<0.0127)S**		**8.09(p<0.0001)S**	
CD		164		304		561	
CV%		**2.82**		**23.31**		**23.35**	
D/S		15-06-2023		20-06-2023		12-05-2023	
D/P		14-07-2023		26-07-2023		30-05-2023	
LOCAL CHECK		HPR 2143				Meg - 2	

Table No. 12.3: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT – E (H), Kharif 2023

ENTRY NO	IET No.	Low Northern (1)			Low Southern (1)			Medium Northern					
		Himachal Pradesh 1(1)			Karnataka (1)			Himachal Pradesh 2					
		Malan			Ponnampet				Palampet		Bajura (Malan)		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
2301	31380	84	120	256	92	96	291	89	126	249	68	109	203
2302	31381	89	107	378	98	86	322	93	98	376	62	100	217
2303	31382	82	137	259	97	106	241	84	117	298	72	120	194
2304	Vivekdhan 86 (NC)	86	141	326	88	103	239	77	123	326	88	100	177
2305	31383	74	119	326	83	82	310	84	123	323	72	95	168
2306	31384	90	112	287	100	89	249	92	134	287	74	115	219
2307	31385	88	153	287	100	125	241	93	119	301	64	132	186
2308	31386	91	107	452	97	81	338	97	94	452	80	89	231
2309	31387	78	132	380	87	95	308	84	135	375	67	116	145
2310	Shalimar Rice-3 (ZC)	75	127	228	95	116	338	80	122	228	84	115	199
2311	31388	84	136	210	87	109	313	84	128	210	62	130	202
2312	31389	89	109	361	99	81	386	93	125	346	73	99	213
2313	31390	88	141	273	101	108	324	87	139	273	68	120	212
2314	31391	87	121	336	94	107	372	93	127	336	69	124	195
2315	31392	76	124	326	87	97	259	82	118	281	59	120	103
2316	31393	88	112	422	96	84	361	99	99	417	71	90	187
2317	31394	74	132	256	85	97	288	82	129	256	84	100	162
2318	31395	96	114	298	102	92	291	105	116	298	86	81	248
2319	31396	76	141	371	90	91	266	82	125	360	64	129	186
2320	31397	83	127	336	92	104	318	90	141	336	68	127	185
2321	31398	72	127	284		0		81	126	253	60	119	206
2322	Local Check (LC)	88	107	371	107	96	282	84	121	371	69	91	166
Exp. Mean		**83**	**125**	**319**	**94**	**93**	**302**	**88**	**122**	**316**	**71**	**110**	**191**

Table No. 12.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT – E (H), Kharif 2023

ENTRY NO	IET No.	Medium Northern											
		Himachal Pradesh 2(2)			Himachal Pradesh (3)			Uttarakhand (1)			Jammu & Kashmir1(1)		
		Mean			Mean			Almora- ICAR			Rajouri		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
2301	31380	79	118	226	80	118	236	98	104	282	94	124	457
2302	31381	78	99	296	81	102	324	95	105	262	94	124	484
2303	31382	78	118	246	79	125	250	97	115	264	98	120	328
2304	Vivekdhan 86 (NC)	82	111	251	83	121	276	102	115	214	95	118	477
2305	31383	78	109	246	76	112	272	74	111	203	95	125	510
2306	31384	83	124	253	85	120	264	103	100	365	94	121	334
2307	31385	78	126	243	81	135	258	97	129	235	98	119	356
2308	31386	88	91	341	89	96	378	95	88	295	96	134	310
2309	31387	75	125	260	76	127	300	90	112	172	93	118	350
2310	Shalimar Rice-3 (ZC)	82	118	213	79	121	218	91	124	155	95	113	329
2311	31388	73	129	206	76	131	207	99	123	196	98	122	464
2312	31389	83	112	279	85	111	306	94	99	312	98	117	351
2313	31390	78	129	243	81	133	253	101	116	243	96	126	504
2314	31391	81	126	266	83	124	289	102	115	292	95	116	368
2315	31392	71	119	192	72	121	236	91	116	256	94	121	349
2316	31393	85	95	302	86	100	342	102	91	325	98	116	452
2317	31394	83	115	209	80	120	224	91	109	175	90	119	322
2318	31395	96	99	273	96	104	281	111	96	304	96	125	279
2319	31396	73	127	273	74	132	306	95	123	293	98	129	361
2320	31397	79	134	260	80	132	286	95	110	306	94	117	345
2321	31398	71	123	229	71	124	247	96	128	250	94	132	348
2322	Local Check (LC)	76	106	269	80	106	303	91	120	231	91	118	318
Exp. Mean		**79**	**116**	**253**	**81**	**119**	**275**	**96**	**111**	**256**	**95**	**121**	**381**

Table No. 12.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT – E (H), Kharif 2023

ENTRY NO	IET No.	Medium Northern (4)			Medium Southern(1)			High					
					Tamilnadu(1)			Jammu & Kashmir 2(4)					
		Mean			Gudaluru			Khudwani			Pombay (khudwani)		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
2301	31380	87	116	297	76	94	410	117	116	366	124	106	295
2302	31381	86	107	335	90	81	334	117	98	324	123	93	244
2303	31382	88	118	271	82	93	381	108	132	366	112	121	316
2304	Vivekdhan 86 (NC)	90	114	298	79	101	445	127	133	338			
2305	31383	81	113	301	76	96	575	102	125	401	109	122	357
2306	31384	91	117	301	82	85	368	117	107	357	109	106	321
2307	31385	88	125	269	89	120	353	105	148	388	107	124	333
2308	31386	92	101	322	83	77	595	120	91	366	119	88	287
2309	31387	83	120	260	82	106	493	100	128	373	107	117	295
2310	Shalimar Rice-3 (ZC)	87	118	227	82	98	386	101	128	381	103	116	331
2311	31388	85	126	268	82	112	362	119	137	337			
2312	31389	89	110	305	90	80	413	121	99	394	125	107	312
2313	31390	88	125	308	89	111	396	106	138	383	107	124	344
2314	31391	90	120	298	86	100	424	105	122	399	113	117	360
2315	31392	82	119	247	76	97	472	95	130	318	105	132	306
2316	31393	92	99	345	90	88	324	116	107	386	124	100	326
2317	31394	87	114	228	76	99	528	100	132	393	107	121	350
2318	31395	100	104	282	90	85	539	128	97	292			
2319	31396	85	126	300	82	112	392	101	131	336	101	119	344
2320	31397	87	124	293	87	108	354	105	131	339	112	120	309
2321	31398	83	126	264	76	89	209	97	144	360	108	123	308
2322	Local Check (LC)	84	113	271	89	86	518	103	129	401	110	119	373
Exp. Mean		**87**	**116**	**286**	**83**	**96**	**421**	**109**	**123**	**364**	**112**	**115**	**321**

Table No. 12.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT – E (H), Kharif 2023

ENTRY NO	IET No.	High								
								Jammu & Kashmir 2(4)		
		Wadura (khudwani)			Larnoo			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
2301	31380	120	110	312				120	111	324
2302	31381	120	94	230				120	95	266
2303	31382	107	127	352	118	123	257	111	126	323
2304	Vivekdhan 86 (NC)	127	135	295				127	134	316
2305	31383	106	120	390	112	113	289	107	120	359
2306	31384	117	102	339				117	105	339
2307	31385	102	131	354	115	117	295	107	130	342
2308	31386	117	90	283				119	90	312
2309	31387	103	123	337	107	111	265	104	119	317
2310	Shalimar Rice-3 (ZC)	98	119	364	106	119	264	102	120	335
2311	31388	123	132	331	125	120	317	122	130	328
2312	31389	119	105	309				122	104	338
2313	31390	103	135	323	111	128	306	107	131	339
2314	31391	110	119	397	109	117	299	109	119	364
2315	31392	99	129	291	104	113	263	101	126	294
2316	31393	118	104	359	124	98	310	120	102	345
2317	31394	103	123	360	108	115	302	104	123	351
2318	31395	125	93	269				126	95	281
2319	31396	97	127	351	105	115	284	101	123	329
2320	31397	106	126	295	111	110	311	108	122	313
2321	31398	96	132	320	106	121	275	101	130	316
2322	Local Check (LC)	105	125	392	100	90	316	104	115	370
Exp. Mean		**110**	**118**	**330**	**111**	**114**	**290**	**110**	**117**	**327**

Table No. 12.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT – E (H), Kharif 2023

ENTRY NO	IET No.	High						Overall Mean(11)		
		Jammu & Kashmir (5)			High (4)					
		Mean			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
2301	31380	113	114	358	120	111	324	96	110	312
2302	31381	113	102	320	120	95	266	98	98	317
2303	31382	108	124	324	111	126	323	96	119	296
2304	Vivekdhan 86 (NC)	116	129	370	127	134	316	96	119	315
2305	31383	105	121	389	107	120	359	89	112	350
2306	31384	111	109	338	117	105	339	98	107	312
2307	31385	105	128	345	107	130	342	96	129	302
2308	31386	113	101	311	119	90	312	99	94	361
2309	31387	102	119	324	104	119	317	90	117	317
2310	Shalimar Rice-3 (ZC)	100	119	334	102	120	335	92	118	291
2311	31388	116	128	362	122	130	328	96	125	294
2312	31389	116	107	341	122	104	338	100	102	339
2313	31390	105	130	372	107	131	339	96	126	325
2314	31391	106	118	364	109	119	364	96	117	343
2315	31392	99	125	305	101	126	294	88	118	293
2316	31393	116	105	367	120	102	345	102	99	352
2317	31394	101	122	345	104	123	351	91	116	308
2318	31395	116	105	280	126	95	281	104	100	313
2319	31396	100	124	335	101	123	329	90	122	322
2320	31397	105	121	320	108	122	313	95	120	312
2321	31398	100	130	322	101	130	316	88	113	281
2322	Local Check (LC)	102	116	360	104	115	370	94	109	340
Exp. Mean		**108**	**118**	**340**	**110**	**117**	**327**	**95**	**113**	**318**

Table No. 12.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT –E (H),(Trials Not Considered) Kharif 2023

ENTRY NO	IET No.	TRIAL NOT CONSIDERED								
		Himachal Pradesh (0)			Nagaland (0)			Megalaya (0)		
		@Dhaulakaun			@Nagaland- ICAR			@Upper Shillong		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
2301	31380	84	122	290	83	136	18	89	86	
2302	31381	88	109	292	94	114	17	87	88	216
2303	31382	83	112	184	91	123	18	86	89	
2304	Vivekdhan 86 (NC)	86	118	200	86	129	24	83	89	185
2305	31383	81	108	256	87	129	15	86	89	210
2306	31384	89	105	286	76	146	20	80	88	184
2307	31385	82	120	374	85	112	20	82	67	233
2308	31386	90	98	355	103	140	22	84	101	234
2309	31387	85	92	177	94	127	22	75	76	
2310	Shalimar Rice-3 (ZC)	80	102	203	105	123	18	85	97	190
2311	31388	85	115	192	83	127	22	81	101	241
2312	31389	86	96	266	83	139	17	84	89	150
2313	31390	90	108	155	88	112	21	89	89	179
2314	31391	84	102	236	78	142	20	80	89	208
2315	31392	99	106	244	78	133	18	85	84	224
2316	31393	88	97	273	88	113	17	86	77	170
2317	31394	84	110	176	83	142	16	80	86	178
2318	31395	96	95	180	84	125	14	82	75	180
2319	31396	83	105	258	76	112	17	78	85	183
2320	31397	81	102	279	81	133	20	79	80	180
2321	31398	80	112	152	82	145	16	83	92	178
2322	Local Check (LC)	90	104	204	88	112	20	87	87	190
Exp. Mean		**86**	**106**	**237**	**86**	**128**	**19**	**83**	**87**	**195**

ADVANCE VARIETY TRIAL 2&1- MEDIUM (HILLS) [AVT 2 &1-M (H)]

Locations : 16 **Test Entries: 6**

Checks : Vivekdhan 62 (NC), VL Dhan 68 (ZC for North & South), RC Maniphou-11 (ZC for North East and Local check (LC) **Table: 12.4**

AVT 2 & 1 – M (H) trial was constituted with 12 entries including 6 test entries, 3 checks – Vivekdhan 62 (NC), VL Dhan 68 (ZC for North and South) and RC Maniphou-11 (North East), a Local Check, one recurrent parent (K-343) and two donor parents (DHMAS and RML-22). Out of 6 test entries, 2 entries (IET 29654 and IET 28906) were in third year of testing; 3 entries (IETs 30513, 30506, 30518) were in second year of testing and one NIL entry (IET 30503) were in second year of testing. The trial was sent to 19 locations of various altitudes and data was received from 16 locations and remaining three locations viz., Imphal CAU, Badarwa and Bajaura did not conduct the trial. Further, 5 locations data was not considered for analysis due to low grain yield ((Sirsi-1610 kg/ha, Barapani-ICAR-765 kg/ha, Gangtok-1882 kg/ha and Upper Shillong-906 kg/ha) and low CV at Wangbal (CV -1.71)). The data from remaining 11 locations (Malan, Sundernagar, Dhaulakaun, CAU-Barapani,

Lamphelpat-ICAR, Almora-ICAR, Rajouri, Gudaluru, Khudwani, Pombay and Wadura) was considered for analysis and inferences were drawn. Overall, grain mean yield ranged from 3980 kg/ha (IET 28906) to 4988 kg/ha (Local check) and average yield was 4540 kg/ha; days to 50% flowering from 92 days (IET 28906) to 103 days (Vivekdhan 62 (NC) and zonal check); plant height from 102 cm (IET 30518) to 129 (NC Vivekdhan 62) and number of panicles/m^2 from 305 (Vivekdhan 62, NC) to 364 (IET 29654 and Local check). **On overall mean grain yield, none of the entries outperformed the best check (Local check).**The data pertaining to yield, flowering, plant height and panicles/m2 and quality were presented in tables 6.5, 6.6, and 6.7. Performance of the test entries at different elevations was discussed below.

Low Altitude Northern (≤ 950 MSL)

AVT 2&1-M (H) trial was sent to six locations and all the six locations conducted the trial and sent the data. The data from Wangbal not considered for analysis due to low CV (1.71%). The data from remaining five locations viz., Lamphelpat-ICAR, CAU Barapani, Malan, Sundernagar and Dhaulakaun was considered for analysis. The mean grain yield of the entries ranged from 2918 kg/ha (IET 28906) to 4260 kg/ha (IET 29654); days to 50% flowering varied from 87 days (IET 28906) to 102 days (Zonal check). Among the checks, Local check (LC) recorded highest grain yield of 4081kg/ha with 101 days to 50% flowering. **None of the test entries outperformed the best check (Local check), hence none of the entries got promoted under Low Northern altitude.**

Low Altitude Southern (≤ 950 MSL)

The trial was sent to only one location Viz., Sirsi under low altitude southern region. The data from Sirsi location showed low experimental mean yield (1610 kg/ha), therefore the data was not considered for analysis. Hence **none of the entries got promoted under Low altitude Southern**

Medium Altitude Northern (951-1500 MSL)

AVT-2&1-M (H) trial was sent to 4 locatons viz., Rajouri, ICAR-Almora, ICAR-Barapani and Gangtok and data was received from all 4 locations. The data from ICAR-Barapani (765 kg/ha) and Gangtok (1882 kg/ha) showed low experimental yield, and hence not considered for analysis. The data from remaining two locations viz., Rajouri and ICAR-Almora was considered for analysis. The mean grain yield at medium altitude northern was 4144 kg/ha and ranged from 2867 kg/ha (IET 28906) to 5464 kg/ha (IET 30518); and days to 50% flowering varied between 89 days (IET 30513) and 100 days (IET 29654). Among the checks, Zonal check (VL Dhan 68) recorded highest grain yield of 5146 kg/ha with 98 days to 50% flowering. None of the test entries out yielded the best check (Zonal check), **hence, none of the entries got promoted under Medium Northern altitude.**

Medium Altitude Southern (951-1500 MSL)

AVT-2&1-M (H) trial was sent to only one location viz., Gudaluru in Tamil Nadu. The mean grain yield at medium altitude southern was 4053 kg/ha and ranged from 2917 kg/ha (National check) to 4917 kg/ha (Zonal check); and days to 50% flowering varied between 82 days (IETs 28906, 30513 and 30506) and 96 days (Vivekdhan 62, NC). Among the checks, Zonal check recorded highest grain yield of 4917 kg/ha with 95 days to 50% flowering. None

of the test entries out yielded the best check (Zonal check), **hence, none of the entries got promoted under Medium Southern altitude.**

High Altitude (951-1500 SL)

AVT 2&1-M (H) trial was sent to 4 locations Viz., Khudwani, Wadura, Pombay and Upper Shillong under high altitude region, but the data from Upper Shillong was not considered due to low experimental mean yield (906 kg/ha). Hence data from Khudwani, Pombay and Wadura was considered for analysis. The mean grain yield at high altitude northern was 6669 kg/ha and it ranged from 5124 kg/ha (RML-22, Donor parent 2) to 7883 kg/ha (IET 30513); days to 50% flowering varied between 102 days (IET 30506) and 124 days (IET 30518); Plant height varied from 82 cm (IET 20518) to 136 cm (Zonal check); number of panicles ranged from 285 (IET 30503) to 409 (Local check). Among the checks, Local check produced highest grain yield of 7094 kg/ha with 103 days to 50% flowering. Among the test entries, only one entry viz., IET 30513 recorded significant yield advantage over best check (Local check). **Hence the entry IET 30513 may be promoted to AVT 2 M (H) for third year of testing under high altitude region provided grain quality data found to be acceptable (Quality data is awaited).**

Performance of the entries in AVT 2&1- M (H), Kharif 2023 at High altitude

Rank	IET No / Designation/ Cross combination	Grain Yield (Kg/ha)/ Days to 50% flowering/ Grain type	% yield superiority over (NC, ZC, LC)	Quality data HRR (%)/AC (%) / GC (mm)/ASV
1	**IET 30513** SKUA 570 (K 08-28-11) SR 1 / Cjoma 1039	7883 108 SB	26.55 31.76 9.58	
	Vivekdhan 62 (NC)	6229 119		
	Zonal Check (ZC) VL Dhan 68	5983 123		
	Local Check (LC)	7194 103		

Performance of NILs for Blast Resistance

Blast disease of rice is a major threat in mid hills of Northern hill zone. Therefore, marker assisted introgression of blast resistant genes *Pi 54* and *Pi 9* into the recurrent parent K-343 was taken up to improve the recurrent parent. DHMAS and RML-22 were selected as donor parents for the *Pi 54* and *Pi 9* blast resistant genes, respectively. Marker assisted back cross breeding strategy was employed to transfer the genes of interest and one NIL IET 30503 was identified as tolerant NIL. The yield performance of this NIL entry along with recurrent parent and best check at different altitudes is mentioned in the following table.

Grain yield (Kg/ha) of NIL entry IET 30503 at different elevations:

NIL Entry	Low Northern	Medium Northern	Medium Southern	High altitude
IET 30503	**3590**	**4270**	4092	5147
K-343 (Recurrent parent)	3188	3311	5042	6460
CD	242	626	221	622
Recurrent parent ± CD	**3430**	**3937**	5263	7082
Best Check	4081	5146	4917	7194

Based on Recurrent parent ± CD, the NIL IET 30503 is having significantly higher grain yield compared to recurrent parent at low northern and medium northern altitudes. But the same NIL did not outperform the recurrent parent in grain yield. Therefore the NIL IET 30503 is found superior in yield when compared to recurrent parent K 343 at Lower Northern and Medium northern altitudes for grain yield.

Leaf Blast Reaction of IET 30503 in NSN Hill locations

Locations	**ALM**	**CTK**	**IIRR**	**KJT**	**KHD**	**LNV**	**PNP**	**UMM**	**USG**	**Mean**
Screening	N	A	A	A	N/A	N	N	N	N	
LSI	5.3	6.7	4.2	3.1	4.4	7.8	3.2	3.2	3.9	
Ent. 2407 (IET#30503)	8	7	3	1	5	7	1	2	6	**4.44**
Ent. 2408 (RP)	5	7	2	1	6	7	2	2	5	**4.11**
Tetep (R)	5	5	1	1	0	3	3	1	2	**2.33**
HR-12 (S)	6	9	9	3	8	7	8	5	7	**6.89**

N=Natural method; A=Artificial inoculation; LSI= Location severity index; R=Resistant check; S= Susceptible check

The blast screening nursery data from 9 locations was compiled and presented in the table. The entry IET 30503 (NIL) has showen a moderate susceptibility score of 4.44 where as the recurrent parent has also recorded moderate susceptibility score of 4.11. Therefore the NIL has not shown any advantage over recurrent parent for blast resistance. In fact, NIL has shown little inferior reaction to recurrent parent regarding blast resistance reaction. The resistant check Tetep has shown resistant reaction of 2.33 and susceptible check HR 12 has shown score of 6.89 indicating the proper way of conducting the disease screening. **Therefore it is concluded that the NIL (IET 20503) has shown moderately susceptible reaction and hence discontinued.**

Three year's performance of two entries IET 29654 and IET 28906

Sl. No.	IET No. / Designation / Cross Combination	Year	% Yield Advantage over BVC							
			Low Hills Northern		Medium Hills Northern		Medium Southern		High Hills	
			Zone	State	Zone	State	Zone	State	Zone	State
1	**IET 29654** VL 32605 (Vivek Dhan 62 / HPR 2644)	2021	-	-	-	-	-	-	-	-
		2022	Low Northern	ME	Med. Northern	UK	-	-	-	-
		2023	-	HP	-	-	-	-	-	-
2	**IET 28906** SKUA 543 (K 11-5-1-9-4-3) CH1039/ IR 24	2020	-	-	-	-	-	-	-	-
		2021	-	-	-	-	-	-	High Hill	JK
		2022	-	-	-	-	-	-	High Hill	JK
		2023	-	-	-	-	-	-	-	-

IET 29654 (VL 32605) derived from the cross Vivek Dhan 62 / HPR 2644 showed yield superiority over best check in Low northern hills (Meghalaya) and Medium northern hills (Uttarkhand) during 2022. The entry has shown better performance than best check in Himachal Pradesh during 2023. The entry did not perform well in any state for at least two years of testing. **Therefore, the entry IET 29654 is discontinued due to inconsistent performance**

IET 28906 ((SKUA 543 (K 11-5-1-9-4-3)) obtained from the cross CH1039/ IR 24 showed yield superiority over best check for two years of testing 2021 and 2022 under High hill situations in the state of Jammu and Kashmir. **Therefore the entry IET 29654 is found promising for High hill situation for the state of Jammu and Kashmir**

Promotions in AVT 2&1 M (H)

IET 30513 is promoted to AVT 2 M (H) for third year of testing under high altitude region.

INITIAL VARIETY TRIAL – MEDIUM (HILLS) [IVT – M (H)]

Locations : 20 **Test Entries:19**

Checks : Vivekdhan 62 (NC); VL Dhan 68 (ZC for North & South) RC Maniphou-11 (ZC for North East) and a Local Check **Table: 12.8**

The Initial Variety Trial – Medium (Hills) was constituted with 19 test entries and three checks i.e., Vivekdhan 62 (national check), VL Dhan 62 (zonal check) for north and southern zones and VL Dhan 68 (zonal check) for north eastern zone and a local check.The trial was sent to 20 locations of various altitudes and data was received from 16 locations. The trial was not conducted at Imphal-CAU and Badarwa; while, data not received from Sundernagar and trial was damaged by rats/birds at Gangtok. Low experimental mean was recorded at Sirsi, Umiam and Upper Shillong, low CV % at Dhaulakaun and Wangbal and high CV% at Bajura, hence, data from these six locations was not included in the analysis.

Overall mean grain yield ranged from 5915 (LC) to 4031 kg/ha (IET 31410); days to fifty percent flowering from 90 (IET 31414) to 110 days (IET 31416), plant height from 89 (IET 31413) to 129 cm (NC) and panicles/m^2 from 279 (IET 31406) to 395 (IET 31408). At locations, CV varied from 1.45% at Dhaulakaun to 41.35% at Bajura and experimental mean from as low as 590 kg/ha at Umiam to as high as 7733 kg/ha at Khudwani. On overall basis, local check with mean grain yield of 5915 kg/ha is the best check and none of the entries surpassed the local check in yield performance. Altitude wise, there is one entry each in low northern and medium northern altitudes with significant yield advantage over the best check. There are no superior performing entries in medium altitude of southern zone and high altitudes. The performance of the entries with significant yield advantage over the best check in low and medium altitudes of northern zone is described below.

Altitude wise Performance of the entries in Initial Variety Trail-Medium Hills (IVT-M- H), Kharif 2023

Rank	IET No/Designation/Cross Combination	Grain Yield (kg/ha)/Days to 50% flowering/Grain Type
	Low Altitude Northern	
1	IET 31415 [(RCMR-47 (MC-59-1-3-7)] Akhanphou/ Bhalum-3	6327 114
	Vivekdhan 62 (NC)	4256
	VL Dhan 68 (ZC)	4859
	LC	5566
	CD at 5%	581
	Medium Altitude Northern	
1	IET 31413 (VL 32935) VL Dhan 87 and VL 31743	5360 95
	Vivekdhan 62 (NC)	4492
	VL Dhan 68 (ZC)	4519
	LC	4469
	CD at 5%	554

Low Northern altitude(≤ 950 MSL): Local check with 5566 kg/ha grain yield is the best check; and only one entry IET 31415 derived from the cross of Akhanphou and Bhalum-3 with mean grin yield of 6327 kg/ha and 114 days to fifty percent flowering significantly outperformed the best check. It also ranked first in Meghalaya with a mean grain yield of 5860 kg/ha.

Medium Northern altitude (951-1500 MSL): VL Dhan 68, zonal check is the best check with 4519 kg/ha in the medium altitude locations of northern zone. Only one entry IET 31413 derived from the cross of VL Dhan 87 and VL 31743 with mean grain yield of 5360 kg/ha and 95 days to fifty percent flowering recorded significant yield advantage over the best check.

List of entries promoted to AVT1-M(H)

Overall basis	None
Low northern(≤ 950 MSL)	IET 31415
Medium northern(951-1500 MSL)	IET 31413
Medium southern(951-1500 MSL)	None
High altitude (≥ 1501 MSL)	None

Table No.12.4: Composition of entries in Advance Variety Trial 2 & 1- Medium (Hills)(AVT 2 & 1- M (H)), Kharif 2023.

Entry No.	IET No.	Designation	Cross Combination	GT
3rd year of testing:				
2401	29654	VL 32605	Vivek Dhan 62 / HPR 2644	LS
2402	28906	SKUA 543 (K 11-5-1-9-4-3)	CH 1039 / IR 24	MS
2nd year of testing:				
2403	30513	SKUA-570 (K08-28-11)	SR1 /China 1039	SB
2404	**Vivekdhan 62 (NC)**			
2405	30506	SKUA-571 (K11-5-1-9-4-3)	China 1039 / IR24	MS
2406	30518	VL32850	VL Dhan 87 / VL 32056	LS
2nd year of testing (NILs):				
2407	30503	SJHR-1	MAS based backcross inbred line F5 progeny seeds of the cross (K 343*3 / DHMAS / (K343*3 / RML 22)	MB
2408	K-343 **(Recurrent Parent)**			MB
2409	DHMAS **(Donor Parent 1)**			MB
2410	RML-22 **(Donor Parent 2)**			MB
2411	**VL Dhan 68 (ZC for North & South) RC Maniphou-11 (ZC for North East)**			
2412	**Local Check (LC)**			

Table No. 12.5: Grain Yield (kg/ha) in AVT 2 & 1 – M (H), Kharif 2023

ENTRY NO	IET No.	Low Northern											
		Himachal Pradesh						Himachal Prades (3)		Meghalaya (1)		Manipur (1)	
		Malan		Sundernagar (Malan)		Dhaulakaun		Mean		CAU, Barapani		Lamphelpat-ICAR	
2401	29654	3427	2	3724	1	5833	1	4328	1 *	2747	9	5567	4
2402	28906	2371		2953		3704	7	3009		1667		3894	10
2403	30513	3617	1	3329	8	4704	2	3883	2 *	1720		3519	
2404	Vivekdhan 62 (NC)	3127	4	3046		4444	4	3539	4	2827	8	6212	1
2405	30506	2672	10	3627	2	3667	8	3322	6	3480	5	3167	
2406	30518	2961	7	3487	4	4574	3	3674	3	4317	3	4558	8
2407	30503	3049	5	3380	5	3463	10	3297	7	3413	6	4643	7
2408	K-343 (RP)	2971	6	3122	10	2889		2994		2650	10	4306	9
2409	DHMAS (DP1)	2561		3585	3	3574	9	3240	9	3223	7	5411	5
2410	RML-22 (DP 2)	2683	9	3222	9	3944	5	3283	8	5080	2	5934	2
2411	Zonal Check (ZC)	3249	3	3345	7	3944	5	3513	5	4060	4	5011	6
2412	Local Check (LC)	2705	8	3371	6	3241		3106	10	5333	1	5756	3
Exp. Mean		2949		3349		3998		3432		3376		4831	
F Value		6.20(p<0.0001)S		8.66(p<0.0001)S		37.22(p<0.0001)S		35.01(p<0.0001)S		18.06(p<0.0001)S		7.22(p<0.0001)S	
CD		402		217		351		177		757		1003	
CV%		8.04		3.82		5.18		3.04		13.25		12.25	
D/S		14-06-2023		16-06-2023		15-06-2023				13-06-2023		07-06-2023	
D/P		06-07-2023		12-07-2023		12-07-2023				10-07-2023		10-08-2023	
Local Check Name		HPR 2143		HPR 2612		HPR 2143				Shahsarang		RC Maniphou 15	

Table No. 12.5 (Contd): Grain Yield (kg/ha) in AVT 2 & 1 – M (H), Kharif 2023

ENTRY NO	IET No.	Low Northern (5)		Medium Northern						Medium Sourthern (1)		High	
				Uttarakhand (1)		Jammu Kashmir1 (1)		Medium Northern (2)		Tamilnadu (1)		Jammu Kashir2	
		Mean		Almora- ICAR		Rajouri		Mean		Gudaluru		Khudwani	
2401	29654	4260	1	4467	4	3822	10	4145	7	4963	2	7769	7
2402	28906	2918		1889		3845	9	2867		3146		8121	6
2403	30513	3378	9	3250	7	4333	8	3792	9	4417	5	9269	1
2404	Vivekdhan 62 (NC)	3931	5	4517	3	3584		4051	8	2917		7739	8
2405	30506	3323	10	1722		4958	6	3340	10	3334	10	8678	2
2406	30518	3979	4	5389	1	5538	3	5464	1	4708	4	7238	9
2407	30503	3590	8	2611	10	5928	2	4270	5	4092	6	6258	10
2408	K-343 (RP)	3188		2944	9	3678		3311		5042	1	8230	4
2409	DHMAS (DP1)	3671	7	3278	6	5261	4	4270	5	3583	8	8133	5
2410	RML-22 (DP 2)	4173	2	3111	8	6182	1	4647	3	3496	9	5675	
2411	Zonal Check (ZC)	3922	6	5078	2	5214	5	5146	2	4917	3	5983	
2412	Local Check (LC)	4081	3	4350	5	4506	7	4428	4	4025	7	8506	3
Exp. Mean		3701		3550		4737		4144		4053		7633	
F Value		23.23(p<0.0001)S		60.23(p<0.0001)S		3.98(p<0.0001)S		10.52(p<0.0001)S		85.42(p<0.0001)S		(p<0.0001)S	
CD		242		418		1228		626		221		835	
CV%		3.87		6.95		15.31		8.92		3.22		6.46	
D/S				30-05-2023		29-05-2023				04-07-2023		05-05-2023	
D/P				01-07-2023		27-06-2023				10-08-2023		09-06-2023	
Local Check Name				VLD 61		K-39				Bharathi (Ptb 41)		Shalimar Rice 4	

Table No. 12.5 (Contd): Grain Yield (kg/ha) in AVT 2 & 1 – M (H), Kharif 2023

ENTRY NO	IET No.	High										Overall Mean (11)	
		Jammu Kashir2				Jammu Kashir2(3)		Jammu Kashir(4)		High (3)			
		Pombay (khudwani)		Wadura (khudwani)		Mean		Mean		Mean			
2401	29654					7769	2	5795	7	7769	2	4702	4
2402	28906	5255	5	6938	5	6771	7	6040	6	6771	7	3980	
2403	30513	6464	1	7917	1	7883	1 *	6996	1	7883	1 *	4776	3
2404	Vivekdhan 62 (NC)	4487	7	6462	7	6229	9	5568	10	6229	9	4487	8
2405	30506	6431	2	7887	2	7665	3	6989	2	7665	3	4511	7
2406	30518			6567	6	6903	5	6447	5	6903	5	4934	2
2407	30503	4073	8	5109	10	5147		5342		5147		4184	
2408	K-343 (RP)	4736	6	6415	8	6460	8	5765	8	6460	8	4271	10
2409	DHMAS (DP1)	5558	4	7005	4	6899	6	6489	4	6899	6	4652	5
2410	RML-22 (DP 2)	3998	9	5700	9	5124		5389		5124		4457	9
2411	Zonal Check (ZC)					5983	10	5598	9	5983	10	4533	6
2412	Local Check (LC)	6031	3	7046	3	7194	4	6522	3	7194	4	4988	1
Exp. Mean		5226		6705		6669		6078		6669		4540	
F Value		17.32(p<0.0001)S		17.32(p<0.0001)S		17.32(p<0.0001)S		12.70(p<0.0001)S		17.32(p<0.0001)S		18.43(p<0.0001)S	
CD		542		681		622		513		622		198	
CV%		5.99		5.92		5.51		4.98		5.51		2.57	
D/S		13-05-2023		11-05-2023									
D/P		16-06-2023		13-06-2023									
Local Check Name		Shalimar Rice 4		Shalimar Rice 4									

Table No. 12.5 (contd): Grain Yield (kg/ha) in AVT 2 & 1 – M (H),, (Trials Not Considered) Kharif 2023

ENTRY NO	IET No.	TRIAL NOT CONSIDERED									
		Manipur		Karnataka (0)		Meghalaya 2(0)		Sikkim (0)		Meghalaya 3(0)	
		@Wangbal		@Sirsi		@Barapani (Umiam) ICAR		@Gangtok		@Upper Shillong	
2401	29654	7711	4	1783	3	1053	4	3045	1	800	8
2402	28906	7244	6	1358	8	577	8	1915	6	467	
2403	30513	6556	8	1258	9	1204	2	1937	5	1333	1
2404	Vivekdhan 62 (NC)	5844		1475	4	1117	3	1583	7	867	7
2405	30506	6267	9	792		1337	1	2608	3	667	9
2406	30518	5622		3542	1	775	6	1160		987	5
2407	30503	6067	10	1367	6	568	9	2722	2	667	9
2408	K-343 (RP)	7733	3	1075	10	491	10	1298	10	500	
2409	DHMAS (DP1)	8089	2	850		339		1457	9	1067	4
2410	RML-22 (DP 2)	8889	1	1367	6	830	5	2128	4	1200	3
2411	Zonal Check (ZC)	7089	7	1408	5	303		1193		987	5
2412	Local Check (LC)	7711	4	3050	2	592	7	1542	8	1333	1
Exp. Mean		7069		1610		765		1882		906	
F Value		176.32(p<0.0001)S		4.31(p<0.0013)S		1.55(p<0.1763)NS		5.45(p<0.0003)S		17.32(p<0.0001)S	
CD		205		1093		825		782		0	
CV%		1.71		40.08		63.63		24.52		0	
D/S		29-07-2023		06-05-2023		05-02-2023		30-05-2023		05-12-2023	
D/P		27-08-2023		27-06-2023		16-06-2023		07-08-2023		30-06-2023	
Local Check Name		Punshi				NEH Megha Rice 2		Attey		Meg -2	

Table No. 12.6: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 & 1 – M(H), Kharif 2023

ENTRY NO	IET No.	Low Northern																	
		Himachal Pradesh									Himachal Prades (3)			Meghalaya (1)			Manipur (1)		
		Malan			Sundernagar (Malan)			Dhaulakaun			Mean			CAU, Barapani			Lamphelpat-ICAR		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
2401	29654	94	123	408	117	126	537	89	135	368	100	128	438	101	99	315	87	111	238
2402	28906	78	115	348	109	128	362	82	115	302	90	119	337	83	91	227	82	108	211
2403	30513	82	123	369	113	124	369	85	127	280	93	125	339	85	89	248	81	112	209
2404	Vivekdhan 62 (NC)	92	147	245	107	135	349	91	142	272	97	141	289	101	123	258	88	133	206
2405	30506	78	111	334	109	111	504	81	114	358	89	112	398	95	95	282	81	109	211
2406	30518	95	108	335	116	109	415	92	118	368	101	112	373	86	94	267	95	111	200
2407	30503	84	120	310	107	113	373	80	116	361	90	116	348	93	99	295	81	109	213
2408	K-343 (RP)	83	118	299	114	119	301	82	123	294	93	120	298	90	102	347	83	106	230
2409	DHMAS (DP1)	85	130	369	115	129	457	86	128	255	95	129	360	102	114	337	79	114	223
2410	RML-22 (DP 2)	83	120	336	115	116	332	86	126	317	95	121	328	96	112	338	92	117	286
2411	Zonal Check (ZC)	91	133	383	119	124	405	90	132	359	100	130	382	115	80	348	94	84	219
2412	Local Check (LC)	86	117	328	119	113	389	92	128	351	99	119	356	124	104	373	84	94	227
Exp. Mean		86	122	339	113	120	400	86	125	324	95	123	354	98	100	303	86	109	223

Table No. 12.6 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 & 1 – M(H), Kharif 2023

ENTRY NO	IET No.	Low Northern (5)			Medium Northern									Medium Sourthern (1)			High		
					Uttarakhand (1)			Jammu Kashmir1 (1)			Medium Northern (2)			Tamilnadu (1)			Jammu Kashir2		
		Mean			Almora- ICAR			Rajouri			Mean			Gudaluru			Khudwani		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
2401	29654	97	119	373	102	124	339	97	107	285	100	115	312	95	99	425	122	127	365
2402	28906	87	111	290	89	111	250	93	92	296	91	101	273	82	102	532	102	128	363
2403	30513	89	115	295	85	111	271	93	104	320	89	107	295	82	101	471	104	128	397
2404	Vivekdhan 62 (NC)	96	136	266	102	130	244	95	112	272	99	121	258	96	118	394	116	135	405
2405	30506	89	108	338	89	107	219	98	117	369	94	112	294	82	99	500	100	125	378
2406	30518	97	108	317	104	110	287	92	115	440	98	113	364	95	93	456	122	80	388
2407	30503	89	111	311	101	111	274	92	100	483	97	105	379	91	109	520	111	131	317
2408	K-343 (RP)	90	114	294	102	110	291	87	99	278	95	105	285	95	101	460	107	130	421
2409	DHMAS (DP1)	93	123	328	98	115	284	96	110	408	97	112	346	86	100	486	105	135	388
2410	RML-22 (DP 2)	94	118	322	95	113	281	94	105	487	94	109	384	88	120	563	113	120	302
2411	Zonal Check (ZC)	102	111	343	103	119	313	94	106	389	98	112	351	95	99	460	123	136	331
2412	Local Check (LC)	101	111	333	101	121	287	91	115	333	96	118	310	95	83	491	101	126	472
Exp. Mean		94	115	318	98	115	278	94	107	363	96	111	321	90	102	480	111	125	377

Table No. 12.6 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 & 1 – M(H), Kharif 2023

ENTRY NO	IET No.	High															Overall Mean (11)		
		Jammu Kashir2						Jammu Kashir2(3)			Jammu Kashir(4)			High (3)					
		Pombay (khudwani)			Wadura (khudwani)			Mean			Mean			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
2401	**29654**							122	127	365	110	117	325	122	127	365	100	117	364
2402	**28906**	111	116	317	105	122	348	106	122	343	103	115	331	106	122	343	92	112	323
2403	**30513**	111	121	336	108	119	373	108	122	368	104	118	356	108	122	368	94	114	331
2404	**Vivekdhan 62 (NC)**	124	120	333	118	129	377	119	128	372	113	124	347	119	128	372	103	129	305
2405	**30506**	105	115	338	99	118	403	102	119	373	101	119	372	102	119	373	93	111	354
2406	**30518**				126	85	383	124	82	385	113	93	404	124	82	385	102	102	354
2407	**30503**	120	119	252	114	130	286	115	127	285	109	120	334	115	127	285	98	114	335
2408	**K-343 (RP)**	111	116	355	107	121	404	108	122	393	103	117	364	108	122	393	97	113	334
2409	**DHMAS (DP1)**	108	122	355	103	138	374	105	132	372	103	126	381	105	132	372	97	121	358
2410	**RML-22 (DP 2)**	121	119	307	117	115	301	117	118	303	111	114	349	117	118	303	100	116	350
2411	**Zonal Check (ZC)**							123	136	331	109	121	360	123	136	331	103	112	356
2412	**Local Check (LC)**	107	115	356	100	123	398	103	122	409	100	120	390	103	122	409	100	113	364
Exp. Mean		**113**	**118**	**328**	**110**	**120**	**365**	**113**	**121**	**358**	**107**	**117**	**359**	**113**	**121**	**358**	**98**	**115**	**344**

Table No. 12.6 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 & 1 – M(H), (Trials Not Considered) Kharif 2023

ENTRY NO	IET No.	TRIAL NOT CONSIDERED														
		Manipur			Karnataka (0)			Meghalaya 2(0)			Sikkim (0)			Meghalaya 3(0)		
		@Wangbal			@Sirsi			@Barapani (Umiam) ICAR			@Gangtok			@Upper Shillong		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
2401	**29654**	101	104	340	84	110	284	124	80	247	99	124	269	86	77	180
2402	**28906**	87	103	307	83	112	297	129	80	209	89	114	233	85	84	140
2403	**30513**	89	111	320	83	117	327	133	80	325	90	120	320	77	80	197
2404	**Vivekdhan 62 (NC)**	69	107	238	82	117	320	133	79	310	103	145	209	81	85	125
2405	**30506**	89	103	316	80	113	304	129	78	203	87	116	271	81	80	150
2406	**30518**	102	105	238	142	100	320	131	75	279	108	117	318	78	91	170
2407	**30503**	104	98	296	88	109	301	376	74	224	92	115	386	79	77	174
2408	**K-343 (RP)**	103	101	339	72	106	258	136	75	190	94	118	366	85	85	173
2409	**DHMAS (DP1)**	90	119	283	87	123	251	135	74	152	92	116	302	86	82	204
2410	**RML-22 (DP 2)**	92	101	382	82	119	304	125	80	232	94	137	263	87	91	228
2411	**Zonal Check (ZC)**	100	112	299	76	108	320	136	70	127	119	109	268	86	80	170
2412	**Local Check (LC)**	87	113	340	82	102	327	132	70	215	89	199	429		87	197
Exp. Mean		**93**	**106**	**308**	**87**	**111**	**301**	**87**	**76**	**226**	**87**	**128**	**302**	**83**	**83**	**176**

Table No. 12.7: Grain quality characteristics of entries in AVT 2 & 1 – M (H), Kharif 2023

Entry No.	IET No.	Hull	Mill	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
2401	29654	78.9	67.9	36.6	6.39	2.23	2.86	LB	VOC	4	27.28	28
2402	28906	81.6	68.9	47	5.94	2.38	2.49	SB	F	4	26.81	22
2403	30513	79.2	64.9	37.6	5.49	2.59*	2.11	SB	OC	4	27.1	43
2404	Vivek dhan 62 (NC)	79.4	65.1	57.4	5.37	2.59	2.07	SB	F	4	24.64	22
2405	30506	80.5	69.1	47.7	6.37	2.45	2.6	LB	OC	4	22.16	22
2406	30518	78.2	64.3	53.9	7.09	2.13	3.32	LS	OC	7	28.68	22
2407	30503	80.2	67	56.9	5.54	2.44	2.27	SB	OC	4	26.16	22
2408	K-343 (RP)	81.8	72.8	61.2	5.72	2.6	2.2	SB	F	5	27.95	22
2409	DH MAS (DP)	79.2	67.9	47.5	6.67	2.1	3.17	LS	VOC	4	27.8	22
2410	RML-22 (DP2)	81.3	71.9	57.8	6.48	2.37	2.73	LB	OC	4	26.78	22
2411	VL Dhan 68 (ZC)	79.3	70.3	53.6	6.26	2.25	2.78	LB	VOC	4	26.34	43
2412	Local Check	79.7	65	43.1	6.86	1.93	3.55	LS	VOC	4	27.69	22

HULL: Hulling (%); MILL: Milling (%); HRR: Head Rice Recovery (%); KL: Kernel Length (mm); KB: Kernel Breadth (mm); L/B: Length and breadth ratio; Grain Chalk: Grain Chalkiness; VOC: Very occasionally present; A: Absent ASV: Alkali Spreading Value; AC: Amylose Content (%); GC: Gel Consistency; LB: Long Bold; SB: Short Bold; LS: Long Slender; MS: Medium Slender; SS: Short Slender.

Table No.12.8: Composition of entries in Initial Variety Trial - Medium (Hills) (IVT- M(H)), Kharif 2023.

Entry No.	IET No.	Designation	Cross Combination	GT
1st year of testing:				
2501	31399	SKUA-584(K17-42-2-2)	IR68305 / Jhelum // Jhelum	
2502	31400	HPR 3271	F8 Progeny of cross HPR 2143*3 / DHMAS164 // HPR 2143*3 / PB1 (Pi-9) /// HPR 2143*4 / IRBB54 (Xa21)//HPR 2143 *3 / PR 114 (Xa38) (Pi9+Pita+ Xa38+ Xa21 genes)	LS
2503	31401	SKUA-589(K 16-20-2-1-3)	Jhelum / IR-1985 // Jhelum	
2504	31402	RCPL 1-444	IVT MH-2805 / Sakura	
2505	**Vivekdhan 62 (NC)**			
2506	31403	VL 32932	VL Dhan 87 / VL 31743	LS
2507	31404	SKUA-576 (K39-36-2-1-6)	K39 / IR 64	
2508	31405	HPR 3225	HPR 2615 / Pusa Basmati 1509	LS
2509	31406	RCMR-46 (MC-59-1-1-1)	Akhanphou / Bhalum-3	MS
2510	31407	SKUA-581(K17-20-10-1)	Jhelum / IR 1985 // Jhelum /// Jhelum	
2511	**VL Dhan 68 (ZC for North & South) RC Maniphou-11 (ZC for North East)**			
2512	31408	VL 40837	VL 40217 / Pusa Sugandha 2	LS
2513	31409	SKUA-588 (K 16-20-2-1-2)	Jhelum / IR-1985 // Jhelum	
2514	31410	VL 32919	VL Dhan 85 / VL 32056	LS
2515	31411	SKUA-587 (K16-19-2-2-1)	Jhelum / IR64 // Jhelum	
2516	31412	RCPL 1-446	IR 64Megha SA2	
2517	31413	VL 32935	VL Dhan 87 / VL 31743	LS
2518	31414	SKUA-579 (K 17-13-5-2)	Jhelum / IR 28	
2519	31415	RCMR-47 (MC-59-1-3-7)	Akhanphou / Bhalum-3	LS
2520	31416	CAUS 129 (ULRC 52-SSD-1-4-1)	CAUS 103 / HPR 2921	LS
2521	**Local Check (LC)**			
2522	31417	CAUS 134 (ULRC62-SSD-5-6-1)	CAUS 107 / HPR 2921	LS

Table No. 12.9: Grain Yield (kg/ha) in IVT – M (H), Kharif 2023

ENTRY NO	IET No.	Low Northern							
		Himachal Pradesh 1 (1)		Megalaya1 (1)		Manipur (1)		Low Northern (3)	
		Malan		CAU-UMM		Lamphelpat-ICAR		Mean	
2501	31399	4465		2520		5712		4232	
2502	31400	4441		2040		5450		3977	
2503	31401	5965	2	3000	10	5416		4794	
2504	31402	5065	10	2340		4301		3902	
2505	Vivekdhan 62 (NC)	5090	9	1660		6019		4256	
2506	31403	5790	3	1900		5985		4558	
2507	31404	5642	6	2220		6997	4	4953	9
2508	31405	4441		2780		6827	7	4683	
2509	31406			3740	7	6861	5	5301	5
2510	31407	5091	8	2660		7225	2	4992	8
2511	Zonal Check (ZC)	5668	5	3220	9	5689		4859	10
2512	31408	4640		4060	6	5120		4607	
2513	31409	5790	3	2180		5973		4648	
2514	31410	4540		1920		5404		3955	
2515	31411	6065	1	2640		6827	7	5177	6
2516	31412	4716		4340	4	7111	3	5389	3
2517	31413	4940		4220	5	6827	7	5329	4
2518	31414	4641		3360	8	4551		4184	
2519	31415			5860	1 *	6793	9	6327	1 *
2520	31416	4222		5780	2 *	5188		5063	7
2521	Local Check (LC)	5166	7	4820	3	6713	10	5566	2
2522	31417	4540		2580		7282	1	4801	
Exp. Mean		5046		3175		6103		4798	
F Value		2.39(p<0.0314)S		17.32(p<0.0001)S		3.63(p<0.0022)S		9.06(p<0.0001)S	
CD		1090		919		1360		581	
CV%		10.32		13.92		10.72		5.82	
D/S		14-06-2023		13-06-2023		10-08-2023			
D/P		06-07-2023		10-07-2023		08-10-2023			
Local Check Name		HPR2143		Shahsarang		RC Maniphou 13			

Table No. 12.9 (contd): Grain Yield (kg/ha) in IVT – M (H), Kharif 2023

ENTRY NO	IET No.	Medium Northern						Medium Southern (1)	
		Uttarakhand (1)		Jammmu Kashmir 1 (1)		Medium Northern (2)		TamiL Nadu (1)	
		Almora- ICAR		Rajouri		Mean		Gudaluru	
2501	31399	3967		3376		3672		2755	
2502	31400	4558		3381		3970		3512	
2503	31401	4487		4581	6	4534	7	5579	3
2504	31402	4915	8	5112	1	5014	2	3581	
2505	Vivekdhan 62 (NC)	3985		4998	2	4492	10	6474	1
2506	31403	5627	3	3411		4519	8	4683	9
2507	31404	3811		3287		3549		4063	
2508	31405	4986	6	4547	7	4767	4	4683	9
2509	31406			3664		3664		5234	5
2510	31407	4131		3739		3935		5165	6
2511	Zonal Check (ZC)	5983	2	3054		4519	8	3994	
2512	31408	4850	9	4940	3	4895	3	4952	7
2513	31409	4929	7	2940		3935		3375	
2514	31410	4843	10	3831	10	4337		3650	
2515	31411	4274		3413		3844		4683	9
2516	31412	4345		4854	4	4600	6	4339	
2517	31413	6125	1	4594	5	5360	1 *	5303	4
2518	31414	2350		3269		2810		3581	
2519	31415			3796		3796		5613	2
2520	31416	4587		3864	9	4226		2679	
2521	Local Check (LC)	5271	4	3666		4469		4649	
2522	31417	5221	5	4101	8	4661	5	4063	
Exp. Mean		4662		3928		4253		4391	
F Value		40.94(p<0.0001)S		4.78(p<0.0003)S		9.01(p<0.0001)S		37.97(p<0.0001)S	
CD		381		892		554		453	
CV%		3.9		10.92		6.26		4.96	
D/S		29-05-2023		29-05-2023				07-07-2023	
D/P		29-06-2023		27-06-2023				09-08-2023	
Local Check Name		VLD 61		K-39				Bharathi (Ptb 41)	

Table No. 12.9 (contd): Grain Yield (kg/ha) in IVT – M (H), Kharif 2023

ENTRY NO	IET No.	High							
		Jammu Kashmir 2							
		Khudwani		Pombay (khudwani)		Wadura (khudwani)		Larnoo	
2501	31399	8524	5	5770	5	7211	8	6240	4
2502	31400	8413	6	5060	10	6578		5865	8
2503	31401	7024		4205		5636		5580	
2504	31402	7028							
2505	Vivekdhan 62 (NC)	7508				7256	7		
2506	31403	7623		4355		6316		5610	10
2507	31404	8986	3	4805		7282	6	6490	2
2508	31405	7668	10	5565	6	7338	5	5695	9
2509	31406								
2510	31407	7713	9	5085	9	7194	10	5210	
2511	Zonal Check (ZC)	7188		5102	8	6067			
2512	31408	7785	8	6490	3	8283	2	6140	5
2513	31409	8052	7	5295	7	7200	9	6010	7
2514	31410								
2515	31411	9011	2	6980	1	8283	2	6580	1
2516	31412								
2517	31413	6901		4525		6062		4960	
2518	31414	9146	1	6705	2	8517	1	6305	3
2519	31415								
2520	31416	6008		3195		5030			
2521	Local Check (LC)	8694	4	6235	4	7849	4	6090	6
2522	31417	5929				5629			
Exp. Mean		7733		5291		6925		5906	
F Value		7.40(p<0.0001)S		7.15(p<0.0003)S		7.72(p<0.0001)S		3.48(p<0.0192)S	
CD		1064		1142		1073		782	
CV%		6.52		10.06		7.31		6.07	
D/S		03-05-2023		13-05-2023		11-05-2023		13-05-2023	
D/P		09-06-2023		16-06-2023		14-06-2023		18-06-2023	
Local Check Name		Shalimar Rice 4		Shalimar Rice 4		Shalimar Rice 4		Shalimar Rice 5	

Table No. 12.9 (contd): Grain Yield (kg/ha) in IVT – M (H), Kharif 2023

ENTRY NO	IET No.	High						Overall Mean (10)	
		Jammu Kashmir 2 (4)		Jammu Kashmir (5)		High (4)			
		Mean		Mean		Mean			
2501	31399	6936	7	6224	6	6936	7	5054	
2502	31400	6479		5859		6479		4930	
2503	31401	5611		5405		5611		5147	
2504	31402	7028	6	6070	9	7028	6	4620	
2505	Vivekdhan 62 (NC)	7382	3	6587	4	7382	3	5374	7
2506	31403	5976		5463		5976		5130	
2507	31404	6891	8	6170	7	6891	8	5358	8
2508	31405	6567	10	6162	8	6567	10	5453	5
2509	31406			3664				4875	
2510	31407	6301		5788		6301		5321	9
2511	Zonal Check (ZC)	6119		5353		6119		5107	
2512	31408	7175	5	6728	3	7175	5	5726	3
2513	31409	6639	9	5899	10	6639	9	5174	
2514	31410			3831				4031	
2515	31411	7714	1	6853	1	7714	1	5876	2
2516	31412			4854				4951	
2517	31413	5612		5408		5612		5446	6
2518	31414	7668	2	6788	2	7668	2	5243	10
2519	31415			3796				5516	4
2520	31416	4744		4524		4744		4506	
2521	Local Check (LC)	7217	4	6507	5	7217	4	5915	1
2522	31417	5779		5219		5779		4918	
Exp. Mean		6546		5598		6546		5167	
F Value		12.83(p<0.0001)S		18.81(p<0.0001)S		12.83(p<0.0001)S		13.52(p<0.0001)S	
CD		658		644		658		344	
CV%		4.76		5.53		4.76		3.2	
D/S									
D/P									
Local Check Name									

Table No. 12.9 (contd): Grain Yield (kg/ha) in IVT – M (H), (Trials Not Considered) Kharif 2023

ENTRY NO	IET No.	TRIALS NOT CONSIDERED											
		Himachal Pradesh 2		Manipur		Karnataka		Himachal Pradesh3		Megalaya 2		Megalaya 3	
		@Dhaulakaun		@Wangbal		@Sirsi		@Bajura (Malan)		@ICAR-UMM		@Upper Shillong	
2501	31399	3778	7	6250		2187	3	2866	8	996	2	1700	
2502	31400	3333		6150		1480		2152		556		1200	
2503	31401	3639	10	5650		1560		2696	9			3000	5
2504	31402	4306	3	5950		1520		2878	7	333		2533	9
2505	Vivekdhan 62 (NC)	4889	1	6300		1347		582		907	4	3500	3
2506	31403	3972	4	7050	9	1507		3056	5	584	8	3600	2
2507	31404	3306		7250	6	1640	10	3222	3	111		750	
2508	31405	3861	5	6800		1547		2662	10	1398	1	1494	
2509	31406	2306		7250	6	1400				188		442	
2510	31407	2694		5650		1653	8	2497		996	2	2700	8
2511	Zonal Check (ZC)	3750	8	8100	1	1360		3150	4	583	9	550	
2512	31408	2972		7600	2	2373	1	3486	2	523		500	
2513	31409	3528		7000	10	2053	4	2922	6	801	5	2500	10
2514	31410	3417		7500	3	1360		314		676	6	900	
2515	31411	3806	6	7250	6	1693	6	3694	1	329		1950	
2516	31412	3361		6950		1693	6	1038		519		637	
2517	31413	3194		6850		1267		1536		519		3500	3
2518	31414	2250		6600		1267		2396		500		1200	
2519	31415	1000		6050		1640	10			347		145	
2520	31416	3639	10	7250	6	1707	5	322		611	7	2946	7
2521	Local Check (LC)	3639	10	7500	3	1640	10	2536		560	10	3000	5
2522	31417	4444	2	7000	10	2347	2	178		357		3660	1
Exp. Mean		3413		6816		1647		2209		590		1928	
F Value		531.05(p<0.0001)S		68.51(p<0.0001)S		3.16(p<0.0053)S		3.12(p<0.0081)S		26.39(p<0.0001)S		24.19(p<0.0001)S	
CD		103		230		598		1912		13		703	
CV%		1.45		1.62		17.45		41.35		18.62		17.54	
D/S		15-06-2023		29-07-2023		05-06-2023		.		02-05-2023		12-05-2023	
D/P		12-07-2023		26-08-2023		28-06-2023		05-07-2023		16-06-2023		30-06-2023	
Local Check Name		HPR 2143		Punshi				HPR2143		NEH Megha Rice 2		Meg -2	

Table No. 12.10: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT – M(H), Kharif 2023

ENTRY NO	IET No.	Low Northern											
		Himachal Pradesh 1 (1)			Megalaya1 (1)			Manipur (1)			Low Northern (3)		
		Malan			CAU-UMM			Lamphelpat-ICAR			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
2501	31399	73	115	382	80	132	484	80	114	246	77	120	371
2502	31400	87	116	455	86	104	436	103	84	248	92	101	380
2503	31401	75	140	406	81	122	323	112	93	221	89	118	317
2504	31402	93	116	361	96	112	255	110	84	188	99	104	268
2505	Vivekdhan 62 (NC)	89	179	252	92	126	197	73	99	189	85	135	213
2506	31403	90	110	476	86	98	354	100	71	255	92	93	362
2507	31404	79	126	427	83	112	231	88	83	236	83	107	298
2508	31405	89	117	410	87	115	408	91	82	277	89	105	365
2509	31406				92	96	271	115	85	225	103	91	248
2510	31407	81	141	392	83	115	434	81	97	258	81	118	361
2511	Zonal Check (ZC)	90	144	399	92	122	321	118	68	245	100	111	322
2512	31408	91	113	526	92	105	558	110	80	288	98	99	457
2513	31409	78	138	427	82	113	391	79	95	224	79	115	347
2514	31410	98	99	371	96	98	270	111	70	232	101	89	291
2515	31411	76	140	294	80	118	273	80	87	220	79	115	262
2516	31412	105	127	312	103	125	312	127	86	235	111	113	286
2517	31413	90	107	466	86	101	413	108	78	315	95	95	398
2518	31414	70	119	462	82	121	374	79	74	239	77	105	358
2519	31415				103	118	329	126	84	267	114	101	298
2520	31416	107	116	434	101	125	325	127	79	240	111	107	333
2521	Local Check (LC)	85	120	452	93	109	353	129	82	214	102	103	339
2522	31417	95	121	343	99	124	505	77	92	249	90	112	366
Exp. Mean		87	125	402	89	114	355	101	85	241	92	107	333

Table No. 12.10 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT – M(H), Kharif 2023

ENTRY NO	IET No.	Medium Northern									Medium Southern (1)		
		Uttarakhand (1)			Jammmu Kashmir 1 (1)			Medium Northern (2)			TamiL Nadu (1)		
		Almora- ICAR			Rajouri			Mean			Gudaluru		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
2501	31399	86	128	267	97	114	457	91	121	362	87	115	477
2502	31400	98	96	311	91	120	484	94	108	397	87	84	588
2503	31401	90	122	257	96	113	328	93	118	292	81	97	556
2504	31402	110	106	274	97	119	477	104	113	375	96	84	543
2505	Vivekdhan 62 (NC)	102	133	246	96	115	510	99	124	378	94	112	463
2506	31403	99	96	310	99	117	334	99	107	322	95	73	425
2507	31404	86	118	293	94	121	356	90	119	325	84	108	388
2508	31405	95	104	320	93	110	310	94	107	315	95	87	349
2509	31406				89	108	350	89	108	350	87	72	269
2510	31407	94	128	271	97	114	329	95	121	300	87	107	325
2511	Zonal Check (ZC)	102	128	303	96	95	464	99	112	383	87	103	537
2512	31408	99	102	304	100	99	351	100	100	328	95	83	524
2513	31409	83	124	297	93	100	504	88	112	400	87	102	452
2514	31410	113	97	285	101	118	368	107	107	326	100	79	313
2515	31411	86	108	260	93	97	349	90	103	304	87	107	508
2516	31412	110	114	301	89	112	452	99	113	376	98	95	294
2517	31413	99	96	307	92	96	322	95	96	314	96	82	331
2518	31414	77	111	245	96	107	279	86	109	262	81	99	427
2519	31415				100	102	361	100	102	361	96	80	396
2520	31416	112	108	259	90	114	345	101	111	302	98	89	347
2521	Local Check (LC)	101	119	300	103	108	348	102	113	324	95	83	510
2522	31417	110	109	263	91	124	318	101	116	290	96	90	230
Exp. Mean		97	112	283	95	110	381	96	111	332	91	92	420

Table No. 12.10 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT – M(H), Kharif 2023

ENTRY NO	IET No.	High											
		Jammu Kashmir 2											
		Khudwani			Pombay (khudwani)			Wadura (khudwani)			Larnoo		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
2501	31399	102	140	336	110	12	302	106	128	315	111	125	295
2502	31400	110	102	439	121	100	278	115	97	331	115	89	298
2503	31401	100	130	366	107	124	247	98	132	277	104	102	278
2504	31402	126	99	348									
2505	Vivekdhan 62 (NC)	121	140	367				124	128	314			
2506	31403	115	91	404	120	98	335	116	94	358	123	82	308
2507	31404	101	127	403	107	119	368	98	125	358	109	110	311
2508	31405	116	105	363	119	105	338	114	107	346	121	99	324
2509	31406												
2510	31407	116	134	385	121	126	344	119	133	387	120	118	295
2511	Zonal Check (ZC)	121	138	312	122	127	318	119	130	294			
2512	31408	113	103	359	122	102	364	117	98	349	120	93	330
2513	31409	99	127	385	106	118	356	97	125	356	108	114	339
2514	31410												
2515	31411	101	122	414	109	120	389	106	117	395	112	107	322
2516	31412												
2517	31413	117	89	292	122	83	263	121	86	251	121	76	291
2518	31414	99	132	410	108	119	360	103	127	380	112	122	324
2519	31415												
2520	31416	121	94	280	119	94	239	119	91	226			
2521	Local Check (LC)	103	126	389	106	118	350	100	122	375	101	91	293
2522	31417	124	99	283				128	93	286			
Exp. Mean		111	117	363	115	104	323	112	114	329	113	102	308

Table No. 12.10 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT – M(H), Kharif 2023

ENTRY NO	IET No.	High									Overall Mean (10)		
		Jammu Kashmir 2 (4)			Jammu Kashmir (5)			High (4)					
		Mean			Mean			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
2501	31399	107	101	312	105	104	341	107	101	312	93	112	356
2502	31400	115	97	336	110	102	366	115	97	336	101	99	387
2503	31401	102	122	292	101	120	299	102	122	292	94	117	326
2504	31402	126	99	348	112	109	413	126	99	348	104	103	349
2505	Vivekdhan 62 (NC)	123	134	340	114	128	397	123	134	340	99	129	317
2506	31403	118	91	351	114	96	348	118	91	351	104	93	356
2507	31404	104	120	360	102	120	359	104	120	360	93	115	337
2508	31405	117	104	342	112	105	336	117	104	342	102	103	344
2509	31406				89	108	350				96	90	279
2510	31407	119	128	353	115	125	348	119	128	353	100	121	342
2511	Zonal Check (ZC)	121	132	308	114	122	347	121	132	308	105	117	355
2512	31408	118	99	350	114	99	351	118	99	350	106	98	395
2513	31409	102	121	359	100	117	388	102	121	359	91	116	373
2514	31410				101	118	368				103	93	306
2515	31411	107	117	380	104	113	374	107	117	380	93	112	342
2516	31412				89	112	452				105	110	317
2517	31413	120	83	274	114	86	284	120	83	274	105	89	325
2518	31414	105	125	368	104	121	350	105	125	368	90	113	350
2519	31415				100	102	361				106	96	338
2520	31416	120	93	248	112	98	272	120	93	248	110	101	299
2521	Local Check (LC)	103	114	352	103	113	351	103	114	352	101	108	358
2522	31417	126	96	284	114	105	296	126	96	284	102	106	309
Exp. Mean		**113**	**110**	**331**	**109**	**110**	**341**	**113**	**110**	**331**	**100**	**106**	**339**

Table No. 12.10 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT – M(H),(Trials Not Considered) Kharif 2023

ENTRY NO	IET No.	TRIALS NOT CONSIDERED																	
		Himachal Pradesh 2			Manipur			Karnataka			Himachal Pradesh3			Megalaya 2			Megalaya 3		
		@Dhaulakaun			@Wangbal			@Sirsi			@Bajura (Malan)			@ICAR-UMM			@Upper Shillong		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
2501	31399	80	132	246	82	102	314	72	107	370	58	116	238	136	55	149	87	102	200
2502	31400	86	104	296	87	98	304	87	93	311	69	96	225	136	81	90	85	81	208
2503	31401	81	122	318	82	106	411	76	101	340	60	150	274				86	81	335
2504	31402	96	112	304	97	104	379	92	95	225	72	106	240	126	91	141	90		304
2505	Vivekdhan 62 (NC)	92	126	254	95	99	187	86	121	271	67	157	185	121	76	171	85		378
2506	31403	86	98	354	100	106	323	86	88	274	64	98	197	126	76	139	86	81	412
2507	31404	83	112	239	86	112	249	82	107	301	66	118	216	139	59	98	89	89	127
2508	31405	87	115	333	93	114	278	86	92	363	70	107	169	146	75	158	86		200
2509	31406	92	96	340	92	109	328	101	99	248	86	85	167	130	54	98	90		125
2510	31407	83	115	246	92	113	306	82	113	304	66	115	204	140	57	111	85	101	335
2511	Zonal Check (ZC)	92	122	253	109	116	185	85	106	287	67	131	182	126	84	111	88		125
2512	31408	92	105	280	99	98	218	87	97	327	78	105	238	135	58	107	86	83	125
2513	31409	82	113	321	86	99	219	80	102	337	72	146	152	143	74	175	85	90	210
2514	31410	96	98	301	109	101	280	99	86	268	80	80	238	75	72	115	89	80	139
2515	31411	80	118	201	87	104	331	80	99	297	67	130	201	126	67	107	86		254
2516	31412	103	125	250	109	111	286	103	115	258	80	108	207	139	65	126	90	85	135
2517	31413	86	101	326	97	112	187	85	92	274	74	77	214	137	74	130	85	72	217
2518	31414	82	121	301	83	112	171	72	101	245	62	113	208	127	62	134	85	88	156
2519	31415	103	118	266	109	117	328	112	119	235	84	95	157	123	69	117	89		50
2520	31416	101	125	331	104	99	250	96	104	324	74	102	217	130	87	175	89		299
2521	Local Check (LC)	93	109	286	89	97	282	133	162	235	73	107	260	125	69	154	86	88	289
2522	31417	99	124	279	97	116	424	101	115	274	78	110	238	132	73	115	86	89	413
Exp. Mean		**89**	**114**	**287**	**95**	**107**	**283**	**90**	**105**	**289**	**71**	**111**	**210**	**129**	**70**	**130**	**87**	**87**	**229**

INITIAL VARIETY TRIAL – UPLAND (HILLS) [IVT – U (H)]

Locations : 12 **Test Entries:14**

Checks : Sukardhan 1 (NC); VL Dhan 158 (ZC for North & South); Bhalum – 1 (ZC for North East) and Local Check **Table: 12.11**

Initial variety trial Upper (Hills) [IVT 1 – U(H)] trail was constituted with 14 entries including 11 test entries and 3 checks Sukardhan 1 (NC); VL Dhan 158 (ZC for North & South); Bhalum -1 (ZC for North East) and Local check. The trial was sent to 12 locations and data was received from only 7 locations. The data from Lamphelpat- ICAR, Upper shillong (USG) and Sundernagr (Malan) was not received. Trial was not conducted by Imphal (CAU) and Trial at Bhertin was reported as failed. Data received from Malan, CAU-Barapani and Almora-ICAR was only considered for the analysis. The data pertaining to grain yield (kg/ha), days to 50% flowering, plant height (cm) and number of panicles/m^2 are presented in table 12.12 and 12.13

Low Altitude Northern Hills

IVT U (H) at low altitude trial, data from Malan and CAU-Barapani was considered. The mean grain yield of the entries ranged from 4392 kg/ha (IET 31425) to 1066kg/ha (IET 31425). Days to 50% flowering ranged from 78 days (IET 31419, 31422, 31427) to 92 days (IET 31420). Similarly, plant height ranged from 81 cm (IET 31420) to 119 cm (Zonal check); and panicles/m^2 from 226 (IET 31423) to 338 (IET 31427). Among test entries viz., IET 31424 and IET 31420 recorded significant yield advantage over the best check (LC), hence they are promoted to second year of testing.

Performance of promising entries at Low Northern hills in Initial variety Trial - Upper(Hills), Kharif 2023

Rank	IET No. designation/Cross combination	Grain yield (kg/ha) Days to 50% flow	% Yield superiority over NC/ZC/LC
1	IET 31424	4392 87	131.7 255.6 **109.0**
2	IET 31420	3997 92	
	Sukardhan 1 (NC)	1895	
	Zonal check (ZC)	1235	
	Local check (LC)	2101	

Medium Altitude Northern Hills

In IVT U (H) at Medium altitude trial, data from only ICAR-Almora was considered. The mean grain yield of the entries ranged from 2583 kg/ha (IET 31427) to 1687 kg/ha (IET

31421). Days to 50% flowering ranged from 93 days (Local check) to 100days (IET 31421); plant height from 67 cm (IET 31420) to 101cm (IET 31425) and panicles/m^2 from 138 (IET 31425) to 181 (IET 31423, 31418). Among test entries, none of the entries recorded significant yield advantage over the best check, hence, none promoted to second year of testing.

Overall, IET31424 was best performing entry with mean grain yield of 3494 kg/ha and exhibited a yield advantage of 70.3% over best local check and 85 days of 50% flowering. Whereas, IET 31420 recorded significant yield advantage of 66.2% with best check with mean grain yield.

Overall Performance of promising entries in Initial variety Trial - Upper (Hills), Kharif2023

Rank	IET No. designation/Cross combination	Grain yield (kg/ha) Days to 50% flow	% Yield superiority over NC/ZC/LC
1	IET 31424	3494 90	71.1 105.8 **70.3**
2	IET 31420	3410 93	66.9 100.9 **66.2**
	Sukardhan 1 (NC)	2042	
	Zonal check (ZC)	1697	
	Local check (LC)	2051	

Table No. 12.11: Composition of entries in Initial Variety Trial - Uplands (Hills) (IVT-U(H)), Kharif 2023.

Entry No.	IET No.	Designation	Cross Combination	GT
1st year of testing:				
2601	31418	HPR 2873	HPR 2143 / AC19146 // VL30424	MS
2602	31419	VL 21026	Vivekdhan 154 / IR 72	LB
2603	31420	RCPL1-450	Selection from IRBN-43 / 19	
2604	**Sukaradhan 1 (NC)**			
2605	31421	HPR 2901	HPR 2754 / HPR 2612	MS
2606	31422	VL 21029	VL 7620 / VL 8801	LB
2607	31423	HPR 2872	HPR 2143 / AC19146 // VL30424	MS
2608	31424	RCPL 1-442	RCPL1-114 // Nania	
2609	31425	HPR 2641	HPR 1149 / HPV2216 // HPR 2363	SS
2610	**VL Dhan 158 (ZC for North & South), Bhalum-1 (ZC for North East)**			
2611	31426	HPR 2887	HPR 2143 / AC19180 // VL30424	MS
2612	31427	VL 21047	VL Dhan 86 / VL 31618	SB
2613	31428	HPR 2875	HPR 2143 / AC19180 // VL30424	MS
2614	**Local Check (LC)**			

Table No. 12.12: Grain Yield (kg/ha) in IVT - U (H), Kharif 2023

ENTRY NO	IET No.	Low Northern						Medium Northern (1)		Overall Mean (3)	
		Himachal Pradesh (1)		Meghalaya (1)		Low Northern (2)		Uttarakhand (1)			
		Malan		CAU, Barapani		Mean		Almora- ICAR			
2601	31418	1680	5	1867	7	1774	6	1990	10	1846	8
2602	31419	1457	6	1267		1362		2533	4	1752	10
2603	31420	2726	2 *	5267	2 *	3997	2 *	2237	7	3410	2 *
2604	Sukaradhan 1 (NC)	1457	6	2333	3	1895	4	2337	6	2042	5
2605	31421	1423	8	1333		1378	10	1687		1481	
2606	31422	1252		1933	6	1593	7	2550	3	1912	6
2607	31423	1389	9	1333		1361		2575	2	1766	9
2608	31424	2984	1 *	5800	1 *	4392	1 *	1697		3494	1 *
2609	31425	652		1480	10	1066		2067	9	1400	
2610	Zonal Check (ZC)	1235				1235		2159	8	1697	
2611	31426	1355	10	1800	8	1578	8	2483	5	1879	7
2612	31427	2023	3	1733	9	1878	5	2583	1	2113	3
2613	31428	1046		2067	5	1557	9	1800		1638	
2614	Local Check (LC)	1869	4	2333	3	2101	3	1950		2051	4
Exp. Mean		**1611**		**2350**		**1940**		**2189**		**2034**	
F Value		**29.31(p<0.0001)S**		**32.65(p<0.0001)S**		**69.26(p<0.0001)S**		**7.93(p<0.0001)S**		**50.06(p<0.0001)S**	
CD		**312**		**695**		**325**		**334**		**245**	
CV%		**11.56**		**17.56**		**9.99**		**9.09**		**7.18**	
D/S		08-06-2023		20-06-2023				02-06-2023			
D/P											
LOCAL CHECK		HPR 2656		Bhalum 3				VLD 221			

Table No. 12.12 (contd): Grain Yield (kg/ha) in IVT - U (H),, (Trials Not Considered) Kharif 2023

ENTRY NO	IET No.	TRIALS NOT CONSIDERED							
		Himachal Pradesh(0)		Manipur (0)		Uttarakhand		Meghalaya2 (0)	
		@Dhaulakaun		@Wangbal		@Bageswar		@Barapani (Umiam) ICAR	
2601	31418	3278	1	6250	10	569	1	656	
2602	31419	3074	4	5800		560	2	611	
2603	31420	3037	5	5800		433	6	775	4
2604	Sukaradhan 1 (NC)	3222	3	6300	9	413	9	710	6
2605	31421	2574	10	6550	8	393		688	9
2606	31422	2444		6600	7	462	5	667	10
2607	31423	2074		6050		427	8	630	
2608	31424	1963		5750		560	2	1019	2
2609	31425	2944	6	6800	6	400	10	1343	1
2610	Zonal Check (ZC)	2259		7250	1	347		756	5
2611	31426	2667	7	7250	1	433	6	907	3
2612	31427	2611	9	6850	5	485	4	700	8
2613	31428	3259	2	6950	4	339		562	
2614	Local Check (LC)	2630	8	7200	3	365		701	7
Exp. Mean		**2717**		**6529**		**442**		**766**	
F Value		**31.25(p<0.0001)S**		**18.09(p<0.0001)S**		**0.94(p=0.5320)NS**		**1.48(p=0.1823)NS**	
CD		**213**		**348**		**223**		**495**	
CV%		**4.67**		**3.18**		**30.06**		**38.48**	
D/S		20-06-2023		29-07-2023		15-06-2023		02-05-2023	
D/P				30-08-2023				16-06-2023	
LOCAL CHECK		HPR 2656		Punshi		VLD 221		NEH Megha Rice 3	

Table No. 12.13: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT – U (H), Kharif 2023

ENTRY NO	IET No.	Low Northern									Medium Northern (1)			Overall Mean (3)		
		Himachal Pradesh (1)			Meghalaya (1)			Low Northern (2)			Uttarakhand (1)					
		Malan			CAU, Barapani			Mean			Almora- ICAR					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
2601	31418	86	104	415	80	89	183	83	96	299	97	81	181	88	91	260
2602	31419	82	106	285	74	96	212	78	101	249	95	89	177	84	97	225
2603	31420	90	82	380	94	80	172	92	81	276	95	67	180	93	76	244
2604	Sukaradhan 1 (NC)	82	105	450	79	95	179	81	100	314	95	87	159	85	96	263
2605	31421	83	103	258	81	94	203	82	99	230	100	87	150	88	95	203
2606	31422	82	112	365	74	96	163	78	104	264	95	89	147	83	99	225
2607	31423	84	100	285	81	87	168	82	94	226	96	81	181	87	90	211
2608	31424	88	84	293	86	87	206	87	85	249	95	74	171	90	82	223
2609	31425	82	100	303	75	95	189	79	97	246	97	101	138	85	99	210
2610	Zonal Check (ZC)	88	119	335				88	119	335	97	98	151	92	108	243
2611	31426	88	93	300	82	85	221	85	89	261	96	77	172	89	85	231
2612	31427	81	94	475	74	85	202	78	89	338	96	84	164	84	88	280
2613	31428	83	103	365	77	88	188	80	96	276	97	84	152	85	92	235
2614	Local Check (LC)	83	95	323	83	105	192	83	100	257	93	73	143	86	91	219
Exp. Mean		**84**	**100**	**345**	**80**	**91**	**190**	**83**	**96**	**268**	**96**	**84**	**162**	**87**	**92**	**234**

Table No. 12.13 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT - U(H),(Trials Not Considered) Kharif 2023

ENTRY NO	IET No.	TRIALS NOT CONSIDERED											
		Himachal Pradesh(0)			Manipur (0)			Uttarakhand			Meghalaya2 (0)		
		@Dhaulakaun			@Wangbal			@Bageswar			@Barapani (Umiam) ICAR		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
2601	31418	81	87	317	90	97	203	95	71	126	129	81	253
2602	31419	81	97	236	87	96	388	93	83	147	130	81	246
2603	31420	92	75	242	108	101	144	96	57	220	128	68	233
2604	Sukaradhan 1 (NC)	81	92	268	96	103	225	95	88	213	122	82	301
2605	31421	82	110	279	94	99	299	93	71	130	132	72	321
2606	31422	81	94	322	93	110	268	95	85	160	134	73	280
2607	31423	82	85	318	87	111	241	92	71	184	136	64	335
2608	31424	83	75	236	104	107	319	95	67	215	132	74	314
2609	31425	82	96	283	90	96	286	94	80	132	126	75	383
2610	Zonal Check (ZC)	84	98	232	88	111	291	96	81	187	123	75	301
2611	31426	84	75	240	91	107	328	94	65	193	133	74	321
2612	31427	82	80	226	86	109	280	94	68	147	134	68	239
2613	31428	81	90	237	93	114	332	94	70	147	125	77	253
2614	Local Check (LC)	84	89	202	86	99	255	93	83	200	136	76	280
Exp. Mean		**83**	**89**	**260**	**92**	**104**	**275**	**94**	**74**	**171**	**130**	**74**	**290**

INITIAL VARIETY TRIAL-JAPONICA (IVT-J)

Locations: 8 **Test Entries: 3**

Checks: Bhrigudhan, Varundhan, Shalimar Rice-5 and a local check **Table:12.14**

Initial Variety Trial-Japonica (IVT-Japonica) was constituted with 7 entries including 3 test entries (IET Nos. 31429, 31430 and 31431) and four checks viz., Brighudhan, Varundhan, Shalimar Rice-5 and local check). The trial was sent to 8 locations representing Z-I, Z-III and Z-IV. The data was received only from three locations (Z-I), Almora- ICAR, Khudwani and Malan. The data was not received from Z-III (Pundibari, Malda) and Z-IV (Titabar, Gerua-ICAR and Lembucherra). All the three locations data was included in the final analysis. The data pertaining to yield, days to 50% flowering, plant height, panicles/m2 and quality are presented in the tables 12.15 and 12.16

Grain yield mean at the locations ranged from 3428 kg/ha at Almora-ICAR to 7240 kg/ha at Khudwani and CV ranged from as low as 6.21 % at Khudwani to 19.13 % at Almora-ICAR. Local check is the highest yielding culture on overall mean basis with 6278kg/ha of grain yield. Among test entries, overall mean grain yield of the entries varied from 4606 kg/ha (IET 31429) to 6232 kg/ha (IET 31431), days to fifty percent flowering from 94 (Brighudhan) to 104 days (IET 31430), plant height from 88 (IET 31429) to 106 cm (Brighudhan) and panicles/m2 from 194 (Bhrigudhan) to 336 (LC).

On overall basis, LC is the best check and outperformed all the entries; and hence none merit promotion. Zone wise, IET 31431(Koshikari) with grain yield of 6824 kg/ha exhibited significant superiority over the best check in Zone - I comprising Low Northern hill region and hence merit promotion to next level of testing in AVT 1-*Japonica*. None of the entries under medium northern and high hills region exhibited superior performance over the check entries and none merit promotion.

Performance of entries in IVT-J during Kharif, 2023

IET No /Designation/ Cross combination	Overall		Zone		State	
	yield (kg/ha)	% gain over BC	Zone/ Rank	Yield (kg/h)	State/ Rank	Yield (kg/ha
31431 (Koshikari)	6232	--	Z-I/ 1st	**6824***	HP (Low Northern Hills)	6824
Varundhan (Check)	5427			5889		5889
Bhrigudhan (Check)	4246			4474		4474
Shalimar Rice -5 (Check)	--			--		--
Local Check	***6278***			5796		5796

*Significant and superior to best check

IET 31431 (Koshikari) promoted to second year of testing in AVT-1 *Japonica*

Zone I (Low Northern Hills): IET 31431

Table No. 12.14: Composition of entries in Initial Variety Trial - Japonica (IVT- J),Kharif 2023.

Entry No.	IET No.	Designation	Cross Combination	GT
1st year of testing:				
2701	31429	Yenkew		
2702	**Varundhan (Check)**			
2703	31430	Norin 18		
2704	**Bhrigudhan (Check)**			
2705	31431	Koshikari		
2706	**Shalimar Rice-5 (Check)**			
2707	**Local Check (LC)**			

Table No. 12.15: Grain Yield (kg/ha) in IVT – Japonica, Kharif 2023

ENTRY NO	IET No.	Low Northern (1)		Medium Northern (1)		High (1)		Overall Mean (3)	
		Himachal Pradesh (1)		Uttarakhand (1)		Jammu Kashmir (1)			
		Malan		Almora- ICAR		Khudwani			
2701	31429	5048	5	3056	4	5715	6	4606	5
2702	Varundhan (Check)	5889	2	2806	5	7586	3	5427	4
2703	31430	5676	4	4000	3	7671	1	5782	3
2704	Bhrigudhan (Check)	4474	6	973	6	7292	5	4246	6
2705	31431	6824	1 *	4233	2	7640	2	6232	2
2706	Shalimar Rice-5 (Check)								
2707	Local Check (LC)	5796	3	5500	1	7539	4	6278	1
Exp. Mean		**5618**		**3428**		**7240**		**5429**	
F Value		**5.67(p<0.0020)S**		**15.84(p<0.0001)S**		**8.26(p<0.0003)S**		**22.02(p<0.0001)S**	
CD		**829**		**988**		**677**		**451**	
CV%		**9.80**		**19.13**		**6.21**		**5.52**	
D/S		05-06-2023		26-05-2023		05-05-2023			
D/P				27-06-2023		10-06-2023			
LOCAL CHECK		Naggardhan		VLD 61		Shalimar rice 5			

Table No. 12.16: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT – Japonica, Kharif 2023

ENTRY NO	IET No.	Low Northern (1)			Medium Northern (1)			High (1)			Overall Mean (3)		
		Himachal Pradesh (1)			Uttarakhand (1)			Jammu Kashmir (1)					
		Malan			Almora- ICAR			Khudwani					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
2701	31429	94	82	229	95	87	307	103	97	320	97	88	285
2702	Varundhan (Check)	94	105	211	94	96	249	103	115	332	97	105	264
2703	31430	96	98	268	96	91	301	120	107	388	104	99	319
2704	Bhrigudhan (Check)	91	101	129	89	103	198	101	114	255	94	106	194
2705	31431	94	99	238	97	95	304	100	110	401	97	102	314
2706	Shalimar Rice-5 (Check)												
2707	Local Check (LC)	96	88	305	105	118	302	96	89	402	99	98	336
Exp. Mean		**94**	**95**	**230**	**96**	**98**	**277**	**104**	**105**	**350**	**98**	**100**	**285**

ADVANCE VARIETY TRIAL 2 - ALKALINE AND INLAND SALINE TOLERANT VARIETY TRIAL (AVT 2 - AL & ISTVT)

Locations: 18 **Test Entries:13**

Checks: CSR 36 (Alkaline check), CSR 10 (Early duration saline check), FL 478 (Saline Tolerant check), Pusa 44 (Sensitive check & RP) and local check **Table: 13a**

AVT2 - AL & ISTVT was constituted with eight entries in Zone –II, III and VII and six entries in Zone- VI along with five checks namely CSR 36 (Alkaline check), CSR 10 (Early Saline check), FL 478 (Saline Tolerant check), Pusa 44 (Sensitive check) and local check. Among the 8 entries evaluated, 5 entries are promoted from AVT1 AL & ISTVT are in the 3rd year of testing, two NILs (IET's 30827 & 30828) of Pusa 44 which are in the second year of testing, while IET 29354 is the repeat entry of AVT 2 Al & ISTVT and is in the 4th year of testing were evaluated in this trial. The trial was sent to 18 locations and data was received from 16 locations except Jind and Vytilla. At Vytilla, high level stress followed by submergence due to heavy rains was reported, while at Trichy, the trial was late transplanted, the information about the performance of entries for sodicity stress was reported while yield data awaited, hence not included in the final analysis. The data pertaining to yield, days to 50% flowering, plant height, panicles/m^2 and quality are presented in tables 13a ,13b and 13c The details of EC and pH of different locations is given in the following table. NIL entries were separately described in comparison to its recurrent parent (RP)- Pusa 44.

General information about soil stress parameters and yield performance of entries under alkalinity and inland salinity in AVT 2-AL & ISTVT, Kharif, 2023

Location/State	Soil pH	Soil EC (dSm-1)	Exptl mean (kg/ha)	Grain Yield Range (Kg/ha)	CV %	Remarks
Alkalinity						
Karnal (Haryana) (Sodic microplots)	10.0	1.0	311	173-393	15.1	Data considered for identification of tolerant genotypes
Anjanteli	9.7	0.9	3542	1973-4400	24.1	Data considered for analysis
Gautam Budha Nagar	9.9	0.8	3422	2020-4280	17.6	Data considered for analysis
Kurukshetra (Haryana)	9.9	0.9	3441	1807-4180	23.1	Data considered for analysis
Kanpur (Uttar Pradesh)	9.5 - 10.2	0.35-0.41	2407	1982-3400	17.3	Data considered for analysis
Kampasagar (Telangana)	9.8	2.9	3382	2220-4581	10.8	Data considered for analysis
Annamalainagar (Tamil Nadu)	8.4	2.62	4617	2766-7113	10.6	Data considered for analysis
Karaikal (Puducherry)	9.2	2.99	1555	757-2637	13.0	Data not considered for analysis due low Exptl. mean
Lucknow – ICAR	9.5	0.78	1548	646-2313	39.8	Data not considered

Location/State	Soil pH	Soil EC (dSm-1)	Exptl mean (kg/ha)	Grain Yield Range (Kg/ha)	CV %	Remarks
						for analysis due to high CV and low Exptl. mean
Masodha (Uttar Pradesh)	9.02	2.64	4433	3001-5292	4.6	Data not considered due to low CV
Trichy	8.75	2.4	--	--	--	Appropriate stress level but late transplanted. Yield data awaited.
Inland Saline						
Karnal (Haryana) (Inland Saline microplot)	7.3	9.5	303	133-380	15.8	Data considered for identification of tolerant genotypes
Panipat (Haryana)	7.5	9.0	3491	1780-4347	23.7	Data considered for analysis
Rothak (Haryana)	7.4	9.0	3521	1893-4500	16.5	Data considered for analysis
Gangavati (Karnataka)	8.5	10.3	3252	2114-4020	9.97	Data considered for analysis
Navsari	8.6	9.3	2325	537-4191	18.8	Data considered for analysis
Normal						
Puducherry (Puducherry)	8.5	4.58	3487	1900-4467	10.1	Low stress level. Data not considered for analysis

Performance of entries in micro-plots (Sodic/ Inland Saline stress conditions) at CSSRI, Karnal

The AVT2-AL&ISTVT trial was conducted at Karnal inland saline as well as alkaline microplot during kharif, 2023. The standard evaluation scores (SES) recorded by the test entries, tolerant and sensitive checks are presented in table below.

Performance of entries in micro-plots (Sodic/ Inland Saline stress conditions) at CSSRI, Karnal during kharif, 2023

	Entries	Sodic Micro Plot		Saline Micro Plot	
		Vigor/SES (Sodic)	Yield (kg/ha)	Vigor/SES (Saline)	Yield (kg/ha)
5101	IET 30164	5.0	3407	5.0	3185
5102	IET 30178	4.0	4148 (3)	5.0	3630
5104	IET 30162	5.0	3259	6.0	2963
5107	IET 30176	4.0	4340(1)	4.0	4222 (1)
5109	IET 30165	6.0	3185	5.0	3481
5110	IET 30827	4.0	4296 (2)	4.0	4148 (3)
5111	IET 30830	3.0	4148 (3)	4.0	4000
5112	Pusa 44 (Sensitive Check & RP)	7.0	1926	9.0	1481
5113	IET 29354 (R)	3.0	4000 (5)	3.0	4222 (1)
5103	CSR 36 (Alkaline Check)	4.0	3778	4.0	4000

5105	CSR 10 (Early duration saline check)	6.0	2815	7.0	2815
5106	Local Check	6.0	3185	6.0	3111
5108	FL 478 (Saline tolerant check)	7.0	2370	6.0	
	Local Check Name	CSR 36		CSR 27	

Under Alkaline conditions in sodic microplot evaluation, the IETs. 30830, 29354 (R) recoded a tolerance score of SES 3.0; IET's, 30178, 30176 and 30827 recorded a tolerance score of 4.0 as compared to tolerant and sensitive checks which scored an SES scores of 4-7. Under saline conditions in microplot evaluation, 29354 (R) recorded an SES score of 3.0 while, IETs 30176, 30827 and 30830 recorded an SES score of 4.0 as compared to tolerant and sensitive checks of an SES scores of 4-9. The IETs 30176, 30827 and 30830 recorded dual tolerance score of 4.0 and IET 29354 (R) with a dual tolerance score of SES 3.0 exhibited under sodicity and inland saline conditions and hence possess high level of dual tolerance.

1.1. Alkaline Stress: Overall mean performance

Under alkalinity, the trial data was received from Karnal (sodic microplot), Anjanteli, Kurukshetra, Gautam Buddha Nagar, Lucknow, Kampasagar, Annamalainagar, Puducherry, Kanpur, Masodha, Trichy and Karaikal. The high level of stress level at Lucknow has differentiated the tolerance and sensitivity of genotypes evaluated. However, the data collected exhibited high CV as expected under stress level and hence not included in the final yield analysis. The continuous rains and flooded conditions at Vytilla affected the establishment of the crop in the initial stages after transplantation. The data from Puducherry was not included in the analysis due low stress levels. The data from sodic microplot evaluation during was used for the identification of tolerant genotypes. Based on microplot scores all the test entries except IET 31065 exhibited a tolerance score of SES 3 to 5.0. Promising genotypes were identified based on significant differences of the test entries over the checks-either best check or over early check.

On overall basis, the mean grain yield ranged from 2576 kg/ha (Pusa 44) to 4253 kg/ha (IET 30830), days to 50% flowering varied from 84 days (FL 478) - 103 days (IET 30827). Plant height of the entries ranged from 69 cm (CSR 10) to 111 cm (IET 30162) and the panicles/m2 varied from 209 (Pusa 44) to 365 (IET 30176). Among the checks, local check (3614 kg/ha) recorded highest yield followed by CSR 36 (3359 kg/ha), FL 478 (3154 kg/ha) CSR 10 (2782 kg/ha), and Pusa 44 (2576 kg/ha). Hence, local check is the best check on overall basis. On overall basis, among the test entries, NIL entry IET 30830 (4253kg/ha) ranked first followed by IET 30176 (4157 kg/ha) ranked second with required significant yield superioty over the best check (LC). Further based on flowering duration and significant yield superiority over CSR 10 promising entries were identified. IET nos. 30164, 30178, 30176 and 29354 (R) with DFF of 87, 89, 88 and 86 respectively are comparable with early duration check of CSR 10 with 89 days to flowering.

IET 30164 (CSR 189-11-122) derived from Sajoo 52/ FL 478//Sajoo 52*3 with 3557 kg/ha grain yield and 87 days to flowering on overall basis exhibited significant yield superiority over CSR 10. IET 30178 (NVSR 6361) developed from the cross combination of NVSR 178/IR 71907-3R-2-1-2 with 3940 kg/ha grain yield and 89 days to flowering on overall basis, showed significant yield superiority over CSR 10. IET 30176 (IIRRH 156), a hybrid culture with 4157 kg/ha and 96 days to flowering on overall basis recorded the

required significant yield superiority over the early duration check- CSR 10. IET 29354 (R) (CSR YET 59) derived from cross between CSR 27/CSR 36 is a repeat entry being evaluated in IVT AL&ISTVT since 2020, with 3449 kg/ha and 86 days to flowering, exhibited significant yield superiority on overall basis over early duration check- CSR 10

On overall basis, IET nos. 30164, 30178, 30176 and 29354 (R) under alkaline conditions found promising over early duration check- CSR 10.

1.2 Zone II (Alkalinity)

For Alkalinity stress, test locations in Zone-II consisted of Anjanteli, Kurukshetra and Kanpur. The mean grain yield ranged from 2170 kg/ha (Pusa 44) to 3602 kg/ha (IET 29354(R)), days to 50% flowering varied from 76 days (IET 30164) – 97 days (IET 30827). Plant height of the entries ranged from 72 cm (CSR 10) to 106 cm (IET 30162) and the panicles/m^2 varied from 175 (FL 478) to 327 (IET 30176). Among the checks, CSR 23 (3230 kg/ha) recorded highest yield followed by local check (3184 kg/ha), CSR 10 (2641 kg/ha), FL 478 (2450 kg/ha) and Pusa 44 (2170 kg/ha). Among the test entries, none of the entries recorded significant yield superiority over the best check-LC. However, based on flowering duration and significant yield superiority over CSR 10, the flowering, promising entries were identified.

IET 30178 (NVSR 6361) developed from the cross combination of NVSR 178/IR 71907-3R-2-1-2 with 3588 kg/ha and 77 days to flowering in Zone-II exhibited significant yield superiority over CSR 10. IET 30176 (IIRRH 156), a hybrid culture with 3521 kg/ha and 78 days to flowering, in Zone-II recorded the required significant yield superiority over the early duration check- CSR 10. IET 29354 (R) (CSR YET 59) derived from cross between CSR 27/CSR 36 is a repeat entry with 3602 kg/ha and 80 days to flowering exhibited significant yield superiority on in zone-II over early duration check- CSR 10

In Zone-II, IET nos. 30178, 30176 and 29354 found promising over early duration check- CSR 10.

1.3 Zone III (Alkalinity)

For Alkalinity stress, test locations in Zone-III consists of three locations *i.e,* Gautam Budha Nagar, Masodha and Lucknow. The high level of stress level at Lucknow has differentiated the tolerance and sensitivity of genotypes evaluated. However, the data collected exhibited high CV as expected under stress level and hence not included in the final yield analysis. Data from Masodha was not considered due to low CV. In the final analysis, the data from Gautam Budha Nagar only considered. In zone-III, the mean grain yield ranged from 2020 kg/ha (Pusa 44) to 4280 kg/ha (IET 30176), days to 50% flowering varied from 85 days (CSR 10) – 118 days (IET 30827). Plant height of the entries ranged from 66 cm (CSR 10) to 92 cm (IET 30162) and the panicles/m^2 varied from 167 (Pusa 44) to 278 (IET 30176). Among the checks, CSR 36 (3740 kg/ha) recorded highest yield followed by local control (3280 kg/ha), CSR 10 (2847 kg/ha), FL 478 (2400 kg/ha) and Pusa 44 (2020 kg/ha).

Among the test entries IET 30176 (IIRRH 156), a hybrid culture with 4280 kg/ha recorded significant yield superiority over CSR 10. However, this culture exhibited

significant deviation for flowering with 103 days to flowering as compared to early duration check- CSR 10 which recorded 85 days to 50% flowering. IET 29354 (R) (CSR YET 59) derived from cross between CSR 27/CSR 36 is a repeat entry recorded grain yield of 4187 kg/ha and 99 days to flowering showed significant yield superiority in zone-III over early duration check- CSR 10.

In Zone III, based on early duration check- CSR 10, IET 29354 was found promising.

1.4 Zone VII (Alkalinity)

For Alkalinity stress, the data from Kampasagar, Annamalainagar, Karaikal and Puducherry were found received for analysis. Due to low stress level at Puducherry and low experimental mean at Karaikal, the data from these locations was not considered in the final analysis. In zone-VII, the mean grain yield ranged from 2576 kg/ha (Pusa 44) to 6598 kg/ha (IET 30830), days to 50% flowering varied from 89 days (Pusa 44) – 108 days (Local check). Plant height of the entries ranged from 66 cm (CSR 10) to 113 cm (FL 478) and the panicles/m^2 varied from 198 (Pusa 44) to 469 (CSR 10). Among the checks, local check (4426 kg/ha) recorded highest yield followed by CSR 36 (3362 kg/ha), FL 478 (3154 kg/ha), CSR 10 (2962 kg/ha) and Pusa 44 (2576 kg/ha).

Among the test cultures, IET 30164 (CSR 189-11-122) derived from Sajoo 52/ FL 478//Sajoo 52*3 with 4122 kg/ha and 95 days to flowering exhibited significant yield superiority over CSR 10 in zone-VII found promising. IET 30178 (NVSR 6361) developed from the cross combination of NVSR 178/IR 71907-3R-2-1-2 recorded a mean grain yield of with 4511 kg/ha and 99 days to flowering in Zone-VII exhibited significant yield superiority over CSR 10. IET 30176 (IIRRH 156), a hybrid culture with 5051 kg/ha with 96 days to flowering in Zone-VII recorded the required significant yield superiority over the early duration check- CSR 10.

In zone-VII, IET nos. 30164, 30178 and 30176 under alkaline conditions found promising over early duration check- CSR 10.

2. Inland Saline Stress

2.1 Overall performance (Inland Salinity)

The inland saline stress trial data was received from Karnal, Rohtak, Panipat, Navsari (Danti), and Gangavati. The data from saline microplot evaluation, Karnal was used for the identification of tolerant genotypes. The data from rest of the locations i.e from Rohtak, Panipat, Navsari (Danti), and Gangavati were considered for inclusion in the final analysis. At Navsari, the trial was conducted with 11 test entries, while at Rohtak, Panipat and Gangavati, the trial was conducted with 13 test cultures including checks. Separate analysis was carried out for the data from Navsari. The mean grain yield on overall basis ranged from 2434 kg/ha (Pusa 44) to 4173 kg/ha (IET 30176), days to 50% flowering varied from 87 days (CSR 10) to 107 days (IET 30165 & 30830). Plant height of the entries ranged from 59 cm (CSR 10) to 90 cm (IET 30162) and the panicles/m2 varied from 176 (Pusa 44) to 264 (IET 29354). Among the checks, CSR 36 (best check- 3580 kg/ha) recorded highest yield followed by local (3358 kg/ha), FL 478 (356 kg/ha), CSR 10 (2757 kg/ha) and Pusa 44 (2434 kg/ha).

Among the test entries, none of the entries recorded significant yield superiority over best check on overall basis. However, when compared with the early duration check- CSR 10, the test cultures namely IET 30164 (CSR 189-11-122) derived from Sajoo 52/ FL 478//Sajoo 52*3 with mean grain yield of 3526 kg/ha and 92 days to flowering; IET 30178 (NVSR 6361) developed from the cross combination of NVSR 178/IR 71907-3R-2-1-2 with 3466 kg/ha and 94 day to flowering; IET 30176 (IIRRH 156), a hybrid culture with 4173 kg/ha and 95 days to flowering and IET 29354 CSR YET 59) derived from cross between CSR 27/CSR 36 is a repeat entry with 3926 kg/ha and 95 days to flowering exhibited significant yield superiority found promising on overall basis.

On overall basis, IETs. 30164, 30178, 30176 and 29354 (R) found promising over early duration check- CSR 10.

2.2 Performance in Zone II (Inland Salinity)

In zone- II, the trial data from Rohtak and Panipat was available and were found suitable for inclusion in the final analysis. The mean grain yield in Zone II ranged from 1837 kg/ha (Pusa 44) to 4390 kg/ha (IET 29354), days to 50% flowering varied from 85 days (FL 478) to 105 days (IET 30830). Plant height of the entries ranged from 57 cm (Local check) to 87 cm (IET 29354) and the panicles/m2 varied from 146 (Pusa 44) to 278 (IET 29354). Among the checks, CSR 36 (best check- 4180 kg/ha) recorded highest yield followed by local check (3134 kg/ha), CSR 10 (2847 kg/ha), FL 478 (2687 kg/ha) and Pusa 44 (1837 kg/ha). None of the test entries found to be promising over the best check. Upon comparison with the early duration check along with their flowering duration, IET 30176 (IIRRH 156), a hybrid culture with a mean grain yield of 4304 kg/ha and 87 days to flowering exhibited the required significant yield advantage over the early check- CSR 10 and hence promising in Zone II.

In Zone –II, IET 30176 found to be promising over early duration check- CSR 10.

2.3 Performance in Zone VI (Inland Salinity)

In zone-VI, the trial data from Navsari was available and found suitable for inclusion in the final analysis. The mean grain yield in Zone VI ranged from 565 kg/ha (FL 478) to 4191 kg/ha (IET 30178), days to 50% flowering varied from 87 days (IET 30178) to 104 days (IET 30164 & 30176). Plant height of the entries ranged from 82 cm (CSR 10) to 141 cm (IET 30162) and the panicles/m2 varied from 338 (FL 478) to 453 (IET 30178). Among the checks, CSR 36 (best check- 3858 kg/ha) recorded highest yield followed by local check (3222 kg/ha), CSR 10 (2625 kg/ha), Pusa 44 (1027 kg/ha) and FL 478 (565 kg/ha). None of the test entries found to be promising over the best check. Upon comparison with the early duration check along with their flowering duration, IET 30178 (NVSR 6361) developed from the cross combination of NVSR 178/IR 71907-3R-2-1-2 with a mean grain yield of 4191 kg/ha and 87 days to flowering exhibited the required significant yield advantage over the early check- CSR 10 and hence promising in Zone VI.

In Zone –VI, IET 30178 found to be promising over early duration check- CSR 10

2.4 Performance in Zone VII (Inland Salinity)

In zone VII, the trial data from one location Gangavathi was available for inclusion in the final analysis. The mean grain yield in Zone VII ranged from 2114 kg/ha (IET 30162) to 4020 kg/ha (IET 30830), days to 50% flowering varied from 84 days (CSR 10) to 119 days (CSR 36). Plant height of the entries ranged from 65 cm (CSR 10) to 109 cm (IET 30162) and the panicles/m2 varied from 194 (IET 30165) to 297 (local check). Among the checks, local check (best check- 3807 kg/ha) recorded highest yield followed by FL 478 (3794 kg/ha), Pusa 44 (3629 kg/ha), CSR 36 (2919 kg/ha) and CSR 10 (2577 kg/ha). Among the test entries, none of the entries merit significant yield advantage over the best check. Similarly, none of the entries are comparable to the flowering duration of the early duration check and hence none found promising in Zone-VII.

In Zone-VII, none of the test cultures were found promising

3. Performance of entries under Alkalinity & Inland Salinity over the years of testing (2020-2023)

IET 30164 (CSR 189-11-122) a backcross derivative of Sajoo 52/ FL 478//Sajoo 52*3 entered the multi-location testing under inland saline and alkaline stress conditions in IVT AL&ISTVT, 2021. Under inland saline conditions in 2021, IET 30164 recorded mean grain yield of 4180 kg/ha with 94 days to 50% flowering exhibited significant superiority over best check-CSR 36 and early check-CSR-10 in zone-II and is promoted to AVT 1 AL & ISTVT. In 2022 under alkaline conditions, IET 30164 recorded a mean grain yield of 4111 kg/ha and 92 days in Zone-II and with grain yield of 3448 kg/ha and 89 days in Zone-III exhibited significant yield superiority over early check-CSR-10 in zone-II and are promoted. In 2023, IET 30164 recorded significant yield superiority over early check- CSR 10 with a mean yield of 3557 kg/ha and 87 days to flowering under alkaline conditions on overall basis and in Zone-VII with 4122 kg/ha and 95 days to flowering. State wise, IET 30164 found promising in Haryana, Tamil Nadu, Uttar Pradesh 2 (Masodha and Lucknow, Z-III) and Uttar Pradesh 1 (Kanpur, Z-II), with 4111 kg/ha and 95 DFF; 3831 kg/ha and 85 DFF; 3448 kg/ha and 89 DFF; 3440 kg/ha and 57 DFF respectively for one year only under alkaline conditions. IET 30164 found promising in Haryana with 4180 kg/ha and 94 DFF for one year only during 2021 and failed to exhibit significant superiority either in zone or in any state under inland saline conditions. Quality wise, based on two years testing, IET 30164 recorded short bold grain type, with low HRR (2022: 44.1% & 2023: 42.3%), high amylose content (2022: 26.57% & 2023: 26.86%), moderate ASV of 4.0 (2022: 4.0 & 2023: 4.0) and moderate GC (2022: 41mm & 2023: 41 mm). ***Based on three years of testing for yield and two years of quality data, IET 30164 exhibited inconsistency in performance for yield and with low HRR and high AC. The culture may be discontinued from further testing.***

IET 30178 (NVSR 6361) developed from the cross combination of NVSR 178/IR 71907-3R-2-1-2 tested in AL & ISTVT trial from 2021- 2023. Under alkaline conditions, during 2021, IET 30178 with 3107 kg/ha grain yield and 82 days to 50% flowering exhibited significant superiority over the early check in zone-II and was promoted on zonal basis. In 2022, under alkaline conditions, IET 30178 (NVSR 6361)-grain yield of 3225 kg/ha and 89 days were recorded significant yield superiority over early check-CSR-10 in zone-III. During 2023, IET 30178 with 3940 kg/ha grain yield and 89 days to flowering on overall basis, recorded mean grain yield of 3588 kg/ha and 77 days to flowering in Zone-II and a mean grain yield of with 4511 kg/ha and 99 days to flowering in Zone-VII exhibited

significant yield superiority over CSR 10. Under inland saline conditions, IET 20178 failed to record any significant yield advantage either on overall or in zone for the years 2021 and 2022. However, during 2023, IET 30178 recorded mean grain yield of 3466 kg/ha and 94 days to flowering on overall basis, and a mean grain yield of 4191 kg/ha and 87 days to flowering in Zone VI exhibited the required significant yield advantage over the early check- CSR 10. State wise, under alkaline conditions, IET 30178 found promising in Uttar Pradesh 1 (Kanpur, Z-II), Uttar Pradesh 2 (Lucknow, Z-III), Haryana and Tamil Nadu with 3327 kg/ha and 56 DFF; 3225 kg/ha and 89 DFF; 4077 kg/ha and 87 DFF; 5554 kg/ha and 97 DFF respectively for one year only. Whereas under inland saline conditions, IET 30178 failed to record any significant yield superiority consecutively for 2 years during 2021 and 2022, while during 2023 IET 30178 found promising in Gujarat with 4191 kg/ha and 87 DFF for one year only. Quality wise, IET 30178 exhibited short bold grain type with required HRR (2022: 58.7% & 2023: 55.0%), intermediate amylose content (2022: 23.17% & 2023: 23.14%), high ASV of 7.0 (2022: 7.0 & 2023: 7.0) and hard GC (2022: 24 mm & 2023: 26 mm). ***Based on three years testing for yield and two years of quality characteristics, IET 30178 with desirable quality characteristics exhibited inconsistency in performance in states for yield. The culture may be repeated for one more year in AVT 2 Al & ISVT.***

IET 30162 (NVSR 545) derived from cross RP Bio226/IRGC71598//Nidhi entered AL & ISTVT trial in 2021 and is in the final year of testing. During 2021, under alkaline conditions, IET 30162 recorded mean grain yield of 3140 kg/ha and 80 days to 50% flowering recorded significant yield superiority over early check-CSR-10 in zone-II. During 2022, IET 30162 recorded a mean grain yield of 3237 kg/ha and 85 days in zone-III. During 2023, this culture failed to recorded significant yield superiority either on best check or over early duration check both under alkaline and inland saline conditions. State wise, IET 30162 found promising in Haryana and Uttar Pradesh 2 (Masodha and Lucknow, Z-III) with a mean grain yield of 3623 kg/ha and 95 DFF and 3237 kg/ha and 85 DFF respectively for one year only and failed to perform in the final year of testing under alkaline conditions. Similarly, IET 30162 failed to recorded any superiority for all the years of testing under inland saline conditions. Quality wise, IET 30162 recorded long slender grain type, with low HRR (2022: 36.1% & 2023: 47.1%), high amylose content (2022: 25.10% & 2023: 25.75%), moderate ASV of 4.0 (2022: 4.0 & 2023: 4.0) and moderate GC (2022: 45 mm & 2023: 43 mm). ***Based on three years of testing for yield and two years of quality data, IET 30162 failed to perform consistently and hence discontinued from further testing.***

IET 30176 (IIRRH 156) a hybrid culture entered AL & ISTVT trial in 2021 and is in the final year of testing during 2023. In 2021, under inland saline conditions, IET 30176 recorded significant yield superiority over early check-CSR-10 in zone-II with a yield of 3767 kg/ha and 91 days to 50 % flowering. During 2022, under alkaline conditions in Zone - III, IET 30176 (IIRRH 156 (H)) recorded a mean grain yield of 4286 kg/ha and 87 days recorded significant yield superiority over early check- CSR 10. During 2023, IET 30176 under alkaline conditions, on overall basis, IET 30176 with 4157 kg/ha and 96 days to flowering ranked second with required significant yield superiority over the best check (LC). Further upon comparing with the early duration check- CSR 10, IET 30176 exhibited significant yield superiority in Zone-II with 3521 kg/ha and 78 days to flowering; with 5051 kg/ha with 96 days to flowering in Zone-VII. IET 30176 recorded a mean grain yield of 4280 kg/ha in Zone-III over CSR 10. However, this culture exhibited significant deviation for flowering with 103 days to flowering as compared to early duration check- CSR 10

which recorded 85 days to 50% flowering. Under inland saline conditions during 2023, IET 30176 recorded a mean grain yield of 4173 kg/ha and 95 days to flowering over early check-CSR 10 on overall basis, while a mean grain yield of 4304 kg/ha and 87 days to flowering exhibited the required significant yield advantage over the early check- CSR 10 and hence promising in Zone II. State wise, IET 30176 under alkaline conditions found promising in Uttar Pradesh 2 (Masodha and Lucknow, Z-III), Haryana and Tamil Nadu for one year only with of 4286 kg/ha and 87 DFF; 4290 kg/ha and 89 DFF; and 7113 kg/ha and 89 DFF respectively. Whereas under inland saline conditions, IET 30176 found to be promising for two years in Haryana state with 3767 kg/ha and 91 DFF during 2021 and 4304 kg/ha and 87 DFF during final year of testing in 2023. Quality wise, IET 30176 recorded short bold grain type, with low HRR (2022: 39.8% & 2023: 42.1%), high amylose content (2022: 25.9% & 2023: 26.48%), moderate ASV of 4.0 (2022: 4.0 & 2023: 4.0) and hard GC (2022: 25 mm & 2023: 22 mm). ***Based on two years of quality data, IET 30176 with its low HRR and high AC combined with hard GC, IET 307176 did not meet the required quality parameters. Based on three years of testing for yield, IET 30176 found promising for yield in Haryana state under inland saline conditions. This culture may be discontinued from further testing.***

IET 30165 (IIRRH 155), a hybrid culture tested in AL & ISTVT trial from 2021-2023. During 2021, IET 30165 under alkaline conditions recorded a mean grain yield of 3534 kg/ha and 81 days and under inland saline conditions showed mean grain yield of 3793 kg/ha with 92 days to 50% flowering exhibited significant superiority over early check-CSR-10 in zone-II. During 2022, IET 30165 with mean grain yield of 4060 kg/ha and 98 days in Zone-II and with 3996 kg/ha mean grain yield and 87 days in zone-III recorded significant yield superiority over early check-CSR-10 under alkaline conditions. During 2023 under alkaline conditions, IET 30165 with 3341 kg/ha and 92 days to flowering on overall basis, with mean grain yield of 3793 kg/ha and 92 days to flowering in zone-II and with 3780 kg/ha mean grain yield and 97 days to flowering in Z-VII recorded significant yield superiority over the early check- CSR 10 under alkaline conditions. Whereas IET 30165 failed to exhibit required yield superiority over check either of zones tested and on overall basis under inland saline conditions consecutively for 2 years and in the final year of testing. State wise, IET 30165 found promising in Haryana for two years with 3830 kg/ha and 92 DFF during 2021 and 4060 kg/ha and 98 DFF during 2022; and in Uttar Pradesh 2 (Masodha and Lucknow, Z-IIII) and Tamil Nadu for one year only with mean grain yield 3996 kg/ha and 87 DFF and 4311 kg/ha and 96 DFF respectively under alkaline conditions. Similarly, IET 30165 found promising in Haryana state with 3793 kg/ha and 92 DFF under inland saline conditions for one year only. Quality wise, IET 30165 exhibited long slender grain type with required HRR (2022: 59.7% & 2023: 59.8%), intermediate amylose content (2022: 24.22% & 2023: 24.46%), moderate ASV of 4.0 (2022: 4.0 & 2023: 4.0) and moderate GC (2022: 45 mm & 2023: 45 mm). ***Based on three years of testing for yield, IET 30165 with desirable quality characteristics found promising in Haryana state only under alkaline conditions.***

IET 29354 (CSR YET 59) derived from cross between CSR 27/CSR 36 evaluated in the multi-location testing under inland saline and alkaline stress conditions in IVT AL&ISTVT, 2020. During 2020, under alkaline stress conditions, IET 29354 with mean grain yield of 3903 recorded 20% yield superiority over the best check on overall basis ranked 5 in Zone II with 3903 kg/ha mean grain yield and 20% yield advantage over best

check and found promising in Haryana. In 2021, IET 29354 with mean grain yield of 3173 recorded 9% yield superiority over the best check on overall basis ranked 2 in Zone II with 3521 kg/ha mean grain yield and 25% yield advantage over best check and found promising in Haryana with 31% yield advantage. In 2022, IET 29354 did not exhibit any yield superiority on overall basis; but ranked 1 in Zone II with 3828 kg/ha mean grain yield and 18% yield advantage over best check and found promising in Haryana with 37% yield advantage. Whereas, during 2020 in inland salinity stress, IET 29354 did not exhibit any yield superiority on overall basis; but ranked 3 in Zone II with mean grain yield of 3805 kg/ha and recorded 20% yield superiority over the best check and found promising in Haryana. In 2021, IET 29354 did not exhibit any yield superiority on overall basis; but ranked 6 in Zone II with 3990 kg/ha mean grain yield and 17% yield advantage over best check and found promising in Haryana. In 2022, IET 29354 did not exhibit any yield superiority on overall basis; but ranked 3 in Zone II with mean grain yield of 4027 and recorded 6% yield superiority and found promising in Haryana. In 2023, IET 29354 did not exhibit any yield superiority on overall basis under alkaline conditions, but exhibited 13.1% with 3602 kg/ha in zone-II and 11.9 % with 4187 kg/ha in zone-III over the respective best check. Under inland salinity, IET 29354 recorded 9.6% yield advantage over best check on overall basis with 3926 kg/ha mean grain yield and 5.0% yield advantage in zone-II with 439 kg/ha mean grain yield. Quality wise, it exhibited long slender grain type, 52.1% head rice recovery, amylose content (23.32%), GC of 32 mm and intermediate ASV of 4 during 2023. ***Based on four-year performance, IET 29354 is found promising in Uttar Pradesh 2 (Z-III) for one year only while in Haryana state IET 29354 was found promising under alkaline and inland saline conditions for all the years of testing.***

4. Performance of NILs of Pusa 44 under Alkalinity & Inland Salinity over the years of testing (2022-2023)

IET 30827 (CSR 389-16-22) developed through backcross breeding with pedigree of Pusa 44/FL 478*3//Pusa 44/IRBB 60*3, NIL entry in the genetic back ground of Pusa 44 entered AL & ISTVT trial in 2022 for trait verification under alkaline and Inland saline conditions and has completed two years of testing 2022 and 2023. Under sodic and inland saline micro-plots at Karnal, IET 30827 exhibited SES score of 6.0 (2022) and 4.0 (2023); 7.0 (2022) and 4.0 (2023) as compared to donor and tolerant parent- FL 478 which recorded SES score of 6.0 (2022) and 7.0 (2023); 6.0 (2022& 2023) under sodic and inland saline conditions respectively. Multi-location testing in 2022 across stress locations found promising on overall (NIL: 3022 kg/ha; RP: 2622 kg/ha) and Z-II (NIL:2555 kg/ha; RP:1566 kg/ha) with significant yield over recurrent parent (Pusa 44) during 2022 under alkaline conditions; promising on overall (NIL: 3629 kg/ha; RP:2075 kg/ha), Z-II (NIL: 2747 kg/ha; RP:1407 kg/ha) and Z-VII (NIL: 4510 kg/ha; RP: 2742 kg/ha) with Significant superiority over recurrent parent (Pusa 44). During 2023, IET 30827 found promising on overall (NIL 3705 kg/ha; RP: 2576 kg/ha), in Z-II (NIL: 3397 kg/ha; RP: 2170 kg/ha) and Z-III (NIL: 4260 kg/ha; RP:2020 kg/ha) under alkaline conditions; on overall (NIL: 4135 kg/ha; RP: 2434 kg/ha) and in Z-II (NIL: 4327 kg/ha; RP: 1407 kg/ha) under inland saline conditions. Quality wise, IET 30827 exhibited low HRR (2022-NIL: 40.5 %; RP: 58.2%), grain type differences (2022-NIL: LB; RP: MS) and high amylose content (2022-NIL: 26.04%; RP: 23.84%). State wise, IET 30827 exhibited promising for yield performance in Haryana consecutively for two years both under alkaline and inland saline conditions.

IET 30830 (CSR 389-16-6) developed through backcross breeding with pedigree of Pusa 44/FL 478*3//Pusa 44/IRBB 60*3, NIL entry in the genetic back ground of Pusa 44 entered AL & ISTVT trial in 2022 for trait verification under alkaline and Inland saline conditions and has completed two years of testing 2022 and 2023. Under sodic and inland saline micro-plots at Karnal, IET 30830 exhibited SES score of 6.0 (2022) and 3.0 (2023); 6.0 (2022) and 4.0 (2023) as compared to donor and tolerant parent- FL 478 which recorded SES score of 6.0 (2022) and 7.0 (2023); 6.0 (2022& 2023) under sodic and inland saline conditions respectively. Multi-location testing in 2022 across stress locations IET 30830 found promising on overall (NIL: 3020 kg/ha; RP: 2622 kg/ha) and Z-II (NIL:2592 kg/ha; RP:1566 kg/ha) with significant yield over recurrent parent (Pusa 44) during 2022 under alkaline conditions; promising on overall (NIL: 3449 kg/ha; RP:2075 kg/ha), Z-II (NIL: 2587 kg/ha; RP:1407 kg/ha) and Z-VII (NIL: 4310 kg/ha; RP: 2742 kg/ha) with significant superiority over recurrent parent (Pusa 44). During 2023, IET 30830 found promising on overall (NIL 4253 kg/ha; RP: 2576 kg/ha), in Z-II (NIL: 3513 kg/ha; RP: 2170 kg/ha), Z-III (NIL: 4127 kg/ha; RP:2020 kg/ha) and Z-VII (NIL: 6598 kg/ha; RP: 4352 kg/ha) under alkaline conditions; on overall (NIL: 4164 kg/ha; RP: 2434 kg/ha), in Z-II (NIL: 4237 kg/ha; RP: 1407 kg/ha) and Z-VII (NIL:4020 kg/ha; RP: 3629 kg/ha)) under inland saline conditions. Quality wise, IET 30830 exhibited comparable HRR (2022-NIL: 52.5 %; RP: 58.2%), grain type differences (2022-NIL: LB; RP: MS) and high amylose content (2022-NIL: 28.98%; RP: 23.84%). State wise, IET 3087 exhibited promising for yield performance in Haryana consecutively for two years both under alkaline and in Haryana and Karnataka under inland saline conditions.

As the trait is verified for saltol in comparison to Pusa 44, the detail discussion will be done in late duration trial for both the NILs IET 20827 and IET 20830

List of Entries Promising entries in AVT 2-AL & ISTVT 2023:

<u>Alkaline Stress:</u>

- **On overall basis: IET nos. 30164, 30178, 30176, 29354 (R), NIL's 30827& 30830**
- **Zone II: IET nos. 30178, 30176 and 29354; NIL's 30827 and 30830**
- **Zone III: IET 29354*;* NIL's 30827 and 30830**
- **Zone VII: 30164, 30178 and 30176; NIL entry 30830**

<u>Inland Saline Stress:</u>

- **Overall Basis: IETs. 30164, 30178, 30176 and 29354 (R), NIL's 30827& 30830**
- **Zone –II: IET 30176; NIL's 30827& 30830**
- **Zone –VI: IET 30178**
- **Zone-VII: NIL**
-

Summary: the following entries were found suitable in AVT 2- AL& ISTVT based on final year of performance (2020-2024)

Based on final year of performance, IET 30165 and IET 29354 (R) with desirable quality characteristics found promising in Haryana state of Zone II only. IET 30178 with desirable quality characteristics be repeated in AVT 2- Al & ISVT for yield evaluation.

Table ---: Performance of Test entries in final year of testing over early duration check CSR 10 and NIL's over recurrent parent in AVT-2 - AL & ISTVT under alkalinity and inland salinity, Kharif 2021-2023

IET No / Designation/ Cross combination	Alkalinity/ Salinity	Year	Overall		Zone			State		
			Yield (kg/ha)	DFF	Zone / Rank	Yield (kg/ha)	DFF	State/ Rank	Yield (kg/ha	DFF
IET 30164	Alkalinity	2021	--		--			--		
		2022	--		Z-II	4111	92	HA	4111	92
					Z-III	3448	89	UP2	3448	89
		2023	3557	87	Z-II	--		UP1	3400	57
					Z-VII	4122	95	TS TN	4412 3831	104 85
	Inland Salinity	2021	--		Z-II	4180	94	HA	4180	94
		2022	--		--			--		
		2023	3526	92	--			--		
IET 30178	Alkalinity	2021	--	--	Z-II	3107	82	UP1	3327	56
		2022	--		Z-III	3225	89	UP2	3225	89
		2023	3940	89	Z-II	3588	77	HA	4077	87
					Z-VII	4511	99	TN	5554	97
	Inland Salinity	2021	--		--			--		
		2022	--		--			--		
		2023	3466	94	Z-VI	4191	87	GU	4191	87
IET 30162	Alkalinity	2021	--		Z-II	3140	80	HA	3623	92
		2022	--		Z-III	3237	85	UP2	3237	85
		2023	--		--			--		
	Inland Salinity	2021	--		--			--		
		2022	--		--			--		
		2023	--		--			--		
IET 30176	Alkalinity	2021	--		--			--		
		2022	--		Z-III	4286	87	UP2	4286	87
		2023	4157	96	Z-II	3521	78	HA	4290	89
					Z-VII	5051	96	TN	7113	89
					Z-III	4280	103	UP2	4280	103
	Inland Salinity	2021	--		Z-II	3767	91	HA	3767	91
		2022	--		--			--		
		2023	4173	95	Z-II	4304	87	HA	4304	87
IET 30165	Alkalinity	2021	--	--	Z-II	3534	81	HA	3830	92
		2022	--	--	Z-II	4060	98	HA	4060	98
					Z-III	3996	87	UP2	3996	87
		2023	3341	92	Z-VII	3780	97	TN	4311	96
	Inland Salinity	2021	--		Z-II	3793	92	HA	3793	92
		2022	--		--			--		
		2023	--		--			--		
IET 30827	Alkalinity	2022	3022	103	Z-II	2555	115	HA	2555	115
		2023	3705	103	Z-II	3397	97	HA	4217	106
					Z-III	4260	118	UP2	4260	118

IET No / Designation/ Cross combination	Alkalinity/ Salinity	Year	Overall		Zone			State		
			Yield (kg/ha)	DFF	Zone / Rank	Yield (kg/ha)	DFF	State/ Rank	Yield (kg/ha	DFF
					Z-VII	3889	104			
	Inland Salinity	2022	3629	115	Z-II	2747	120	HA	2747	120
					Z-VII	4510	109	KA	4510	109
		2023	4135	104	Z-II	4327	102	HA	4327	102
					Z-VII	3751	107			
IET 30830	Alkalinity	2022	3020	100	Z-II	2592	101	HA	2592	101
		2023	4253	94	Z-II	3513	92	HA	4170	105
					Z-III	4127	--	UP2	4127	--
					Z-VII	6598	98	TN	6598	98
	Inland Salinity	2022	3449	106	Z-II	2587	106	HA	2587	106
					Z-VII	4310	107	KA	4310	107
		2023	4164	107	Z-II	4237	105	HA	4237	105
					Z-VII	4020	111	KA	4020	111
Pusa 44	Alkalinity	2022	2622	100	Z-II	1566	114			
		2023	2576	97	Z-II	2170	91			
					Z-II	2020	114			
					Z-VII	4352	101			
	Inland Salinity	2022	2075	107	Z-II	1407	101			
					Z-VII	2742	113			
		2023	2434	106	Z-II	1837	102			
					Z-VII	3629	113			
CSR 36 Alkaline check	Under Alkaline conditions	2021	3181	104	Z-II	3406	89			
					Z-III	1949	109			
					Z-VII	3320	104			
		2022	3845	100	Z-II	3503	112			
					Z-III	4153	93			
					Z-VII	3863	97			
		2023	3359	95	Z-II	3230	82			
					Z-III	3740	113			
					Z-VII	3362	106			
CSR 23 Inland Saline check	Under Alkaline conditions	2021	2992	99	Z-II	2888	80			
					Z-III	1160	107			
					Z-VII	3529	99			
		2022	3280	95	Z-II	3430	101			
					Z-III	4396	89			
					Z-VII	2648	94			
		2023	--		--					
CSR 10 Early saline check	Under Alkaline conditions	2021	2471	83	Z-II	2545	80			
					Z-III	3757	93			
					Z-VII	2094	83			
		2022	3497	77	Z-II	3194	106			
					Z-III	2591	87			
					Z-VII	4101	82			
		2023	2782	89	Z-II	2641	80			
					Z-III	2847	85			
					Z-VII	2962	104			
Local check	Under Alkaline conditions	2021	3438	105	Z-II	3219	102			
					Z-III	3536	87			
					Z-VII	3577	105			
		2022	3731	110	Z-II	3155	108			
					Z-III	3085	83			
					Z-VII	4342	115			
		2023	3614	95	Z-II	3184	83			
					Z-III	3280	104			
					Z-VII	4426	108			

IET No / Designation/ Cross combination	Alkalinity/ Salinity	Year	Overall		Zone			State		
			Yield (kg/ha)	DFF	Zone / Rank	Yield (kg/ha)	DFF	State/ Rank	Yield (kg/ha	DFF
CSR 36 Alkaline check	Under inland saline conditions	2021	4105	114	Z-II	3640	104			
					Z-VII	4569	125			
		2022	2913	124	Z-II	3787	120			
					Z-VII	2038	129			
		2023	3580	97	Z-II	4180	86			
					Z-VII	2381	119			
CSR 23 Inland Saline check	Under inland saline conditions	2021	2846	106	Z-II	3287	95			
					Z-VII	2404	116			
		2022	3644	100	Z-II	3727	82			
					Z-VII	3560	102			
		2023	--		--					
CSR 10 Early saline check	Under inland saline conditions	2021	2482	88	Z-II	2753	88			
					Z-VII	2210	89			
		2022	2513	98	Z-II	3220	106			
					Z-VII	1805	90			
		2023	2757	87	Z-II	2847	89			
					Z-VII	2577	84			
Local check	Under inland saline conditions	2021	3616	103	Z-II	3220	95			
					Z-VII	4011	112			
		2022	3883	99	Z-II	3220	91			
					Z-VII	4546	107			
		2023	3358	96	Z-II	3134	90			
					Z-VII	3807	109			
CD	Under Alkaline conditions	2021	308		Z-II	493				
					Z-III	466				
					Z-VII	322				
		2022	315		Z-II	781				
					Z-III	339				
					Z-VII	677				
		2023	414		Z-II	773				
					Z-III	1018				
					Z-VII	624				
	Under inland saline conditions	2021	558		Z-II	616				
					Z-VII	705				
		2022	1058		Z-II	1043				
					Z-VII	978				
		2023	917		Z-II	546				
					Z-VII	610				

Table----: Performance of IET 29354, repeat entry in AVT-2 - AL & ISTVT under alkalinity and inland salinity, 2020-2023

IET No / Designation/ Cross combination	Year	Alkalinity/ Salinity	Overall		Zone			State		
			Yield (kg/ha)	% gain over BC	Zone/ Rank	Yield (kg/h)	% gain over BC	State/ Rank	Yield (kg/ha	% gain over BC
IET 29354	2020	Alkalinity	3903	20	II-5	3903	20	HA-5	3903	20
		Inland Salinity	3132	-	II-3	3805	20	HA-3	3805	20
	2021	Alkalinity	3173	9	II-2	3521	25	HA-5	3947	31
		Inland Salinity	2959	-	II-6	3990	17	HA-6	3990	17
	2022	Alkalinity	3106	-	II-1	3828	18	HA-1	4110	37

IET No / Designation/ Cross combination	Year	Alkalinity/ Salinity	Overall		Zone			State		
			Yield (kg/ha)	% gain over BC	Zone/ Rank	Yield (kg/h)	% gain over BC	State/ Rank	Yield (kg/ha	% gain over BC
		Inland Salinity	3473	-	II-3	4027	6 (1L)	HA-3	4027	6 (1L)
	2023	Alkalinity	3449	-	II III VII	3602 4187 2849	13.1 11.9 --	HA UP1 UP2 --	4120 2567 4187 --	8.7 -- 11.9 --
		Inland Salinity	3926	9.6	II VI VII	4390 2562 2999	5.0 -- --	HA -- --	4390 -- --	5.0 -- --
		Best check (Alkaline)	3614		Z-II Z-III Z-VII	3184 3740 4426		HA UP1 UP2	3790 3158 3740	
		Inland Saline Best check	3580		Z-II Z-VI Z-VII	4180 3858 3807		HA	4180	

Table…: Trait verification and performance NILs of Pusa 44 in micro-plots (Sodic/ Inland Saline stress conditions) at CSSRI, Karnal during kharif, 2022-2023

Entries	Year	Sodic Micro Plot		Saline Micro Plot	
		Vigor/SES (Sodic)	Yield (kg/ha)	Vigor/SES (Saline)	Yield (kg/ha)
IET 30827	2022	6.0	2000	7.0	2519
	2023	4.0	4296 (2)	4.0	4148 (3)
IET 30830	2022	6.0	2741	6.0	2519
	2023	3.0	4148 (3)	4.0	4000
CSR 36 (Alkaline Check)	2022	6.0	3037	4.0	3630
	2023	4.0	3778	4.0	4000
CSR 23 (Inland Saline Check)	2022	4.0	3630	4.0	3259
	2023	--		--	
CSR 10 (Early duration saline check)	2022	5.0	3111	6.0	3111
	2023	6.0	2815	7.0	2815
FL 478 (Saline tolerant check)	2022	6.0	2889	6.0	2963
	2023	7.0	2370	6.0	
Pusa 44 (Sensitive Check)	2022	8.0	1852	8.0	2074
	2023	7.0	1926	9.0	1481
Local Check	2022	6.0	2963	4.0	3185
	2023	6.0	3185	6.0	3111
Local Check Name		CSR 36		CSR 27	

ADVANCE VARIETY TRIAL 1 - ALKALINE AND INLAND SALINE TOLERANT VARIETY TRIAL

(AVT 1 - AL & ISTVT)

Locations: 19 **Test Entries:19**

Checks: CSR 36 (Alkaline check), CSR 10 (Early duration saline check), Pusa 44 (Sensitive check and recurrent parent), Improved Sambha Mahsuri (Recurrent parent) and local check

Table: 13b

AVT1 - AL & ISTVT was constituted with 14 entries and 5 checks namely CSR36 (Alkaline check), CSR 10 (Early Saline check), Pusa 44 (Sensitive check and Recurrent parent), Improved Samba Mahsuri (Recurrent parent), and local check. Among the 14 test entries,10 entries (IET Nos. 31051, 31055, 31045, 31044, 31054, 31053, 31050, 31042, 30180 and 31048) are varietal entries and four entries (IET Nos. 32053, 32052, 32055 and 32056) are NILs; and are in the second year of testing.

The trial was sent to 19 locations and data was received from 15 locations except Jind, Kampasagar, Trichy and Vytilla. The data pertaining to yield, days to 50% flowering, plant height, panicles/m^2 and quality are presented in tables 13b.1,13b.2 13b.3 and 13c.4 Thedetails of EC and pH of different locations is given in the following table.

General information about soil stress parameters and yield performance of entriesunder alkalinity and inland salinity in AVT 1-AL & ISTVT, Kharif, 2023

Location/State	Soil pH	Soil EC (dSm-1)	Exptl mean (kg/ha)	Grain Yield Range (Kg/ha)	CV %	Remarks
Alkalinity						
Karnal (Haryana) (Sodic Microplots)	9.9	1.0	3442	1729-4346	22.75	Data considered for identification of tolerant genotypes
Kurukshetra (Haryana)	9.8	0.9	3617	1988-4741	21.88	Data considered for analysis
Anjanteli (Haryana)	9.7	0.8	3556	1780 - 4580	22.43	Data considered for analysis
Kanpur (Uttar Pradesh)	9.5-10.2	0.4	2223	1642- 3607	21.4	Data considered for analysis
Gautama Buddha Nagar (Uttar Pradesh)	9.8	0.8	3621	1872-4985	23.43	Data considered for analysis
Karaikal (Puducherry)	9.2	3.0	3198	749-6352	11.8	Data considered for analysis
Lucknow – (Uttar Pradesh)	9.6	0.8	1252	971 - 1643	22.91	Data not considered due to NS

Location/State	Soil pH	Soil EC (dSm-1)	Exptl mean (kg/ha)	Grain Yield Range (Kg/ha)	CV %	Remarks
Inland Saline						
Karnal (Haryana) (Inland Saline microplots)	7.5	9.1	3442	1868-4367	17.31	Data considered for analysis
Panipat (Haryana)	7.6	9.3	3636	2093-4570	19.41	Data considered for analysis
Rohtak (Haryana)	7.5	9.0	3554	1733- 4640	24.32	Data considered for analysis
Navsari (Gujrat)	8.57	6.7	3693	2023- 5952	16.3	Data considered for analysis
Gangavati (Karnataka)	8.1	5.1-10.3	3071	1571-4876	8.9	Data considered for analysis
Normal						
Masodha (Uttar Pradesh)	9.0	2.6	4236	2264-5265	5.02	Sensitive check recorded higher yield among the checks. Hence trial not considered for analysis
Annamalainagar (Tamil Nadu)	8.4	2.6	4870	3053-6389	5.49	Sensitive check recorded higher yield among the checks. Hence trial not considered for analysis
Puducherry (Puducherry)	8.6	4.7	3353	1900-4633	14.9	Sensitive check recorded higher yield among the checks. Hence trial not considered for analysis

Performance of entries in micro-plots (Sodic/ Inland Saline stress conditions) at CSSRI, Karnal

The AVT1-AL&ISTVT trial was conducted at Karnal inland saline as well as alkaline micro plot during kharif, 2023. The standard evaluation scores (SES) recorded by the test entries, tolerant and sensitive checks are presented in Table below.

Performance of 2nd year entries in micro-plots (Sodic/ Inland Saline stress conditions) at CSSRI,Karnal during kharif, 2023

IET /Checks	Sodic Micro Plot		Saline Micro Plot	
	Vigor/SES (Sodic)	**Yield (kg/ha)**	**Vigor/SES (Saline)**	**Yield (kg/ha)**
31051	4	3498	3	3460
31055	4	4368	4	4477
31045	7	2882	5	4057
31044	7	2209	7	2812
31054	5	3370	4	3852
31053	3	4526	3	4348
31050	4	3891	3	3462
31042	4	3401	4	2918
30180 (R)	5	3560	6	3611
31048	5	3639	5	3393
32053	**4**	**3429**	**4**	**4130**
32052	**4**	**3328**	**3**	**4181**
32055	5	2939	4	3263
32056	4	2840	6	2725
CSR 36 (Alkaline Check)	5	2849	5	3155
CSR 10 (Early duration Saline Check)	6	2982	6	3028
Local Check (LC)	5	3270	6	3858
Pusa 44 (SC and RP)	**7**	**2026**	**7**	**2504**
ISM (RP)	**6**	**2609**	**5**	**3050**
Local Check (LC)	CSR 36		CSR 27	

Under Alkaline conditions in sodic micro plot evaluation, the IETs 31051, 31055, 31054, 31053, 31050, 31042, 30180, 31048, 32053, 32052, 32055 and 32056 recorded a tolerance score of 5.0 as compared to tolerant checks CSR 36 (5), Local check (5) and PUSA 44 (7). Under saline micro plot conditions, 31051, 31055, 31045, 31054, 31053, 31050, 31042, 31048, 32053, 32052, and 32055 recorded a tolerance score of 5.0 as compared to tolerant checks i.e., CSR36 (5), CSR 10 (6), Local check (6), and PUSA 44 (7).

In Alkaline micro plot, NILs IET **32052 and 32053 recorded the tolerance score of 4 as compare to recurrent parent tolerance score of 7.** NILs IET **32052 (3429 kg/ha) and** IET **32052 (3328 kg/ha) showed significant yield improvement over the recurrent parent Pusa 44 (2026 kg/ha).**

In saline micro plot, NILs IET **32052 and 32053 recorded the tolerance score of 4 and 3 respectively, as compare to recurrent parent tolerance score of 7.** NILs IET **32052 (4181 kg/ha) and** IET **32052 (4130 kg/ha) showed significant yield improvement over the recurrent parent Pusa 44 (2504 kg/ha).**

Alkaline Stress: Overall mean performance

Under alkalinity, the trial data was received from Karnal (Haryana) (Sodic Micro plots), Kurukshetra (Haryana), Anjanteli (Haryana), Kanpur (Uttar Pradesh), Gautam Budda Nagar (Uttar Pradesh), Karaikal (Puducherry), Lucknow – (Uttar Pradesh), Masodha (Uttar Pradesh), Annamalainagar (Tamil Nadu) and Puducherry (Puducherry). However, data from Lucknow – (Uttar Pradesh), Masodha (Uttar Pradesh), Annamalainagar (Tamil Nadu) and Puducherry (Puducherry) were not included in the analysis due low stress levels and sensitive check recording higher yields. The data from sodic micro plot evaluation was used for the identification of tolerant genotypes. Hence the data from five locations namely Kurukshetra (Haryana), Anjanteli (Haryana), Kanpur (Uttar Pradesh), Gautama Buddha Nagar (Uttar Pradesh), Karaikal (Puducherry), were found suitable for consideration after analysis.

Promising genotypes were identified based on significant critical difference of the test entries over the checks-either best check or over early check. On overall basis, the mean grain yield ranged from 2026 kg/ha (Pusa 44) to 4526 kg/ha (IET 31053), days to 50% flowering varied from 74 days (IET 31055) – 102 days (IET 32056 and Pusa44). Plant height of the entries ranged from 63 cm (IET 32053) to 98 cm (IET 31045) and the panicles/m2 varied from 229 (IET 31044) to 354 (31048). Among the checks, Local check (3270 kg/ha), recorded highest yield followed by CSR 10 (2982kg/ha), CSR 36 (2849 kg/ha), and Pusa 44 (2026 kg/ha). Hence, Local check is the best check on overall basis. Three test entries recorded significant yield improvement over the best check (local check) on overall basis, and hence **three entries namely, IET 31053, 31055 and 31050 merit promotion to AVT2-ALISTVT. The NILs IETs 32052 (3328 kg/ha) and 32053 (3429 kg/ha) showed significant yield improvement over the recurrent parent Pusa 44 (2026 kg/ha), and hence promoted to next level of testing i e., AVT 2.**

The early duration cultures were compared with the early duration check-CSR 10 for their significance. CSR 10 recorded 2982 kg/ha and 84 days to 50% flowering. Hence, ten entries with early flowering compared to early check – CSR 10 were noticed of which 4 entries showed significant yield superiority over the early check- CSR 10. **IET 31053 recorded a mean grain yield of 4526 kg/ha and 80 days followed by IET 31055 (4368 kg/ha) with 74 days, IET 31050 (3891 kg/ha) – and 78 days and IET 31048 (3639 kg/ha) with 82 days, and were recorded significant yield superiority over early check-CSR-10 and are promoted.**

Zone II (Alkalinity)

For Alkalinity stress, test locations in Zone-II consisted of Anjanteli, Kurukshetra andKanpur. However, data from all locations considered after analysis. In Zone-II, the mean grain yield ranged from 1884 kg/ha (Pusa 44) to 4111 kg/ha (IET 32053), days to 50% flowering varied from 72 days (IET 31055) to 97 days (IET 32056). Plant height ranged from 57 cm (IET 32053) to 95 cm (IET 31045) and the panicles/m^2 varied from 167 (IET 31044) to 291 (IET 31048).

Among the checks, Local check (2941 kg/ha) recorded highest yield followed by CSR10 (2907 kg/ha), CSR 36 (2767 kg/ha), and Pusa 44 (1884 kg/ha). Three test entries namely, IETs 32053, 31053 and 31055 recorded significant yield improvement over the best check (Local check) in Zone II, and **hence entries IETs 32053, 31053 and 31055 merit for promotion to AVT2-AL ISTVT.**

The NILs IETs 32053 (3959 kg/ha) and 32052 (3560 kg/ha) showed significant yield improvement over the recurrent parent Pusa 44 (1884 kg/ha), and hence promoted to next level of testing i e., AVT 2.

The early duration cultures were compared with the early duration check-CSR 10 for their significance. CSR 10 recorded 2671 kg/ha and 81 days to 50% flowering in Zone-II. Hence, eleven entries with early flowering compared to early check – CSR 10 were noticed of which **4 entries showed significant yield superiority over the early check- CSR 10. IET 32053 recorded a mean grain yield of 3959 kg/ha and 81 days followed by IET 31053 (3765 kg/ha) with 81 days, IET 31055 (3732 kg/ha) with 72 days and IET 31050 (3615 kg/ha) –and 74 days were recorded significant yield superiority over early check-CSR-10 in zone-II and are promoted.**

Zone III (Alkalinity)

For Alkalinity stress, test locations in Zone-III consisted of three locations i.e., Masodha, Lucknow and Gautam Budha Nagar. The data from Gautam Budha Nagar was found suitable for analysis. In zone-III, the mean grain yield ranged from 1872 kg/ha (IET 31044) to 4985 kg/ha (31053), days to 50% flowering varied from 77 days (IET 31055) – 116 days (Pusa 44). Plant height of the entries ranged from 56 cm (IET 32056) to 96 cm (IET 31055) and the panicles/m^2 varied from 132 (Pusa 44) to 325 (IET 31053). Among the checks, Local check (3574 kg/ha) recorded highest yield followed by CSR 36 (3253 kg/ha), CSR 10 (3131 kg/ha) and Pusa 44 (2183 kg/ha) and. Hence, Local check is the best check in Zone III. **One of the test entry recorded significant yield improvement over the best check in Zone III, and hence entry IET 31053 merit for promotion to AVT2-ALISTVT. Whereas, NILs IET 32053 and 32052 showed significant yield improvement over the recurrent parent Pusa 44, hence promoted to next level of testing i e., AVT 2.**

The early duration cultures were compared with the early duration check- CSR 10 for their significance. CSR 10 recorded 3131 kg/ha and 88 days to 50% flowering in Zone-III. Hence, five entries with early flowering compared to early check – CSR 10 were noticed, out of five two showed significant yield superiority over the early check- CSR 10. **IET 31053 recorded a mean grain yield of 4985 kg/ha and 78 days, IET 31055 -grain yield of 4712 kg/ha and 77 days were recorded significant yield superiority over early check-CSR-10 in zone-III and are promoted.**

Zone VII (Alkalinity)

For Alkalinity stress, test locations in zone-VII consisted of Annamalainagar, Puducherry and Karaikal. The data from Karaikal was found suitable for analysis. In zone-VII, the mean grain yield ranged from 749 kg/ha (Improved Samba Mahsuri) to 6352 kg/ha (IET 31053), days to 50% flowering varied from 76 days (IET 30180) – 108 days (IET 32055). Plant height of the entries ranged from 75 cm (IET 32053) to 122 cm (IET 31042) and the panicles/m^2 varied from 433 (Improved Samba Mahsuri) to 674 (IET 31053).

Among the checks, Local check (3955 kg/ha), recorded highest yield followed by CSR 10 (3058 kg/ha), CSR36 (2690 kg/ha), and Pusa 44 (2295 kg/ha). Hence, Local check is the best check in Zone VII. **Four of the test entries namely, IETs 31053, 31055, 30180 and 31048 recorded significant yield improvement over the best check in Zone VII, and hence theses four entries merit promotion to AVT2-ALISTVT. Whereas, NILs IET 32056 and 32055 showed significant yield improvement over the recurrent parent Improved Samba Mahsuri, hence promoted to next level of testing ie., AVT 2.**

The early duration cultures were compared with the early duration check- CSR 10 for their significance. CSR 10 recorded 3058 kg/ha and 91 days to 50% flowering in Zone-VII. Hence, six entries with early flowering compared to early check – CSR 10 were noticed of which 5 entries showed significant yield superiority over the early check- CSR 10. **IET 31053 recorded a mean grain yield of 6352 kg/ha and 79 days followed by IET 31055 (5930 kg/ha) with 79 days, IET 30180 (5842 kg/ha) with 76 days, IET 31048 (5209 kg/ha) with 87 days and IET 31050 (4355 kg/ha) with 84 days were recorded significant yield superiority over early check-CSR-10 in zone-VII and are promoted.**

Performance of entries/checks in AVT-1 - AL & ISTVT under alkalinity, Kharif 2023

IET No/Checks	Alkalinity				Remarks
	Overall / DFF	Z-II/ DFF	Z-III/ DFF	Z-VII/ DFF	
31051					
31055	4368, 74	3732, 72	4712, 77	5930, 79	Promising in overall, Z-II, Z-III and Z-VII. Significant over early check (CSR 10).
31053	4526, 80	3765, 81	4985, 78	6352, 79	Promising in overall, Z-II, Z-III and Z-VII.
31050	3891, 78	3615, 74		4355, 84	Promising in overall, Z-II, and Z-VII. Significant over early check (CSR 10).
30180 (R)				5842, 76	Promising in Z-VII.
31048	3639, 82			5209, 87	Promising in overall, and Z-VII. Significant over early check (CSR 10).
32053	3429, 86	3959, 81	4266, 95		Promising in overall, Z-II, and ZIII. Significant over recurrent parent (Pusa 44)
32052	3328, 94	3560, 93	4085, 97		Promising in overall, Z-II, and ZIII. Significant over recurrent parent (Pusa 44)
32055				1552, 108	Promising in Z-VII. Significant over recurrent parent (Improved Samba Mahsuri)
32056				2327, 106	Promising in Z-VII. Significant over recurrent parent (Improved Samba Mahsuri)
CSR 36 (Alkaline Check)	2849	2767	3253	2690	
CSR 10 (Early duration Saline Check)	2982, 84	2907, 81	3131, 88	3058, 91	
Local Check (LC)	3270	2941	3574	3955	
Pusa 44 (Sensitive Check and Recurrent Parent)	2026	1884	2183	2295	
Improved Samba Mahsuri (RP)	2609	2907	3574	749	
Exp. Mean	3243	3132	3621	3198	
F Value	8.03	4.19	2.14	54.94	
CD	604	688	1405	625	
CV%	11.25	13.27	23.43	11.8	

1. Inland Saline Stress: Overall performance

For inland saline stress, the data from five locations namely Karnal, Rohtak, Panipat, Navsari, and Gangavati were received. The data from all five locations were suitable for analysis. The mean grain yield on overall basis ranged from 2504

kg/ha (Pusa 44) to 4477 kg/ha (IET 31055), days to 50% flowering varied from 85 days (31055) to 109 days (Pusa 44). Plant height of the entries ranged from 69 cm (CSR 10) to 103 cm (IET 31042) and the panicles/m2 varied from 206 (IET 31044) to 281 (IET 31051 and CSR10). Among the checks, Local check (3858 kg/ha) recorded highest yield followed by CSR 36 (3155 kg/ha), CSR 10 (3028 kg/ha) and Pusa 44 (2504 kg/ha). Hence, local check is the best check on overall basis. **One test entry namely IET 31055 recorded significant yield improvement over the best check on overall basis, and hence IET 31055 merit for promotion to AVT2-ALISTVT. Whereas, NILs IETs 32052 (4181 kg/ha) and 32053 (4130 kg/ha) showed significant yield improvement over the recurrent parent Pusa-44 (2504 kg/ha),hence promoted to next level of testing ie., AVT 2.**

The early duration cultures were compared with the early duration check-CSR 10 for their significance. CSR10 recorded 3028 kg/ha and 87 days to 50% flowering. Hence,three entries with early flowering compared to early check – CSR 10 were noticed two out of three entries showed significant yield superiority over the early check- CSR 10. **IET 31055 recorded a mean grain yield of 4477 kg/ha with 85 days followed by IET 30180 (3611 kg/ha) with 85 and were recorded significant yield superiority over early check-CSR-10 and are promoted.**

Performance in Zone II

For Alkalinity stress, test location in Zone-II consists of Panipat, and Rphtak the mean grain yield ranged from 1921 kg/ha (Pusa 44) to 4559 kg/ha (IET 31055), days to 50% flowering varied from 78 days (31044 and 30180) to 114 days (Pusa 44). Plant height ranged from 55 cm (IET 32056) to 94 cm (IET 31055) and the panicles/m^2 varied from 150 (Pusa 44) to 277 (IET 31054). Among the checks, CSR 36 (3526 kg/ha) recorded highest yield followed by Local check (3402 kg/ha), CSR 10 (3095 kg/ha), and Pusa 44 (1987 kg/ha). Hence, CSR 36 is the best check in Zone II. Three test entries namely IETs 31055, 31053 and 32053 recorded significant yield improvement over the best check in Zone II, and hence the entries namely IETs 31055, 31053 and 32053merit for promotions to AVT2-AL ISTVT in Zone II. **Whereas, NILs IETs 32053 (4432 kg/ha) and 32052 (4272 kg/ha) showed significant yield improvement over the recurrent parent Pusa 44 (1987 kg/ha), hence promoted to next level of testing ie., AVT 2.**

The early duration cultures were compared with the early duration check-CSR 10 for their significance. CSR 10 recorded 3095 kg/ha and 89 days to 50% flowering in Zone-II. Hence, eleven entries with early flowering compared to early check – CSR 10 were noticed of which **4 entries showed significant yield superiority over the early check- CSR 10. IET 31055 recorded a mean grain yield of 4559 kg/ha with 79 days followed by IET 31053 (4540 kg/ha) with 85 days, IET 31050 (4286 kg/ha) with 83 days and IET 31051 (4176 kg/ha) –and 85 days were recorded significant yield superiority over early check-CSR-10 in zone-II and are promoted.**

Performance in Zone VI

For Alkalinity stress, test location in Zone-VI consists of Navasari, and the mean grain yield ranged from 2023 kg/ha (IET 32056) to 5952 kg/ha (IET 31053), days to 50% flowering varied from 77 days (IET 31050) to 107 days (IET 32056). Plant height ranged from 95 cm (CSR 10) to 140 cm (IET 31042) and the panicles/m^2 varied from 314 (IET 32052, 31044) to 376 (IET 31051). Among the checks, Local check (4880 kg/ha) recorded highest yield followed by CSR 10 (3729 kg/ha), CSR 36 (3529 kg/ha) and Pusa 44 (2802 kg/ha). Hence, Local check is the best check in Zone VI. One test entry namely IET 31053 recorded significant yield improvement over the best check in Zone VI, and hence IET 31053 merit promotion to AVT2-ALISTVT. The early duration cultures were compared with the early duration check- CSR 10 for their significance. CSR 10 recorded 3729 kg/ha and 89 days to 50% flowering in Zone-VI. Hence, six entries with early flowering compared to early check – CSR 10 were noticed of which **2 entries showed significant yield superiority over the early check- CSR 10. IET 31044 recorded a mean grain yield of 5508 kg/ha with 89 days followed by IET 31045 (4965 kg/ha) with 87 days, were recorded significant yield superiority over early check-CSR-10 in zone-VI and are promoted.**

Performance in Zone VII

For Alkalinity stress, test location in Zone-VII consists of Gangavathi, and the mean grain yield ranged from 1571 kg/ha (IET 31042) to 4876 kg/ha (IET 32052), days to 50% flowering varied from 83 days (CSR 10) to 118 days (CSR 36). Plant height ranged from 59 cm (CSR 10) to 101 cm (IET 3 31051) and the panicles/m^2 varied from 191 (IET 31042) to 294 (IET 30180). Among the checks, Local check (3748 kg/ha) recorded highest yield followed by CSR 10 (2193 kg/ha), CSR 36 (2038 kg/ha) and Pusa 44 (3241 kg/ha). Hence, Local check is the best check in Zone VII. **Three of the test entries recorded significant yield improvement over the best check in Zone VII, and hence three entries namely IET 32052, 31045 and 31055 merit for promotion to AVT2-ALISTVT. Whereas, NILs IETs 32052 (4876 kg/ha) and 32053 (3882 kg/ha) showed significant yield improvement over the recurrent parent Pusa 44 (3241 kg/ha), hence promoted to next level of testing ie., AVT 2.**

The early duration cultures were compared with the early duration check- CSR 10 for their significance. CSR 10 recorded 2193 kg/ha and 83 days to 50% flowering in Zone-VII. None of the entries with early flowering compared to early check – CSR 10 were showed significant yield superiority over the early check- CSR 10.

Performance of entries/checks in AVT-1 - AL & ISTVT under Inland Salinity, Kharif 2023

IET No/ Check name	Salinity				Remarks
	Overall/DFF	Z-II/DFF	Z-VI/DFF	Z-VII/DFF	
31051		4176, 85			Promising in Z-II, Significant over earlycheck (CSR 10).
31055	4477, 85	4559, 79			Promising in overall and Z-II,
31045			4965, 87	4510, 105	Promising in Z-VI and Z-VII. Significant over early check (CSR 10).
31044			5508, 89	1900, 115	Promising in Z-VI and Z-VII. Significant over early check (CSR 10).
31053		4540, 85	5952, 90		Promising in Z-II AND Z-VI
31050		4286, 83			Promising in Z-II, Significant over earlycheck (CSR 10).
30180 (R)	3611, 85				Promising in overall, Significant over earlycheck (CSR 10).
32053	4130, 96	4432, 92		3882, 106	Promising in overall, Z-II & VII. Significant over recurrent parent (Pusa 44).
32052	4181, 100	4272, 101		4876, 107	Promising in overall, Z-II & VII. Significant over recurrent parent (Pusa 44).
CSR 36 (Alkaline Check)	3155	3526	3529,	2038,	
CSR 10 (Early duration Saline Check)	3028, 87	3095, 89	3729, 89	2193, 83	
Local Check (LC)	3858,	3402	4880	3748	
Pusa 44 (Sensitive Check and Recurrent Parent)	2504	1987	2802	3241	
Improved Samba Mahsuri (Recurrent Parent)	3050	3395	2180	3229	
G. Mean	3488	3595	3693	3071	
F Value	9.81	6.23	10.30	32.46	
CD	**508**	**824**	**997**	**453**	
CV%	8.79	13.83	16.3	8.9	

Summary: Entries promoted

1. **Alkalinity**
    - **Overall: IET 31055, 31053, 31050 and 31048; NILs IETs 32053 and 32052**
    - **Zone II: IETs 31055, 31053 and 31050; NILs IETs 32053 and 32052**
    - **Zone III: IETs 31055 and 31053; NILs IETs 32053 and 32052**
    - **Zone VII: IETs 31055, 31053, 31050, 30180, 31048; NILs IETs 32055 and 32056**

2. **Inland Salinity**
    - **Overall: IETs 31055 and 30180; NILs IETs 32053 and 32052**
    - **Zone II: IETs 31051, 31055, 31053 and 31050; NILs IETs 32053 and 32052**
    - **Zone VI: IETs 31045, 31044 and 31053;**
    - **Zone VI: IETs 31045 and 31044; NILs IETs 32053 and 32052**

Therefore, the constitution for AVT2 (AL & ISTVT):

- **IET Nos. 31055, 31053, 31050 and 31048, 30180, 31048, 31051, 31045, 31044, 32053 and 32052.**
- **As the trait is verified for Saltol, IET 32053 (4 and 4) and IET 32052 (3 and 4) in comparison to Pusa 44 (7 and 7). IET 32052 (3.8) & 32053 (4.0) reaction of BLB in comparison to Pusa 44 (5.3) and detail discussion will be done in late duration trial.**

INITIAL VARIETY TRIAL - ALKALINE AND INLAND SALINE TOLERANT VARIETY TRIAL (IVT - AL & ISTVT)

Locations: 19 **Test Entries: 21**

Table No:13c

Checks: CSR 36 (Alkaline check), CSR 10 (Early duration saline check), FL 478 (Saline Tolerant check), CSR 23 (Inland Saline check), Pusa 44 (Sensitive check), drr Dhan 58 (Observational check) and local check

IVT-AL&ISTVT was constituted with 21 entries including seven checks namely **CSR 36 (Alkaline check), CSR 10 (Early duration saline check), FL 478 (Saline Tolerant check), CSR 23 (Inland Saline check), Pusa 44 (Sensitive check), DRR Dhan 58 (Observational check) and local check**. The trial was sent to 19 locations and data was received from 14 locations except Jhind, Lucknow, Kampasagar, Trichy and Vytilla. The data pertaining to yield, days to 50% flowering, plant height and panicles/m^2 are presented in tables 13c.1 , 13c.2 , 13c.3 and 13c.4. The details of ECand pH of different locations is given in the following table.

General information about soil stress parameters and yield performance of entries IVT-AL &ISTVT, Kharif, 2023

Location/State	Soil pH	Soil EC (dSm-1)	Exptl mean (kg/ha)	GrainYield Range (Kg/ha)	CV %	Remarks
Alkalinity						
Karnal (Haryana) (Sodic Microplots)	10	1.0	**3143**	1778-4148	**20.55**	Data considered for Identification of tolerant genotypes
Kurukshetra (Haryana)	9.9	0.9	**3369**	1827 - 4627	**17.12**	Data considered foranalysis
Kanpur (Uttar Pradesh)	9.5-10.2	0.4	**2984**	2409 - 3736	**20.68**	**Data not considered for analysis**
Masodha (Uttar Pradesh)	9.0	2.6	**3914**	2128 - 5195	**7.31**	Data considered for analysis
Annamalainagar (Tamil Nadu)	8.4	2.6	3502	3502- 10170	**4.15**	**Data not considered for analysis**
Karaikal (Puducherry)	9.2	3.0	**1594**	438-3817	**9.97**	**Data not considered for analysis**

Location/State	Soil pH	Soil EC (dSm-1)	Exptl mean (kg/ha)	Grain Yield Range (Kg/ha)	CV %	Remarks
Inland Saline						
Karnal (Haryana) (Inland Saline microplots)	7.3	9.0	**3316**	1926-4370	**20.3**	Data considered for identification oftolerant genotypes
Navsari (Gujrat)	8.59	9.9	**3340**	1313- 4991	**18.95**	Data considered for analysis
Panipat (Haryana)	7.6	9.0	**3396**	1887- 4480	**19.68**	Data considered for analysis
Rohtak (Haryana)	7.5	9.0	**3369**	1820-4473	**19.82**	Data considered for analysis
Gangavati (Karnataka)	8.1	5.5	**2873**	1296 - 4145	**10.18**	Data considered for analysis
Normal						
Anjanteli (Haryana)	9.7	0.8	**3393**	1987 - 4507	**18.42**	Sensitive check recorded higher yield among the checks. Hence trial not considered for analysis
Gautama Buddha Nagar (Uttar Pradesh)	9.9	0.8	**3538**	1827- 4753	**20.35**	Sensitive check recorded higher yield among the checks. Hence trial not considered for analysis
Puducherry (Puducherry)	8.7	4.8	**3935**	2233- 6267	**14.76**	Low stress Sensitive check recorded higher yield among the checks. Hence trial not considered for analysis

Performance of IVT-AL&ISTVT entries in micro-plots (Sodic/ Inland Saline stress conditions) at CSSRI, Karnal

The IVT1-AL&ISTVT trial was conducted at Karnal inland saline as well as alkaline microplot during kharif, 2023. The standard evaluation scores (SES) recorded by the test entries, tolerant and sensitive checks are presented in Table below.

Performance of IVT-AL &ISTVT entries in micro-plots (Sodic/ Inland Saline stress conditions)at CSSRI, Karnal during kharif, 2023

IET No/Checks	Sodic Micro Plot			
	Vigor/SES (Sodic)	Yield (kg/ha)	Vigor/SES (Saline)	Yield (kg/ha)
31852	4	3778	4	4074
31853	7	2741	7	2593
31854	6	2889	6	2741
31855	6	3037	6	2963
31856	5	3407	4	3556
31857	5	3333	6	3407
31858	4	4148	4	4296
31859	5	3407	5	3185
31860	8	2074	6	2815
31861	3	4000	3	4370
32293	9	1778	9	1926
31862	4	4148	4	4074
32294	6	3111	5	3333
32295	7	2222	6	3185
CSR 36 (Alkaline check)	5	3481	4	3407
CSR 23 (Inland Saline Check)	6	3259	5	3481
CSR 10 (Early duration check)	6	2815	6	3185
Pusa 44 (Sensitive Check)	7	2593	4	3630
FL 478 (Saline Tolerant Check)	6	3185	6	3185
Local Check	6	3259	6	2963
DRR Dhan 58 (Observational Check)	5	3333	5	3259
Exp. Mean		**3143**		**3316**
F Value		**2.72**		**2.10**
CD		1066		1111
CV%		**20.55**		**20.3**
D/S		6/24/2023		6/24/2023
D/P		7/21/2023		7/21/2023
Local Check Name		CSR 36		CSR 27

Under Alkaline conditions in sodic micro plot evaluation, the IETs 31852 (4), 31856 (5), 31857 (5), 31858 (4), 31859 (5),31861 (3), and 31862 (4) recorded a tolerance score as compared to tolerant checks and sensitive checks CSR 36 (5), Local check (5) and PUSA 44 (7), respectively. Under saline microplot conditions, IETs 31852 (4), 31856 (4), 31858 (4), 31859 (5), 31861 (3), 31862 (4) and 32294 (5) recorded a tolerance score as compared to tolerant checks i.e., CSR 36 (4), CSR 23 (5), Pusa 44 (4), and DRR Dhan 58 (5).

Alkaline Stress

Under alkalinity, the trial data was received from Karnal (Sodic Micro plot), Anjanteli, Kurukshetra, Guatam bhudda nagar, Kanpur, Masodha, Annamalainagar, Karaikal and Puducherry. However, data from Kanpur, Annamalainagar, Karaikal, Anjanteli, Guatam Bhudda Nagar, Puducherry was not included in the analysis due low stress levels, non-significance and low experimental mean. The data from sodic micro plot evaluation was used for the identification of tolerant genotypes. Hence the data from two locations namely Kurukshetra and Masoda were found suitable for consideration after analysis. Promising genotypes were identified based on significant critical difference of the test entries over the checks- either best check or over early check.

Performance Overall basis across locations

On overall basis, the mean grain yield ranged from 2307 kg/ha (FL 478) to 4807 kg/ha (IET 31862), days to 50% flowering varied from 87 days (IET 31861)–112 days (32293). Plant height ranged from 69 cm (CSR 10) to 114 cm (IET 31856) and the panicles/m2 varied from 184 (IET 32293) to 293 (IET 31861). Among the checks, CSR10 recorded highest yield of (4101 kg/ha) followed by CSR 36 (3430 kg/ha), Hence, CSR10 is the best check on overall basis. **Three of the test entries namely, IET 31862 (4807 kg/ha), 31861(4797 kg/ha), 31858 (4746 kg/ha) recorded significant yield improvement over the best check on overall basis and hence IET 31862, 31861, 31858 entries merit for promotion to AVT1-ALISTVT.**

The early duration cultures were compared with the early duration check- CSR 10 for their significance. CSR 10 recorded 4101 kg/ha and 91 days to 50% flowering on overall basis. The standard error of mean (SEm) of 2 days was taken into account for early entries. Hence, one entry namely, IET 31861 (4797 kg/ha) with 87 days to 50% flowering showed significant yield superiority over the early check- CSR 10. **Hence IET 31861 entry merit for promotion to AVT1-AL ISTVT.**

Performance in Zone II

For Alkalinity stress, test locations in Zone-II consisted of Kurukshetra.In Zone II, the mean grain yield ranged from 1827 kg/ha (IET 32293) to 462 kg/ha (IET 31862), days to 50% flowering varied from 85 days (CSR 23)–113 days (IET 32293). Plant height ranged from 61 cm (DRR Dhan 58 and CSR 10) to 102 cm (CSR 23) and the panicles/m2 varied from 134 (IET 32293) to 317 (IET 31862). Among the checks, Local check (3513 kg/ha), recorded highest yield followed by CSR 36 (3460 kg/ha), CSR23 (3320 kg/ha), DRR Dhan 58 (3013 kg/ha), CSR 10 (3007 kg/ha) and Pusa44 (2907 kg/ha). Hence, alkaline check local check is the best check on overall basis. **Three of the test entries namely, IET 31862 (4627 kg/ha), 31861(4540 kg/ha), 31858 (4593 kg/ha) recorded significant yield improvement over the best check on overall basis and hence IET 31862, 31861, 31858 entries merit for promotion to AVT1-ALISTVT in Zone II.**

The early duration cultures were compared with the early duration check- CSR 10 for

their significance. CSR 10 recorded 3007 kg/ha and 88 days to 50% flowering on overall basis. The standard error of mean (SEm) of 2 days was taken into account for early entries. Hence, one entry namely, IET 31861 (4540 kg/ha) with 86 days to 50% flowering showed significant yield superiority over the early check- CSR 10. **Hence IET 31861 entry merit for promotion to AVT1-AL ISTVT.**

Performance in Zone III

For Alkalinity stress, test locations in Zone-III consisted of Masodha location. In Zone III, the mean grain yield ranged from 2128 kg/ha (IET 31855) to 5195 kg/ha (CSR10), days to 50% flowering varied from 88 days (IET 31861)–116 days (CSR 23). Plant height ranged from 77 cm (CSR 10) to 129 cm (IET 31856) and the panicles/m2 varied from 158 (CSR 23) to 292 (IET 31853). Among the checks, CSR 10 (5195 kg/ha), recorded highest yield. None of the entries showed significant yield improvement over the best check CSR10. **hence no entry merit promotion to AVT1-AL ISTVT in Zone III.**

Performance of entries/checks in IVT ALISTVT under alkalinity Kharif 2023

IET No	Alkalinity			Remarks
	Overall (2)/DFF	Zone II (1)/DFF	Zone III (1)/DFF	
31858	4746	4593	-	Promising in overall and Z-II.
31861	4797, 87	4540, 86	-	Promising in overall, Z-II. Significantover early check (CSR 10).
31862	4807	4627	-	Promising in overall and Z-II.
CSR 36 (Alkaline check)	3430	3460	3400	
CSR 23 (Inland Saline Check)	2744	3320	2168	
CSR 10 (Early duration check)	4101, 91	3007, 88	5195, 94	
DRR Dhan 58 (Sensitive Check)	3116	3013	3218	
Pusa 44 (Sensitive Check)	3934	2907	4960	
FL 478 (Saline Tolerant Check)	2307	2307		
Local Check	3641	3513	3768	
Exp. Mean	**3603**	**3369**	**3914**	
F Value	**12.50**	**5.19**	**37.42**	
CD	576	952	473	
CV%	**9.69**	**17.12**	**7.31**	

Inland Saline stress: Overall Performance

For inland saline stress, the data from four locations namely Rohtak, Panipat, Navasari and Gangavati were received. The data from four locations were suitable for analysis. The mean grain yield on overall basis ranged from 2361 kg/ha (IET 32293) to 4469 kg/ha (IET 31862), days to 50% flowering varied from 86 days (CSR 23) to 109 days (IET 32295). Plant height of the entries ranged from 57 cm (Pusa 44) to 106 cm (CSR 23) and the panicles/m2 varied from 153 (FL 478) to 275 (IET 31858). Among the checks, Local check (3460 kg/ha) recorded highest yield followed by CSR 36 (3279 kg/ha), FL 478 (2834 Kg/ha), CSR 10 (2697 kg/ha) and Pusa 44 (2675 Kg/ha). Hence, local check is the best check on overall basis. **Two of the test entries namely, IET 31862 (4469 kg/ha) and IET 31861 (4005 kg/ha) recorded significant yield improvement over the best check on overall basis and hence IET 31862 and IET 31861 entry merit for promotion to AVT1-ALISTVT.** The early duration cultures were compared with the early duration check- CSR 10 for their significance. CSR 10 recorded 2697 kg/ha and 87 days to 50% flowering on overall basis. The standard error of mean (SEm) of 2 days was taken into account for early entries. Hence, none of the entries with early flowering with ±2 days (SE) compared to early check – CSR 10 were noticed and None of the entries showed significant yield superiority over the early check- CSR 10.

Performance in Zone II

The inland saline stress trial in Zone II, the data from Rohtak and Panipat was found suitable in the final analysis. The mean grain yield on zone II ranged from 1854kg/ha (IET 32293) to 4460 kg/ha (IET 31858), days to 50% flowering varied from 82 days (IET 31861) to 110 days (IET 32295). Plant height of the entries ranged from 54 cm (CSR 10) to 102cm (CSR 23) and the panicles/m2 varied from 120 (IET 32293) to 286 (IET 31858). Among the checks, CSR 36 (3437 kg/ha) recorded highest yield followed by observational check DRR Dhan 58 (3407kg/ha), Local check (3403 kg/ha), CSR 23 (3220 kg/ha) and Pusa 44 (2984 kg/ha). Hence, CSR 36 is the best check in Zone II. **Three test entries namely, IETs 31858 (4460 kg/ha), 31862 (4440 kg/ha) and 31861 (4227 kg/ha) recorded significant yield improvement over the best check in Zone II, and hence IETs 31858, 31862 and 31861 entries merit for promotion to AVT1-AL ISTVT.**

The early duration cultures were compared with the early duration check- CSR 10 for their significance. CSR 10 recorded 88 days to 50% flowering in Zone-II. Hence one entry recorded significant **yield improvement over** early flowering compared to early check – CSR 10 were noticed. IET 31861 (CSR 2021-AL-2-94-112) recorded a mean grain yield of 4227 kg/ha and 82 was recorded significant yield superiority over early check-CSR-10 in zone-II and are promoted. **IET nos. 31858, 31862 and 31861 merit promotion in Zone II under inland salinity for second year of testing in AVT1-AL&ISTVT.**

Performance in Zone VI

The inland saline stress trial in Zone VI, the data from Navasari was found suitable in the final analysis. The mean grain yield on zone VI ranged from 1313 kg/ha (DRR Dhan 58) to 4991 kg/ha (IET 31859), days to 50% flowering varied from 87 days (IET 31861 31853) to 110 days (DRR Dhan 58). Plant height of the entries ranged from 73 cm (IET 31862) to 141 cm (CSR 23) and the panicles/m2 varied from 326 (Pusa 44) to

359 (IET 31859).

Among the checks, CSR 36 (4666 kg/ha), recorded highest yield followed by Local check (3584 kg/ha), CSR 10 (2619 kg/ha), and Pusa 44 (2499 kg/ha). Hence, CSR 36 is the best check in Zone VI. **Four test entries namely, IETs 31859 (4991 kg/ha), 31852 (4963 kg/ha), 31853 (4863 kg/ha) and 31862 (4851 kg/ka) recorded significant yield improvement over the best check in Zone VI, and hence IETs 31859, 31852, 31853 and 31862 entries merit for promotion to AVT1-AL ISTVT.**

The early duration cultures were compared with the early duration check- CSR 10 for their significance. CSR 10 recorded (2619 kg/ha) with 88 days to 50% flowering in Zone-VI. Hence two entry recorded significant **yield improvement over** early flowering compared to early check – CSR 10 were noticed. IET 31853recorded a mean grain yield of 4863 kg/ha and 87 followed by the entry IET 32294 (4491 kg/ha) with 89 days to 50% flowering was recorded and significant yield superiority over early check-CSR-10 in zone-VI and are promoted.

Performance in Zone VII

The inland saline stress trial in Zone VII, the data from Gangavati was found suitablein the final analysis. The mean grain yield on zone VII ranged from 1296 kg/ha (IET 31852) to4145 kg/ha (IET 31862), days to 50% flowering varied from 83 days (CSR 10 and CSR 23) to 125 days (31852). Plant height of the entries ranged from 57 cm (CSR 10) to 116 cm (IET 31856) and the panicles/m2 varied from 144 (IET 31856) to 259 (CSR 10). Among the checks, Local check (3451 kg/ha) recorded highest yield followed by CSR 23 (2737 kg/ha), DRR Dhan 58 (2642 kg/ha) and Pusa 44 (2233 kg/ha). Hence, Local check is the best check in Zone VII. **Four test entries namely, IETs 31862 (4145 kg/ha), 31861 (4039 kg/ha), 31855 (3964 kg/ha) and 31857 (3961 kg/ka) recorded significant yield improvement over the best check in Zone VII, and hence IETs 31862, 31861, 31855, and 31857 entries merit for promotion to AVT1-AL ISTVT.** The early duration cultures were compared with the early duration check- CSR 10 fortheir significance. CSR 10 recorded (2328 kg/ha) with 83 days to 50% flowering in Zone-VII. **None of the test entries recorded significant yield improvement over the early check in Zone VII.**

Performance of entries/checks in IVT - AL & ISTVT under inland salinity, Kharif 2023

IET No	Inland Salinity				Remarks
	Overall/ DFF	Z-II /DFF	Overall/ DFF	Z-II /DFF	
31852			4963		Promising in Zone-VI.
31853			4863, 87		Promising in Zone-VI. Significant over early check (CSR 10).
31855				3964	Promising in Zone-VII
31857				3961	Promising in Zone-VII
31858		4460			Promising in Zone-II
31859			4991		Promising in Zone-VI.
31861	4005, 87	4227, 82		4039	Promising in Overall, Zone-II and Zone VII.Significant over early check (CSR 10).
32294			4491, 89		Promising in Zone-VI. Significant over early check (CSR10).

CSR 36 (Alkaline check)	3279	3437	4666	1576	
CSR 23 (Inland Saline Check)	2663	3220	1476	2737	
CSR 10 (Early duration check)	2697, 87	2920, 88	2619, 90	2328, 83	
DRR Dhan 58 (Sensitive Check)	2692	3407	1313	2642	
Pusa 44 (Sensitive Check)	2675	2984	2499	2233	
FL 478 (Saline Tolerant Check)	2834	2834			
Local Check	3460	3403	3584	3451	
Exp. Mean	**3238**	**3383**	**3340**	**2873**	
F Value	7.28	4.47	9.57	23.81	
CD	531	790	1046	483	
CV%	**9.93**	**14.14**	**18.95**	**10.18**	

The following entries were promoted to second year of testing in AL&ISTVT
Alkalinity:

- **Overall:** 31858, 31861 and 31862
- **Zone II IET Nos.** 31858, 31861 and 31862

Inland Salinity:

- **Overall Inland Salinity**: IET 31861and 31862
- **Zone II: IET nos.** 31858 and 31861
- **Zone IV: IET nos.** 31852, 31853, 31859 and 32294
- **Zone VII: IET nos. 31862,** 31855, 31857 and 31861

Table No.13a.1 Composition of entries in Advance Variety Trial 2 – Alkaline and Inland Saline Tolerant Variety Trial (AVT 2-AL & ISTVT), Kharif 2023.

Entry No.	IET No.	Designation	Cross Combination	GT
3rd year of testing:				
5101	30164	CSR 189-11-122	Sajoo 52 / FL478 // Sajoo 52 *3	MB
5102	30178	NVSR 6361	NVSR 178 / IR 71907-3R-2-1-1	LB
5103	**CSR 36 (Alkaline Check)**			
5104	30162	NVSR 545	(RP Bio-226 / IRGC 71598) / Nidhi	LS
5105	**CSR 10 (Early duration Saline Check)**			
5106	**Local Check (LC)**			
5107	30176	***IIRRH 156 (Hybrid)***	-	MS
5108	**FL 478 (Saline Tolerant Check & Donor Parent)**			
5109	30165	***IIRRH 155 (Hybrid)***	-	LS
2nd year of testing (NILs):				
5110	30827	CSR 389-16-22	Pusa 44 / FL 478 *3 // Pusa 44 / IRBB 60 *3	LB
5111	30830	CSR 389-16-6	Pusa 44 / FL 478 *3 // Pusa 44 / IRBB 60 *3	LB
5112	**Pusa 44 (Sensitive Check and Recurrent Parent)**			
3rd year of testing:				
5113	29354 (R)	CSR YET 59	CSR 27 / CSR36	LS

Table. 13a.1 : Grain Yield (kg/ha) of AVT 2 AL&ISTVT Alkaline Kharif-2023

Entry No	IET No	ZONE II NORTHERN										ZONE III - EASTERN			
		Haryana				Haryana (2)		Uttar Pradesh 1(1)		Zone II (3)		Uttar Pradesh 2 (1)		Zone III (1)	
		Kurukshetra (Karnal)		Anjanite (Karnal)		Mean		Kanpur		Mean		Gautam Budha Nagar(Karnal)		Mean	
5101	30164	3360	8	3213	10	3287	8	3400	1	3324	6	3127	10	3127	10
5102	30178	3900	5	4253	5	4077	5	2611	4	3588	2	3853	5	3853	5
5103	CSR 36 (Alkaline Check)	3767	6	3813	6	3790	6	2111	10	3230	7	3740	6	3740	6
5104	30162	3253	9	3300	8	3277	9	2318	6	2957	10	3220	8	3220	8
5105	CSR 10 (Early duration Saline Check)	2987		2753		2870		2182	9	2641		2847		2847	
5106	Local Check (LC)	3160	10	3233	9	3197	10	3158	2	3184	8	3280	7	3280	7
5107	30176	4180	1	4400	1	4290	1	1982		3521	3	4280	1	4280	1
5108	FL 478 (Saline Tolerant Check & Donor Parent)	2627		2700		2664		2022		2450		2400		2400	
5109	30165	3580	7	3507	7	3544	7	2256	7	3114	9	3140	9	3140	9
5110	30827	4127	2	4307	3	4217	2$	1756		3397	5$	4260	2$	4260	2$
5111	30830	4060	3	4280	4	4170	3$	2200	8	3513	4$	4127	4$	4127	4$
5112	Pusa 44 (Sensitive Check and Recurrent Parent)	1807		1973		1890		2729	3	2170		2020		2020	
5113	29354 (R)	3927	4	4313	2	4120	4	2567	5	3602	1	4187	3	4187	3
Exp. Mean		**3441**		**3542**		**3492**		**2407**		**3130**		**3422**		**3422**	
F Value		**2.22(p<0.0464)S**		**2.43(p<0.0312)S**		**2.68(p<0.0165)S**		**3.31(p<0.0049)S**		**2.60(p<0.0192)S**		**4.00(p<0.0014)S**		**4.00(p<0.0014)S**	
CD		1342		1441		1201		704		773		1018		1018	
CV%		**23.14**		**24.14**		**20.41**		**17.36**		**14.66**		**17.65**		**17.65**	
D/S								05/07/2023							
D/P								08/08/2023							
Local Check Name		CSR 36		CSR 36				SARJU 52				CSR 36			

Table. 13a.2 (Contd) : Grain Yield (kg/ha) of AVT 2 AL&ISTVT Alkaline Kharif-2023

Entry No	IET No	ZONE VII - SOUTHERN						Overall Mean (6)	
		Telangana (1)		Tamil Nadu (1)		Zone VII (2)			
		Kampasagar		Annamalainagar		Mean			
5101	30164	4412	2	3831	10	4122	7	3557	6
5102	30178	3467	5	5554	3	4511	4	3940	3
5103	CSR 36 (Alkaline Check)	3665	4	3058		3362		3359	8
5104	30162	2220		4980	6	3600	10	3215	10
5105	CSR 10 (Early duration Saline Check)	3157	7	2766		2962		2782	
5106	Local Check (LC)	4581	1	4271	9	4426	5	3614	5
5107	30176	2988	8	7113	1 *	5051	2	4157	2 *
5108	FL 478 (Saline Tolerant Check & Donor Parent)	4151	3	5024	5	4588	3	3154	
5109	30165	3249	6	4311	8	3780	9	3341	9
5110	30827	2636	10	5142	4	3889	8	3705	4$
5111	30830			6598	2 *$	6598	1 * $	4253	1 * $
5112	Pusa 44 (Sensitive Check and Recurrent Parent)			4352	7	4352	6	2576	
5113	29354 (R)	2674	9	3024		2849		3449	7
Exp. Mean		**3382**		**4617**		**4160**		**3469**	
F Value		**11.18(p<0.0001)S**		**18.60(p<0.0001)S**		**20.85(p<0.0001)S**		**10.24(p<0.0001)S**	
CD		624		830		580		414	
CV%		**10.84**		**10.67**		**8.28**		**7.08**	
D/S		07/01/2023		23/06/2023					
D/P		08/04/2023		17/07/2023					
Local Check Name		KPS-2874		TRY-2					

Table 13a.2 (Contd) : Grain Yield (kg/ha) of AVT 2 AL&ISTVT Alkaline Kharif-2023

Entry No	IET No	Trials not considered					
		Uttar Pradesh 2				Puducherry (0)	
		@Masodha		@Lucknow-ICAR		@Karaikal	
5101	30164	5237	2	2313	1	1583	7
5102	30178	5183	4	750		1445	8
5103	CSR 36 (Alkaline Check)	5210	3	2125	3	1150	9
5104	30162	3969	9	2104	4	757	
5105	CSR 10 (Early duration Saline Check)	4555	6	1563	8	1785	5
5106	Local Check (LC)	3737		1500	9	2637	1
5107	30176	4310	7	1813	5	2420	2
5108	FL 478 (Saline Tolerant Check & Donor Parent)	4992	5	646		707	
5109	30165	3819	10	1688	6	2042	3
5110	30827	3001		1583	7	1067	10
5111	30830			854		998	
5112	Pusa 44 (Sensitive Check and Recurrent Parent)	4010	8	2146	2	1666	6
5113	29354 (R)	5292	1	1042	10	1964	4
Exp. Mean		**4443**		**1548**		**1555**	
F Value		**32.94(p<0.0001)S**		**2.65(p<0.0173)S**		**23.41(p<0.0001)S**	
CD		353		1040		343	
CV%		**4.69**		**39.88**		**13.07**	
D/S		25/06/2023		13/06/2023		05/07/2023	
D/P		03/08/2023		10/07/2023		01/08/2023	
Local Check Name		NDRK 2008		CSR 60		TRY 2	

Table. 13a.3 : Days to 50% Flowering, Plant height and Panicles per sq.m of AVT 2 AL&ISTVT Alkaline Kharif-2023

Entry No	IET No	ZONE II NORTHERN														
		Haryana						Haryana (2)			Uttar Pradesh 1(1)			Zone II (3)		
		Kurukshetra (Karnal			Anjanite (Karnal)			Mean			Kanpur			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5101	30164	85	96	213	87	99	235	86	97	224	57	84	406	76	93	285
5102	30178	87	105	277	86	106	282	87	106	280	59	85	252	77	99	270
5103	CSR 36 (Alkaline Check)	89	97	247	89	95	280	89	96	263	69	78	256	82	90	261
5104	30162	102	108	202	98	112	257	100	110	229	61	97	291	87	106	250
5105	CSR 10 (Early duration Saline Check)	89	67	180	89	63	213	89	65	196	61	87	173	80	72	188
5106	Local Check (LC)	91	97	200	92	95	247	92	96	223	66	74	300	83	89	249
5107	30176	91	96	311	86	97	291	89	97	301	56	101	381	78	98	327
5108	FL 478 (Saline Tolerant Check & Donor Parent)	84	87	170	86	86	202	85	86	186	59	58	154	77	77	175
5109	30165	98	99	225	96	100	259	97	100	242	64	83	303	86	94	262
5110	30827	103	88	300	108	94	294	106	91	297	80	63	284	97	81	293
5111	30830	107	84	299	104	88	291	105	86	295	67	63	241	92	78	277
5112	Pusa 44 (Sensitive Check and Recurrent Parent)	105	89	159	105	95	170	105	92	164	62	56	351	91	80	227
5113	29354 (R)	92	93	289	91	95	289	91	94	289	56	103	174	80	97	251
Exp. Mean		**94**	**93**	**236**	**94**	**94**	**255**	**94**	**93**	**245**	**63**	**79**	**274**	**83**	**89**	**255**

Table.13a.3 (Contd) : Days to 50% Flowering, Plant height and Panicles per sq.m of AVT 2 AL&ISTVT Alkaline Kharif-2023

Entry No	IET No	ZONE III - EASTERN						ZONE VII - SOUTHERN									Overall Mean (6)		
		Uttar Pradesh 2 (1)			Zone III(1)			Telangana			Tamil Nadu (1)			Zone VII (2)					
		Gautam Budha Nagar(Karnal)			Mean			Kampasagar			Annamalainagar			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5101	30164	104	86	189	104	86	189	104	88	588	85	95	347	95	91	467	87	91	330
5102	30178	105	90	244	105	90	244	102	95	373	97	105	429	99	100	401	89	98	310
5103	CSR 36 (Alkaline Check)	113	89	233	113	89	233	110	96	322	103	95	396	106	95	359	95	92	289
5104	30162	99	92	202	99	92	202	98	104	369	86	155	297	92	129	333	91	111	270
5105	CSR 10 (Early duration Saline Check)	85	66	183	85	66	183	120	61	475	87	70	462	104	66	469	89	69	281
5106	Local Check (LC)	104	89	211	104	89	211	110	96	311	106	128	330	108	112	320	95	97	266
5107	30176	103	86	278	103	86	278	103	97	366	89	117	561	96	107	464	88	99	365
5108	FL 478 (Saline Tolerant Check & Donor Parent)	93	84	178	93	84	178	93	79	364	91	147	264	92	113	314	84	90	222
5109	30165	103	88	200	103	88	200	98	94	428	96	95	462	97	95	445	92	93	313
5110	30827	118	72	256	118	72	256	104	66	304	104	91	220	104	78	262	103	79	276
5111	30830		81	234		81	234				98	91	231	98	91	231	94	81	259
5112	Pusa 44 (Sensitive Check and Recurrent Parent)	114	75	167	114	75	167				101	91	198	101	91	198	97	81	209
5113	29354 (R)	99	90	245	99	90	245	91	82	424	86	105	297	89	93	361	86	95	286
Exp. Mean		**103**	**84**	**217**	**103**	**84**	**217**	**103**	**87**	**393**	**95**	**106**	**346**	**99**	**97**	**356**	**92**	**90**	**283**

Table. 13a.3 (Contd): Days to 50% Flowering, Plant height and Panicles per sq.m of AVT 2 AL&ISTVT Alkaline Kharif-2023

Entry No	IET No	Trials not considered								
		Uttar Pradesh 2						Puducherry (0)		
		@Masodha			@Lucknow-ICAR			@Karaikal		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5101	30164	104	96	294	57	73	552	83	101	510
5102	30178	105	95	283	59	94	587	92	81	497
5103	CSR 36 (Alkaline Check)	113	115	268	69	93	357	83	98	489
5104	30162	99	130	265	61	89	406	93	105	433
5105	CSR 10 (Early duration Saline Check)	85	81	273	61	65	493	75	77	532
5106	Local Check (LC)	104	78	265	66	83	502	95	108	507
5107	30176	103	108	261	56	79	491	86	110	533
5108	FL 478 (Saline Tolerant Check & Donor Parent)	93	80	276	59	77	344	90	67	433
5109	30165	103	125	228	64	100	591	84	105	496
5110	30827	118	72	227	80	82	433	85	106	486
5111	30830				67	63	339	87	90	437
5112	Pusa 44 (Sensitive Check and Recurrent Parent)	114	75	241	62	89	444	103	66	495
5113	29354 (R)	99	113	296	56	76	365	82	81	470
Exp. Mean		**103**	**97**	**265**	**63**	**82**	**454**	**87**	**92**	**486**

Table.13a.2 : Grain Yield (kg/ha) of AVT 2 AL&ISTVT Normal Kharif-2023

Entry No	IET No	ZONE VII - SOUTHERN(1)	
		PUDUCHERRY (1)	
		Puducherry	
5101	30164	3500	6
5102	30178	4033	4
5103	CSR 36 (Alkaline Check)	3500	6
5104	30162	3400	8
5105	CSR 10 (Early duration Saline Check)	4467	1
5106	Local Check (LC)	2833	
5107	30176	1900	
5108	FL 478 (Saline Tolerant Check & Donor Parent)	3033	10
5109	30165	3700	5
5110	30827	3367	9
5111	30830	3033	10
5112	Pusa 44 (Sensitive Check and Recurrent Parent)	4100	3
5113	29354 (R)	4467	1
Exp. Mean		**3487**	
F Value		**10.53(p<0.0001)S**	
CD		599	
CV%		**10.19**	
D/S		10/07/2023	
D/P		15/08/2023	
Local Check Name		TRY 2	

Table.13a.3 : Days to 50% Flowering, Plant height and Panicles per sq.m of AVT 2 AL&ISTVT Normal Kharif-2023

		NE VII - SOUTHERN		
		PUDUCHERRY (1)		
		Puducherry		
Entry No	IET No	DFF	PH	PAN
5101	30164	86	104	567
5102	30178	93	82	594
5103	CSR 36 (Alkaline Check)	87	104	560
5104	30162	94	108	547
5105	CSR 10 (Early duration Saline Check)	80	79	647
5106	Local Check (LC)	97	111	542
5107	30176	90	114	460
5108	FL 478 (Saline Tolerant Check & Donor Parent)	90	69	546
5109	30165	86	107	563
5110	30827	89	106	557
5111	30830	89	95	537
5112	Pusa 44 (Sensitive Check and Recurrent Parent)	105	77	630
5113	29354 (R)	85	88	660
Exp. Mean		**90**	**96**	**570**

Table.13a.2 (Contd) : Grain Yield (kg/ha) of AVT 2 AL&ISTVT Saline Kharif-2023

Entry No	IET No	ZONE II NORTHERN								ZONE VII - SOUTHERN		Overall Mean (3)	
		Haryana				Haryana (2)		Zone II(2)		Karnataka (1)			
		Rohtak (Karnal)		Panipat (Karnal)		Mean		Mean		Gangavathi			
5101	30164	3273	8	3287	8	3280	8	3280	8	4019	2	3526	6
5102	30178	3727	6	3753	6	3740	6	3740	6	2919	9	3466	7
5103	CSR 36 (Alkaline Check)	4200	5	4160	5	4180	5	4180	5	2381		3580	5
5104	30162	3100	10	3173	9	3137	9	3137	9	2114		2796	
5105	CSR 10 (Early duration Saline Check)	2807		2887		2847		2847		2577	10	2757	
5106	Local Check (LC)	3160	9	3107	10	3134	10	3134	10	3807	4	3358	8
5107	30176	4260	4	4347	1	4304	3	4304	3	3912	3	4173	1
5108	FL 478 (Saline Tolerant Check & Donor Parent)	2633		2740		2687		2687		3794	5	3056	10
5109	30165	3527	7	3440	7	3484	7	3484	7	2350		3106	9
5110	30827	4400	2	4253	3	4327	2$	4327	2$	3751	6	4135	3$
5111	30830	4293	3	4180	4	4237	4$	4237	4$	4020	1	4164	2$
5112	Pusa 44 (Sensitive Check and Recurrent Parent)	1893		1780		1837		1837		3629	7	2434	
5113	29354 (R)	4500	1	4280	2	4390	1	4390	1	2999	8	3926	4
Exp. Mean		**3521**		**3491**		**3506**		**3506**		**3252**		**3421**	
F Value		**4.98(p<0.0003)S**		**2.24(p<0.0400)S**		**5.33(p<0.0002)S**		**5.33(p<0.0002)S**		**12.48(p<0.0001)S**		**6.50(p<0.0001)S**	
CD		984		1397		917		917		546		610	
CV%		**16.58**		**23.75**		**15.52**		**15.52**		**9.97**		**10.58**	
D/S										03/08/2023			
D/P										15/09/2023			
Local Check Name		CSR 27		CSR 27						GNV 1109			

Table.13a.3 : Days to 50% Flowering, Plant height and Panicles per sq.m of AVT 2 AL&ISTVT Saline Kharif-2023

Entry No	IET No	ZONE II NORTHERN												ZONE VII - SOUTHERN			Overall Mean (3)		
		Haryana						Haryana (2)			Zone II(2)			Karnataka (1)					
		Rohtak (Karnal)			Panipat (Karnal)			Mean			Mean			Gangavathi					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5101	30164	90	75	222	85	66	230	87	71	226	87	71	226	101	86	223	92	76	225
5102	30178	86	76	222	88	73	244	87	74	233	87	74	233	108	91	247	94	80	238
5103	CSR 36 (Alkaline Check)	91	80	233	81	72	241	86	76	237	86	76	237	119	88	263	97	80	246
5104	30162	94	83	211	101	80	233	98	81	222	98	81	222	95	109	221	97	90	222
5105	CSR 10 (Early duration Saline Check)	86	59	189	91	54	178	89	57	184	89	57	184	84	65	289	87	59	219
5106	Local Check (LC)	90	83	210	90	76	222	90	80	216	90	80	216	109	96	297	96	85	243
5107	30176	91	78	243	83	73	262	87	76	253	87	76	253	109	108	235	95	86	247
5108	FL 478 (Saline Tolerant Check & Donor Parent)	87	79	167	82	71	160	85	75	163	85	75	163	111	89	267	93	80	198
5109	30165	101	80	220	106	71	233	104	76	227	104	76	227	113	94	194	107	82	216
5110	30827	99	62	256	105	58	256	102	60	256	102	60	256	107	79	238	104	66	250
5111	30830	103	78	259	106	56	244	105	67	252	105	67	252	111	80	232	107	71	245
5112	Pusa 44 (Sensitive Check and Recurrent Parent)	107	67	146	97	60	146	102	64	146	102	64	146	113	75	236	106	67	176
5113	29354 (R)	96	95	289	82	78	266	89	87	278	89	87	278	107	83	237	95	85	264
Exp. Mean		**94**	**76**	**221**	**92**	**68**	**224**	**93**	**72**	**222**	**93**	**72**	**222**	**106**	**88**	**244**	**98**	**78**	**230**

Table.13a.2 : Grain Yield (kg/ha) of AVT 2 AL&ISTVT Saline Kharif-2023

Entry No	IET No	ZONE VI -WESTERN (1) GUJARAT (1) NAVASARI	
5101	30164	537	
5102	30178	4191	1
5103	CSR 36 (Alkaline Check)	3858	2
5104	30162	2721	4
5105	CSR 10 (Early duration Saline Check)	2625	5
5106	Local Check (LC)	3222	3
5107	30176	1812	8
5108	FL 478 (Saline Tolerant Check & Donor Parent)	565	10
5109	30165	2451	7
5112	Pusa 44 (Sensitive Check and Recurrent Parent)	1027	9
5113	29354 (R)	2562	6
Exp. Mean		**2325**	
F Value		**20.21(p<0.0001)S**	
CD		748	
CV%		**18.89**	
D/S		19/06/2023	
D/P		12/07/2023	
Local Check Name		GNR-5	

Table.13a.3 : Days to 50% Flowering, Plant height and Panicles per sq.m of AVT 2 AL&ISTVT Saline Kharif-2023

Entry No	IET No	ZONE VI -WESTERN (1) GUJARAT (1) NAVASARI		
		DFF	PH	PAN
5101	30164	104	87	391
5102	30178	87	124	453
5103	CSR 36 (Alkaline Check)	101	103	412
5104	30162	92	141	432
5105	CSR 10 (Early duration Saline Check)	97	82	362
5106	Local Check (LC)	101	135	394
5107	30176	104	107	400
5108	FL 478 (Saline Tolerant Check & Donor Parent)	95	83	338
5109	30165	96	128	403
5112	Pusa 44 (Sensitive Check and Recurrent Parent)	102	93	388
5113	29354 (R)	94	115	361
Exp. Mean		**98**	**109**	**394**

Table.13a.2 : Grain Yield (kg/ha) of AVT 2 AL&ISTVT Saline microplot Kharif-2023

Entry No	IET No	ZONE II NORTHERN HARYANA(1) Karnal (ICAR-CSSRI)	
5101	30164	287	8
5102	30178	327	6
5103	CSR 36 (Alkaline Check)	360	4
5104	30162	267	10
5105	CSR 10 (Early duration Saline Check)	253	
5106	Local Check (LC)	280	9
5107	30176	380	1
5108	FL 478 (Saline Tolerant Check & Donor Parent)	220	
5109	30165	313	7
5110	30827	373	3$
5111	30830	360	4$
5112	Pusa 44 (Sensitive Check and Recurrent Parent)	133	
5113	29354 (R)	380	1
Exp. Mean		**303**	
F Value		**6.01(p<0.0001)S**	
CD		81	
CV%		**15.86**	
D/S			
D/P			
Local Check Name		CSR 27	

Table. 13a.3 : Days to 50% Flowering, Plant height and Panicles per sq.m of AVT 2 AL&ISTVT Saline microplot Kharif-2023

Entry No	IET No	ZONE II NORTHERN HARYANA (1) Karnal (ICAR-CSSRI)		
		DFF	PH	PAN
5101	30164	86	79	207
5102	30178	90	99	227
5103	CSR 36 (Alkaline Check)	95	78	226
5104	30162	105	102	188
5105	CSR 10 (Early duration Saline Check)	90	57	183
5106	Local Check (LC)	90	82	194
5107	30176	95	87	261
5108	FL 478 (Saline Tolerant Check & Donor Parent)	80	75	172
5109	30165	90	81	217
5110	30827	107	80	228
5111	30830	105	68	228
5112	Pusa 44 (Sensitive Check and Recurrent Parent)	111	77	142
5113	29354 (R)	92	85	238
Exp. Mean		**95**	**81**	**209**

Table.13a.2 : Grain Yield (kg/ha) of AVT 2 AL&ISTVT Sodic microplot Kharif-2023

Entry No	IET No	ZONE II NORTHERN HARYANA Karnal (ICAR-CSSRI)	
5101	30164	307	7
5102	30178	373	3
5103	CSR 36 (Alkaline Check)	340	6
5104	30162	293	8
5105	CSR 10 (Early duration Saline Check)	253	
5106	Local Check (LC)	287	9
5107	30176	393	1
5108	FL 478 (Saline Tolerant Check & Donor Parent)	213	
5109	30165	287	9
5110	30827	387	2$
5111	30830	373	3$
5112	Pusa 44 (Sensitive Check and Recurrent Parent)	173	
5113	29354 (R)	360	5
Exp. Mean		**311**	
F Value		**5.55(p<0.0001)S**	
CD		79	
CV%		**15.15**	
D/S			
D/P			
Local Check Name		CSR 36	

Table.13a.3 : Days to 50% Flowering, Plant height and Panicles per sq.m of AVT 2 AL&ISTVT Sodic microplot Kharif-2023

Entry No	IET No	ZONE II NORTHERN HARYANA Karnal (ICAR-CSSRI)		
		DFF	PH	PAN
5101	30164	91	87	253
5102	30178	87	103	300
5103	CSR 36 (Alkaline Check)	90	88	255
5104	30162	101	105	233
5105	CSR 10 (Early duration Saline Check)	81	62	203
5106	Local Check (LC)	92	90	233
5107	30176	97	92	311
5108	FL 478 (Saline Tolerant Check & Donor Parent)	83	83	183
5109	30165	98	91	223
5110	30827	104	83	289
5111	30830	106	77	278
5112	Pusa 44 (Sensitive Check and Recurrent Parent)	107	84	169
5113	29354 (R)	85	90	260
Exp. Mean		**94**	87	**245**

Table No. 13a.4 : Grain quality characteristics of entries in AVT 2-AL&ISTVT, kharif 2023

Entry No.	Designation/ IET No.	Hull	Mill	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
5101	30164	77.9	63.0	42.3	5.01	2.22	2.25	SB	OC	4.0	26.86	41
5102	30178	80.5	68.9	55.0	5.37	2.34	2.29	SB	OC	7.0	23.14	26
5103	CSR-36 (AC)	79.2	69.3	55.1	6.77	2.02	3.35	LS	OC	4.0	26.57	47
5104	30162	77.4	65.4	47.1	6.56	1.90	3.45	LS	OC	4.0	25.75	43
5105	CSR-10 (SC)	77.6	53.9	55.2	4.77	2.46	1.93	SB	F	4.0	24.75	45
5106	Local Check	79.7	69.4	57.0	6.60	1.93	3.41	LS	VOC	4.0	26.10	24
5107	30176	79.0	64.0	42.1	4.97	2.14	2.32	SB	VOC	4.0	26.48	22
5108	FL 478 (DP)	79.8	65.7	56.0	6.19	2.13	2.90	LB	OC	4.0	24.75	22
5109	30165	81.2	71.1	59.8	6.35	2.06	3.08	LS	OC	4.0	24.46	45
5110	30827											
5111	30830											
5112	Pusa 44 (SC & RP)	77.8	69.5	63.8	5.93	2.06	2.87	MS	VOC	4.0	23.26	24
5113	29354	77.5	66.5	52.1	7.42	1.96	3.78	LS	VOC	4.0	23.32	32

HULL: Hulling (%); MILL: Milling (%); HRR: Head Rice Recovery (%); KL: Kernel Length (mm); KB: Kernel Breadth (mm); L/B: Length and breadth ratio; Grain Chalk: Grain Chalkiness; VOC: Very occasionally present; A: Absent ASV: Alkali Spreading Value; AC: Amylose Content (%); GC: Gel Consistency; LB: Long Bold; SB: Short Bold; LS: Long Slender; MS: Medium Slender; SS: Short Slender

Trial No.52: Table No. 13b.1 Composition of entries in Advance Variety Trial 1 – Alkaline and Inland Saline Tolerant Variety Trial (AVT 1-AL & ISTVT), Kharif 2023.

Entry No.	IET No.	Designation	Cross Combination	GT
2nd year of testing:				
5201	31051	NVSR 6494	IET 22016 / IET 21237	
5202	31055	CSR 141-11-112	Pusa 44 / CSR27	
5203	31045	RP 6684-CGR 13	Samba Mahsuri*2 / Oryza rufipogon-3-TRP-3	MS
5204	31044	CSR 103-10-2	PR 115 / FL 478	
5205	**CSR 36 (Alkaline Check)**			
5206	31054	CSAR 9-29-2021	Selection from BC 9-29	
5207	**CSR 10 (Early duration Saline Check)**			
5208	31053	RNR 29325	TME 80518 / BPT 5204	MS
5209	31050	CSR 104-10-2	IR 60997-L / FL 478	
5210	**Local Check (LC)**			
5211	31042	NVSR 6526	IET 22016 / GNR-3	
5212	30180 (R)	RP Bio 4918-B2-24K	Swarna / O. nivara	SB
5213	31048	CSR 116-10-2	Pusa 44 / CSR 27	
1st year of testing (NILs):				
5214	32053	CSR-389-16-23-42	Pusa44 / FL478*3 / Pusa44 / IRBB60*	
5215	32052	CSR-389-16-19-15	Pusa44 / FL478*3 / Pusa44 / IRBB60*	
5216	**Pusa 44 (Sensitive Check and Recurrent Parent)**			
5217	32055	RP 6750-RMS-2-23-67-91	Improved Samba Mahsuri*2 // FL478 / Swarna	MS
5218	32056	RP 6751-RMS-1-13-34-42	Improved Samba Mahsuri*2 // RP bio patho-1 / FL478	MS
5219	**Improved Samba Mahsuri (Recurrent Parent)**			MS

Table.13b.2 : Grain Yield (kg/ha) of AVT-1 AL&ISTVT Alkaline Kharif-2023

Entry No	IET No	II NORTHERN									
		Haryana				Haryana (2)		Uttar Pradesh 1(1)		Zone II (3)	
		Kurukshetra (Karnal)		Anjanite (Karnal)		Mean		Kanpur		Mean	
5201	31051	4117	7	4447	4	4282	6	2056	10	3540	6
5202	31055	4729	2 *	4560	2	4645	2 *	1907		3732	3 *
5203	31045	3860	9	3167		3514	10	2182	7	3070	10
5204	31044	2171		2093		2132		2789	3	2351	
5205	CSR 36 (Alkaline Check)	3161		3320		3241		1820		2767	
5206	31054	4064	8	4040	8	4052	7	2389	6	3498	7
5207	CSR 10 (Early duration Saline Check)	2990		3060		3025		2671	4	2907	
5208	31053	4741	1 *	4580	1	4661	1 *	1973		3765	2 *
5209	31050	4553	4 *	4533	3	4543	3 *	1758		3615	4
5210	Local Check (LC)	3055		3740	9	3398		2027		2941	
5211	31042	3676		3700	10	3688	8	1749		3042	
5212	30180 (R)	3773	10	2693		3233		2087	9	2851	
5213	31048	3377		3553		3465		2611	5	3180	8
5214	32053	4452	5	4307	6	4380	5 *$	3118	2	3959	1 * $
5215	32052	4611	3 *	4427	5	4519	4 *$	1642	$	3560	5 $
5216	Pusa 44 (Sensitive Check and Recurrent Parent)	2065		1780		1923		1807		1884	
5217	32055	3048		4193	7	3621	9	2156	8	3132	9
5218	32056	1988		2827		2408		3607	1 * $$	2807	
5219	Improved Samba Mahsuri (Recurrent Parent)	4293	6	2540		3417		1889		2907	
Exp. Mean		**3617**		**3556**		**3586**		**2223**		**3132**	
F Value		**3.62(p<0.0004)S**		**3.28(p<0.0009)S**		**5.51(p<0.0001)S**		**3.36(p<0.0008)S**		**4.19(p<0.0001)S**	
CD		1310		1321		967		788		688	
CV%		**21.88**		**22.43**		**16.28**		**21.4**		**13.27**	
D/S								04/07/2023			
D/P								07/08/2023			
Local Check Name		CSR 36		CSR 36				SARJU 52			

Table. 13b.2 (Contd) : Grain Yield (kg/ha) of AVT-1 AL&ISTVT Alkaline Kharif-2023

Entry No	IET No	ZONE III - EASTERN		ZONE III - EASTERN		ZONE VII - SOUTHERN		Overall Mean (5)		Trial not considered	
		Uttar Pradesh 2		Uttar Pradesh 2 (1)		Puducherry (1)				@Lucknow-ICAR	
		Gautam Budha Nagar(Karnal)		Mean		Karaikal				1304	7
5201	31051	4104	5	4104	5	2766	9	3498	6	1000	
5202	31055	4712	2	4712	2	5930	2 *	4368	2 *	1096	
5203	31045	3210		3210		1992		2882		1042	
5204	31044	1872		1872		2118		2209		1500	4
5205	CSR 36 (Alkaline Check)	3253		3253		2690	10	2849		1521	2
5206	31054	3782	7	3782	7	2576		3370	9	1271	9
5207	CSR 10 (Early duration Saline Check)	3131		3131		3058	8	2982		971	
5208	31053	4985	1 *	4985	1 *	6352	1 *	4526	1 *	1079	
5209	31050	4255	4	4255	4	4355	5	3891	3 *	1250	10
5210	Local Check (LC)	3574	10	3574	10	3955	7	3270		1643	1
5211	31042	3771	8	3771	8	4109	6	3401	8	979	
5212	30180 (R)	3404		3404		5842	3 *	3560	5	1250	10
5213	31048	3444		3444		5209	4 *	3639	4	1104	
5214	32053	4266	3	4266	3 $	1001		3429	7 $	1313	6
5215	32052	4085	6	4085	6 $	1877		3328	10 $	1458	5
5216	Pusa 44 (Sensitive Check and Recurrent Parent)	2183		2183		2295		2026		1292	8
5217	32055	3745	9	3745	9	1552	$$	2939		1521	2
5218	32056	3453		3453		2327	$$	2840		1192	
5219	Improved Samba Mahsuri (Recurrent Parent)	3574	10.5	3574	10.5	749		2609		1252	
Exp. Mean		**3621**		**3621**		**3198**		**3243**		**1.37(p<0.1998)NS**	
F Value		**2.14(p<0.0229)S**		**2.14(p<0.0229)S**		**54.94(p<0.0001)S**		**8.30(p<0.0001)S**		**NS**	
CD		1405		1405		625		604		**22.91**	
CV%		**23.43**		**23.43**		**11.8**		**11.25**		26/06/2023	
D/S								05/07/2023		02/08/2023	
D/P								01/08/2023		CSR 60	
Local Check Name		CSR 36				CSR 44		TRY 2			

Table.13b.3 : Days to 50% Flowering, Plant height and Panicles per sq.m of AVT-1 AL&ISTVT Alkaline Kharif-2023

Entry No	IET No	II NORTHERN														
		Haryana						Haryana (2)			Uttar Pradesh 1(1)			Zone II (3)		
		Kurukshetra (Karnal			Anjanite (Karnal)			Mean			Kanpur			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5201	31051	81	87	222	89	90	239	85	89	231	61	67	318	77	81	260
5202	31055	75	95	232	79	97	246	77	96	239	63	70	227	72	87	235
5203	31045	87	86	207	91	89	198	89	88	202	67	109	153	82	95	186
5204	31044	72	80	177	81	85	176	76	83	177	74	56	147	76	74	167
5205	CSR 36 (Alkaline Check)	95	72	205	100	79	210	98	76	207	68	86	149	88	79	188
5206	31054	94	88	220	94	89	251	94	88	236	55	98	218	81	91	230
5207	CSR 10 (Early duration Saline Check)	92	59	186	90	63	202	91	61	194	60	68	237	81	64	209
5208	31053	87	76	230	90	77	257	88	77	244	65	56	256	81	70	248
5209	31050	77	70	258	88	73	237	83	72	248	58	59	353	74	67	283
5210	Local Check (LC)	83	79	196	90	84	218	87	81	207	63	67	341	79	76	252
5211	31042	92	88	229	88	91	231	90	90	230	53	71	129	78	83	196
5212	30180 (R)	78	83	213	78	80	182	78	82	198	69	84	180	75	82	192
5213	31048	87	82	274	86	84	242	87	83	258	61	97	356	78	88	291
5214	32053	94	50	213	96	52	215	95	51	214	52	68	352	81	57	260
5215	32052	99	68	216	101	73	229	100	71	223	78	64	255	93	68	233
5216	Pusa 44 (Sensitive Check and Recurrent Parent)	111	68	169	109	69	139	110	68	154	69	92	388	96	76	232
5217	32055	110	64	181	115	68	227	112	66	204	52	67	327	92	66	245
5218	32056	115	56	140	114	58	186	115	57	163	60	66	246	97	60	191
5219	Improved Samba Mahsuri (Recurrent Parent)	109	63	209	104	66	148	107	64	178	54	75	249	89	68	202
Exp. Mean		**91**	**74**	**209**	**94**	**77**	**212**	**93**	**76**	**211**	**62**	**75**	**257**	**83**	**75**	**226**
SEm		**2.47**			**2.59**			**1.71**			**0.76**			**1.20**		

Table.13b.3 (Contd) : Days to 50% Flowering, Plant height and Panicles per sq.m of AVT-1 AL&ISTVT Alkaline Kharif-2023

Entry No	IET No	ZONE III - EASTERN			ZONE III - EASTERN			ZONE VII - SOUTHERN			Overall Mean (5)			Trial not considered		
		Uttar Pradesh 2			Uttar Pradesh 2 (1)			Puducherry (1)						Uttar Pradesh 2		
		utam Budha Nagar(Karn			Mean			Karaikal						@Lucknow-ICAR		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5201	31051	91	89	251	91	89	251	95	106	537	84	88		92	104	315
5202	31055	77	96	282	77	96	282	79	101	664	74	92		87	89	289
5203	31045	92	89	166	92	89	166	79	116	473	83	98		90	95	293
5204	31044	84	81	154	84	81	154	92	97	493	81	80		93	88	348
5205	CSR 36 (Alkaline Check)	93	83	176	93	83	176	100	110	534	91	86		104	104	274
5206	31054	94	87	220	94	87	220	95	119	524	86	96		91	99	352
5207	CSR 10 (Early duration Saline Check)	88	67	176	88	67	176	91	76	547	84	67		91	71	326
5208	31053	78	72	325	78	72	325	79	97	674	80	76		90	74	274
5209	31050	85	63	241	85	63	241	84	92	637	78	72		89	74	286
5210	Local Check (LC)	93	84	191	93	84	191	93	104	576	84	83		94	87	322
5211	31042	90	92	230	90	92	230	95	122	630	84	93		95	111	300
5212	30180 (R)	78	77	178	78	77	178	76	107	657	76	86		88	91	344
5213	31048	91	83	264	91	83	264	87	121	637	82	93		92	90	441
5214	32053	95	68	193	95	68	193	94	75	437	86	63		97	79	330
5215	32052	97	64	209	97	64	209	95	91	470	94	72		111	75	326
5216	Pusa 44 (Sensitive Check and Recurrent Parent)	116	61	132	116	61	132	105	85	527	102	75		109	76	370
5217	32055	96	63	198	96	63	198	108	94	464	96	71		117	100	278
5218	32056	113	56	187	113	56	187	106	101	493	102	67		110	101	278
5219	Improved Samba Mahsuri (Recurrent Parent)	102	57	193	102	57	193	99	95	433	94	71		116	88	297
Exp. Mean		**92**	**75**	**209**	**92**	**75**	**209**	**92**	**101**	**548**	**86**	**80**		**98**	**89**	**318**
SEm		**1.94**			**1.94**			**1.57**			**0.94**			**3.16**		

Table.13b.2 : Grain Yield (kg/ha) of AVT-1 AL&ISTVT Normal Kharif-2023

Entry No	IET No	ZONE III - EASTERN		ZONE VII - SOUTHERN						Overall Mean (3)	
		UTTAR PRADESH (1)		TAMIL NADU (1)		PUDUCHERRY (1)		Zone VII (2)			
		MASODHA		Annamalainagar		Puducherry		Mean			
5201	31051	5046	4 *	3475		3400	10	3438		3974	
5202	31055	4937	6 *	3869		3333		3601		4047	
5203	31045	4351	*	5962	5 *	2433		4198	7	4249	7
5204	31044	4501	9 *	5016	10	1900		3458		3805	
5205	CSR 36 (Alkaline Check)	3819		4444		3467	8	3956	10	3910	
5206	31054	5237	2 *	4426		2733		3580		4132	9
5207	CSR 10 (Early duration Saline Check)	2537		5088	8	3167		4128	9	3597	
5208	31053	4637	8 *	5896	6 *	4033	3	4965	4 *	4855	2 *
5209	31050	2264		4259		2967		3613		3163	
5210	Local Check (LC)	3601		4371		3467	8	3919		3813	
5211	31042	5128	3 *	3561		2633		3097		3774	
5212	30180 (R)	4283	*	5024	9	3367		4196	8	4224	8
5213	31048	5265	1 *	3580		3467	7	3524		4104	10
5214	32053	3164		6214	3 *$	3500	6	4857	5 *	4293	6 *
5215	32052	4419	10 *	3053		3933	4	3493		3802	
5216	Pusa 44 (Sensitive Check and Recurrent Parent)	4719	7 *	5609	7 *	3400	10	4505	6	4576	4 *
5217	32055	3601		6389	1 *	3567	5	4978	3 *	4519	5
5218	32056	3983		6049	4 *	4300	2 *	5175	2 *	4777	3 *
5219	Improved Samba Mahsuri (Recurrent Parent)	4992	5 *	6249	2 *	4633	1 *	5441	1 *	5291	1 *
Exp. Mean		**4236**		**4870**		**3353**		**4111**		**4153**	
F Value		**47.77(p<0.0001)S**		**43.94(p<0.0001)S**		**4.62(p<0.0001)S**		**14.15(p<0.0001)S**		**14.9(p<0.0001)S**	
CD		349		443		827		502		361.12	
CV%		**5.02**		**5.49**		**14.90**		**7.37**		**5.25**	
D/S				23/06/2023		10/07/2023					
D/P				17/07/2023		15/08/2023					
Local Check Name				Trichy-2		TRY 2					
$ Nills compared with Pusa 44											

Table.13b.3 : Days to 50% Flowering, Plant height and Panicles per sq.m of AVT-1 AL&ISTVT Normal Kharif-2023

Entry No	IET No	ZONE III - EASTERN			ZONE VII - SOUTHERN									Overall Mean (3)		
		UTTAR PRADESH (1)			TAMIL NADU (1)			PUDUCHERRY (1)			Zone VII (2)					
		MASODHA			Annamalainagar			Puducherry			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5201	31051	103	119	285	97	106	449	96	109	557	97	107	503	99	111	430
5202	31055	94	126	268	81	90	349	86	102	542	84	96	445	87	106	386
5203	31045	100	105	252	83	87	474	80	118	533	82	102	504	88	103	420
5204	31044	110	90	253	94	97	253	93	99	523	94	98	388	99	95	343
5205	CSR 36 (Alkaline Check)	113	105	234	106	97	343	103	112	560	105	105	452	107	105	379
5206	31054	103	121	265	97	95	238	100	127	538	98	111	388	100	114	347
5207	CSR 10 (Early duration Saline Check)	118	77	203	96	108	148	98	84	546	97	96	347	104	89	299
5208	31053	103	101	251	93	90	254	86	106	576	90	98	415	94	99	360
5209	31050	119	87	204	86	123	441	90	104	547	88	114	494	98	105	397
5210	Local Check (LC)	101	107	246	106	123	357	96	111	560	101	117	458	101	114	387
5211	31042	102	126	276	95	110	195	98	132	507	97	121	351	98	123	326
5212	30180 (R)	97	109	246	83	83	500	82	119	555	83	101	527	87	104	434
5213	31048	88	111	292	94	105	396	94	131	559	94	118	478	92	116	416
5214	32053	112	83	225	103	99	453	96	86	567	100	92	510	104	89	415
5215	32052	111	85	255	109	92	206	97	104	590	103	98	398	106	94	350
5216	Pusa 44 (Sensitive Check and Recurrent Parent)	113	91	265	101	93	333	106	102	560	104	97	447	107	95	386
5217	32055	114	94	244	105	99	458	108	104	563	107	102	511	109	99	422
5218	32056	114	78	226	111	90	341	108	110	623	110	100	482	111	93	397
5219	Improved Samba Mahsuri (Recurrent Parent)	108	87	245	105	85	473	102	108	637	104	96	555	105	93	452
Exp. Mean		**106**	**100**	**249**	**97**	**98**	**351**	**96**	**109**	**560**	**96**	**104**	**455**	**100**	**102**	**387**
SEm		**0.66**			**0.51**			**1.50**			**0.82**			**0.55**		

Table 13b.2 : Grain Yield (kg/ha) of AVT-1 AL&ISTVT Saline Kharif-2023

Entry No	IET No	ZONE II NORTHERN						ZONE VI -WESTERN		ZONE VII - SOUTHERN		Overall Mean (4)	
		Haryana				Haryana (2)	Zone II(2)	Gujarat (1)		Karnataka (1)			
		Rohtak (Karnal)		Panipat (Karnal)		Mean	Mean	Navasari		Gangavathi			
5201	31051	4167	6	4185	7	4176 6	4176 6	3433		2055		3460	10
5202	31055	4640	1	4478	3	4559 1 *	4559 1 *	4417	5	4372	3 *	4477	1 *
5203	31045	3220		3531		3376	3376	4965	3	4510	2 *	4057	5
5204	31044	1733		2108		1921	1921	5508	2	1900		2812	
5205	CSR 36 (Alkaline Check)	3520		3531		3526 10	3526 10	3529		2038		3155	
5206	31054	3827	8	4193	6	4010 7	4010 7	4202	7	3185	9	3852	7
5207	CSR 10 (Early duration Saline Check)	3167		3023		3095	3095	3729	10	2193		3028	
5208	31053	4533	2	4547	2	4540 2 *	4540 2 *	5952	1 *	2360		4348	2
5209	31050	4233	4	4339	5	4286 4	4286 4	2281		2995		3462	9
5210	Local Check (LC)	3387		3416		3402	3402	4880	4	3748	6	3858	6
5211	31042	3780	9	3760	8	3770 9	3770 9	2560		1571		2918	
5212	30180 (R)	3007		3347		3177	3177	4322	6	3769	5	3611	8
5213	31048	3167		3381		3274	3274	4050	8	2975		3393	
5214	32053	4293	3	4570	1	4432 3 * $	4432 3 * $	3773	9	3882	4 $	4130	4$
5215	32052	4173	5	4370	4	4272 5 $	4272 5 $	3304		4876	1 * $	4181	3$
5216	Pusa 44 (Sensitive Check and Recurrent Parent)	1880		2093		1987	1987	2802		3241	7	2504	
5217	32055	4007	7	3739	9	3873 8	3873 8	2258		3047	10	3263	
5218	32056	3580	10	2893		3237	3237	2023		2404		2725	
5219	Improved Samba Mahsuri (Recurrent Parent)	3213		3577	10	3395	3395	2180		3229	8	3050	
Exp. Mean		**3554**		**3636**		**3595**	**3595**	**3693**		**3071**		**3488**	
F Value		**2.20(p<0.0163)S**		**3.01(p<0.019)S**		**6.23(p<0.0001)S**	**6.23(p<0.0001)S**	**10.30(p<0.0001)S**		**32.46(p<0.0001)S**		**9.81(p<0.0001)S**	
CD		1431		1169		824	824	997		453		508	
CV%		**24.32**		**19.41**		**13.83**	**13.83**	**16.3**		**8.9**		**8.79**	
D/S								04/07/2023		03/08/2023			
D/P								04/08/2023		15/09/2023			
Local Check Name		CSR 27		CSR 27				GNR-5		GNV 1109			

$ Nills compared with Pusa 44

Table.13b.3 : Days to 50% Flowering, Plant height and Panicles per sq.m of AVT-1 AL&ISTVT Saline Kharif-2023

Entry No	IET No	ZONE II NORTHERN									ZONE VI -WESTERN			ZONE VII - SOUTHERN			Overall Mean (4)		
		Haryana						Haryana (2)		Zone II(2)	Gujarat (1)			Karnataka (1)					
		Rohtak (Karnal)			Panipat (Karnal)			Mean		Mean	Navasari			Gangavathi					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5201	31051	86	86	270	84	83	237	85	85	253	85	85	253	92	125	376	115	101	243	94	99	281
5202	31055	81	96	281	77	92	249	79	94	265	79	94	265	83	115	326	102	97	221	85	100	269
5203	31045	90	87	219	83	85	178	87	86	199	87	86	199	87	119	335	105	96	215	91	96	237
5204	31044	79	77	205	76	76	107	78	77	156	78	77	156	89	108	314	115	77	199	90	85	206
5205	CSR 36 (Alkaline Check)	99	79	247	95	69	214	97	74	230	97	74	230	90	118	359	118	88	192	101	89	253
5206	31054	89	86	269	93	83	285	91	85	277	91	85	277	90	123	338	107	87	233	95	95	281
5207	CSR 10 (Early duration Saline Check)	87	62	218	91	61	154	89	62	186	89	62	186	89	95	362	83	59	247	87	69	245
5208	31053	85	74	276	84	72	260	85	73	268	85	73	268	90	101	329	109	72	216	92	80	270
5209	31050	85	65	271	81	63	225	83	64	248	83	64	248	77	98	323	107	71	231	87	74	263
5210	Local Check (LC)	84	78	236	91	77	178	88	78	207	88	78	207	96	120	338	108	90	200	95	91	238
5211	31042	85	90	248	93	86	225	89	88	237	89	88	237	93	140	344	116	97	191	97	103	252
5212	30180 (R)	77	82	215	79	81	166	78	82	191	78	82	191	86	125	344	98	83	294	85	93	255
5213	31048	88	82	281	85	77	249	86	80	265	86	80	265	84	114	335	102	93	225	90	91	272
5214	32053	89	45	243	96	69	190	92	57	216	92	57	216	93	98	329	106	79	240	96	73	250
5215	32052	101	64	259	101	59	202	101	62	231	101	62	231	93	101	314	107	87	253	100	78	257
5216	Pusa 44 (Sensitive Check and Recurrent Parent)	117	63	194	111	64	107	114	64	150	114	64	150	101	102	326	109	76	215	109	76	210
5217	32055	100	61	248	114	59	190	107	60	219	107	60	219	102	111	344	107	74	219	106	76	250
5218	32056	105	56	239	114	54	118	109	55	179	109	55	179	107	104	344	110	72	229	109	72	232
5219	Improved Samba Mahsuri (Recurrent Parent)	107	59	226	113	57	153	110	58	190	110	58	190	105	105	373	105	75	203	108	74	239
Exp. Mean		**91**	**73**	**244**	**93**	**72**	**194**	**92**	**73**	**219**	**92**	**73**	**219**	**92**	**112**	**340**	**107**	**83**	**224**	**96**	**85**	**251**
SEm		**1.93**			**2.13**			**1.52**			**1.52**			**1.58**			**0.93**			**0.99**		

Table.13b.2 : Grain Yield (kg/ha) of AVT-1 AL&ISTVT Saline Micro-plot Kharif-2023

Entry No	IET No	ZONE II NORTHERN HARYANA(1) Karnal (ICAR-CSSRI)	
5201	31051	3888	6
5202	31055	4110	4
5203	31045	3152	
5204	31044	2009	
5205	CSR 36 (Alkaline Check)	3221	
5206	31054	3888	6
5207	CSR 10 (Early duration Saline Check)	3083	
5208	31053	4367	1 *
5209	31050	4367	1 *
5210	Local Check (LC)	3034	
5211	31042	3735	9
5212	30180 (R)	2895	
5213	31048	3103	
5214	32053	4076	5 $
5215	32052	4332	3 * $
5216	Pusa 44 (Sensitive Check and Recurrent Parent)	1868	
5217	32055	3853	8
5218	32056	3083	
5219	Improved Samba Mahsuri (Recurrent Parent)	3340	10
Exp. Mean		**3442**	
F Value		**4.09(p<0.0001)S**	
CD		987	
CV%		**17.31**	
D/S			
D/P			
Local Check Name		CSR 27	
$ Nills compared with Pusa 44			

Table.13b.3 : Days to 50% Flowering, Plant height and Panicles per sq.m of AVT-1 AL&ISTVT Saline Micro-plot Kharif-2023

Entry No	IET No	ZONE II NORTHERN HARYANA(1) Karnal (ICAR-CSSRI)		
		DFF	PH	PAN
5201	31051	86	80	180
5202	31055	78	68	194
5203	31045	92	86	173
5204	31044	83	67	121
5205	CSR 36 (Alkaline Check)	100	79	186
5206	31054	91	68	202
5207	CSR 10 (Early duration Saline Check)	88	64	156
5208	31053	86	71	222
5209	31050	84	68	220
5210	Local Check (LC)	87	71	226
5211	31042	89	90	223
5212	30180 (R)	75	59	171
5213	31048	87	73	230
5214	32053	97	61	178
5215	32052	103	65	178
5216	Pusa 44 (Sensitive Check and Recurrent Parent)	114	57	138
5217	32055	109	66	172
5218	32056	114	55	146
5219	Improved Samba Mahsuri (Recurrent Parent)	95	62	170
Exp. Mean		**93**	**69**	**183**
SEm		**2.48**		

Table.13b.2 : Grain Yield (kg/ha) of AVT-1 AL&ISTVT Sodic Micro-plot Kharif-2023

Entry No	IET No	ZONE II NORTHERN HARYANA Karnal (ICAR-CSSRI)	
5201	31051	3863	7
5202	31055	4149	4
5203	31045	2656	
5204	31044	1932	
5205	CSR 36 (Alkaline Check)	3400	
5206	31054	3883	6
5207	CSR 10 (Early duration Saline Check)	2917	
5208	31053	4346	1
5209	31050	4105	5
5210	Local Check (LC)	3380	
5211	31042	3683	8
5212	30180 (R)	3380	
5213	31048	3235	
5214	32053	4155	3$
5215	32052	4197	2$
5216	Pusa 44 (Sensitive Check and Recurrent Parent)	1729	
5217	32055	3622	9
5218	32056	3622	9
5219	Improved Samba Mahsuri (Recurrent Parent)	3139	
Exp. Mean		**3442**	
F Value		**2.51(p<0.0079)S**	
CD		1296	
CV%		**22.75**	
D/S			
D/P			
Local Check Name		CSR 36	

Table.13b.3 : Days to 50% Flowering, Plant height and Panicles per sq.m of AVT-1 AL&ISTVT Sodic Micro-plot Kharif-2023

Entry No	IET No	ZONE II NORTHERN HARYANA Karnal (ICAR-CSSRI)		
		DFF	PH	PAN
5201	31051	91	83	183
5202	31055	76	93	224
5203	31045	95	85	151
5204	31044	78	73	118
5205	CSR 36 (Alkaline Check)	93	75	178
5206	31054	97	82	197
5207	CSR 10 (Early duration Saline Check)	90	64	158
5208	31053	85	70	248
5209	31050	85	58	194
5210	Local Check (LC)	88	76	165
5211	31042	88	88	203
5212	30180 (R)	80	80	169
5213	31048	92	78	237
5214	32053	92	64	180
5215	32052	94	55	184
5216	Pusa 44 (Sensitive Check and Recurrent Parent)	112	59	140
5217	32055	98	56	173
5218	32056	114	54	183
5219	Improved Samba Mahsuri (Recurrent Parent)	108	53	162
Exp. Mean		**92**	**71**	**181**
SEm		**1.80**		

Table No.13b.4 : Grain quality characteristics of entries in AVT 1 – AL&ISTVT, kharif 2023

Entry No.	Designation / IET No.	HULL	MILL	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
5201	31051	78.0	68.1	58.7	5.96	2.07	2.87	MS	VOC	4.0	20.15	63
5202	31055	76.9	58.2	17.0	6.61	2.08	3.17	LS	VOC	7.0	24.40	54
5203	31045	77.4	66.2	43.7	5.40	1.76	3.06	SS	VOC	3.0	21.50	51
5204	31044	78.2	69.6	60.0	6.43	2.10	3.06	LS	VOC	7.0	15.81	74
5205	CSR-36 (AC)	78.7	69.5	63.0	7.00	2.04	3.43	LS	VOC	4.0	26.89	48
5206	31054	74.3	65.1	46.6	6.34	2.10	3.01	LS	VOC	4.0	20.85	73
5207	CSR- 10	73.0	63.2	30.1	5.19	2.59	2.00	SB	OC	4.0	24.31	46
5208	31053	78.1	68.9	59.2	6.40	1.85	3.45	LS	A	5.0	18.15	86
5209	31050	79.8	67.8	52.2	6.40	2.03	3.15	LS	VOC	4.0	26.45	22
5210	L.C	78.9	68.5	51.0	6.59	1.98	3.32	LS	VOC	4.0	27.48	62
5211	31042	78.7	67.2	47.2	6.73	2.26	2.97	LB	VOC	4.0	18.62	38
5212	30180	77.9	62.5	45.2	5.47	1.95	2.80	MS	VOC	4.0	28.10	24
5213	31048	79.7	69.8	49.0	6.12	2.15	2.84	LB	VOC	7.0	26.01	22
5214	32053	78.7	70.8	68.1	5.37	1.91	2.81	MS	VOC	4.0	23.20	22
5215	32052	78.7	70.3	66.8	6.29	2.08	3.02	LS	OC	7.0	24.20	22
5216	PUSA - 44	75.2	65.4	51.5	5.74	2.01	2.85	MS	VOC	7.0	23.58	34
5217	32055	76.9	68.1	62.3	5.18	1.79	2.89	MS	VOC	4.0	21.56	22
5218	32056	79.0	71.5	68.5	6.29	2.18	2.88	LB	VOC	7.0	25.43	42
5219	ISM (RP)	77.2	69.1	64.1	5.00	1.78	2.80	MS	VOC	4.0	24.34	24

HULL: Hulling (%); MILL: Milling (%); HRR: Head Rice Recovery (%); KL: Kernel Length (mm); KB: Kernel Breadth (mm); L/B: Length and breadth ratio; Grain Chalk: Grain Chalkiness; VOC: Very occasionally present; A: Absent ASV: Alkali Spreading Value; AC: Amylose Content (%); GC: Gel Consistency; LB: Long Bold; SB: Short Bold; LS: Long Slender; MS: Medium Slender; SS: Short Slender

Table.13c.1 Composition of entries in Initial Variety Trial – Alkaline and Inland Saline Tolerant Variety Trial (IVT-AL & ISTVT), Kharif 2023.

Entry No.	IET No.	Designation	Cross Combination	GT
1st year of testing:				
5301	31852	NVSR 6532	GNR 3 / IR71895-3R-9-3-1	LB
5302	31853	RNR 31670	TME 80518 / BPT 5204	LS
5303	31854	KMP 245	KMP 149 / FL 478-59	MS
5304	31855	RP Bio 4919-NSR23	KMR3 / O. rufipogon WR 120	LS
5305	31856	NVSR 6580	NAUR-1 / NVSR-6100	LB
5306	**CSR 36 (Alkaline check)**			
5307	31857	RNR 39000	R 741-55-2-1-R-1 / IR 64	LS
5308	31858	CSR 2021-ST-294-168	PR 114 / CSR56	
5309	**CSR 23 (Inland Saline Check)**			
5310	31859	NVSR 6630	NAUR-1 / IR 71895-3R-9-3-1	MS
5311	31860	KMP 246	KMP-149 / FL478-57	MS
5312	**CSR 10 (Early duration check)**			
5313	31861	CSR 2021-AL-2-94-112	IRRI 156 / CSR26	
5314	32293	RP 6616- CGR 23-CGIL-39-CGK 1-2124-39	Samba Mahsuri*2/Oryzarufipogon-VN90-1032-58(3)	LS
5315	31862	CSR 2021-AL-294-72	PR 126 / CSR27	
5316	**DRR Dhan 58 (Sensitive Check)**			
5317	**Pusa 44 (Sensitive Check)**			
5318	**FL 478 (Saline Tolerant Check)**			
5319	32294	RP 6616-CGR 24-CGIL-45-CGK 1-2124-49	Samba Mahsuri*2/Oryzarufipogon-VN90-1032-58(3)	MS
5320	**Local Check (LC)**			
5321	32295	RP Bio 4919-NSR 61	KMR 3/O.rufipogon WR 120	SB

Table\. 13c.2 : Grain Yield (kg/ha) of IVT AL&ISTVT Alkaline Kharif-2023

Entry No	IET No	ZONE II NORTHERN				ZONE III - EASTERN		Overall Mean (2)	
		Harvana (1)		Zone II (1)		Uttar Pradesh 2 (1)			
		Kurukshetra (Karnal)		Mean		Masodha			
5301	31852	4133	5	4133	5	3590		3862	9
5302	31853	3260		3260		4703	7	3982	7
5303	31854	2260		2260		2367		2314	
5304	31855	3933	6	3933	6	2128		3031	
5305	31856	3367	10	3367	10	4610	9	3989	6
5306	CSR 36 (Alkaline check)	3460	9	3460	9	3400		3430	
5307	31857	3267		3267		4942	5	4105	4
5308	31858	4593	2 *	4593	2 *	4898	6	4746	3 *
5309	CSR 23 (Inland Saline Check)	3320		3320		2168		2744	
5310	31859	3647	7	3647	7	2363		3005	
5311	31860	2293		2293		4654	8	3474	
5312	CSR 10 (Early duration check)	3007		3007		5195	1	4101	5
5313	31861	4540	3 *	4540	3 *	5053	2	4797	2 *
5314	32293	1827		1827		3546		2687	
5315	31862	4627	1 *	4627	1 *	4987	3	4807	1 *
5316	DRR Dhan 58 (Sensitive Check)	3013		3013		3218		3116	
5317	Pusa 44 (Sensitive Check)	2907		2907		4960	4	3934	8
5318	FL 478 (Saline Tolerant Check)	2307		2307				2307	
5319	32294	3293		3293		4322	10	3808	10
5320	Local Check	3513	8	3513	8	3768		3641	
5321	32295	4180	4	4180	4	3404		3792	
Exp. Mean		**3369**		**3369**		**3914**		**3603**	
F Value		**5.19(p<0.0001)S**		**5.19(p<0.0001)S**		**37.42(p<0.0001)S**		**12.50(p<0.0001)S**	
CD		952		952		473		576	
CV%		**17.12**		**17.12**		**7.31**		**9.69**	
D/S		24/06/2023				25/06/2023			
D/P		21/07/2023				03/08/2023			
Local Check Name		CSR 36				NDRK 2008			

Table.13c.2 : Grain Yield (kg/ha) of IVT AL&ISTVT Alkaline Kharif-2023

Entry No	IET No	Trial not considered					
		Uttar Pradesh 1(0)		Tamil Nadu (0)		Puducherry (0)	
		@Kanpur		@Annamalainagar		@Karaikal	
5301	31852	3667	2	5461		1299	
5302	31853	3607	3	8990	5	560	
5303	31854	2457		8200	6	2131	5
5304	31855	2947	10	7167	7	1571	7
5305	31856	3440	4	6410		1842	6
5306	CSR 36 (Alkaline check)	2793		5670		3128	3
5307	31857	2972	9	4965		1300	10
5308	31858	3217	7	6198		1065	
5309	CSR 23 (Inland Saline Check)	2639		3502		1114	
5310	31859	2770		7007	8	3360	2
5311	31860	2649		9303	4	1552	8
5312	CSR 10 (Early duration check)	3005	8	3587		2151	4
5313	31861	2409		5429		1189	
5314	32293	3736	1	6576	10	1524	9
5315	31862	2706		5009		438	
5316	DRR Dhan 58 (Sensitive Check)	3380	6	9367	3	727	
5317	Pusa 44 (Sensitive Check)	2642		9600	2	618	
5318	FL 478 (Saline Tolerant Check)	2705		10170	1	1300	10
5319	32294	2623		5470		1193	
5320	Local Check	2895		6797	9	3817	1
5321	32295	3411	5	3871			
Exp. Mean		**2984**		**6607**			
F Value		**1.26(p<0.2551)NS**		**148.61(p<0.0001)S**			
CD		**NS**		453			
CV%		**20.68**		**4.15**			
D/S		04/07/2023		23/06/2023			
D/P		07/08/2023		17/07/2023			
Local Check Name		Sarju 52		Trichy-2			

Table.13c.3 : Days to 50% Flowering, Plant height and Panicles per sq.m of IVT AL&ISTVT Alkaline Kharif-2023

Entry No	IET No	ZONE II NORTHERN						ZONE III - EASTERN			Overall Mean (2)		
		Haryana (1)			Zone II (1)			Uttar Pradesh 2 (1)					
		Kurukshetra (Karnal)			Mean			Masodha					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5301	31852	100	98	279	100	98	279	112	109	242	106	103	261
5302	31853	87	84	228	87	84	228	92	93	292	90	88	260
5303	31854	86	69	179	86	69	179	114	118	221	100	94	200
5304	31855	103	96	278	103	96	278	112	128	187	108	112	232
5305	31856	101	98	260	101	98	260	99	129	264	100	114	262
5306	CSR 36 (Alkaline check)	97	87	267	97	87	267	110	101	254	103	94	261
5307	31857	95	84	233	95	84	233	97	97	275	96	91	254
5308	31858	97	92	311	97	92	311	98	99	261	97	96	286
5309	CSR 23 (Inland Saline Check)	85	102	256	85	102	256	116	115	158	101	108	207
5310	31859	98	95	280	98	95	280	108	114	211	103	105	245
5311	31860	89	72	189	89	72	189	102	122	243	96	97	216
5312	CSR 10 (Early duration check)	88	61	218	88	61	218	94	77	269	91	69	243
5313	31861	86	95	299	86	95	299	88	105	286	87	100	293
5314	32293	113	96	134	113	96	134	111	98	234	112	97	184
5315	31862	97	92	317	97	92	317	104	109	268	100	101	292
5316	DRR Dhan 58 (Sensitive Check)	89	61	222	89	61	222	104	109	221	97	85	222
5317	Pusa 44 (Sensitive Check)	100	81	211	100	81	211	112	105	283	106	93	247
5318	FL 478 (Saline Tolerant Check)	105	77	200	105	77	200		.		105	77	200
5319	32294	88	89	243	88	89	243	97	107	243	93	98	243
5320	Local Check	104	95	278	104	95	278	102	114	247	103	105	263
5321	32295	110	99	289	110	99	289	110	109	234	110	104	261
Exp. Mean		**96**	**87**	**246**	**96**	**87**	**246**	**104**	**108**	**245**	**100**	**97**	**244**

Table.13c.3 : Days to 50% Flowering, Plant height and Panicles per sq.m of IVT AL&ISTVT Alkaline Kharif-2023

Entry No	IET No	Trial not considered								
		Uttar Pradesh 1(0)			Tamil Nadu (0)			Puducherry (0)		
		@Kanpur			@Annamalainagar			@Karaikal		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5301	31852	62	74	174	104	92	253	84	103	507
5302	31853	68	61	188	95	94	371	85	82	459
5303	31854	65	67	186	107	110	293	90	112	546
5304	31855	59	80	293	102	115	290	84	125	510
5305	31856	54	72	246	97	105	135	94	124	532
5306	CSR 36 (Alkaline check)	66	81	370	107	96	257	90	129	562
5307	31857	59	69	160	86	93	488	82	70	497
5308	31858	65	77	219	91	97	327	92	113	486
5309	CSR 23 (Inland Saline Check)	58	63	292	93	99	194	81	87	489
5310	31859	66	64	245	99	119	198	72	130	586
5311	31860	78	74	186	110	92	273	77	114	495
5312	CSR 10 (Early duration check)	56	67	276	87	58	537	83	67	549
5313	31861	57	78	284	87	60	276	83	125	473
5314	32293	65	81	407	96	85	272	94	105	506
5315	31862	61	81	237	95	100	416	84	124	422
5316	DRR Dhan 58 (Sensitive Check)	64	64	163	104	110	288	87	107	474
5317	Pusa 44 (Sensitive Check)	64	65	154	105	116	481	101	88	469
5318	FL 478 (Saline Tolerant Check)	53	61	190	96	97	248	88	77	511
5319	32294	58	73	215	90	90	396	84	118	503
5320	Local Check	58	76	350	105	125	331	92	108	629
5321	32295	63	104	310	97	126	490			
Exp. Mean		**62**	**73**	**245**	**98**	**99**	**325**	**86**	**105**	**510**

Table.13c.2 : Grain Yield (kg/ha) of IVT AL&ISTVT Normal Kharif-2023

Entry No	IET No	ZONE II-NORTHERN HARYANA Anjanitel (Karnal)		ZONE III-EASTERN UTTAR PRADESH Gautam Budha Nagar (Karnal)		ZONE VII – SOUTHERN PUDUCHERRY Puducherry		Overall Mean (3)	
5301	31852	4213	4	4560	4	3167		3980	6
5302	31853	3580	10	3987	9	2633		3400	
5303	31854	2067		2020		2233		2107	
5304	31855	3607	9	4213	6	3167		3662	10
5305	31856	3260		3467		4167	8	3631	
5306	CSR 36 (Alkaline check)	3120		3540		3200		3287	
5307	31857	3360		3693	10	4533	6	3862	7
5308	31858	4407	3	4680	2	3267		4118	3
5309	CSR 23 (Inland Saline Check)	3253		3427		2800		3160	
5310	31859	3913	6	3380		3367		3553	
5311	31860	2140		2107		4733	4	2993	
5312	CSR 10 (Early duration check)	2880		3047		4800	3	3576	
5313	31861	4473	2	4593	3	4667	5	4578	2 *
5314	32293	1987		1827		4333	7	2716	
5315	31862	4507	1	4753	1	5967	2	5076	1 *
5316	DRR Dhan 58 (Sensitive Check)	3640	8	2160		6267	1	4022	5
5317	Pusa 44 (Sensitive Check)	3773	7	4373	5	4100	9	4082	4
5318	FL 478 (Saline Tolerant Check)	2313		2433		3967	10	2904	
5319	32294	4020	5	4180	7	3367		3856	8
5320	Local Check	3267		3673		3967	10	3636	
5321	32295	3473		4180	7			3827	9
Exp. Mean		**3393**		**3538**		**3935**		**3620**	
F Value		**4.42(p<0.0001)S**		**4.78(p<0.0001)S**		**8.90(p<0.0001)S**		**10.13(p<0.0001)S**	
CD		1031		1188		960		553	
CV%		**18.42**		**20.35**		**14.76**		**9.26**	
D/S		24/06/2023		24/06/2023		10/07/2023			
D/P		21/07/2023		21/07/2023		15/08/2023			
Local Check Name		CSR 36		CSR 36		TRY 2			

Table.13c.3 : Days to 50% Flowering, Plant height and Panicles per sq.m of IVT AL&ISTVT Normal Kharif-2023

Entry No	IET No	ONE II-NORTHERI HARYANA Anjanitel (Karnal)			ZONE III-EASTERN UTTAR PRADESH am Budha Nagar (Ka			NE VII – SOUTHEF PUDUCHERRY Puducherry			Overall Mean (3)		
		DFF	**PH**	**PAN**	**DFF**	**PH**	**PAN**	**DFF**	**PH**	**PAN**	**DFF**	**PH**	**PAN**
5301	31852	97	99	318	95	94	244	88	105	543	93	99	369
5302	31853	85	84	284	86	83	211	92	85	531	88	84	342
5303	31854	85	76	189	85	65	156	95	114	524	88	85	289
5304	31855	104	99	289	107	92	238	94	129	540	102	107	356
5305	31856	94	102	244	96	96	200	103	127	636	98	108	360
5306	CSR 36 (Alkaline check)	102	89	233	107	85	202	100	136	546	103	103	327
5307	31857	94	83	267	98	88	206	86	74	660	93	81	378
5308	31858	96	95	321	99	91	267	97	116	549	97	101	379
5309	CSR 23 (Inland Saline Check)	84	100	239	86	104	190	85	92	540	85	99	323
5310	31859	96	98	291	96	92	194	76	133	557	89	108	347
5311	31860	91	75	211	88	69	165	83	118	654	87	87	343
5312	CSR 10 (Early duration check)	88	64	229	89	58	189	88	72	660	88	65	359
5313	31861	79	94	322	84	91	256	89	129	656	84	105	411
5314	32293	111	97	156	112	90	121	102	108	641	108	98	306
5315	31862	99	94	325	97	89	289	94	127	664	96	103	426
5316	DRR Dhan 58 (Sensitive Check)	89	65	285	89	63	178	94	110	688	90	79	384
5317	Pusa 44 (Sensitive Check)	105	80	289	105	80	233	107	92	630	106	84	384
5318	FL 478 (Saline Tolerant Check)	104	77	222	99	68	188	99	85	594	101	77	335
5319	32294	89	93	311	89	85	233	86	124	554	88	101	366
5320	Local Check	101	96	257	101	88	200	96	113	590	99	99	349
5321	32295	112	102	278	111	88	231				111	95	255
Exp. Mean		**96**	**89**	**265**	**96**	**84**	**209**	**93**	**109**	**598**	**95**	**94**	**352**

Table.13c.2 : Grain Yield (kg/ha) of IVT AL&ISTVT Saline Kharif-2023

Entry No	IET No	ZONE II-NORTHERN								ZONE VI – WESTERN		ZONE VII - SOUTHERN		Overall Mean (4)	
		Haryana				Haryana (2)		Zone II(2)		Gujarat (1)		Karnataka (1)			
		Rohtak (Karnal)		Panipat (Karnal)		Mean		Mean		Navasari		Gangavathi			
5301	31852	4067	4	4153	4	4110	4	4110	4	4963	2 *	1296		3620	5
5302	31853	2673		3327		3000		3000		4863	3 *	1980		3211	
5303	31854	2800		2847		2824		2824		3483	10	2240		2843	
5304	31855	3080		4100	5	3590	6	3590	6	2416		3964	3 *	3390	10
5305	31856	3687	6	3353		3520	8	3520	8	3459		1789		3072	
5306	CSR 36 (Alkaline check)	3400	8	3473	8	3437	9	3437	9	4666	5 *	1576		3279	
5307	31857	3713	5	3627	7	3670	5	3670	5	2799		3961	4 *	3525	6
5308	31858	4440	2	4480	1	4460	1 *	4460	1 *	2122		3708	5	3688	4
5309	CSR 23 (Inland Saline Check)	3300		3140		3220		3220		1476		2737		2663	
5310	31859	3320		3433	9	3377		3377		4991	1 *	3378	7	3781	3
5311	31860	2940		3007		2974		2974		2299		3169	9	2854	
5312	CSR 10 (Early duration check)	2907		2933		2920		2920		2619		2328		2697	
5313	31861	4267	3	4187	3	4227	3 *	4227	3 *	3526	9	4039	2 *	4005	2 *
5314	32293	1820		1887		1854		1854		2495		3240	8	2361	
5315	31862	4473	1	4407	2	4440	2 *	4440	2 *	4851	4 *	4145	1 *	4469	1 *
5316	DRR Dhan 58 (Sensitive Check)	3640	7	3173		3407	10	3407	10	1313		2642		2692	
5317	Pusa 44 (Sensitive Check)	2940		3027		2984		2984		2499		2233		2675	
5318	FL 478 (Saline Tolerant Check)	3267		2400		2834		2834						2834	
5319	32294	3340	10	3120		3230		3230		4491	6	2974	10	3481	7
5320	Local Check	3373	9	3433	9	3403		3403		3584	8	3451	6	3460	8
5321	32295	3307		3813	6	3560	7	3560	7	3882	7	2609		3403	9
Exp. Mean		**3369**		**3396**		**3383**		**3383**		**3340**		**2873**		**3238**	
F Value		**2.45(p<0.0068)S**		**2.64(p<0.0038)S**		**4.47(p<0.0001)S**		**4.47(p<0.0001)S**		**9.57(p<0.0001)S**		**23.81(p<0.0001)S**		**7.28(p<0.0001)S**	
CD		1102		1103		790		790		1046		483		531	
CV%		**19.82**		**19.68**		**14.14**		**14.14**		**18.95**		**10.18**		**9.93**	
D/S		24/06/2023		24/06/2023						01/07/2023		03/08/2023			
D/P		21/07/2023		21/07/2023						27/07/2023		16/09/2023			
Local Check Name		CSR 27		CSR 27						GNR-5		GNV 1109			

Table.13c.3 : Days to 50% Flowering, Plant height and Panicles per sq.m of IVT AL&ISTVT Saline Kharif-2023

Entry No	IET No	ZONE II-NORTHERN												ZONE VI – WESTERN						Overall Mean (4)		
		Haryana						Haryana (2)			Zone II(2)			Gujarat (1)			Karnataka (1)					
		Rohtak (Karnal)			Panipat (Karnal)			Mean			Mean			Navasari			Gangavathi					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5301	31852	100	88	233	102	84	233	101	86	233	101	86	233	100	116	353	125	88	208	107	94	257
5302	31853	89	85	144	77	75	190	83	80	167	83	80	167	87	96	353	110	72	173	91	82	215
5303	31854	87	70	156	86	73	133	87	71	145	87	71	145	109	122	347	115	85	160	99	87	199
5304	31855	100	94	178	105	84	222	102	89	200	102	89	200	104	87	329	113	114	225	105	95	239
5305	31856	97	94	200	101	87	189	99	91	195	99	91	195	100	107	335	113	116	144	103	101	217
5306	CSR 36 (Alkaline check)	91	83	189	102	79	211	97	81	200	97	81	200	99	100	350	119	96	184	103	89	233
5307	31857	101	93	222	90	85	221	95	89	222	95	89	222	89	107	350	105	84	188	96	92	245
5308	31858	90	89	250	102	82	322	96	86	286	96	86	286	91	108	341	103	92	187	96	93	275
5309	CSR 23 (Inland Saline Check)	88	106	191	78	97	167	83	102	179	83	102	179	93	141	335	83	93	238	86	109	233
5310	31859	97	89	189	98	82	202	98	86	195	98	86	195	96	111	359	113	111	201	101	98	237
5311	31860	89	70	177	88	69	143	89	69	160	89	69	160	110	90	353	111	91	169	100	80	210
5312	CSR 10 (Early duration check)	91	54	165	84	54	144	88	54	155	88	54	155	90	116	335	83	57	259	87	70	226
5313	31861	88	89	244	77	81	244	82	85	244	82	85	244	87	82	347	98	101	234	87	88	267
5314	32293	104	83	122	115	76	117	109	80	120	109	80	120	94	115	326	107	86	225	105	90	198
5315	31862	95	87	278	96	83	250	96	85	264	96	85	264	98	73	338	107	95	209	99	85	268
5316	DRR Dhan 58 (Sensitive Check)	91	65	199	88	70	177	89	68	188	89	68	188	110	123	341	112	74	169	100	83	221
5317	Pusa 44 (Sensitive Check)	95	81	167	109	79	150	102	80	159	102	80	159	100	86	326	110	78	165	104	81	202
5318	FL 478 (Saline Tolerant Check)	111	61	179	107	53	127	109	57	153	109	57	153		.			.		109	57	153
5319	32294	91	85	199	84	78	156	87	82	177	87	82	177	89	101	353	105	88	187	92	88	224
5320	Local Check	104	83	195	93	77	200	98	80	198	98	80	198	97	113	353	104	80	240	99	88	247
5321	32295	112	81	188	107	70	228	110	76	208	110	76	208	105	89	347	113	95	195	109	84	239
Exp. Mean		**96**	**82**	**194**	**95**	**77**	**192**	**95**	**80**	**193**	**95**	**80**	**193**	**97**	**104**	**343**	**107**	**90**	**198**	**99**	**87**	**229**

Table.13c.2 : Grain Yield (kg/ha) of IVT AL&ISTVT Saline Microplot Kharif-2023

Entry No	IET No	ZONE II-NORTHERN HARYANA Karnal (ICAR-CSSRI)	
5301	31852	4074	3
5302	31853	2593	
5303	31854	2741	
5304	31855	2963	
5305	31856	3556	6
5306	CSR 36 (Alkaline check)	3407	8
5307	31857	3407	8
5308	31858	4296	2
5309	CSR 23 (Inland Saline Check)	3481	7
5310	31859	3185	
5311	31860	2815	
5312	CSR 10 (Early duration check)	3185	
5313	31861	4370	1
5314	32293	1926	
5315	31862	4074	3
5316	DRR Dhan 58 (Sensitive Check)	3259	
5317	Pusa 44 (Sensitive Check)	3630	5
5318	FL 478 (Saline Tolerant Check)	3185	
5319	32294	3333	10
5320	Local Check	2963	
5321	32295	3185	
Exp. Mean		**3316**	
F Value		**2.10(p<0.0203)S**	
CD		1111	
CV%		**20.3**	
D/S		24/06/2023	
D/P		21/07/2023	
Local Check Name		CSR 27	

Table.13c.3 : Days to 50% Flowering, Plant height and Panicles per sq.m of IVT AL&ISTVT Saline Microplot Kharif-2023

Entry No	IET No	ONE II-NORTHERN HARYANA Karnal (ICAR-CSSRI		
		DFF	PH	PAN
5301	31852	96	82	255
5302	31853	81	64	123
5303	31854	86	74	120
5304	31855	102	74	167
5305	31856	97	84	242
5306	CSR 36 (Alkaline check)	100	70	233
5307	31857	90	74	222
5308	31858	98	77	256
5309	CSR 23 (Inland Saline Check)	83	85	227
5310	31859	97	74	200
5311	31860	88	70	147
5312	CSR 10 (Early duration check)	88	51	202
5313	31861	86	77	267
5314	32293	112	74	100
5315	31862	100	76	245
5316	DRR Dhan 58 (Sensitive Check)	85	69	189
5317	Pusa 44 (Sensitive Check)	102	74	249
5318	FL 478 (Saline Tolerant Check)	102	54	176
5319	32294	86	72	211
5320	Local Check	100	77	133
5321	32295	101	68	221
Exp. Mean		**94**	**73**	**199**

Table.13c.2 : Grain Yield (kg/ha) of IVT AL&ISTVT Sodic Microplot Kharif-2023

Entry No	IET No	ZONE II-NORTHERN HARYANA Karnal (ICAR-CSSRI)	
5301	31852	3778	4
5302	31853	2741	
5303	31854	2889	
5304	31855	3037	
5305	31856	3407	6
5306	CSR 36 (Alkaline check)	3481	5
5307	31857	3333	8
5308	31858	4148	1
5309	CSR 23 (Inland Saline Check)	3259	10
5310	31859	3407	6
5311	31860	2074	
5312	CSR 10 (Early duration check)	2815	
5313	31861	4000	3
5314	32293	1778	
5315	31862	4148	1
5316	DRR Dhan 58 (Sensitive Check)	3333	8
5317	Pusa 44 (Sensitive Check)	2593	
5318	FL 478 (Saline Tolerant Check)	3185	
5319	32294	3111	
5320	Local Check	3259	10
5321	32295	2222	
Exp. Mean		**3143**	
F Value		**2.72(p<0.0029)S**	
CD		1066	
CV%		**20.55**	
D/S		24/06/2023	
D/P		21/07/2023	
Local Check Name		CSR 26	

Table.13c.3 : Days to 50% Flowering, Plant height and Panicles per sq.m of IVT AL&ISTVT Sodic Microplot Kharif-2023

Entry No	IET No	ZONE II-NORTHERN HARYANA Karnal (ICAR-CSSRI)		
		DFF	PH	PAN
5301	31852	100	84	237
5302	31853	80	66	178
5303	31854	87	82	199
5304	31855	105	77	212
5305	31856	99	88	240
5306	CSR 36 (Alkaline check)	101	72	245
5307	31857	99	69	235
5308	31858	98	79	266
5309	CSR 23 (Inland Saline Check)	83	82	221
5310	31859	97	80	234
5311	31860	83	80	145
5312	CSR 10 (Early duration check)	88	55	189
5313	31861	84	78	257
5314	32293	105	100	134
5315	31862	92	78	242
5316	DRR Dhan 58 (Sensitive Check)	88	70	224
5317	Pusa 44 (Sensitive Check)	104	75	167
5318	FL 478 (Saline Tolerant Check)	108	80	214
5319	32294	86	76	201
5320	Local Check	92	84	206
5321	32295	108	79	177
Exp. Mean		**95**	**78**	**211**

ADVANCED VARIETY TRIAL & INITIAL VARIETY TRIAL COASTAL SALINE TOLERANT VARIETY TRIAL (AVT 2 & IVT - CSTVT)

Locations: 8 **Test Entries: 50**

Checks: Bhuthnath (Coastal Saline Check), FL478, CSR 10 (Early duration check), Pusa 44 (Sensitive check) and Local check and ADT 45 (Recurrent Parent) **Table: 14a**

AVT 2 & IVT – CSTVT trial was constituted with 50 test entries of which one entry (IET 30201) is in the third year of testing and three NIL entries (IET Nos. 32036, 32037 and 32038) along with five checks namely Bhuthnath (Coastal Saline Check), FL478, CSR10(Early duration check), Pusa 44 (Sensitive check), Local check and recurrent parent-ADT 45. As per the proceeding of 58th ARGM, it was discussed during the breeder group meeting and decided to repeat all the entries of IVT-CSTVT, 2022 and hence CSTVT trial consisted entries of AVT 2 & IVT-CSTVT. The trial was sent to 14 locations and data was received from 8 locations. Data from NRRI Cuttack, Canning Town, Chinsurah (Gosaba), Navsari, Panvel, Brahmavar, Karaikal and Puducherry were received. Very high level of saline stress coupled with drought condition after transplantation at Machilipatnam that affected the survival of most of entries. At Goa and Vytilla, heavy rains after transplantation affected the crop establishment and survival. Low stress level at Panvel due to rains and soil heterogeneity affected the crop growth as observed during the monitoring team visit during the crop growth stage. At Brahmavar, the sensitive check is the highest yielding entry and hence these locations are not considered for analysis. Hence, three among the 14 locations the data namely from six locations NRRI Cuttack, Canning Town, Chinsurah (Gosaba), Navsari, Karaikal and Puducherry were found suitable for final analysis under coastal saline stress.
The data pertaining to yield, days to 50% flowering, plant height, panicles/m^2 and quality are presented in tables 14a.1,14a.2,14a.3 and 14a.4. The EC and pH of these locations are given in below table.

Location/State	Soil pH	Soil EC (dSm-1)	Exptl mean (kg/ha)	Grain Yield Range (Kg/ha)	CV %	Remarks
NRRI Cuttack	5.7	6.3	3610	3139-4194	5.5	Data considered for analysis under stress
Canning Town	7.0 to 8.0	7.9 to 8.17	3921	2344- 6401	6.3	Data considered for analysis under stress
Chinsurah (Gosaba)	6.5	6.0 to 8.0	4300	3276- 5514	15.9	Data considered for analysis under stress
Navsari (Danti)	8.3	5.71	2660	559- 4450	18.8	Data considered for analysis under stress
Puducherry	8.59	4.8	3056	1467-4400	11.4	Data considered for analysis under stress
Karaikal	9.1	4.03	3380	1858-4802	12.0	Data considered for analysis under stress.
Panvel	7 to 8.0	1.5 to 5.8	1565	369-3333	18.5	Data not considered due to low stress, low exptl mean.
Brahmavar	7.2	---	1647	781-2419	14.47	Data not considered. Sensitive check is highest yielding, low experimental mean

1. Performance of entries on overall basis across locations

On overall basis, the data namely from six locations NRRI Cuttack, Canning Town, Chinsurah (Gosaba), Navsari, Karaikal and Puducherry were found suitable for final analysis under coastal saline stress. The grain yield ranged from 2397 kg/ha (IET31079) to 4133kg/ha (IET31878), days to 50% flowering ranged from 88 (CSR 10, IET 31883) to 104days (IET31873), plant height of the entries ranged from 84 cm (CSR 10) to 131 cm (IET 31074) and the panicles/m2 varied from 350 (IET 31886) to 460 (IET 31889). Among the checks, local check (3855 kg/ha), recorded highest yield followed by CSR 10 (3153 kg/ha), FL 478 (3122 kg/ha), Bhuthnath (3093 kg/ha) and Pusa 44 (2879 kg/ha). Promising genotypes were identified based on significant critical difference of the test entries over the checks- either best check or over early check. Local check with mean grain yield of 3855 kg/ha and 97 days to 50% flowering is best check and CSR 10 with 3153 kg/ha and 88 days to flowering is the early check. ***None of the entries found significantly superior as compared either to best check or early check on overall basis.***

IET 32037 (KR 21001) developed through backcrossing of ADT 45 with FL 478 from the cross ADT 45*4/FL 478 with *saltol* QTL recorded a mean grain yield of 3651 kg/ha and 91 days to 50% flowering on overall basis found to be significant yield superiority over RP-ADT 45.

Two NIL cultures namely IET 32036 (KR 21002) and IET 32038 (KR 21003) in the genetic background of ADT 45 developed from the backcross method with the pedigree of ADT 45*4/FL 478//CSR 27 with *saltol* QTL from FL 478 and reproductive stage salinity tolerance from CSR 27 parent showed a mean grain yield of 3860 kg/ha and 92 days to 50%;mean grain yield of 3915 kg/ha and 94 days to 50% flowering respectively on overall basis flowering exhibited significant yield advantage over RP-ADT 45

On Overall basis, NILs namely IET's 32036, 32037 and 32038 found promising and are promoted.

2. Performance in Zone III

In zone III, the data from NRRI Cuttack, Canning Town, Chinsurah (Gosaba) was considered for analysis. The grain yield ranged from 3034 kg/ha (IET31079) to 4797 kg/ha (IET31876), days to 50% flowering ranged from 90 (IET's 30201, 31060, 31876 and CSR 10) to 110days (IET31082), plant height of the entries ranged from 85 cm (ADT 45 (RP)) to 130 cm (IET 31074) and the panicles/m2 varied from 254 (Pusa 44) to 409 (IET 31867). Among the checks, local check (3903 kg/ha) recorded highest yield followed by CSR 10 (3599 kg/ha), Pusa 44 (3532 kg/ha), Bhuthnath (3464 kg/ha) and FL 478 (950 kg/ha).Promising genotypes were identified based on significant critical difference of the test entries over the checks- either best check or over early check. Local check with mean grain yield of 3903 kg/ha and 100 days to 50% flowering is best check and CSR 10 with 3599 kg/ha and 90 days to flowering is the early check. Hence the promising entries are identified based on significant critical difference of the test entries over the checks- either best check or over early check. Based on flowering duration, nine entries over best check-local, one entry over best check as well as early check and one entry over early duration check-CSR 10 were significant and promising on overall basis.

Among the test entries, **IET 31876** (CR 4084-1-B-1-B-1) developed from the cross combination CR 2838-SR-27/Binadhan 10 recorded a mean grain yield of 4797 kg/ha and 90 days to 50% flowering (DFF) found to be significantly superior over best check as well as over early check-CSR10. Promising in Z-III and is promoted.

Similarly, **IET 31074** (CR 3460-E-2-2-B-1) derived from the three way cross of CR 3299-11-1-1//IR64/FL478 recorded 4753 kg/ha mean grain yield and 102 DFF; **IET 31063**(CR 3439-E-5-2-1-1-B-1) with the cross combination of Naveen/Chettivirippu (AC 39394) registered mean grain yield of4635 kg/ha and 99 DFF; **IET 31889** (CN 2172-13-10-1-1) developed from the parentage of Nona Bokra/Swarna Sub 1 showed4626 kg/ha mean grain yield and 107 DFF; IET 31863 (NVSR 6572) derived from the parentage of GNR-3/Kala Ratarecorded mean grain yield of 4608 kg/ha and 96 DFF; **IET 31065** (CR 4086-5-B-7-B-1) developed from the cross CR 2814-1-S-1-6-3-2B-1/Binadhan 10with 4564 kg/ha mean grain yield and 97 DFF; IET 31871(NVSR-6531) derived from the parentage of GNR-3/IR71895-3R-9-3-1exhibited a mean grain yield of 4485 kg/ha and 97 DFF; IET 31877 (MLD 214-IR16T1001) with the cross combination of IR10F559/IR12T101 recorded mean grain yield of 4476 kg/ha and 100 DFF; IET 31878(CR 4290-281-14-3-1-1-1-1) with the pedigree of SR 14-5-1/Luna Sankhi registered a mean grain yield of 4358 kg/ha and 96 DFF and **IET 31875** (CCSRI/GRS11-4-283-34) developed from Goa Dhan 1/CSR27 with 4326 kg/ha and 102 DFF were found to be significantly superior over best check in Z-III and are promoted.

IET 31060 (CR 3478-M-11-B-1) developed from the three way cross with the pedigree of MTU 1010/Korgut//IR64/FL478 /// IR 73931-40-1-2-3-2-22-1with 4281 kg/ha and 90 DFF exhibited significantly superior to early check-CSR 10, promising in Z-III and is promoted.

NIL entries namely **IET 32037** (KR 21001),**IET 32036** (KR 21002) and **IET 32038** (KR 21003)recorded mean grain yield of 3878 kg/ha and 96 DFF,4217 kg/ha and 97 DFF; 4209 kg/ha and 99 DFF respectively in Zone-III found to be significant yield superioty over RP- ADT 45 and are promoted in zone-III.

In Zone-III: IET nos. 31876, 31074, 31063, 31889, 31863, 31065, 31871, 31877, 31878, 31875 and 31060; NILs namely IET's 32036, 32037 and 32038 found promising and are promoted.

3. Performance in Zone VI

In zone VI, the data from Navsari (Danti) was considered for analysis. The grain yield ranged from 559 kg/ha (IET31889) to 4450 kg/ha (IET30201), days to 50% flowering ranged from 81 (ADT 45 (RP))to 121days(IET31870), plant height of the entries ranged from 84 cm (CSR 10) to 146 cm (IET 31870) and the panicles/m2 varied from 284 (IET 31887) to 368 (IET 31882). Among the checks, local check (3894 kg/ha) recorded highest yield followed by FL 478 (3246 kg/ha), Bhuthnath (3086 kg/ha), Pusa 44 (2767 kg/ha) and CSR 10 (780 kg/ha). Promising genotypes were identified based on significant critical difference of the test entries over the checks- either best check or over early best check. Local check with mean grain yield of 3894 kg/ha and 94 days to 50% flowering is best check and FL 478 with 3246 kg/ha and 83 days to flowering is the early best check. Hence the promising entries are identified based on significant critical difference of the test entries over the checks- either best check (local) or over early best check-FL 478. ***Based on yield and flowering duration, none of the entries exhibited significant superiority over either the best check or early check. Hence none found merit for promotion in Zone-VI.***

4. Performance in ZoneVII

In zone VII, the data from Puducherry and Karaikal were found suitable for final analysis was considered for analysis. The grain yield ranged from1663 kg/ha (IET31886) to 4418 kg/ha (IET31075), days to 50% flowering ranged from 75 (IET 31883) to

103days (IET31873& 31877), plant height of the entries ranged from 66 cm (Pusa 44) to 140 cm (IET 31876) and the panicles/m2 varied from 453 (IET 31886) to 647 (IET 32036). Among the checks, local check (3763 kg/ha) recorded highest yield followed by CSR 10 (3670 kg/ha), FL 478 (2801 kg/ha), Bhuthnath (2541 kg/ha) and Pusa 44 (2284 kg/ha).Promising genotypes were identified based on significant critical difference of the test entries over the checks- either best check or over early best check. Local check with mean grain yield of 3763 kg/ha and 93 days to 50% flowering is best check and CSR 10 with 3670 kg/ha and 83 days to flowering is the early best check. Hence the promising entries are identified based on significant critical difference of the test entries over the checks- either best check (local) or over early check-CSR 10. None of the entries were found to record the significant yield superiority over with early duration check- CSR 10 although they are with comparable flowering duration and none merit promotion based on early check-CSR 10 in zone-VII.

Based on best check, one entry **IET 31075** (CSR 2018-43-16), a three-way cross derivative from the parentage of CSR 36 / FL478 // FR13A / KHO with mean grain yield of 4418 kg/ha and 86 days to 50% flowering recorded significant yield advantage over best check- Local and is promoted in zone-VII. NIL entries namely **IET 32037 (KR 21001), IET 32036 (KR 21002) and IET 32038 (KR 21003)** recorded mean grain yield of 4108 kg/ha and 78DFF,4395 kg/ha and 84DFF; 4230 kg/ha and 93DFF respectively in Zone-VII found to be significant yield superiority over RP- ADT 45 and are promoted in zone-VII.

In Zone-VII, IET 31075, NILs namely IET's 32036, 32037 and 32038 found promising and are promoted.

5. Performance of NILs of ADT 45 under coastal salinity for during Kharif 2023 in CSTVT

During 2023 three NILs namely IET's 32036, 32037 and 32038 in the genetic background of ADT 45 were nominated for trait verification and yield evaluation under saline and alkaline stress conditions. All these NILs were evaluated in stress locations in different zones. Among them, IET 32037 (KR 21001) developed through backcrossing of ADT 45 with FL 478 from the cross ADT 45*4/FL 478 with *saltol* QTL recorded a mean grain yield of 3651 kg/ha and 91 days to 50% flowering on overall basis, with 3878 kg/ha grain yield and 96 days to flowering in Zone-III; with 4108 kg/ha grain yield and 78 days to 50% flowering in Zone-VII exhibited significant yield superiority over recurrent parent – ADT 45 on overall basis as well in zone-III and zone-VII.

IET 32036, another NIL culture in the genetic background of ADT 45 developed from the backcross method with the pedigree of ADT 45*4/FL 478//CSR 27 with *saltol* QTL from FL 478 and reproductive stage salinity tolerance from CSR 27 parent. IET 32036 showed a mean grain yield of 3860 kg/ha and 92 days to 50% flowering on overall basis, with 4217 kg/ha grain yield and 97 days to flowering in Zone-III; with 4395 kg/ha grain yield and 84 days to 50% flowering in Zone-VII exhibited significant yield superiority over recurrent parent – ADT 45 on overall basis as well in zone-III and zone-VII.

IET 32038, another sister NIL of IET 32036 in the genetic background of ADT 45 developed from the backcross method with the pedigree of ADT 45*4/FL 478//CSR 27 with *saltol* QTL from FL 478 and reproductive stage salinity tolerance from CSR 27 parent. IET 32038 showed a mean grain yield of 3915 kg/ha and 94 days to 50% flowering on overall basis, with 4209 kg/ha grain yield and 99 days to flowering in Zone-III; with 4230 kg/ha grain yield and 93 days to 50% flowering in Zone-VII exhibited significant yield superiority over recurrent parent – ADT 45 on overall basis as well in zone-III and zone-VII.

The yield data of the three NILs (IET's 32036, 32037 and 32038) in the Gazette notified states of the recurrent parent is available in the duration trial i.e., AVT1-ETP. All the NIL entries exhibited flowering duration comparable to that of recurrent parent- ADT 45 and significant yield advantage over RP. **Hence merit promotion for further testing under AVT2 trial**.

6. Performance of entriesin CSTVT during three years of testing, 2021-2023

IET 30201 (CR 4283-274-6-2-1-3) derived from the parentage of CR Dhan 310 /Getu entered IVT CSTVT in 2021 and has completed three years of multi-location testing. During 2021, IET 30201 recorded 4583 kg/ha and 104 days to 50% flowering, exhibited significantly superiority performance over the best check in Z-VII. In 2022, IET 30201 recorded 4583 kg/ha and 104 days to 50% flowering, exhibited significantly superiority performance over the best check in Z-VII. However, during 2023 IET 30201 failed to record significant yield advantage over the best check either on overall basis or in any of the zones tested. State wise, IET 30201 recorded significant yield advantage for two years in Gujarat state with 4293 kg/ha and 102 DFF (2021) and 2762 kg/ha and 95 DFF (2022); and for one year in Maharashtra with 4872 kg/ha mean grain yield and 105 days to 50% flowering (2021). ***IET 30201 based on three years of testing found promising for two years in Gujarat state only***

Summary

- **Overall: NILs namely IET's 32036, 32037 and 32038**
- **Zone- III: IET nos. 31876, 31074, 31063, 31889, 31863, 31065, 31871, 31877, 31878, 31875 and 31060; NILs namely IET's 32036, 32037 and 32038**
- **Zone-VI: None**
- **Zone-VII: IET 31075, NILs namely IET's 32036, 32037 and 32038**
- ***Based on three year of performance,* IET 30201 *found promising in Gujarat state.***

Performance of entries in IVT- CSTVT during Kharif, 2023

IET No / Designation/ Cross combination	Overall (6)	Z-III (3)	Z-VI (1)	Z –VII (2)	Remarks
31876 (CR 4084-1-B-1-B-1) CR 2838-SR-27/Binadhan 10		4797 90			Significantly superior over best check as well as over early check-CSR10. Promising in Z-III. Promoted
31074 (CR 3460-E-2-2-B-1) CR 3299-11-1-1 // IR64 / FL478		4753 102			Significantly superior over best check. Promising in Z-III. Promoted
31075 (CSR 2018-43-16) CSR 36 / FL478 // FR13A / KHO				4418 86	Significantly superior over best check. Promising in Z-VII. Promoted
31063 (CR 3439-E-5-2-1-1-B-1) Naveen / Chettivirippu (AC 39394)		4635 99			Significantly superior over best check. Promising in Z-III. Promoted
31889 (CN 2172-13-10-1-1) Nona Bokra / Swarna Sub 1		4626 107			Significantly superior over best check. Promising in Z-III. Promoted
31863 (NVSR 6572) GNR-3 / Kala Rata		4608 96			Significantly superior over best check. Promising in Z-III.

IET No / Designation/ Cross combination	Overall (6)	Z-III (3)	Z-VI (1)	Z –VII (2)	Remarks
					Promoted
31065 (CR 4086-5-B-7-B-1) CR 2814-1-S-1-6-3-2B-1 / Binadhan 10		4564 97			Significantly superior over best check. Promising in Z-III. Promoted
31871 (NVSR-6531) GNR-3 / IR71895- 3R-9-3-1		4485 97			Significantly superior over best check. Promising in Z-III. Promoted
31877 (MLD 214-IR16T1001) IR10F559 / IR12T101		4476 100			Significantly superior over best check. Promising in Z-III. Promoted
31878 (CR 4290-281-14-3-1-1-1-1) SR 14-5-1 / Luna Sankhi		4358 96			Significantly superior over best check. Promising in Z-III. Promoted
31875 (CCSRI/GRS11-4-283-34) Goa Dhan 1 / CSR27		4326 102			Significantly superior over best check. Promising in Z-III. Promoted
31060 (CR 3478-M-11-B-1) MTU 1010 / Korgut // IR64 / FL478 /// IR 73931-40-1-2-3-2-22-1		4281 90			Significantly superior over early check-CSR 10. Promising in Z-III. Promoted
32038 (KR 21003) ADT 45*4/ FL 478//CSR 27	3915 94	4209 99		4230 93	
32037 (KR 21001) ADT 45*4/ FL 478	3651 91	3878 96		4108 78	
32036 (KR 21002) ADT 45*4/ FL 478//CSR 27	3860 92	4217 97		4395 84	
ADT 45 (RP)	2774 90	3446 99		2238 82	
Bhuthnath (CoastalSalineCheck)	3093 93	3464 98	3086 99	2541 83	
CSR10 (Earlysaline check)	3153 88	**3599** **90**	780 **92**	**3670** **83**	
FL478 (SalineTolerant Check)	3122 93	950 96	3246 83	2801 92	
Pusa44 (SensitiveCheck)	2879 93	3532 100	2767 95	2284 86	
LocalCheck	**3855** 97	**3903** 100	**3894** **94**	**3763** 93	
CD	279	414	811	433	

Table: Performance of entries in CSTVT during three years of testing, 2021-2023

IET No /Designation/Crossc ombination	Year	Overall		Zone			State		
		Yield(kg/ ha)	D FF	Zone/R ank	Yield(kg/ ha)	D FF	State/R ank	Yield(kg /ha	D FF
IET 30201 (CR 4283-274-6-2-1-3) CR Dhan 310 /Getu	2021	--	104	Z-VI	4583	104	MA (4)	4872	105
							GU (1)	4293	102
	2022	3254	99	Z-VI	3254	99	GU (2)	2762	95
	2023	--		--			--		
Bhuthnath (Coastal Saline Check)	2021	3264	101	Z-VI	2823	103			
				Z-VII	4147	97			
	2022	3583	96	Z-VI	3583	96			
	2023	3093	93	Z-III	3464	98			
				Z-VI	3086	99			
				Z-VII	2541	83			
CSR 10 Early saline check	2021	2801	99	Z-VI	1699	108			
				Z-VII	3903	83			
	2022	2128	92	Z-VI	2128	92			
	2023	3153	88	Z-III	3599	90			
				Z-VI	780	92			
				Z-VII	3670	83			
Local check	2021	4104	107	Z-VI	3336	105			
				Z-VII	5641	111			
	2022	3391	93	Z-VI	3391	93			
	2023	3855	97	Z-III	3903	100			
				Z-VI	3894	94			
				Z-VII	3763	93			
CD	2021	757		Z-VI	893				
				Z-VII	1288				
	2022	527		Z-VI	527				
	2023	279		Z-III	414				
				Z-VI	811				
				Z-VII	433				

Table No.14a.1 : Composition of entries in Advance Variety Trial 2 & Initial Variety Trial – Coastal Saline Tolerant Variety Trial (AVT 2 & IVT-CSTVT), Kharif 2023.

Entry No.	IET No.	Designation	Cross Combination	GT
3rd year of testing:				
5401	30201	CR 4283-274-6-2-1-3	CR Dhan 310 / Getu	
1st year of testing:				
5402	31060	CR 3478-M-11-B-1	MTU 1010 / Korgut // IR64 / FL478 /// IR 73931-40-1-2-3-2-22-1	
5403	31059	MCM 140 (MCM 147-1-1-2-1)	PLA 1100 / BM71	
5404	31068	CSR 2018-43-36	CSR 27 / FL478 // FR13A / KHO	
5405	31074	CR 3460-E-2-2-B-1	CR 3299-11-1-1 // IR64 / FL478	
5406	31064	MCM 138 (MCM 208-12-1-1)	MTU 7029 / CSR 27	
5407	31078	CSR 2018-43-18	CSR 36 / FL 478 // FR 13A / KHO	
5408	31863	NVSR 6572	GNR-3 / Kala rata	LB
5409	31864	MTU 1420 (NIC6-1-3B)	Swarna sub1/ MTU II 1110-9-1-1-1 / FL 478 / AC 39416A	MS
5410	31865	RP Bio 4919-NSR 13	KMR 3 / O. rufipogon WR120	LB
5411	**Bhuthnath (Coastal Saline Check)**			
5412	31866	CCARI/GRS 10-7-146-2	Goa Dhan 1 / Jaya	MB
5413	31063	CR 3439-E-5-2-1-1-B-1	Naveen / Chettivirippu (AC 39394)	

Entry No.	IET No.	Designation	Cross Combination	GT
5414	31075	CSR 2018-43-16	CSR 36 / FL478 // FR13A / KHO	
5415	31080	CR 4087-5-B-1	CR 2843-1-5-1-6-B-5-B / Binadhan 10	
5416	31867	NVSR 6642	Panvel 1 / IR 71895-3R-9-3-1	SB
5417	31079	CSR 2018-43-37	CSR 27 / FL478 // FR 13A / KHO	
5418	**CSR 10 (Early duration saline check)**			
5419	31868	CR 4256-247-9-2-2-1-1-1	Naveen / FL 496	MS
5420	31869	MLD 215-IR 82635-B-B-75-2	IR 78875-176-B-2 / IR 78875-207-B-3	LS
5421	31870	CR 2839-1-5-B-1-5-1-B-9-1-1-1	Swarna / FL 496	LS
5422	31065	CR 4086-5-B-7-B-1	CR 2814-1-S-1-6-3-2B-1 / Binadhan 10	
5423	31871	NVSR-6531	GNR-3 / IR71895-3R-9-3-1	LB
5424	31872	CR 4086-5-B-10-5-B-1	CR 2814-1-S-1-6-3-2B-1 / Binadhan 10	MS
5425	31873	MCM-142 (MCM 159-1-2-2)	IR 64 / CSR 10	
5426	31874	CR 4303-294-5-4-2-1-1-2	SR 27-8-1 / Pokkali	MS
5427	31875	CCSRI/GRS11-4-283-34	Goa Dhan 1 / CSR27	SB
5428	31876	CR 4084-1-B-1-B-1	CR 2838-SR-27 / Binadhan 10	SB
5429	31877	MLD 214-IR16T1001	IR10F559 / IR12T101	LS
5430	31878	CR 4290-281-14-3-1-1-1-1	SR 14-5-1 / Luna Sankhi	MS
5431	**FL 478 (Saline Tolerant Check)**			
5432	31879	MCM-143 (MCM 144-25-1-1-1)	MTU 1121 / MTU 3626 // JGL 384	
5433	31880	CR 4301-292-3-4-2-1-1-1-1	SR 27-8-1 / AC39293	MS
5434	31082	CR 2845-S-B-B-4-1-1-4	Swarna Sub1 / SR 26B	
5435	31881	CCARI/GRS11-2-174-9	Goa Dhan 1 / CSR27	MB
5436	31882	CR 4181-4-B-1	CR 3856-44-22-2-1-11-1-5 (SR-1-5-1) / CSR 27	MS
5437	31883	MTU 1421 (C6-6-10R24)	MST40 / CSR27 // *2 MST40	LS
5438	31884	MCM-144 (IR 17F1107)	IR 13F265 / IR 09A130	
5439	31885	CR 4202-286-22-1	CR Dhan 800 / Raspanjar	MB
5440	31886	CR 4482-1-IR16L1795	IR 09L337*3 / Bunga Mehu	MB
5441	31887	CCARI/GR9-5-163-12	Jaya / CSR27	MB
5442	31888	CR 4285-276-6-3-1-1-1-1	CR Dhan 310 / FL 478	MB
5443	**Pusa 44 (Sensitive Check)**			
5444	31889	CN 2172-13-10-1-1	Nona Bokra / Swarna Sub 1	MB
5445	31070	RP 6166-47-1-21-1	MTU 1010 / O.rufipogon	
1st year of testing (NILs):				
5446	32038	KR 21003	ADT 45*4/ FL 478//CSR 27	MS
5447	32037	KR 21001	ADT 45*4/ FL 478	MS
5448	32036	KR 21002	ADT 45*4/ FL 478// CSR 27	MS
5449	**ADT 45 (RP)**			MS
5450	**Local Check (LC)**			

Table No.14a.2 : Grain Yield (kg/ha) in AVT 2 & IVT-CSTVT (Coastal Saline), Kharif 2023

Entry No	IET No	ZONE III-EASTERN									
		Odisha (1)		West Bengal				West Bengal (2)		Zone III (3)	
		ICAR-NRRI (Cuttack)		Canning-ICAR		Gosaba		Mean		Mean	
5401	30201	3352		5276	8	3416		4346		4015	
5402	31060	3370		5378	5	4095		4737	9	4281	
5403	31059	3528		2990		3642		3316		3387	
5404	31068	3259		2746		4136		3441		3380	
5405	31074	3333		5885	2	5041	7	5463	1 *	4753	2 *
5406	31064	3750		3900		3848		3874		3833	
5407	31078	4111	3	2587		4280		3434		3659	
5408	31863	3806		4900		5119	5	5010	5 *	4608	5 *
5409	31864	3685		3633		4412		4023		3910	
5410	31865	3287		3551		5514	1	4533		4117	
5411	Bhuthnath (Coastal Saline Check)	3528		2728		4136		3432		3464	
5412	31866	3139		3607		4074		3841		3607	
5413	31063	4009	7	5743	3	4152		4948	6 *	4635	3 *
5414	31075	3963	9	2594		3889		3242		3482	
5415	31080	3731		3224		4955	10	4090		3970	
5416	31867	4028	6	2872		3848		3360		3583	
5417	31079	3250		2368		3484		2926		3034	
5418	CSR 10 (Early duration saline check)	3963	9	2702		4132		3417		3599	
5419	31868	3667		3250		3860		3555		3592	
5420	31869	3565		3847		4918		4383		4110	
5421	31870	3380		5044		3914		4479		4113	
5422	31065	4093	4	5442	4	4156		4799	7 *	4564	6 *
5423	31871	3343		5068	10	5045	6	5057	3 *	4485	7 *
5424	31872	3185		5360	6	4000		4680	10	4182	
5425	31873	3352		3351		4901		4126		3868	
5426	31874	3583		4480		4066		4273		4043	
5427	31875	3815		5278	7	3885		4582		4326	10 *
5428	31876	3917		6401	1	4074		5238	2 *	4797	1 *
5429	31877	4148	2	4114		5165	4	4640		4476	8 *
5430	31878	4056	5	4619		4399		4509		4358	9 *
5431	FL 478 (Saline Tolerant Check)	3426		2511		3428		2970		3122	
5432	31879	3231		4166		4815		4491		4071	
5433	31880	3537		3964		5008	9	4486		4170	
5434	31082	3556		4259		3844		4052		3886	
5435	31881	3796		3003		3276		3140		3358	
5436	31882	3213		2441		3745		3093		3133	
5437	31883	3537		2583		4249		3416		3456	
5438	31884	3870		4792		4156		4474		4273	
5439	31885	3676		4219		4012		4116		3969	
5440	31886	3361		4511		5021	8	4766	8	4298	
5441	31887	3222		2905		3868		3387		3332	
5442	31888	3380		3919		5185	3	4552		4161	
5443	Pusa 44 (Sensitive Check)	3602				3461		3461		3532	
5444	31889	3852		5129	9	4897		5013	4 *	4626	4 *
5445	31070	3648		3326		4383		3855		3786	
5446	32038	3963	9$	3937		4728		4333	$	4209	$
5447	32037	4194	1$	3555		3885		3720		3878	$
5448	32036	3324		4021		5305	2	4663	$	4217	$
5449	ADT 45 (RP)	3509		2344		4486		3415		3446	
5450	Local Check (LC)	3407		3606		4695		4151		3903	
Exp. Mean		**3610**		**3920.93**		**4300**		**4105.86**		**3941.05**	
F Value		**6.83(p<0.0001)S**		**54.66(p<0.0001)S**		**2.09(p<0.0009)S**		**8.07(p<0.0001)S**		**9.22(p<0.0001)S**	
CD		321		400		1109		641		414	
CV%		5.49		6.3		15.92		9.63		6.48	
D/S		04-08-2023		12-07-2023		17-07-2023					
D/P		28-08-2023		10-08-2023		19-08-2023					
Local Check Name		Luna Suvarna		Canning 7		Chinsurah Nona 1					

Table No.14a.2 (Contd).: Grain Yield (kg/ha) in AVT 2 & IVT-CSTVT (Coastal Saline), Kharif 2023

Entry No	IET No	ZONE VI – WESTERN		ZONE VII – SOUTHERN						Overall Mean (6)	
		Gujarat		Puducherry				Zone VII (2)			
		Navasari		Puducherry		Karaikal		Puducherry (2)			
5401	30201	4450	1	2567		2712		2640		3629	
5402	31060	2139		3533		4341	5	3937	10	3809	
5403	31059	1996		2000		2214		2107		2728	
5404	31068	2851		3000		2441		2721		3072	
5405	31074	2845		2933		2615		2774		3775	
5406	31064	1834		3467		4207		3837		3501	
5407	31078	1177		2267		1927		2097		2725	
5408	31863	4271	2	2467		3495		2981		4010	4
5409	31864	2223		3600		3987		3794		3590	
5410	31865	3060		3233		3302		3268		3658	
5411	Bhuthnath (Coastal Saline Check)	3086		2300		2782		2541		3093	
5412	31866	3938	5	3633		4110		3872		3750	
5413	31063	2405		3667		3897		3782		3979	6
5414	31075	1201		4033	6	4802	1 *	4418	1 *	3414	
5415	31080	3787	9	4067	4	4284	7	4176	5	4008	5
5416	31867	2097		3300		3030		3165		3196	
5417	31079	1565		1767		1948		1858		2397	
5418	CSR 10 (Early duration saline check)	780		3400		3940		3670		3153	
5419	31868	2717		3467		3740		3604		3450	
5420	31869	4231	3	2467		2716		2592		3624	
5421	31870	1070		3233		3487		3360		3355	
5422	31065	3499		2633		2242		2438		3678	
5423	31871	3688	10	3833	10	3357		3595		4056	2
5424	31872	3430		3967	8	4260	10	4114	7	4034	3
5425	31873	3078		3867	9	4512	2	4190	4	3844	
5426	31874	3535		2967		3138		3053		3628	
5427	31875	3099		3067		4388	4	3728		3922	8
5428	31876	3532		2633		3276		2955		3972	7
5429	31877	3065		2167		2926		2547		3598	
5430	31878	3929	6	3533		4263	9	3898		4133	1
5431	FL 478 (Saline Tolerant Check)	950		2933		3559		3246		2801	
5432	31879	4218	4	2967		3694		3331		3849	
5433	31880	3468		1867		2850		2359		3449	
5434	31082			2233		3154		2694		3409	
5435	31881	1435		1833		2436		2135		2630	
5436	31882	2758		3400		4276	8	3838		3306	
5437	31883	1935		3333		3013		3173		3108	
5438	31884	3812	8	3367		3382		3375		3897	
5439	31885	3171		4033	6	4289	6	4161	6	3900	10
5440	31886	2606		1467		1858		1663		3137	
5441	31887	779		3800		3306		3553		2980	
5442	31888	2851		1667		2766		2217		3295	
5443	Pusa 44 (Sensitive Check)	2767		2000		2567		2284		2879	
5444	31889	559		4067	4	4136		4102	9	3773	
5445	31070	2599		1767		2924		2346		3108	
5446	32038	2401		4267	2	4192		4230	3 * $	3915	9$
5447	32037	2056		4108	3	4107		4108	8$	3651	$
5448	32036	1721		4400	1	4390	3	4395	2 *$	3860	$
5449	ADT 45 (RP)	1827		2433		2042		2238		2774	
5450	Local Check (LC)	3894	7	3809		3717		3763		3855	
Exp. Mean		**2660.93**		**3056.35**		**3380.05**		**3218.2**		**3487.06**	
F Value		**12.71(p<0.0001)S**		**14.92(p<0.0001)S**		**11.41(p<0.0001)S**		**23.65(p<0.0001)S**		**19.13(p<0.0001)S**	
CD		811		569		657		433		279	
CV%		18.8		11.49		12		8.31		4.94	
D/S		01-07-2023		10-07-2023		05-07-2023					
D/P		31-07-2023		15-08-2023		01-08-2023					
Local Check Name		GR-19		TRY 2		TRY 2					

Table No. 14a.2 : Grain Yield (kg/ha) in AVT 2 & IVT-CSTVT (Normal), Kharif 2023

Entry No	IET No	ZONE VI – WESTERN		ZONE VII – SOUTHERN		Overall Mean (2)	
		Maharashtra (1)		Karnataka (1)			
		Panvel		Brahmawar			
5401	30201	2524	5	1981		2253	6
5402	31060	1306		992		1149	
5403	31059			700		700	
5404	31068	986		1008		997	
5405	31074	1719		1126		1423	
5406	31064			781		781	
5407	31078	625		1286		956	
5408	31863	1688		1771		1730	
5409	31864	2208	9	1868		2038	
5410	31865	565		1644		1105	
5411	Bhuthnath (Coastal Saline Check)	1573		1286		1430	
5412	31866	2139		1183		1661	
5413	31063	748		913		831	
5414	31075	669		1963		1316	
5415	31080	1549		1166		1358	
5416	31867	699		1999		1349	
5417	31079	1111		2045	8	1578	
5418	CSR 10 (Early duration saline check)	1396		2038	9	1717	
5419	31868	1507		866		1187	
5420	31869	1047		1313		1180	
5421	31870			1980		1980	
5422	31065	1107		2011		1559	
5423	31871	2481	7	1832		2157	10
5424	31872	1274		1948		1611	
5425	31873	2483	6	2014		2249	7
5426	31874	3285	2 *	1468		2377	3
5427	31875	815		1442		1129	
5428	31876	2735	4	1632		2184	8
5429	31877	1374		1783		1579	
5430	31878	3104	3 *	1954		2529	1
5431	FL 478 (Saline Tolerant Check)	903		1786		1345	
5432	31879	1506		1818		1662	
5433	31880	2192	10	2038	9	2115	
5434	31082	1769		1195		1482	
5435	31881	1438		2004		1721	
5436	31882	1239		1963		1601	
5437	31883	568		1878		1223	
5438	31884	1521		2055	7	1788	
5439	31885	1915		1986		1951	
5440	31886	2007		1695		1851	
5441	31887	369		930		650	
5442	31888	3333	1 *	911		2122	
5443	Pusa 44 (Sensitive Check)			2105	6	2105	
5444	31889			2159	5	2159	9
5445	31070			1279		1279	
5446	32038			2419	1$	2419	2$
5447	32037			2265	3$	2265	4$
5448	32036	1208$		2294	2$	1751	$
5449	ADT 45 (RP)	736		1374		1055	
5450	Local Check (LC)	2331	8	2183	4	2257	5
Exp. Mean		**1565**		**1647**		**1618**	
F Value		**20.17(p<0.0001)S**		**15.60(p<0.0001)S**		**19.49(p<0.0001)S**	
CD		471		326		308	
CV%		**18.52**		**12.21**		**11.77**	
D/S		04-07-2023		28-07-2023			
D/P		04-08-2023		30-08-2023			
Local Check Name		Panvel 1		Kari Kagga			

Table No. 14a.3 : Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 & IVT– CSTVT, (Coastal Saline), Kharif 2023

Entry No	IET No	ZONE III-EASTERN														
		Odisha (1)			West Bengal						West Bengal (2)			Zone III (3)		
		ICAR-NRRI (Cuttack)			Canning-ICAR			Gosaba			Mean			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5401	30201	91	103	265	75	108	408	103	131	242	89	120	325	90	114	305
5402	31060	91	121	316	92	126	457	87	122	264	89	124	361	90	123	346
5403	31059	99	101	277	101	84	316	104	103	330	102	93	323	101	96	307
5404	31068	96	99	300	86	102	403	100	106	385	93	104	394	94	102	362
5405	31074	97	106	244	94	138	392	114	145	319	104	142	356	102	130	318
5406	31064	92	92	254	101	100	332	106	99	308	103	99	320	99	97	298
5407	31078	106	88	291	95	80	321	94	118	363	94	99	342	98	95	325
5408	31863	93	105	281	92	120	446	104	129	385	98	124	416	96	118	371
5409	31864	105	109	273	94	112	397	122	106	352	108	109	375	107	109	341
5410	31865	110	101	251	93	125	310	103	136	374	98	130	342	102	121	312
5411	Bhuthnath (Coastal Saline Check)	101	108	275	91	122	485	104	127	264	97	124	374	98	119	341
5412	31866	108	94	247	85	101	348	108	105	308	96	103	328	100	100	301
5413	31063	96	99	303	95	131	501	106	146	319	100	138	410	99	125	374
5414	31075	97	102	310	89	100	332	98	103	308	93	102	320	95	102	317
5415	31080	106	89	244	94	128	495	111	152	286	102	140	391	103	123	342
5416	31867	102	96	282	90	111	593	106	119	352	98	115	473	99	109	409
5417	31079	108	104	218	99	97	370	93	93	341	96	95	356	100	98	310
5418	CSR 10 (Early duration saline check)	106	101	273	84	74	457	82	89	275	83	81	366	90	88	335
5419	31868	110	95	307	94	112	359	106	131	264	100	121	312	103	113	310
5420	31869	93	112	282	95	110	387	103	120	286	99	115	336	97	114	318
5421	31870	98	103	279	89	111	370	124	163	286	106	137	328	103	126	312
5422	31065	103	86	312	85	142	544	105	144	297	95	143	421	97	124	384
5423	31871	102	102	286	83	119	452	108	124	275	95	121	363	97	115	337
5424	31872	94	98	265	80	141	419	105	140	275	92	141	347	93	126	320
5425	31873	114	103	268	97	117	316	105	112	330	101	114	323	105	111	305
5426	31874	106	101	281	96	110	436	96	137	352	96	124	394	99	116	356
5427	31875	103	97	277	89	97	376	116	130	319	102	113	347	102	108	324
5428	31876	94	94	281	73	127	365	104	134	275	88	130	320	90	118	307
5429	31877	94	102	293	94	109	392	113	106	341	103	108	367	100	106	342
5430	31878	95	105	284	78	128	359	116	137	352	97	133	356	96	123	332
5431	FL 478 (Saline Tolerant Check)	110	106	263	78	100	354	100	106	297	89	103	325	96	104	304
5432	31879	113	109	277	92	106	348	114	104	418	103	105	383	106	106	348
5433	31880	104	117	319	94	119	457	104	123	319	99	121	388	100	120	365
5434	31082	103	105	287	105	119	327	121	108	319	113	113	323	110	111	311
5435	31881	110	96	258	93	93	359	98	125	297	95	109	328	100	105	305
5436	31882	109	89	281	84	108	359	104	132	341	94	120	350	99	110	327
5437	31883	111	94	316	77	98	376	98	110	319	87	104	347	95	101	337
5438	31884	104	91	284	83	112	321	102	138	319	92	125	320	96	114	308
5439	31885	111	82	281	93	135	419	117	131	275	105	133	347	107	116	325
5440	31886	91	95	258	93	101	338	100	106	286	96	104	312	94	101	294
5441	31887	100	85	298	93	86	332	102	106	297	97	96	315	98	92	309
5442	31888	100	104	249	92	132	381	114	131	330	103	132	356	102	122	320
5443	Pusa 44 (Sensitive Check)	95	95	244		.		106	109	264	106	109	264	100	102	254
5444	31889	97	106	279	101	98	610	125	115	308	113	107	459	107	106	399
5445	31070	103	85	249	90	121	479	100	106	253	95	114	366	97	104	327
5446	32038	109	95	312	89	96	403	101	69	385	95	83	394	99	87	367
5447	32037	100	104	314	89	100	316	99	92	264	94	96	290	96	99	298
5448	32036	104	106	251	88	95	321	100	100	264	94	97	293	97	100	279
5449	ADT 45 (RP)	104	85	263	92	85	267	101	86	319	96	86	293	99	85	283
5450	Local Check (LC)	107	104	272	93	116	414	102	125	264	97	120	339	100	115	316
Exp. Mean		**102**	**99**	**277**	**90**	**110**	**394**	**105**	**119**	**311**	**97**	**114**	**352**	**99**	**109**	**327**

Table No.14a.3 (Contd).: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 & IVT– CSTVT, (Coastal Saline), Kharif 2023

Entry No	IET No	ZONE VI – WESTERN			ZONE VII – SOUTHERN									Overall Mean (6)		
		Gujarat			Puducherry						Zone VII (2)					
		Navasari			Puducherry			Karaikal			Puducherry (2)					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5401	30201	100	124	332	89	107	537	85	99	540	87	103	539	90	112	387
5402	31060	112	133	350	91	85	560	88	104	647	89	94	603	93	115	432
5403	31059	120	110	367	92	112	473	86	96	527	89	104	500	100	101	382
5404	31068	88	100	338	90	127	547	91	72	533	90	100	540	92	101	418
5405	31074	99	130	332	99	124	542	92	146	536	95	135	539	99	131	394
5406	31064	118	102	329	97	132	560	86	102	634	91	117	597	100	104	403
5407	31078	88	97	338	87	71	527	83	105	470	85	88	499	92	93	385
5408	31863	101	134	338	87	114	533	81	111	567	84	113	550	93	119	425
5409	31864	120	102	344	77	91	560	80	97	576	78	94	568	99	103	417
5410	31865	108	143	338	71	132	549	83	107	559	77	119	554	94	124	397
5411	Bhuthnath (Coastal Saline Check)	99	115	344	78	116	493	89	121	543	83	119	518	93	118	401
5412	31866	110	103	344	85	69	563	80	105	635	82	87	599	96	96	408
5413	31063	100	143	350	87	129	570	83	114	590	85	121	580	94	127	439
5414	31075	87	106	335	100	109	576	72	96	657	86	103	616	90	103	420
5415	31080	104	140	347	88	125	635	88	95	640	88	110	637	98	122	441
5416	31867	92	129	338	94	110	560	86	94	547	90	102	554	95	110	445
5417	31079	91	101	329	106	91	460	92	87	473	99	89	467	98	96	365
5418	CSR 10 (Early duration saline check)	92	84	329	94	80	555	71	79	594	83	80	574	88	84	414
5419	31868	101	129	344	93	122	560	80	81	542	86	102	551	97	112	396
5420	31869	98	123	332	95	112	533	86	98	527	91	105	530	95	112	391
5421	31870	121	146	323	84	108	559	80	102	560	82	105	560	99	122	396
5422	31065	96	137	317	86	112	540	88	104	493	87	108	517	94	121	417
5423	31871	100	125	332	89	126	542	84	123	560	86	124	551	94	120	408
5424	31872	102	143	344	100	128	594	95	126	640	97	127	617	96	129	423
5425	31873	103	125	341	104	132	590	102	125	660	103	128	625	104	119	417
5426	31874	92	113	361	97	114	547	91	110	546	94	112	547	96	114	420
5427	31875	98	113	344	94	109	546	89	107	620	91	108	583	98	109	414
5428	31876	107	140	335	96	142	540	93	138	550	94	140	545	94	129	391
5429	31877	102	112	335	104	84	527	102	80	547	103	82	537	101	99	406
5430	31878	102	126	338	106	134	567	84	128	623	95	131	595	97	126	421
5431	FL 478 (Saline Tolerant Check)	83	107	305	96	85	547	89	76	560	92	80	554	93	97	388
5432	31879	101	117	341	97	88	552	88	83	563	92	85	558	101	101	416
5433	31880	93	118	311	104	108	460	99	104	540	101	106	500	99	115	401
5434	31082		.		94	88	527	80	82	549	87	85	538	101	100	402
5435	31881	88	99	335	88	82	455	77	73	535	82	78	495	92	95	373
5436	31882	90	117	368	87	88	557	81	83	647	84	85	602	92	103	425
5437	31883	91	115	338	77	109	557	73	107	546	75	108	551	88	106	408
5438	31884	95	123	323	87	97	554	85	94	557	86	95	555	92	109	393
5439	31885	110	115	346	96	135	594	87	127	637	91	131	615	102	121	425
5440	31886	92	114	314	87	97	447	82	91	460	84	94	453	91	100	350
5441	31887	88	96	284	95	91	542	91	84	555	93	87	549	95	91	385
5442	31888	104	136	341	87	97	463	80	95	542	83	96	503	96	116	384
5443	Pusa 44 (Sensitive Check)	95	102	365	87	67	496	86	64	540	86	66	518	93	88	382
5444	31889	114	121	347	91	118	576	88	115	643	90	116	610	102	112	460
5445	31070	121	122	338	86	98	473	84	95	537	85	96	505	97	104	388
5446	32038	82	96	335	95	94	640	91	93	640	93	94	640	94	91	452
5447	32037	102	120	344	80	108	630	77	103	630	78	106	630	91	104	416
5448	32036	94	111	335	86	84	647	81	79	647	84	82	647	92	96	411
5449	ADT 45 (RP)	81	101	338	85	93	535	79	90	496	82	92	515	90	90	370
5450	Local Check (LC)	94	112	350	95	97	548	92	96	565	93	96	557	97	108	402
Exp. Mean		**99**	**118**	**337**	**91**	**105**	**545**	**85**	**100**	**570**	**88**	**103**	**558**	**95**	**108**	**406**

Table No. 14a.3 : Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 & IVT– CSTVT, (Normal), Kharif 2023

Entry No	IET No	ZONE VI – WESTERN			ZONE VII – SOUTHERN			Overall Mean (2)		
		Maharashtra (1)			Karnataka (1)					
		Panvel			Brahmawar					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5401	30201	97	97	373	110	64		103	80	
5402	31060	95	95	351	107	51		101	73	
5403	31059	112	112	199	111	56		112	84	
5404	31068	82	82	172	97	39		90	61	
5405	31074	102	102	229	105	30		104	66	
5406	31064	111	110	169	111	33		111	71	
5407	31078	82	82	194	106	22		94	52	
5408	31863	91	91	218	110	49		100	70	
5409	31864	105	105	312	95	21		100	63	
5410	31865	101	101	219	109	31		105	66	
5411	Bhuthnath (Coastal Saline Check)	97	97	267	110	35		103	66	
5412	31866	101	101	282	106	41		103	71	
5413	31063	100	101	158	95	33		97	67	
5414	31075	87	87	167	97	21		92	54	
5415	31080	99	99	246	108	31		103	65	
5416	31867	93	93	182	110	37		101	65	
5417	31079	87	87	251	110	71		98	79	
5418	CSR 10 (Early duration saline check)	86	86	234	106	51		96	69	
5419	31868	97	97	186	106	65		101	81	
5420	31869	97	97	171	102	52		100	75	
5421	31870	112	112	157	110	54		111	83	
5422	31065	93	93	261	110	72		101	83	
5423	31871	99	99	221	107	34		103	66	
5424	31872	97	97	172	106	63		102	80	
5425	31873	94	94	394	104	50		99	72	
5426	31874	93	93	374	98	52		96	72	
5427	31875	97	97	145	63	29		80	63	
5428	31876	97	97	233	105	40		101	68	
5429	31877	97	97	222	94	51		96	74	
5430	31878	99	99	343	103	35		101	67	
5431	FL 478 (Saline Tolerant Check)	89	89	167	106	72		97	81	
5432	31879	101	101	186	99	32		100	66	
5433	31880	97	97	241	105	39		101	68	
5434	31082	111	111	216	108	24		110	68	
5435	31881	97	97	152	105	25		101	61	
5436	31882	93	93	195	109	54		101	73	
5437	31883	91	91	143	104	35		98	63	
5438	31884	94	94	153	109	63		102	79	
5439	31885	107	107	235	91	51		99	79	
5440	31886	97	97	208	92	55		95	76	
5441	31887	86	86	124	91	49		89	68	
5442	31888	93	93	289	96	32		94	63	
5443	Pusa 44 (Sensitive Check)				97			97	47	
5444	31889	113		198	72			92	70	
5445	31070				111			111	55	
5446	32038	91		174	110			101	60	
5447	32037				123			123	34	
5448	32036	95		173	113			104	61	
5449	ADT 45 (RP)	80		180	111			96	61	
5450	Local Check (LC)	91		240	112			101	80	
Exp. Mean		**96**		**221**	**103**			**100**	**68**	

Table No. 14a.4 : Grain quality characteristics of entries in AVT 2 & IVT-CSTVT, Kharif 2023

Entry No.	Designation / IET No.	HULL	MILL	HRR	KL	KB	L/B	Grain type	Grain Chalk	ASV	AC	GC
5401	30201	79.4	66.5	56.1	6.19	2.20	2.81	LB	VOC	4.0	27.48	62

HULL: Hulling (%); MILL: Milling (%); HRR: Head Rice Recovery (%); KL: Kernel Length (mm); KB: Kernel Breadth (mm); L/B: Length and breadth ratio; Grain Chalk: Grain Chalkiness; VOC: Very occasionally present; A: Absent ASV: Alkali Spreading Value; AC: Amylose Content (%); GC: Gel Consistency; LB: Long Bold; SB: Short Bold; LS: Long Slender; MS: Medium Slender; SS: Short Slender

INITIAL VARIETY TRIAL - AROMATIC GRAIN TYPE (IVT-AGT)

Locations: 35 **TestEntries:34**

Table No:19c

Checks: Shobini-National; Badshabhog Sel-1 (Northern & Central),CR SugandhDhan 907 (Eastern & North Eastern),SugandhaSamba(Western&Southern)-Zonal;Dubraj Sel-1&Ketekejoha(Quality), RNR 15435and Localcheck

The Initial Variety Trial – Aromatic Grain Type trial was constituted with 34 test entriesand 6 checks viz., Shobini (NC), 3 Zonal checks: Badshahbhog sel-1 (Northern and Central), CRSugandhdhan 907 (Eastern & North Eastern), Sugandh Samba (Western & Southern), and 2quality checks: Dubraj sel-1 (QC), Ketikijoha (QC), RNR 15435 and Local check. The trial was conducted in six zones namely Zone 2 (Northern): UP, Zone 3 (Eastern): Odisha,Bihar, West Bengal and part of UP, Zone 4 (North eastern): Assam and Tripura, Zone 5(Central): Madhya Pradesh and Chhattisgarh, Zone 6 (western): Maharashtra and Gujarat andZone 7 (southern): Telangana, Kerala and Karnataka. The trial data was received from 31locations and the data was not received from fivelocations viz., Chinsurah, Arundhutinagar, Bilaspur, Kampasagar and Puducherry. Data from thirteen locationsnamelyviz., Jeypore (low experimental meanyield), Sabour (low experimental meanyield), Ranchi (low experimental meanyield), Hathwara (CD-non significant), Bankura (CD-non significant), Masodha (low experimental meanyield), Gerua (low experimental meanyield), Waraseoni (low experimental meanyield), Jabalpur (low experimental meanyield), Ambikhapur (CD-non significant), Jagadalpur (low experimental meanyield), Karjat (low experimental meanyield) and Malagi (low experimental meanyield) asagainst the remarked rangeof 5%-20%CVand meanyield below4000kg/ha.

Overall mean yield ranged from 3516 kg/ha (IET 31894) to 5631 kg/ha (IET 31909); days to 50% flowering ranged from 87days (IET31893) to114days (IET31897, Ketkijoha and IET 31908);plant height varied from 89cm (IET31893) to 139cm(IET 31894) and number of panicles/m^2 ranged from 266 (Dubraj Sel-1) to314 (IET31907).The data pertaining to yield, flowering, plant height, panicles/m^2 and quality were presented in tables 19c.1,19c.2,19c.3 and 19c.4. Among the yieldchecks, Local check is the top yielder (5027 kg/ha) followed by National check (4980 kg/ha)and Zonal check (4868 Kg/ha), Dubraj (4749 kg/ha), RNR 15435 (4497 kg/ha) and Ketekijoha(4368 kg/ha).

On overall mean basis, four entries namely IET's 31909, 31901, 31922 and31920 recorded significant yield superiority and arediscussedbelow.

IET31909(R 2356-218-98-1)derived from the cross Swarna / Badshabhog sel.-1 ranked first (5631kg/ha) possessing 99 days flowering duration and short slender grains. It recorded 1st rank in Zone 7. Quality wise itrecorded 59.5 % HRR, intermediate amylose content (23.52 %), ASV (4.0), 22 mm GC and possessed moderate aroma. Hence it is considered for promotion to second year of testing in AVT-1-(AGT) trial.

IET31901(KAUPTB-TRV-EBC-14)derivedfromSelection of Traditional variety early Biryani Cheera with Long bold grain type and 98 days to 50% flowering recorded 5410kg/ha of mean grain yield. The quality characteristics reported to be low HRR (59.5 %), ASV (4.0), intermediateAC (22.67 %) and GC (22 mm) and possess moderate aroma. Hence it is considered for promotionto next yearof testing in AVT- 1-(AGT) trial.

IET31922(TRC 171-2-5-1) derived from the cross Hokuchik 2 / Gomati with long slender grain type and 92 days to 50% flowering recorded 5367 kg/ha ofmean grain yield. It recorded 9 % yield advantage over the best check (Local). It stood first in zone II. The quality characteristics reported to be HRR (55.4%), ASV(7.0), intermediate AC (24.78%) and GC (80mm) and possess no aroma.Basedon absence of aroma the entry does not qualify for promotion to next year of testing.

IET31920 [TRC 138 (Hokuchik 2 / Gomati) with 94 days to 50% of flowering and possessing long slender grains. It recorded low HRR (52.5%), intermediate amylase content (23.52 %),GC(75 mm) and ASV (4) and do not possess aroma. Based on quality parameters ,the entry does not qualify for promotion to next year oftesting.

Overall performance of promoting entries in IVT-AGT,Kharif 2023.

Rank	IETNo/DesignationCrosscombination	GY/DFF/GT	Zone		Remarks
			Rank	Yield (kg/ha)	
1	IET31909 R 2356-218-98-1 (Swarna /Badshabhog sel.-1)	5631 99 SS	VII-1	6632	HRR: 59.5 %; ASV-4; AC-23.52; GC-22; AromaPresent **Promoted**
2	IET 31901KAUPTB-TRV-EBC-14 (Selection of Traditional variety early Biryani Cheera)	5410 98 LB			HRR: 59.5 %; ASV-4; AC-22.67; GC-22; AromaPresent **Promoted**
3	IET31922 TRC 171-2-5-1 (Hokuchik 2 / Gomati)	5367 92 LS	II-1	5831	HRR: 47.7 %; ASV-7; AC-24.78; GC-80; Aromaabsent **(Dropped)**
4	IET31920 TRC 138 (Hokuchik 2 / Gomati)	5338 94 LS			HRR: 52.5 %; ASV-4; AC-23.52; GC-75; Aromaabsent **(Dropped)**
	National check(NC)	4980 103			
	ZonalCheck(ZC)	4868 110			
	Local Check(LC)	***5027 105***			

Rank	IETNo/DesignationCrosscombination	GY/DFF/GT	Zone		Remarks
			Rank	Yield (kg/ha)	
	RNR 15435	4497 100			
	Dubraj(QC1)	4749 110			
	Ketkijoha(QC2)	4368 114			
	RNR 15435	4497 100			
	CD value	308			

Zone II (Northern):

IET31922(TRC 171-2-5-1)stoodfirstderivedfromHokuchik 2 / Gomati -1with93 daysto50%offloweringandpossessinglongslendergrains. The quality traits reportedto be low HRR (47.7 %), ASV (7.0), intermediate AC (24.78 %) and GC (80 mm) and has no aroma.Basedonunacceptablequality(lowHRR47.7%andnoaroma)parameters,theentrydoe snot qualifyto bepromoted tonext year of testing.

Performance ofthepromisingentriesin Zone II in IVT-AGT, Kharif2023

Rank	IET No/ DesignationCrosscombination	GY/DFF/GT	Remarks
1	IET31922 TRC 171-2-5-1 (Hokuchik 2 / Gomati)	5831 93 LS	HRR: 47.7 %; ASV-7; AC- 24.78; GC-80; Aromaabsent **(Dropped)**
	Nationalcheck(NC)	4049 111	
	ZonalCheck(ZC)	4009 132	
	Local Check(LC)	3152 104	
	RNR 15435	4102 111	
	Dubraj(QC1)	***4614 140***	
	Ketkijoha(QC2)	3883 138	
	CD value	977	

Zone VII (Southern):

InZoneVII one entry IET 31909showedrequiredyieldsuperiority. The entry IET 31909 obtained grain yield of 6632 kg/ha with 104 days to fifty percent flowering. The quality characteristics reported to be 59.5 % HRR, intermediate amylose content (23.52 %), ASV (4.0), 22 mm GC andpossessed moderate aroma. Hence it is considered forpromotionto next yearof testing in AVT- 1-(AGT) trial.

Performance ofthepromisingentriesin Zone VII in IVT-AGT, Kharif2023

Rank	IET No/ DesignationCrosscombination	GY/DFF/GT	Remarks
1	IET31909 R 2356-218-98-1 (Swarna /Badshabhog sel.-1)	6632 104 LS	HRR: 59.5 %; ASV-4; AC- 23.52; GC-22; Aroma Present **Promoted**
	Nationalcheck(NC)	4755 98	
	ZonalCheck(ZC)	5350 95	
	Local Check(LC)	5643 102	
	RNR 15435	5566 102	
	Dubraj(QC1)	***5884 105***	
	Ketkijoha(QC2)	5573 105	
	CD value	682	

EntriespromotedtoAVT1-AGT:

Overall / Zone		**Entries**
Overall basis	:	IET 31909 and 31901
Zone VII	:	IET 31909

Table. 19c.1 : Composition of entries in Initial Variety Trial –Aromatic Grain Type (Non-Basmati) (IVT-AGT- NON-BASMATI), Kharif 2023.

Entry No.	IET No.	Designation	Cross Combination	GT
1st year of testing:				
5501	31091	HURS 22-6		
5502	31890	BKR 405	Lalat / Pusa 1176	MS
5503	31891	R 2449-1032-1-462-1	RAU 3036 / Pusa Basmati-1	SB
5504	31892	JKOJM-300-158-11	Gamma-ray (300 Gy) induced mutant (M7) of KonJoha, a local cultivar of Assam	SS
5505	31893	Alsakar Mutant 19	Alsakar (Local landrace)	MB
5506	31894	JR 14	Selection from Kshatriya rice	MS
5507	31895	OR 2594-5	Swarna / Chinikamini	SB
5508	**Shobini (NC)**			
5509	31896	CR 4448-2	Pureline selection from Gobindobhog	SS
5510	31897	JKOJM-300-584-5	Gamma-ray (300 GY) induced mutant (M7) of KonJoha,a local cultivar of Assam	SS
5511	31898	NarendraJuhi Bengal	Selection from Juhi Bengal Landraces	
5512	31899	ORB-3GM-4		
5513	**Badshabhog Sel.1 (Northern & Central) CR Sugandh Dhan 907 (Eastern & North Eastern), GAR-14 (Western), Sugandh Samba (Southern)--ZC**			
5514	31900	AAU-KMJ DHAN-47	Selection from an aromatic rice variety Langlisail (AAU-ZRS, Karimganj)	MS
5515	31901	KAUPTB-TRV-EBC-14	Selection of traditional variety early Briyanicheera	MB
5516	31902	BRR-0215	Katarni / R. Sweta	MS
5517	**Dubraj Sel. 1 (QC)**			
5518	31903	ORB -1-BM-1		
5519	31904	CR4448-1	Pureline selection from Gobindobhog	SS
5520	31905	BRR219	Katarni / R. Sweta	MS
5521	**Ketekijoha (QC)**			
5522	31906	OR 2621-18	Jagabandhu / Basmati	SB
5523	31907	Narendra Vishnu Bhog	Vishnubhog Mutant	
5524	31908	ORB-2-KM-3		
5525	31909	R 2356-218-98-1	Swarna / Badshabhog sel.-1	LS
5526	31910	NVSR1054	NAUR-1 / GR-7	LS
5527	31911	HUR2302	Pusa -1121 / HUBR-16-4-3-1	LS
5528	31912	BRR2277	Taraori Basmati Dwarf Mutant 2 /MTU 7029	LS
5529	**RNR 15435 (Check)**			
5530	31913	TPUR-K-02	Mutant of Tulaipani	LS
5531	31914	NarendraTilak Chandra	Sel. from Tilakchandan Landraces	LS
5532	31915	HUR2301	HUBR-10-9 / HUBR-16-6-1-2	LS
5533	31916	NarendraVikram TCR	TDCM Mutant	LS
5534	31917	RP 6475-CGR 1-1-IL-1-2124-1-58-ASG	Samba Mahsuri *2 / Oryza rufipogon-VN90-1032-58 (3)	SS
5535	31918	TRC 308-1-3-5	Gomati / Naveen	LS
5536	**Local Check (LC)**			
5537	31919	TRC 395-2-4-2	Tripura Jala / Tripura Nirog	LS
5538	31920	TRC 138	Hokuchuk 2 / Gomati	LS
5539	31921	Jhilli Dhan Mutant 15-1	Jhilli Dhan (Local Landrace)	MS
5540	31922	TRC 171-2-5-1	Hokuchuk 2 / Gomati	LS

Table No. 19c.2 :Grain Yield (kg/ha) in IVT-AGT-Non Basmati, Kharif, 2023

Entry No	IET No	ZONE II-NORTHERN		ZONE III - EASTERN					
		UTTARPRADESH (1)		ODISHA (1)		BIHAR (1)		WEST BEENGAL (1	
		Nagina (1)		Cuttack		Bikramgunj		Pundhibhari	
5501	31091	4840	7	4585		6390	2	3577	
5502	31890	3537	7	3885		5055	9	4000	
5503	31891	3743		5362	6	4760		4070	
5504	31892	4641		5400	3	4915	10	4440	10
5505	31893	3451		5315	8	2243		4007	
5506	31894	4681		3825		2127		4033	
5507	31895	3504		4570		3183		3577	
5508	Shobini (NC)	4049		5240	10	5979	4	4567	7
5509	31896	4767	9	3700		3477		4587	6
5510	31897	3976		4820		3645		4867	3
5511	31898	3956		4950		3745		3293	
5512	31899			4355		3738		4687	4
5513	Zonal Check (ZC)	4009		3454		6035	3	3700	
5514	31900	5066	6	3340		5200	7	3303	
5515	31901	4415		5228		4893		3947	
5516	31902	4036		3925		5145	8	4317	
5517	Dubraj Sel. 1 (QC)	4614		5380	5	4060		3527	
5518	31903	3996		4735		4650		3823	
5519	31904			4485		4845		3303	
5520	31905	3750		5320	7	3883		3470	
5521	Ketekijoha (QC)	3883		3540		3545		4563	8
5522	31906	3484		5540	1	4435		4193	
5523	31907	4614		5090		4405		3577	
5524	31908	4634		4655		4840		3823	
5525	31909	4674		5270	9	5272	6	4667	5
5526	31910	4608		3495		3695		3427	
5527	31911	4774	8	3735		4360		3567	
5528	31912	4714	10	5095		7379	1 *	3947	
5529	RNR 15435 (Check)	4102		3085		2735		3823	
5530	31913	5479	4	5020		3328		5133	2
5531	31914	4428		4995		2670		3947	
5532	31915	5492	3	3860		3925		4067	
5533	31916	4535		5065		3955		3947	
5534	31917	4195		4210		5705	5	3823	
5535	31918			5384	4	4515		4563	8
5536	Local Check (LC)	3152		5041		4475		4070	
5537	31919	5525	2	5103		4095		4440	10
5538	31920	5166	5	4891		4310		4320	
5539	31921	4309		3985		3345		4033	
5540	31922	5831	1 *	5406	2	4671		5167	1
Exp. Mean		**4395**		**4608**		**4341**		**4055**	
F Value		**3.45(p<0.0002)S**		**5.57(p<0.0001)S**		**(p<0.0001)S**		**3.44(p<0.0001)S**	
CD		977		856		948		756	
CV%		10.96		9.19		10.79		9.22	
D/P		7/21/2023		7/28/2023		7/27/2023		8/5/2023	
Local Check Name		Type 3				R. Kasturi		Kalo Nunia	

Table No. 19c.2 (Contd) : Grain Yield (kg/ha) in IVT-AGT-Non Basmati, Kharif, 2023

Entry No	IET No	ZONE III - EASTERN									
		UTTARPRADESH 2				UTTARPRADESH 2 (2		UTTARPRADESH		ZONE III (5)	
		Varanasi		Gorakhpur		Mean		Mean		Mean	
5501	31091	5966	7	4720	7	5343	7	5175		5048	4
5502	31890	4481		4534	10	4508		4184		4391	
5503	31891	4489		4037		4263		4090		4544	
5504	31892	3846		4224		4035		4237		4565	
5505	31893	3767		3913		3840		3710		3849	
5506	31894	4092		3665		3879		4146		3548	
5507	31895	4167		2919		3543		3530		3683	
5508	Shobini (NC)	6145	5	4099		5122		4764		5206	3
5509	31896	4107		3602		3855		4159		3895	
5510	31897	4203		3727		3965		3969		4252	
5511	31898	5693		4720	7	5207	10	4790		4480	
5512	31899	4292		3851		4072		4072		4185	
5513	Zonal Check (ZC)	5112		3851		4482		4324		4430	
5514	31900	4259		4348		4304		4558		4090	
5515	31901	6939	2	4161		5550	3	5172		5034	5
5516	31902	5633		4969	3	5301	9	4879		4798	8
5517	Dubraj Sel. 1 (QC)	5420		3789		4605		4608		4435	
5518	31903	3721		2857		3289		3525		3957	
5519	31904	4643		2733		3688		3688		4002	
5520	31905	4216		3913		4065		3960		4160	
5521	Ketekijoha (QC)	3289		3602		3446		3591		3708	
5522	31906	3459		4161		3810		3701		4358	
5523	31907	5539		3727		4633		4627		4468	
5524	31908	3425		2981		3203		3680		3945	
5525	31909	5898	8	4969	3	5434	4	5180		5215	2
5526	31910	5531		5093	1	5312	8	5077		4248	
5527	31911	5829	9	3602		4716		4735		4219	
5528	31912	7024	1	3727		5376	6	5155		5434	1
5529	RNR 15435 (Check)	4539		4410		4475		4350		3718	
5530	31913	5642		4037		4840		5053		4632	10
5531	31914	4383		3913		4148		4241		3982	
5532	31915	5795	10	3478		4637		4922		4225	
5533	31916	6333	4	4969	3	5651	2	5279		4854	7
5534	31917	5343		3789		4566		4442		4574	
5535	31918	4232		4969	3	4601		4601		4733	9
5536	Local Check (LC)	6034	6	4783	6	5409	5	4656		4881	6
5537	31919			3851		3851		4688		4372	
5538	31920	5601		3292		4447		4686		4483	
5539	31921	6700	3	4658	9	5679	1	5222		4544	
5540	31922	4196		3602		3899		4543		4608	
Exp. Mean		**4974**		**4006**		**4476**		**4449**		**4394**	
F Value		**(p<0.0001)S**		**11.95(p<0.0001)S**		**8.62(p<0.0001)S**		**8.07(p<0.0001)S**		**9.80(p<0.0001)S**	
CD		1175		503		669		527		407	
CV%		11.67		6.21		7.39		5.85		4.58	
D/P		7/26/2023		7/23/2023							
Local Check Name		HUR-917									

Table No. 19c.2 (Contd) :Grain Yield (kg/ha) in IVT-AGT-Non Basmati, Kharif, 2023

Entry No	IET No	ZONE IV - NORTH EASTERN				ZONE V - CENTRAL			
		ASSAM (1)		ZONEE IV (1)		HHATTISGHAR (1		ZONE V (1)	
		Titabar		Mean		Raipur		Mean	
5501	31091	4817		4817		5002		5002	
5502	31890	2483		2483		3068		3068	
5503	31891	2359		2359		5585	4	5585	4
5504	31892	4189		4189		4752		4752	
5505	31893	3153		3153		3326		3326	
5506	31894	2628		2628		1621		1621	
5507	31895	5157	5	5157	5	4069		4069	
5508	Shobini (NC)	5557	2	5557	2	5380	7	5380	7
5509	31896	4821	9	4821	9	3562		3562	
5510	31897	4181		4181		3904		3904	
5511	31898	4659		4659		4734		4734	
5512	31899	1514		1514		4055		4055	
5513	Zonal Check (ZC)	5208	4	5208	4	3390		3390	
5514	31900	3048		3048		3338		3338	
5515	31901	6141	1	6141	1	4952		4952	
5516	31902	4495		4495		3901		3901	
5517	Dubraj Sel. 1 (QC)	4219		4219		2886		2886	
5518	31903	4435		4435		2605		2605	
5519	31904	3139		3139		4154		4154	
5520	31905	3528		3528		2356		2356	
5521	Ketekijoha (QC)	3950		3950		3867		3867	
5522	31906	4969	7	4969	7	5019	10	5019	10
5523	31907	2910		2910		4254		4254	
5524	31908	2355		2355		2992		2992	
5525	31909	4434		4434		5826	2	5826	2
5526	31910	5312	3	5312	3	3967		3967	
5527	31911	4440		4440		3321		3321	
5528	31912	4039		4039		5154	9	5154	9
5529	RNR 15435 (Check)	3522		3522		3333		3333	
5530	31913	3765		3765		4413		4413	
5531	31914	3771		3771		2329		2329	
5532	31915	4647		4647		3056		3056	
5533	31916	4061		4061		5951	1	5951	1
5534	31917	4821	9	4821	9	4266		4266	
5535	31918	4351		4351		5475	6	5475	6
5536	Local Check (LC)	4189		4189		5159	8	5159	8
5537	31919	4744		4744		4069		4069	
5538	31920	4819		4819		5668	3	5668	3
5539	31921	5072	6	5072	6	4960		4960	
5540	31922	4902	8	4902	8	5518	5	5518	5
Exp. Mean		**4120**		**4120**		**4131**		**4131**	
F Value		**5.68(p<0.0001)S**		**5.68(p<0.0001)S**		**28.05(p<0.0001)S**		**28.05(p<0.0001)S**	
CD		1202		1202		577		577	
CV%		14.43		14.43		6.91		6.91	
D/P		8/9/2023				7/24/2023			
Local Check Name		Keteki Joha				Chhattisgarh Devbhog			

Table No. 19c.2 (Contd) :Grain Yield (kg/ha) in IVT-AGT-Non Basmati, Kharif, 2023

Entry No	IET No	ZONE VI – WESTERN							
		GUJARAT				GUJARAT (2)		ZONE VI (2)	
		Navsari		Nawagam		Mean		Mean	
5501	31091	5448		4224		4836		4836	
5502	31890	4499		4797		4648		4648	
5503	31891	5152		3351		4252		4252	
5504	31892	5660		2716		4188		4188	
5505	31893	5216		2584		3900		3900	
5506	31894	3966		2293		3130		3130	
5507	31895	5151		2116		3634		3634	
5508	Shobini (NC)	4708		5203	7	4956		4956	
5509	31896	5193		3924		4559		4559	
5510	31897	4644		2293		3469		3469	
5511	31898	4176		3439		3808		3808	
5512	31899	5477		3571		4524		4524	
5513	Zonal Check (ZC)	6053	5	5459	5	5756	2	5756	2
5514	31900	4996		4189		4593		4593	
5515	31901	4838		4903	9	4871		4871	
5516	31902	4579		4982	8	4781		4781	
5517	Dubraj Sel. 1 (QC)	4190		3730		3960		3960	
5518	31903	5961	6	2672		4317		4317	
5519	31904	6776	1	4392		5584	4	5584	4
5520	31905	4070		4277		4174		4174	
5521	Ketekijoha (QC)	3357		4056		3707		3707	
5522	31906	5835	8	3376		4606		4606	
5523	31907	5202		4026		4614		4614	
5524	31908	6070	4	3527		4799		4799	
5525	31909	4546		5758	3	5152	9	5152	9
5526	31910	5555		4832	10	5194	8	5194	8
5527	31911	4491		3633		4062		4062	
5528	31912	5608		3730		4669		4669	
5529	RNR 15435 (Check)	5511		4568		5040		5040	
5530	31913	5146		4171		4659		4659	
5531	31914	6191	2	4409		5300	6	5300	6
5532	31915	6128	3	2778		4453		4453	
5533	31916	5859	7	4136		4998		4998	
5534	31917	4855		5635	4	5245	7	5245	7
5535	31918	5829	9	4453		5141		5141	
5536	Local Check (LC)	5763	10	4524		5144	10	5144	10
5537	31919	5458		4436		4947		4947	
5538	31920	5649		5419	6	5534	5	5534	5
5539	31921	4784		6631	1	5708	3	5708	3
5540	31922	5649		6424	2	6037	1	6037	1
Exp. Mean		**5206**		**4141**		**4673**		**4673**	
F Value		**3.65(p<0.0001)S**		**5.02(p<0.0001)S**		**5.59(p<0.0001)S**		**5.59(p<0.0001)S**	
CD		1090		1395		813		813	
CV%		10.36		16.65		8.6		8.6	
D/P		8/2/2023		8/7/2023					
Local Check Name		GR-20		GAR 14					

Table No. 19c.2 (Contd) :Grain Yield (kg/ha) in IVT-AGT-Non Basmati, Kharif, 2023

Entry No	IET No	ZONE VII – SOUTHERN												Overall mean (15)	
		TELANGANA (1)		TAMILNADU (1)		KERALA (1)		KARNATAKA (1)		PUDUCHERRY (1)		ZONE VII (5)			
		Rajendranagar		Adithurai		Pattambi		Mugad		Karaikal		Mean			
5501	31091	5131		5886	2 *	5753		6686	5	3538		5399		5104	8
5502	31890	3180		4728	5	6033		4946		3950		4567		4212	
5503	31891	3397		4404		5846		4545		3375		4313		4298	
5504	31892	2496		4272		6473		5750		3875		4573		4510	
5505	31893	3301		4443		7173		3955		3875		4549		3981	
5506	31894	2646		4449		5593		3775		3350		3963		3516	
5507	31895	5326	10	4804	4	6187		6172		3413		5180		4288	
5508	Shobini (NC)	5311		4715	6	5767		4109		3875		4755		4980	
5509	31896	6360	5	4557	8	6033		6045		3625		5324		4557	
5510	31897	3647		4437		6054		5067		4375		4716		4256	
5511	31898	4177		4070		7673	5	4696		3500		4823		4499	
5512	31899	5851	7	4177		7213	10	4528		5375		5429		4477	
5513	Zonal Check (ZC)	5062		4272		9193	3	5098		3125		5350		4868	
5514	31900	5011		4082		5740		4198		3875		4581		4266	
5515	31901	5994	6	4399		10030	1	6178	10	4125		6145	3	5410	2 *
5516	31902	4797		4146		6186		6352	8	3625		5021		4739	
5517	Dubraj Sel. 1 (QC)	6372	4	4323		7753	4	7220	3	3750		5884	5	4749	
5518	31903	3881		4367		5423		3661		5000		4466		4119	
5519	31904	5093		4652	7	7633	6	4819		6625	8	5764	10	4807	
5520	31905	3573		4905	3	7007		4911		6250		5329		4362	
5521	Ketekijoha (QC)	5215		4171		5357		5498		7625	2	5573		4368	
5522	31906	7773	1 *	4114		5440		4257		7000	5	5717		4870	
5523	31907	5110		4190		6087		4812		6375	10	5315		4661	
5524	31908	5357	9	4316		6286		5545		6000		5501		4454	
5525	31909	4988		4247		9946	2	6352	8	7625	2	6632	1 *	5631	1 *
5526	31910	5118		4108		6353		7848	2	5625		5810	8	4971	
5527	31911	2546		4494		5110		4499		6000		4530		4293	
5528	31912	7072	2	4241		7333	8	5340		5250		5847	6	5310	5
5529	RNR 15435 (Check)	4018		4373		7266	9	4924		7250	4	5566		4497	
5530	31913	4485		4133		6993		4837		6000		5290		4839	
5531	31914	2466		4209		5487		4018		4750		4186		4131	
5532	31915	5245		4386		6660		8725	1 *	5438		6091	4	4912	
5533	31916	3316		4481		6930		5178		9125	1	5806	9	5189	6
5534	31917	5002		4392		5994		6585	6	4250		5245		4858	
5535	31918	4822		4184		5940		5305		6750	7	5400		5055	9
5536	Local Check (LC)	5538	8	4538	9	5620		6142		6375	10	5643		5027	10
5537	31919	4578		4525	10	6413		5783		5875		5435		4921	
5538	31920	6893	3	4127		7060		6042		6813	6	6187	2	5338	4 *
5539	31921	3657		4285		7413	7	6469	7	6375	10	5640		5112	7
5540	31922	3647		6709	1 *	6513		6773	4	5500		5828	7	5367	3 *
Exp. Mean		**4686**		**4458**		**6624**		**5441**		**5213**		**5284**		**4695**	
F Value		**8.97(p<0.0001)S**		**3.66(p<0.0001)S**		**6.77(p<0.0001)S**		**5.29(p<0.0001)S**		**4.89(p<0.0001)S**		**6.45(p<0.0001)S**		**21.50(p<0.0001)S**	
CD		1216		723		1244		1419		1931		682		308	
CV%		12.82		8.02		9.29		12.9		18.32		6.38		3.24	
D/P		7/20/2023		8/2/2023		8/10/2023				10/30/2023					
Local Check Name		Shobhini		ADT 54		Gandhakasala		M.Sugand		VGD 1					

Table No. 19c.2 (Contd) :Grain Yield (kg/ha) in IVT-AGT-Non Basmati, Kharif, 2023

Entry No	IET No	Trials not considered											
		Odisha		Bihar		Jharkhand		West Bengal				Uttar Pradesh	
		@Jeypore		@Sabour		@Ranchi		@Hathwara		@Bankura		@Mashodha	
5501	31091	1261		3724	6	2971		3222		5636		2919	
5502	31890	2123		2257		3414		2147		5475		3557	
5503	31891	855		1961		3161		9293	1	5233		4269	10
5504	31892	2292		2623		3572		3718		5717		3391	
5505	31893	916		1431		3129		3787		6522	6	2207	
5506	31894	1749		1509		2213		3162		5636		3324	
5507	31895	2754	7	2451		1960		3643		4775		3684	
5508	Shobini (NC)	1826		4359	3	3161		3550		6602	5	4202	
5509	31896	1161		3273		2592		3588		5233		2699	
5510	31897	2016		2095		2877		4288	9	5717		3198	
5511	31898	1531		3454	9	3572		2502		5797		4289	9
5512	31899	1967		2373		2940		2092		6039	10	2640	
5513	Zonal Check (ZC)	1641		4248	4	4742	2	4148		6280	8	4195	
5514	31900	2887	5	2575		4647	4	2427		4670		4734	2
5515	31901	2862	6	3286		3288		2958		7246	1	5452	1
5516	31902	1101		3980	5	4046		2922		6924	3	4594	4
5517	Dubraj Sel. 1 (QC)	2895	4	3191		4331	8	4127		5419		4189	
5518	31903	1764		1634		3414		1440		5845		2686	
5519	31904	2235		3141		2592		3250		4944		3225	
5520	31905	1111		3277		2244		1592		6441	7	3424	
5521	Ketekijoha (QC)	1494		2137		4710	3	4282		5395		2699	
5522	31906	2500	8	2134		3066		4760	7	5958		2600	
5523	31907	1350		2338		4584	6	3477		4976		3557	
5524	31908	2001		2496		2940		2505		6119	9	2261	
5525	31909	989		2831		2086		2832		5636		2194	
5526	31910	1274		2763		2276		2147		5395		3557	
5527	31911	1105		4446	2	2940		1842		4670		3118	
5528	31912	1286		3067		3224		2740		5427		4195	
5529	RNR 15435 (Check)	962		2196		3319		3520		5878		3750	
5530	31913	1821		2401		2813		5268	4	5314		4694	3
5531	31914	2342	10	2541		3572		4287	10	6804	4	4036	
5532	31915	1561		3598	7	2213		2982		7166	2	4342	8
5533	31916	1832		3458	8	3888		5123	5	5314		4262	
5534	31917	2001		4519	1	4141	10	3193		5676		2560	
5535	31918	3604	3	2344		3509		5367	2	5556		4169	
5536	Local Check (LC)	1162		3446	10	4615	5	3840		4348		4508	7
5537	31919	2259		2434		4299	9	3788		5395		4588	5
5538	31920	3889	1	2767		5943	1	5360	3	5395		4195	
5539	31921	2486	9	2090		4394	7	4743	8	5314		4528	6
5540	31922	3704	2	2031		3351		4990	6	5233		4102	
Exp. Mean		**1914**		**2822**		**3419**		**3623**		**5678**		**3670**	
F Value		**9.61(p<0.0001)S**		**19.35(p<0.0001)S**		**25.59(p<0.0001)S**		**1.24(p<0.2505)NS**		**0.96(p<0.5477)NS**		**16.66(p<0.0001)S**	
CD		719		518		498		**NS**		**NS**		568	
CV%		18.57		9.08		7.2		50.27		16.96		7.65	
D/P		8/12/2023		7/24/2023		8/16/2023		8/25/2023		8/31/2023		8/6/2023	
Local Check Name		Kalajeera		Rajendra Kasturi		BVS-1		Badshabhog		Danarguri		NDR 6093	

Table No. 19c.2 (Contd) :Grain Yield (kg/ha) in IVT-AGT-Non Basmati, Kharif, 2023

Entry No	IET No	Trials not considered															
		Assam		Madhya Pradesh			Chhattisgarh			MAHARASTRA (		Karnataka					
		@Gerua		@Waraseoni		@Jabalpur	@Ambikhapur		@Jagadalpur		@Karjat		@Sirsi		@Malagi		
5501	31091	4459	5	4654	8	7855	4850	2	4368		4530	10	4297		3520		
5502	31890	2485		3419		6120	4300		2536		3200		859		2692		
5503	31891	2429		3696		6225	4500		2747		3810		1609		3780		
5504	31892	4163		2393		6495	5000	1	3877		2756		2648		3240		
5505	31893	2714		4515	9	4787	4150		2832		2069		1046		7234		1
5506	31894	2265		1606		7646	4100		2904		1866		933		3005		
5507	31895	3209		2173		6190	4350		4873	4	2252		2391		3340		
5508	Shobini (NC)	4026		4723	7	6080	4600		4375		3903		1056		5520		5
5509	31896	3357		1593		6440	4550		2790		4298		989		2420		
5510	31897	3832		2922		6515	4650	7	4206		3095		3776		3322		
5511	31898	2964		3772		5700	4350		3877		3631		3534		2795		
5512	31899	2306		2110		6295	4200		4085		2611		4532		2348		
5513	Zonal Check (ZC)	5265	2	3092		6515	4550		3044		5616	2	3281		2140		
5514	31900	3036		2972		5230	4650	7	4587	8	4081		4632		3369		
5515	31901	5679	1	5724	2	8830	8	4500		4896	3	3987		5392	8	6320	3
5516	31902	3214		2985		9650	2	4150		4424		4485		3510		4180	
5517	Dubraj Sel. 1 (QC)	3793		3174		8285	10	4250		4023		4395		3770		3840	
5518	31903	2483		2903		6355		4200		4479		3311		4710		2440	
5519	31904	2821		2827		6800		4600		4857	5	4173		5072	9	2609	
5520	31905	3015		2563		7600		4100		3792		3588		3181		3178	
5521	Ketekijoha (QC)	3663		2128		6175		4100		4499	10	2475		5539	7	2762	
5522	31906	3480		3545		7150		4200		4785	6	2793		4828		2560	
5523	31907	2684		2519		8260		4250		3623		3632		3913		2843	
5524	31908	2163		2702		8680	9	4150		3783		3138		5724	5	2562	
5525	31909	3765		3117		5035		4650	7	4225		5359	4	3841		4525	9
5526	31910	3056		1738		6800		4500		4730	7	4768	6	6827	1	3600	
5527	31911	3056		2771		4320		4450		2923		3501		4395		2636	
5528	31912	3469		4326	10	6430		4150		4961	2	2371		6131	4	3340	
5529	RNR 15435 (Check)	2117		1732		5170		4650	7	3053		3377		4817		3240	
5530	31913	3668		2909		6620		4100		4443		2952		6157	3	4365	10
5531	31914	1296		3388		4285		4400		4030		3743		3248		3320	
5532	31915	4209	9	1977		7055		4050		3105		4843	5	2049		2160	
5533	31916	4699	3	5636	3	8855	7	4600		4424		4592	9	6817	2	6480	2
5534	31917	4179	10	4811	6	8055		4550		4567	9	4653	7	4909		2620	
5535	31918	4276	8	5013	4	6510		4350		3854		5448	3	4278		5500	6
5536	Local Check (LC)	4311	7	2557		9245	4	4700	4	3141		5779	1	3076		2539	
5537	31919	4531	4	3961		9750	1	4750	3	3805		3251		5670	6	4845	8
5538	31920	4429	6	4906	5	8880	6	4550		4382		4653	7	3374		5824	4
5539	31921	3327		3942		9595	3	4450		5020	1	3323		3930		3880	
5540	31922	4026		5919	1 *	9050	5	4700	4	4352		3036		5072	9	4920	7
Exp. Mean		**3448**		**3335**		**7038**	**4423**		**3982**		**3734**		**3895**		**3645**		
F Value		**7.19(p<0.0001)S**		**13.57(p<0.0001)S**		**45.31(p<0.0001)S**	**0.92(p<0.5995)NS**		**2.53(p<0.0022)S**		**7.37(p<0.0001)S**		**34.11(p<0.0001)S**		**10.26(p<0.0001)S**		
CD		982		905		628	**NS**		1433		1033		827		1139		
CV%		14.08		13.41		4.41	7.91		17.79		13.68		10.49		15.45		
D/P		8/18/2023		7/17/2023		7/27/2023	8/12/2023		7/31/2023		7/17/2023		7/11/2023		7/31/2023		
Local Check Name		CR Dhan 909		Improved Chinnor		JR 206	Vishnubhog		Vishnubhog		Karjat Shatabdi		SRS 03		M. Sughand		

Table No. 19c.3 :Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT-AGT-Non Basmati, Kharif 2023

Entry No	IET No	ZONE II-NORTHERN			ZONE III - EASTERN								
		UTTARPRADESH (1)			ODISHA (1)			BIHAR (1)			WST BEENGAL (1)		
		Nagina (1)			Cuttack			Bikramgunj			Pundhibhari		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5501	31091	92	85	264	106	98	327	96	111	393	90	92	145
5502	31890	112	79	248	104	127	260	110	116	393	99	108	162
5503	31891	126	99	261	105	115	355	118	117	460	107	100	172
5504	31892	141	80	260	115	137	359	130	134	385	104	112	206
5505	31893	80	89	303	89	92	356	85	63	305	80	90	143
5506	31894	116	130	232	100	151	245	101	168	404	90	120	124
5507	31895	135	81	278	124	127	277	131	119	394	99	96	134
5508	Shobini (NC)	111	112	270	111	116	322	106	124	455	92	115	138
5509	31896	139	101	290	116	144	276	120	128	379	105	114	210
5510	31897	138	70	272	116	141	302	130	135	455	101	105	169
5511	31898	111	102	276	110	121	335	105	112	422	101	117	141
5512	31899				115	153	282	126	133	431	108	101	207
5513	Zonal Check (ZC)	132	84	273	119	96	251	127	112	443	106	90	125
5514	31900	135	66	270	114	143	263	122	138	459	91	111	188
5515	31901	103	101	285	101	107	362	92	114	365	90	104	155
5516	31902	119	78	266	106	99	308	110	106	371	108	79	174
5517	Dubraj Sel. 1 (QC)	140	81	235	115	145	319	119	134	380	99	107	152
5518	31903	140	91	248	114	145	325	121	145	375	108	115	162
5519	31904				116	141	319	126	143	406	94	115	137
5520	31905	131	90	263	112	96	348	113	121	424	107	83	176
5521	Ketekijoha (QC)	138	69	246	117	140	261	131	124	446	105	108	216
5522	31906	136	94	254	123	128	283	115	98	371	105	107	217
5523	31907	124	87	239	109	142	361	108	130	421	101	119	166
5524	31908	141	98	266	116	150	307	124	148	446	109	102	126
5525	31909	103	101	239	101	116	265	83	125	426	90	113	177
5526	31910	108	116	235	109	134	293	106	132	383	101	119	143
5527	31911	107	99	305	109	99	365	103	112	394	104	80	174
5528	31912	104	109	244	109	114	329	98	117	471	95	102	178
5529	RNR 15435 (Check)	111	102	249	100	138	313	93	136	429	89	121	111
5530	31913	96	114	275	95	123	345	80	132	392	84	116	145
5531	31914	102	136	239	100	147	307	92	164	386	90	136	194
5532	31915	109	100	262	105	116	256	96	119	372	102	105	120
5533	31916	92	98	252	92	103	344	88	104	386	81	107	149
5534	31917	116	86	253	105	95	314	103	106	403	102	81	165
5535	31918				112	118	346	79	121	384	89	114	142
5536	Local Check (LC)	104	139	249	109	130	313	100	123	392	90	123	143
5537	31919	96	102	258	93	102	287	82	122	388	81	113	150
5538	31920	95	113	258	97	115	341	92	123	424	85	108	172
5539	31921	92	102	263	94	112	349	82	111	431	81	106	163
5540	31922	93	119	250	96	118	328	81	129	388	82	128	178
Mean		**115**	**97**	**260**	**107**	**123**	**312**	**105**	**124**	**406**	**96**	**107**	**161**

Table No. 19c.3 (Contd) :Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT-AGT-Non Basmati, Kharif 2023

Entry No	IET No	ZONE III - EASTERN														
		UTTARPRADESH						UTTARPRADESH			UTTARPRADESH			ZONE III (5)		
		Varanasi			Gorakhpur			UP2 (2)			Mean			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5501	31091	101	93	227	95	120	166	98	107	196	96	100	219	98	103	251
5502	31890	109	107	195	116	101	168	112	104	181	112	96	203	107	112	235
5503	31891	98	106	221	126	107	206	112	106	214	117	104	229	111	109	283
5504	31892	100	116	274	129	150	220	114	133	247	123	115	251	115	130	289
5505	31893	83	85	186	76	121	319	79	103	252	80	98	269	82	90	262
5506	31894	105	173	233	106	167	231	105	170	232	109	157	232	100	156	247
5507	31895	120	111	199	130	137	276	125	124	237	128	110	251	121	118	256
5508	Shobini (NC)	107	102	193	105	121	223	106	112	208	107	112	228	104	116	266
5509	31896	97	134	228	127	137	269	112	135	248	121	124	262	113	131	272
5510	31897	125	115	283	129	149	337	127	132	310	130	111	297	120	129	309
5511	31898	100	111	231	106	139	184	103	125	207	105	117	230	104	120	262
5512	31899	117	133	235	130	149	212	123	141	224	123	141	224	119	134	273
5513	Zonal Check (ZC)	129	113	225	126	97	321	127	105	273	129	98	273	121	101	273
5514	31900	122	131	262	127	150	244	124	140	253	128	115	258	115	135	283
5515	31901	89	102	163	92	103	227	90	103	195	94	102	225	92	106	254
5516	31902	109	89	200	113	100	313	111	94	256	114	89	259	109	95	273
5517	Dubraj Sel. 1 (QC)	104	121	168	121	144	186	113	133	177	122	115	196	111	130	241
5518	31903	122	132	259	130	150	315	126	141	287	131	124	274	119	138	287
5519	31904	121	132	278	130	145	244	126	139	261	126	139	261	117	135	277
5520	31905	115	97	250	116	111	157	115	104	203	120	99	223	112	101	271
5521	Ketekijoha (QC)	123	121	265	129	146	337	126	133	301	130	112	283	121	128	305
5522	31906	117	122	190	115	151	238	116	137	214	123	123	227	115	121	260
5523	31907	119	137	265	113	148	283	116	143	274	119	124	262	110	135	299
5524	31908	127	133	237	131	153	242	129	143	239	133	128	248	121	137	271
5525	31909	96	110	226	95	125	189	95	118	207	98	112	218	93	118	256
5526	31910	108	133	200	52	150	167	80	142	184	89	133	201	95	134	237
5527	31911	101	96	285	102	146	240	101	121	262	103	113	276	104	106	291
5528	31912	108	105	244	97	125	195	102	115	219	103	113	227	101	112	283
5529	RNR 15435 (Check)	105	121	171	97	133	213	101	127	192	104	119	211	97	130	247
5530	31913	90	128	212	80	137	236	85	132	224	88	126	241	85	127	266
5531	31914	98	144	246	95	140	252	96	142	249	98	140	246	95	146	277
5532	31915	96	117	195	95	123	191	95	120	193	100	113	216	98	116	227
5533	31916	93	99	186	80	107	168	86	103	177	88	101	202	87	104	246
5534	31917	109	86	213	98	101	312	103	93	262	107	91	259	103	94	281
5535	31918	89	112	187	81	116	330	85	114	258	85	114	258	90	116	278
5536	Local Check (LC)	111	90	210	116	105	273	114	97	241	110	111	244	105	114	266
5537	31919		.		82	115	231		115		89	109	244	84	113	264
5538	31920	93	110	179	83	120	329	88	115	254	90	114	255	90	115	289
5539	31921	88	103	203	80	115	175	84	109	189	87	107	214	85	109	264
5540	31922	88	116	183	81	131	314	84	124	248	87	122	249	85	125	278
Mean		**106**	**115**	**220**	**106**	**130**	**243**	**106**	**122**	**232**	**109**	**115**	**241**	**104**	**120**	**269**

Table No. 19c.3 (Contd) :Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT-AGT-Non Basmati, Kharif 2023

Entry No	IET No	ZONE IV- NORTH EASTERN						ZONE-V – CENTRAL					
		ASSAM (1)			ZONE IV (1)			CHHATISGHAR (1)			ZONE V (1)		
		Titabar			Mean			Raipur			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5501	31091	110	93	255	110	93	255	101	98	204	101	98	204
5502	31890	104	101	255	104	101	255	95	110	191	95	110	191
5503	31891	101	112	242	101	112	242	103	115	209	103	115	209
5504	31892	116	128	246	116	128	246	119	132	197	119	132	197
5505	31893	98	100	228	98	100	228	83	109	165	83	109	165
5506	31894	100	137	241	100	137	241	94	173	156	94	173	156
5507	31895	122	117	250	122	117	250	120	118	206	120	118	206
5508	Shobini (NC)	118	103	214	118	103	214	103	109	195	103	109	195
5509	31896	106	129	252	106	129	252	117	134	192	117	134	192
5510	31897	115	114	253	115	114	253	118	142	183	118	142	183
5511	31898	111	108	233	111	108	233	105	116	225	105	116	225
5512	31899	118	128	252	118	128	252	115	156	203	115	156	203
5513	Zonal Check (ZC)	114	95	253	114	95	253	115	166	199	115	166	199
5514	31900	116	130	264	116	130	264	112	133	184	112	133	184
5515	31901	111	91	247	111	91	247	100	109	204	100	109	204
5516	31902	108	95	248	108	95	248	111	91	187	111	91	187
5517	Dubraj Sel. 1 (QC)	108	111	216	108	111	216	112	155	200	112	155	200
5518	31903	113	127	264	113	127	264	111	141	194	111	141	194
5519	31904	117	115	276	117	115	276	114	127	203	114	127	203
5520	31905	114	85	250	114	85	250	117	115	204	117	115	204
5521	Ketekijoha (QC)	117	118	279	117	118	279	118	149	200	118	149	200
5522	31906	115	122	253	115	122	253	117	130	202	117	130	202
5523	31907	114	124	275	114	124	275	113	159	200	113	159	200
5524	31908	118	126	283	118	126	283	105	145	201	105	145	201
5525	31909	105	94	233	105	94	233	102	115	216	102	115	216
5526	31910	108	119	246	108	119	246	104	144	194	104	144	194
5527	31911	106	94	247	106	94	247	101	101	211	101	101	211
5528	31912	113	109	270	113	109	270	105	118	205	105	118	205
5529	RNR 15435 (Check)	107	114	247	107	114	247	97	138	196	97	138	196
5530	31913	104	95	233	104	95	233	106	129	202	106	129	202
5531	31914	106	115	258	106	115	258	98	165	196	98	165	196
5532	31915	108	104	246	108	104	246	102	126	222	102	126	222
5533	31916	105	83	261	105	83	261	90	113	200	90	113	200
5534	31917	115	84	273	115	84	273	109	108	218	109	108	218
5535	31918	107	106	257	107	106	257	90	128	208	90	128	208
5536	Local Check (LC)	119	118	269	119	118	269	109	106	220	109	106	220
5537	31919	106	93	250	106	93	250	89	121	177	89	121	177
5538	31920	107	101	254	107	101	254	90	132	199	90	132	199
5539	31921	107	101	263	107	101	263	90	120	191	90	120	191
5540	31922	107	105	252	107	105	252	91	118	200	91	118	200
Mean		**110**	**109**	**252**	**110**	**109**	**252**	**104**	**128**	**199**	**104**	**128**	**199**

Table No. 19c.3 (Contd) :Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT-AGT-Non Basmati, Kharif 2023

Entry No	IET No	ZONE VI – WESTERN											
		GUJARAT						GUJARAT (2)			ZONE VI (2)		
		Navsari			Nawagam			Mean			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5501	31091	97	110	299	109	96	263	103	103	281	103	103	281
5502	31890	95	125	247	104	114	266	99	120	256	99	120	256
5503	31891	100	121	281	104	117	259	102	119	270	102	119	270
5504	31892	112	143	243	107	132	254	109	138	248	109	138	248
5505	31893	72	93	268	96	80	254	84	87	261	84	87	261
5506	31894	91	162	310	100	116	254	96	139	282	96	139	282
5507	31895	106	130	237	106	130	252	106	130	244	106	130	244
5508	Shobini (NC)	100	122	276	111	107	270	106	115	273	106	115	273
5509	31896	112	163	252	111	144	262	111	154	257	111	154	257
5510	31897	111	145	291	109	139	254	110	142	272	110	142	272
5511	31898	97	120	247	113	114	261	105	117	254	105	117	254
5512	31899	109	168	321	102	156	261	105	162	291	105	162	291
5513	Zonal Check (ZC)	96	128	262	109	115	271	102	121	266	102	121	266
5514	31900	108	168	319	107	147	264	107	158	291	107	158	291
5515	31901	88	120	283	108	118	269	98	119	276	98	119	276
5516	31902	89	107	261	107	95	270	98	101	265	98	101	265
5517	Dubraj Sel. 1 (QC)	108	170	251	107	148	261	107	159	256	107	159	256
5518	31903	108	169	307	105	157	253	107	163	280	107	163	280
5519	31904	108	171	259	106	162	264	107	167	262	107	167	262
5520	31905	108	108	315	114	105	265	111	106	290	111	106	290
5521	Ketekijoha (QC)	109	150	274	107	147	264	108	149	269	108	149	269
5522	31906	109	131	225	107	126	259	108	128	242	108	128	242
5523	31907	101	158	282	106	157	263	103	157	272	103	157	272
5524	31908	107	169	268	110	164	260	108	166	264	108	166	264
5525	31909	92	116	231	105	114	274	98	115	253	98	115	253
5526	31910	102	145	273	108	127	268	105	136	270	105	136	270
5527	31911	85	99	322	111	93	260	98	96	291	98	96	291
5528	31912	95	121	267	104	121	261	99	121	264	99	121	264
5529	RNR 15435 (Check)	92	146	274	103	132	266	97	139	270	97	139	270
5530	31913	88	129	304	107	123	265	97	126	285	97	126	285
5531	31914	84	134	307	110	143	265	97	138	286	97	138	286
5532	31915	96	124	325	108	107	257	102	116	291	102	116	291
5533	31916	86	105	281	104	97	263	95	101	272	95	101	272
5534	31917	95	106	317	114	90	272	104	98	294	104	98	294
5535	31918	86	134	210	96	119	267	91	126	238	91	126	238
5536	Local Check (LC)	97	113	281	111	114	266	104	113	273	104	113	273
5537	31919	86	125	281	109	103	266	97	114	273	97	114	273
5538	31920	88	122	263	95	115	273	91	119	268	91	119	268
5539	31921	84	113	235	98	104	277	91	109	256	91	109	256
5540	31922	81	133	287	111	137	279	96	135	283	96	135	283
Mean		**97**	**133**	**276**	**106**	**123**	**264**	**101**	**128**	**270**	**101**	**128**	**270**

Table No. 19c.3 (Contd) :Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT-AGT-Non Basmati, Kharif 2023

Entry No	IET No	ZONE VII – SOUTHERN																		Overall mean (15)		
		TELANGANA (1)			TAMILNADU (1)			KERALA (1)			KARNATAKA (1)			PUDUCHERRY (1)			ZONE VII (5)					
		Rajendranagar			Adithurai			Pattambi			Mugad			Karaikal			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5501	31091	107	83	350	104	95	310	108	88	283	98	71	309	90	129	315	101	93	313	100	97	274
5502	31890	102	100	367	105	96	284	88	109	353	82	60	333	87	105	365	93	94	340	101	104	271
5503	31891	108	98	350	102	97	286	114	110	293	90	69	330	79	99	328	98	94	317	105	105	283
5504	31892	119	106	283	102	145	293	108	130	330	103	91	408	88	117	329	104	118	328	113	124	285
5505	31893	92	82	333	108	104	290	93	76	633	84	51	285	87	105	179	93	84	344	87	89	294
5506	31894	102	122	433	114	107	283	116	127	313	79	80	379	87	150	331	100	117	348	100	139	279
5507	31895	116	104	317	108	123	298	89	105	230	102	81	438	89	123	313	101	107	319	113	113	274
5508	Shobini (NC)	108	98	383	104	112	294	109	84	205	90	69	374	79	69	369	98	86	325	103	104	276
5509	31896	116	122	400	102	88	282	97	107	264	104	78	369	83	116	343	100	102	332	110	123	284
5510	31897	113	105	350	107	105	285	113	131	330	99	81	354	89	131	350	104	111	334	114	120	297
5511	31898	107	95	317	102	135	284	111	92	281	96	59	307	86	134	300	100	103	298	104	112	269
5512	31899	120	113	350	102	138	268	108	114	433	100	93	388	89	108	356	104	113	359	111	132	300
5513	Zonal Check (ZC)	108	90	317	103	98	280	90	91	415	91	72	314	86	121	381	95	94	341	110	104	286
5514	31900	116	112	400	104	135	279	110	112	281	99	79	336	89	127	327	103	113	324	111	125	289
5515	31901	107	94	350	106	120	249	108	94	394	92	98	375	86	150	423	99	111	358	98	108	286
5516	31902	113	81	383	101	89	270	109	91	406	97	61	385	77	82	468	99	81	382	105	90	295
5517	Dubraj Sel. 1 (QC)	120	106	333	105	136	238	112	116	353	102	93	354	88	121	429	105	114	341	110	126	266
5518	31903	116	118	383	101	145	286	110	122	379	99	78	317	96	133	435	104	119	360	113	131	295
5519	31904	116	113	383	102	146	285	106	116	435	101	78	362	93	103	630	103	111	419	110	129	305
5520	31905	116	75	417	102	135	285	92	96	485	102	90	363	94	131	791	101	105	468	110	102	311
5521	Ketekijoha (QC)	119	119	483	103	152	263	107	140	332	104	80	354	91	107	535	105	119	393	114	125	307
5522	31906	110	104	317	100	125	282	109	124	202	98	77	380	94	88	654	102	104	367	111	115	269
5523	31907	110	112	350	102	137	282	104	122	545	92	71	344	97	104	630	101	109	430	107	127	314
5524	31908	120	127	383	105	156	262	107	119	471	101	99	332	99	100	710	106	120	432	114	133	301
5525	31909	110	96	333	106	107	267	108	103	230	96	70	343	99	105	632	104	96	361	99	107	267
5526	31910	107	120	450	106	144	286	109	97	349	101	80	342	95	107	622	104	110	410	101	125	282
5527	31911	95	77	317	107	87	293	108	77	264	97	54	295	92	76	485	100	74	331	102	93	287
5528	31912	107	95	350	107	120	284	106	111	410	92	70	348	96	119	804	102	103	439	102	110	299
5529	RNR 15435 (Check)	108	107	350	109	120	258	110	110	380	92	78	353	93	109	654	102	105	399	100	120	280
5530	31913	98	103	383	100	135	291	108	130	306	81	99	362	95	90	654	96	111	399	94	119	290
5531	31914	92	110	350	101	136	273	108	112	246	80	73	333	97	104	514	96	107	343	97	131	280
5532	31915	106	99	417	100	117	280	107	104	300	100	75	424	97	107	548	102	100	394	102	110	284
5533	31916	112	69	333	109	98	263	108	87	445	87	108	378	97	123	758	102	97	435	95	100	289
5534	31917	118	79	333	102	97	259	106	129	321	101	69	379	94	99	708	104	94	400	106	94	295
5535	31918	98	99	333	107	96	297	108	105	216	81	69	298	96	126	507	98	99	330	94	112	272
5536	Local Check (LC)	107	96	350	101	98	254	116	126	410	92	64	315	94	122	713	102	101	408	105	111	290
5537	31919	98	97	417	102	98	247	87	107	306	87	77	278	95	110	446	94	98	339	92	106	277
5538	31920	97	99	283	107	96	268	108	130	360	89	76	312	96	101	456	99	100	336	94	111	283
5539	31921	98	95	350	92	89	299	93	102	303	96	67	332	95	131	404	95	97	338	91	105	278
5540	31922	99	99	400	102	93	335	107	129	196	79	70	379	93	133	544	96	105	371	92	117	289
Mean		**108**	**100**	**362**	**104**	**116**	**279**	**105**	**109**	**342**	**94**	**76**	**349**	**91**	**113**	**493**	**100**	**103**	**365**	**103**	**114**	**286**

Table No. 19c.3 (Contd) :Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT-AGT-Non Basmati, Kharif 2023

Entry No	IET No	Trials not considered																				
		Odisha			Bihar			Jharkhand			West Bengal						Uttar Pradesh 2			Assam		
		@Jeypore			@Sabour			@Ranchi			@Hathwara			@BANKURA			@Mashodha			@Gerua		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5501	31091	107	71	412	107	100	291	120	65	154	106	82	336	119	89	353	111	80	237	105	100	304
5502	31890	92	74	365	112	110	233	105	82	144	85	94	296	128	108	385	97	100	245	97	117	275
5503	31891	90	73	241	112	110	270	105	84	245	87	91	296	111	86	293	103	93	263	97	117	316
5504	31892	111	91	245	127	135	234	121	102	233	100	124	336	119	81	326	123	115	233	110	127	295
5505	31893	104	59	231	83	77	258	102	69	170	86	71	312	119	130	526	101	60	206	91	82	308
5506	31894	94	92	312	105	178	175	104	111	141	90	129	336	122	130	282	93	130	237	93	141	318
5507	31895	116	90	355	121	122	209	123	84	140	109	122	232	128	129	457	103	115	249	117	120	234
5508	Shobini (NC)	112	77	288	111	114	310	115	82	195	102	97	328	116	112	249	102	90	252	105	103	218
5509	31896	111	95	328	118	149	327	120	93	236	94	121	368	118	133	377	125	96	224	100	126	278
5510	31897	108	85	359	121	135	258	122	88	282	99	118	320	122	130	311	123	96	229	108	121	288
5511	31898	105	69	422	112	134	333	115	73	256	103	99	352	119	119	346	113	106	274	100	105	288
5512	31899	106	100	363	66	152	299	122	101	204	99	134	312	115	137	374	125	106	222	108	136	283
5513	Zonal Check (ZC)	111	65	412	136	100	328	126	72	251	105	96	384	123	87	392	122	97	269	105	101	241
5514	31900	105	89	379	111	152	368	115	105	257	99	125	264	120	125	381	125	115	263	105	135	276
5515	31901	111	65	425	96	112	236	114	80	182	99	97	312	125	110	349	100	102	291	103	106	239
5516	31902	112	63	456	111	97	310	117	74	204	94	85	328	120	86	448	94	77	264	100	90	292
5517	Dubraj Sel. 1 (QC)	109	83	342	120	152	260	121	96	204	95	132	320	121	140	428	121	127	238	100	129	252
5518	31903	96	104	329	116	162	266	114	107	252	89	130	256	116	130	276	121	125	215	100	129	285
5519	31904	104	91	325	119	145	306	122	90	232	99	124	360	122	139	377	110	112	260	105	123	288
5520	31905	100	68	464	120	104	338	124	71	231	108	85	296	122	108	396	117	76	230	105	106	298
5521	Ketekijoha (QC)	110	94	345	122	140	315	120	103	285	100	125	376	122	127	425	123	107	230	110	131	283
5522	31906	110	93	333	139	141	343	121	91	203	101	123	296	127	146	376	121	119	221	110	126	253
5523	31907	103	89	336	112	146	224	113	109	301	91	119	360	119	133	418	115	110	230	100	123	278
5524	31908	105	99	385	116	154	260	123	98	282	100	127	392	120	143	329	125	106	199	105	131	306
5525	31909	106	74	312	97	114	238	115	80	188	101	96	304	120	98	341	102	89	214	100	103	248
5526	31910	110	74	338	107	152	198	122	89	192	110	112	240	114	127	320	101	106	242	110	131	248
5527	31911	108	54	335	114	99	444	107	78	234	104	87	360	114	96	341	102	82	238	103	101	272
5528	31912	109	64	338	111	116	291	120	75	231	103	106	312	124	113	325	115	92	254	110	112	279
5529	RNR 15435 (Check)	103	79	328	101	142	292	114	91	207	98	115	304	124	130	304	101	97	239	100	128	230
5530	31913	108	75	348	95	116	261	104	100	303	92	110	272	121	103	328	102	104	265	97	119	233
5531	31914	103	107	348	106	148	316	108	116	221	90	102	256	123	143	413	92	120	228	97	151	325
5532	31915	106	68	350	99	118	234	120	82	220	105	111	312	123	132	337	101	110	247	100	118	260
5533	31916	97	65	241	92	100	228	104	81	225	92	92	272	127	82	369	101	87	263	97	99	263
5534	31917	109	57	440	110	87	355	123	81	245	107	76	368	120	98	273	113	78	228	105	92	247
5535	31918	105	80	417	92	117	245	104	74	122	93	108	192	128	123	455	98	110	227	97	108	255
5536	Local Check (LC)	113	106	271	113	121	275	105	114	202	99	123	384	122	132	318	113	76	229	108	116	248
5537	31919	102	75	310	94	114	154	103	89	192	88	112	272	122	101	241	97	83	251	95	120	246
5538	31920	109	77	278	96	120	168	106	95	214	94	105	200	121	114	447	96	93	249	95	123	245
5539	31921	107	79	318	93	117	218	104	86	187	89	104	328	121	102	432	98	84	279	97	106	265
5540	31922	103	78	392	92	117	193	103	91	142	88	123	240	122	105	323	103	112	239	95	124	244
Mean		**105**	**80**	**345**	**108**	**125**	**271**	**114**	**89**	**215**	**97**	**108**	**310**	**121**	**116**	**361**	**108**	**100**	**242**	**102**	**117**	**270**

Table No. 19c.3 (Contd) :Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT-AGT-Non Basmati, Kharif 2023

Entry No	IET No	Trials not considered																					
		Madhya Pradesh						Chhattisgarh						Maharashtra			Karnataka						
		@Waraseoni			@Jabalpur			@Ambikapur			@Jagadalpur			@Karjat			@Sirsi			@Malagi		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5501	31091	98	123	368	103	63	300	118	69	159	103	68	283	98	108	233	106	90	307	115	60	205
5502	31890	112	117	334	94	82	251	94	98	131	93	80	289	96	120	231	91	105	347	87	65	128
5503	31891	115	120	412	94	86	300	98	82	160	104	82	337	102	122	210	91	94	358	105	65	155
5504	31892	128	139	383	117	102	276	118	123	209	116	96	312	112	164	192	119	128	335	119	86	188
5505	31893	74	105	327	75	64	257	98	82	167	89	41	245	87	81	203	91	87	319	95	61	194
5506	31894	104	173	294	106	117	306	92	113	135	93	119	341	98	172	225	96	134	309	92	103	194
5507	31895	122	124	302	116	88	240	115	93	146	114	89	339	116	144	232	112	120	324	112	78	172
5508	Shobini (NC)	102	136	314	106	82	277	109	88	170	104	76	226	100	124	230	130	85	226	112	58	147
5509	31896	128	153	319	116	107	256	106	97	170	102	94	279	105	175	217	119	120	287	120	86	154
5510	31897	120	135	427	119	100	228	113	118	196	118	98	346	112	165	228	116	132	380	119	88	204
5511	31898	105	133	421	106	83	255	113	108	210	105	75	233	103	122	232	106	114	380	114	73	218
5512	31899	125	135	344	118	101	253	109	108	160	116	98	308	113	182	232	116	142	391	119	72	179
5513	Zonal Check (ZC)	119	168	358	119	105	226	107	130	207	107	116	311	101	128	242	133	91	352	119	62	156
5514	31900	122	138	341	106	110	210	110	124	136	109	106	339	111	169	218	115	138	353	111	81	212
5515	31901	92	124	338	96	67	184	104	102	182	96	69	230	90	110	223	91	93	396	111	62	172
5516	31902	115	108	301	111	72	372	109	67	188	109	67	311	101	117	235	91	92	408	114	49	123
5517	Dubraj Sel. 1 (QC)	115	154	335	112	125	179	113	99	131	116	98	286	112	171	224	115	138	408	116	71	175
5518	31903	122	161	305	111	99	250	106	123	149	107	100	307	112	192	222	115	143	358	114	87	208
5519	31904	122	144	315	118	101	291	109	114	146	111	94	353	110	174	235	112	143	363	112	81	238
5520	31905	116	114	352	118	69	341	119	105	146	104	62	252	104	119	215	112	103	380	117	55	191
5521	Ketekijoha (QC)	127	141	366	121	99	447	114	101	225	114	89	307	113	158	192	119	135	391	120	77	197
5522	31906	117	161	334	122	93	269	116	116	178	109	93	345	110	149	208	106	127	368	121	66	187
5523	31907	112	155	309	100	98	352	102	116	153	103	93	285	104	129	213	110	132	370	114	57	201
5524	31908	127	143	404	115	105	260	111	118	165	109	103	332	110	181	200	116	133	363	119	68	154
5525	31909	122	130	312	101	81	260	114	101	144	104	75	296	96	120	240	91	115	391	113	63	201
5526	31910	102	166	282	106	88	175	114	99	198	111	86	318	97	164	235	112	132	358	121	85	190
5527	31911	97	105	357	96	61	240	113	73	244	104	62	301	94	111	241	98	87	370	114	43	138
5528	31912	97	137	320	98	77	222	114	99	162	103	76	281	94	128	233	100	108	373	114	65	193
5529	RNR 15435 (Check	95	159	249	94	92	256	107	101	183	99	91	284	92	153	232	100	122	429	112	77	226
5530	31913	88	135	305	89	91	218	101	106	159	95	92	288	85	134	223	91	126	358	110	81	190
5531	31914	90	167	311	92	94	182	98	123	158	93	119	316	90	168	239	92	142	403	99	92	189
5532	31915	97	133	293	105	91	230	119	86	154	107	73	278	99	122	231	110	112	347	115	74	201
5533	31916	89	114	307	111	64	276	104	105	164	94	72	246	89	110	225	98	95	325	108	59	248
5534	31917	104	105	315	92	71	243	113	98	175	110	65	319	101	102	232	112	82	357	119	59	175
5535	31918	82	127	274	82	88	211	100	105	147	90	90	317	88	124	231	91	111	276	105	76	176
5536	Local Check (LC)	95	160	309	84	83	210	102	133	188	90	110	308	94	109	267	112	97	307	115	64	184
5537	31919	86	136	303	87	71	249	100	106	145	93	78	272	85	113	225	91	105	373	98	77	189
5538	31920	86	126	300	81	92	252	101	107	156	93	89	307	88	130	247	94	112	340	102	72	198
5539	31921	84	113	304	85	83	277	100	474	195	91	75	294	87	124	238	91	96	385	90	66	188
5540	31922	84	132	326	86	87	227	100	106	141	93	88	332	86	119	223	89	120	406	97	87	166
Mean		**106**	**136**	**329**	**102**	**88**	**257**	**107**	**113**	**168**	**103**	**86**	**299**	**99**	**137**	**226**	**105**	**115**	**357**	**111**	**71**	**185**

Table No. 19c.4 : Grain quality characteristics of entries in IVT - AGT, kharif 2023

Entry No.	Designation / IET No.	HULL	MILL	HRR	KL	KB	L/B	Grain Type	Grain Chalk	VER	WU	KLAC	ER	ASV	AC	GC	AROMA
5501	31091	76.6	68.1	54.2	4.18	2.10	1.99	SB	VOC	5.1	290	7.5	1.79	7.0	17.42	64	SS
5502	31890	78.7	60.0	35.2	5.57	2.01	2.77	MS	VOC	4.4	290	9.5	1.70	3.0	21.91	76	MS
5503	31891	80.0	72.4	61.7	5.44	1.72	3.16	SS	VOC	4.1	220	10.1	1.85	4.0	22.44	25	MS
5504	31892	76.0	67.1	66.6	3.85	2.02	1.90	SB	A	4.1	220	5.4	1.40	4.0	21.35	22	SS
5505	31893	79.6	64.7	53.4	5.10	2.49	2.05	SB	OC	4.6	185	9.0	1.76	4.0	25.19	22	MS
5506	31894	80.0	66.2	43.1	5.73	1.92	2.98	MS	VOC	4.2	135	10.0	1.74	4.0	21.09	61	SS
5507	31895	78.8	69.7	68.2	3.63	2.19	1.65	SB	VOC	4.0	210	6.3	1.73	4.0	20.21	48	NS
5508	SHOBINI (NC)	78.3	68.4	63.0	5.63	1.73	3.25	SS	A	4.7	300	8.9	1.58	4.0	26.40	22	MS
5509	31896	75.3	65.4	64.0	3.94	2.01	1.96	SB	A	5.3	255	5.3	1.34	4.0	23.67	22	NS
5510	31897	76.0	68.5	66.3	3.80	2.02	1.88	SB	A	5.0	210	6.3	1.65	4.0	22.61	25	SS
5511	31898	77.1	70.3	68.0	3.90	2.01	1.93	SB	VOC	5.6	265	7.5	1.92	7.0	24.49	22	MS
5512	31899	79.2	71.4	67.9	4.33	1.83	2.36	SB	VOC	4.6	270	6.5	1.50	4.0	22.90	27	MS
5513	BADSHABHOG SEL -1	79.7	70.6	66.5	4.27	1.98	2.15	SB	VOC	4.6	275	8.2	1.72	4.0	22.44	50	SS
5514	31900	79.5	69.4	66.4	3.89	1.96	1.98	SB	VOC	4.4	270	6.4	1.64	4.0	20.47	48	MS
5515	31901	79.5	70.2	59.5	6.42	2.32	2.76	LB	VOC	4.6	240	9.7	1.51	4.0	22.67	22	MS
5516	31902	77.7	68.9	60.2	5.15	1.62	3.17	SS	VOC	4.1	230	8.1	1.57	4.0	21.41	22	MS
5517	DUBRAJ SEL- 1(QC)	76.9	66.5	59.4	5.03	1.80	2.79	MS	A	5.6	185	8.8	1.74	4.0	25.37	22	MS
5518	31903	78.3	71.5	69.4	4.18	1.73	2.41	SB	A	5.3	185	8.0	1.91	5.0	22.79	24	SS
5519	31904	78.6	68.0	66.8	3.88	1.63	2.38	SB	VOC	5.1	260	6.6	1.70	5.0	22.82	52	MS
5520	31905	71.4	61.9	42.7	5.17	1.88	2.75	MS	VOC	4.8	310	8.4	1.62	7.0	22.82	22	NS
5521	KETAKIJOHA (QC)	75.6	66.6	60.0	5.62	1.81	3.10	SS	A	5.3	215	10.1	1.79	5.0	22.00	57	SS
5522	31906	76.0	62.1	57.8	3.64	2.25	1.61	SB	A	4.6	200	6.8	1.86	4.0	25.31	61	NS
5523	31907	78.3	70.0	62.9	4.36	1.78	2.44	SB	A	4.6	195	6.6	1.51	5.0	22.70	24	SS
5524	31908	77.3	67.9	66.5	3.79	1.80	2.08	SB	VOC	4.2	195	7.3	1.92	5.0	22.29	24	SS
5525	31909	78.7	68.6	59.5	5.89	1.86	3.16	SS	VOC	4.1	245	10.2	1.73	4.0	23.52	22	MS
5526	31910	80.3	69.3	63.0	6.52	1.92	3.39	LS	VOC	5.6	305	9.9	1.51	4.0	26.48	29	SS
5527	31911	76.8	66.5	58.5	8.09	1.82	4.44	LS	A	5.2	380	16.8	2.07	7.0	23.05	22	SS
5528	31912	78.2	69.1	59.8	6.35	1.75	3.62	LS	VOC	4.2	285	8.7	1.37	4.0	24.49	43	SS
5529	RNR 15435 Check	76.4	65.2	55.4	7.56	1.62	4.66	LS	VOC	4.1	260	11.7	1.54	4.0	24.81	44	MS
5530	31913	80.6	65.6	40.3	5.79	2.00	2.89	MS	VOC	5.2	345	12.2	2.11	7.0	25.34	22	MS
5531	31914	77.8	66.2	49.1	6.35	1.91	3.32	LS	VOC	4.8	240	12.9	2.03	4.0	20.97	60	MS
5532	31915	75.3	62.5	47.9	7.52	1.61	4.67	LS	A	4.5	365	11.6	1.54	7.0	24.75	22	NS
5533	31916	77.4	69.4	64.2	6.29	1.87	3.36	LS	VOC	4.0	275	9.8	1.55	7.0	17.62	71	NS
5534	31917	79.8	71.0	66.2	5.00	1.80	2.77	MS	A	4.8	285	8.2	1.64	4.0	23.78	22	SS
5535	31918	78.3	66.8	51.5	6.67	2.04	3.26	LS	A	4.7	265	10.8	1.61	4.0	22.67	75	NS
5536	L.C	79.6	69.4	60.4	5.69	1.79	3.17	SS	VOC	4.7	260	9.5	1.66	5.0	26.04	52	SS
5537	31919	76.6	64.4	35.4	6.37	2.27	2.80	LB	VOC	5.4	310	10.6	1.66	7.0	25.49	66	NS
5538	31920	78.6	68.4	52.5	6.56	2.05	3.20	LS	VOC	5.4	260	10.8	1.64	4.0	23.52	75	NS
5539	31921	80.0	65.6	53.3	5.86	1.88	3.11	SS	VOC	5.4	275	9.0	1.53	4.0	25.08	71	NS
5540	31922	78.3	66.6	47.7	6.55	1.93	3.39	LS	A	4.5	340	10.4	1.58	7.0	24.78	80	NS

HULL: Hulling (%); MILL: Milling (%); HRR: Head Rice Recovery (%); KL: Kernel Length(mm); KB: Kernel Breadth(mm); L/B: Length and breadth ratio; Grain Chalk: Grain Chalkiness; VOC: Very occasionally present; A: Absent ASV: Alkali Spreading Value; AC: Amylose Content(%); GC: Gel Consistency; LB: Long Bold; SB:Short Bold; LS: Long Slender; MS: Medium Slender; SS: Short Slender

ADVANCE VARIETAL TRIAL 2 - LOWPHOSPHORUS TOLERANCE (AVT 2 LPT)

Locations: 8 **Test Entries: 7**

Checks: Positive –Swarna, Rasi and Vandana (Early check) **Table: 15a**
Sensitive - Improved Samba Mahsuri

AVT 2 Low Phosphorus Tolerance trial was constituted with 7 test entries which are in 3rd of testing;three positive checks Viz.,Swarna, Rasi and Vandana (Early check) and one Sensitive check (Improved Samba Mahsuri).The trial was conducted at two levels of Phosphorus P 0 (No application of phosphorus), P 50 % (50% of recommended Phosphorus). In both the levels, Nitrogen and Potash are applied as per recommended doses.The trial was sent to 10locations but the data was not received from 2 locations viz., Ludhiana and Vadagaon.The data from remaining 8 locations viz., ICAR NRRI, Pusa, Ranchi, Karjat, Maruteru, ICAR IIRR, Mandya and Gangavatiwas received.In all eight locations, the trial was conducted under both P 50 % and P 0 except Pusa where the experiment was conducted only in P 50% treatment but not under P 0.The data from Pusa under P 50% was not considered for analysis due to less CV (3.75%). Therefore, the data from remaining 7 locations was considered for analysis under P 0 and P 50%.The entry qualifies for promotion/found promising if it is significantly superior (By considering CD value) over the best check either at P 0 or at P 50% either at zone level or overall mean. The entries are compared with respective checks based on days to 50% flowering. The entries having flowering duration of 80 to 90 days are compared with Vandana, the entries with days to 50% flowering 90 to 100 days are compared with Rasi and the entries with more than 100 days to 50% flowering are compared with Swarna.In most of the centres, the susceptible check, Improved Samba Mahsuri recorded lower yields compared to tolerant check Swarna, Rasi and Vandana.Zone wise promotion of entries at P 0 and P 50 % is mentioned in Table 1.

Performance of promising entries in AVT2-LPT trial at 0% and 50% recommended dose of nitrogen during Kharif 2022

Table 1. Zone wise promotion of entries at P 0 and P 50 % is tabulated below

ZONE	Found promising under different zones / overall mean	
	P 0	P 50%
Zone VII	IET 30233 (5222 kg/ha) IET 30240 (4949 kg/ha) IET 29549 (4826 kg/ha) IET 30230 (4500 kg/ha) IET 30252 (4368 kg/ha) IET 30235 (4302 kg/ha) *IET 30242 (3696 kg/ha) Swarna (3896 kg/ha) Rasi (3132 kg/ha) Vandana (2803 kg/ha)	IET 30240 (5667 kg/ha) IET 30233 (5601 kg/ha) IET 29549 (5174 kg/ha) IET 30235 (5035 kg/ha) IET 30252 (4969 kg/ha) *IET 30230 (4608 kg/ha) Swarna (4325 kg/ha) Rasi (3797 kg/ha) Vandana(3362 kg/ha) CD = 337 kg/ha

ZONE	Found promising under different zones / overall mean	
	P 0	**P 50%**
	CD = 357 kg/ha	
Overall	IET 30233 (4584 kg/ha) IET 30240 (4405 kg/ha) IET 29549 (4189 kg/ha) IET 30230 (4107 kg/ha) IET 30252 (4097 kg/ha) IET 30235 (3959 kg/ha) Swarna (3719 kg/ha) Rasi (3126 kg/ha) Vandana (2904 kg/ha) CD = 235 kg/ha	IET 30233 (4961 kg/ha) IET 30240 (4928 kg/ha) *IET 30230 (4365 kg/ha) *IET 30242 (3878 kg/ha) Swarna (4408 kg/ha) Rasi (3589 kg/ha) Vandana (3300 kg/ha) CD = 234 kg/ha

*compared with Rasi based on days to 50% flowering

Zone III:

In zone III, at P 0 levels, Sensitive check BPT 5204 yield recorded higher yield than tolerant check hence, promotion is not considered in this zone.

Zone VII:

Based on 50% flowering, the entries which have on par flowering duration with swarna are compared withswarna. Hence yield performance is compared with swarna for these entries. Five entries viz., IETs 30233, 30240, 29549, 30230, 30252, and 30235 found significantly superior to best check (Swarna) in Zone VII. The entry IET 30242 recorded 95 days to 50% flowering hence compared to Rasi (90 Days DFF). The entry IET 30242 yielded significantly higher yield than Rasi in zone VII under P 0. **Hence a total of 7 entries IETs 30233, 30240, 29549, 30230, 30252, 30235, 30242 yielded significantly higher yield than corresponding checks.**

Overall basis:

Based on 50% flowering, the entries which have on par flowering duration with swarna are compared with swarna. Hence yield performance is compared with swarna for these entries. Six entries viz., IETs 30233, 30240, 29549, 30230, 30252, 30235 found significantly superior to best check (Swarna) on overall basis. The entryIET 30242 recorded days to 50% flowering on par with Rasi and hence compared to Rasi. The entryIET 30242 yielded significantly higher yield than Rasi over all basis under P 50%.**Hence a total of 7 entries IETs 30233, 30240, 29549, 30230, 30252, 30235, 30242 yielded significantly higher yield than corresponding checks on over all yield basis.**

Three years performance of IET 30233 - WGL 1495 (MTU 1121*2/Swarna)

Year	P level	Zone		State	
IET 30233		**Zone (GY kg/ha)**	**% BC**	**State (GY) Kg/ha**	**% BC**
2023	P 0			JH (3333)	11
		Z 7 (5222)	34	TS (4822)	28.35
				KA (5350)	45.97
		Overall (4584)	23.25		
	P 50%	Z 7 (5601)	31	TS (5289)	19.01
				KA (5570)	30.87
		Overall (4961)	12.54	-	-
2022	P 0	Z 3 (3665)	8.4	OD (3665)	8.4
				TS (4767)	21
				KA (4953)	17
		Overall (4490)	5	-	-
	P 50%	Z 3 (3868)	13	BI (4762)	13
				JH (2867)	26
		Z 7 (6036)	14	TS (2867)	98
		Overall (4690)	16.09	-	-
2021	P 0	Z 7 (5260)	31.17	KA (5260)	31.17
		Over all (4690)	16.09	-	-
	P 50%	-	-	-	-

IET 30233(WGL 1495)derived from the cross MTU 1121*2/Swarna has recorded average days to 50% flowering of 111 days. Based on the performance under both P 0 and P 50%, IET 30233 found promising in Zone 7 and overall mean for all three testing years 2023, 2022 and 2021. In addition the entry also found superior to best check in Zone 3 during 2022. Among states, it found promising for Telangana, Karnataka and Jharkhand. **Therefore, the entry IET 30233 found promising for zone 7 and overall mean and also for the states of Telangana, Karnataka and Jharkhand.**

Three years performance of IET 29549 (RP5977-MS-M-112-1-9-22-4-6-3) BPT 5204 Mutant

Year	P level	Zone		State	
IET 29549		**Zone (GY kg/ha)**	**% BC**	**State (GY) Kg/ha**	**% BC**
2023	P 0	Z 7 (4826)	23.87	KA (5140)	40.04
		Overall (4189)	12.63		
	P 50%	Z 7 (5174)	19.63	KA (5347)	25.63
2022	P 0	Z 3 (3590)	6.18		
		Z 7 (5470)	26	KA (5417)	28
		Overall (4823)	13		
	P 50%	Z 3 (3954)	16	BI (4563)	8
				JH (3533)	56
		Z 7 (5910)	11	TS (5047)	40
				KA (5404)	7
		Overall (4897)	13		
2021	P 0	Z 7 (5890)	31.47	KA (5890)	31.47
		Over all (5090)	20		
	P 50%	-	-	-	-

IET 29549 (RP5977-MS-M-112-1-9-22-4-6-3) is a mutant line obtained from BPT 5204 has recorded average days to 50% flowering of 109 days. Based on the performance under both P 0 and P 50%, IET 29549found promising in Zone 7 and overall mean for all three testing years 2023, 2022 and 2021. Among states, it found promising for Karnataka for all the years. It found superior to best check in Jharkhand, Bihar and Telangana during 2022. Hence, **the entry IET 29549 found promising for zone 7 and overall mean and also for the state of Karnataka.**

Three years performance of IET 30230 (RP 6112-MS-M-92-11-5-7-33-6-2) BPT 5204 Mutant

Year	P level	Zone		State	
IET 30230		**Zone(GY) kg/ha**	**BC**	**State (GY) Kg/ha**	**% BC**
2023	P 0			JH (4000)	71.45
				OD (3182)	35.75
		Z 7 (4500)	15.57	AP (4943)	110.34
				TS (3944)	13.75
				KA (4557)	24.34
		Overall (4107)	10.43		
	P 50%			OD (4129)	50.47
				JH (4285)	38.76
		Z 7 (4608)	21.35	AP (5553	87.66
		Overall (4365)	21.62		

Year	P level	Zone		State	
IET 30230		**Zone(GY) kg/ha**	**BC**	**State (GY) Kg/ha**	**% BC**
2022	P 0	Z 7 (4383)	7.12	KA (4826)	14
	P 50%			BI (4762)	13
		Z 7 (4999)	23.98		
		Overall (4368)	14.67		
2021	P 0	Z 7 (5400)	20.53	KA (5400)	20.53
		Over all (5400)	11.8		
	P 50%	-	-	-	-

IET 30230 (RP 6112-MS-M-92-11-5-7-33-6-2) which is a mutant of BPT 5204 has recorded average days to 50% flowering 98 days. Hence its performance is compared with early check Rasi or Vandanawhichever is yielding higher. Based on the performance under both P 0 and P 50%, IET 30233 found promising in Zone 7 and overall mean for all three testing years 2023, 2022 and 2021. Among states, it found promising for the state of Karnataka. **Therefore, the entry IET 30230 found promising for zone 7 and overall mean and also for the state of Karnataka.**

Three years performance of IET 30252RP Bio 4919-B2-NSR 5 KMR 3 / O rufipogon

Year	P level	Zone		State	
IET 30252		**Zone (GY kg/ha)**	**% BC**	**State (GY) Kg/ha**	**% BC**
2023	P 0			JH (3667)	21.78
		Z 7 (4368)	12.12	KA (5140)	40.04
				TS (4422)	14.89
	P 50%			JH (4189)	14.64
		Z 7 (4969)	14.89	TS (5222)	17.51
				KA (5173)	37.36
2022	P 0	Z 7 (5876)	35	TS (4884)	24
				KA (6365)	50
		Overall (4943)	16		
	P 50%	Z 3 (3617)	6	BI (5476)	30
		Z 7 (5686)	7	TS (5871)	62
		Overall (4766)	10		
2021	P 0	Z 7 (5370)	19.86	KA (5370)	19.86
		Over all (4760)	12.53		
	P 50%	-	-	-	-

IET 30252(RP Bio 4919-B2-NSR 5) obtained from the cross KMR 3 / O rufipogon has recorded average days to 50% flowering of 106 days. Based on the performance under both P 0 and P 50%, IET 30233 found promising in Zone 7 and overall mean for all three testing years 2023, 2022 and 2021. In addition the entry also found superior to best check in Zone 3 during 2022. Among states, it found promising for Telanganaand Karnataka. **Therefore, the entry IET 30252found promising for zone 7 and overall mean and also for the states of Telangana and Karnataka.**

Three years performance of IET 30235RP 6522-MSA-16-24-16-1550 (MTU 1010 / Swarna)

Year	P level	Zone		State	
IET 30235		**Zone (GY kg/ha)**	**% BC**	**State (GY) Kg/ha**	**% BC**
2023	P 0	Z 7 (4302)	10.42	TS (4589)	22.18
				KA (4184)	14.16
		Overall (3959)	6.45		
	P 50%			JH (4236)	15.93
		Z 7 (5035)	16.42	KA (5056)	34.25
				TS (5167)	16.27
2022	P 0	Z 7 (5808)	34	TS (4674)	19
				KA (5417)	28
		Overall (5128)	20		
	P 50%	Z 3 (3684)	8	JH (3267)	44
		Z 7 (6741)	27	TS (6241)	73
				KA (6536)	30
		Overall (5388)	24		
2021	P 0	Z 7 (5670)	26.56	KA (5670)	26.5
		Over all (5010)	18.44		
	P 50%	-	-	-	-

IET 30235(RP 6522-MSA-16-24-16-1550)derived from the cross MTU 1010/Swarna has recorded average days to 50% flowering of 108 days. Based on the performance under both P 0 and P 50%, IET 30233 found promising in Zone 7 and overall mean for all three testing years 2023, 2022 and 2021. In addition the entry also found superior to best check in Zone 3 during 2022. Among states, it found promising for Telangana, Karnataka and Jharkhand. **Therefore, the entry IET 30235 found promising for zone 7 and overall mean and also for the states of Telangana, Karnataka and Jharkhand.**

Three years performance of IET 30242 RP 5977-MS-M-33-4-8-3-7-5-1 BPT 5204 Mutant

Year	P level	Zone		State	
IET 30242		**Zone (GY kg/ha)**	**% BC**	**State (GY) Kg/ha**	**% BC**
2023	P 0	Z 7 (3696)	18.7	KA (4065)	10.91
	P 50%			JH (3522)	48.85
				OD (4068)	52.07
		Z 7 (4043)	6.48		
		Overall (3878)	8.05		
2022	P 0			KA (4585)	8
	P 50%	Z 3 (3611)	6	JH (3067)	35
				OD (4194)	8.6
		Z 7 (5160)	27.97	TS (4968)	37
				KA (5882)	17
		Overall (4359)	14.43		
2021	P 0	Z 7 (6310)	40	KA (6310)	40
		Over all (5330)	26		
	P 50%	-	-	-	-

IET 30242 (RP 5977-MS-M-33-4-8-3-7-5-1) which is a mutant of BPT 5204 has recorded average days to 50% flowering of 100 days. Based on the performance under both P 0 and P 50%, IET 30233 found promising in Zone 7 and overall mean for all three testing years 2023, 2022 and 2021.

Among states, it found promising for Karnataka, Odisha and Jharkhand. **Therefore, the entry IET 30242 found promising for zone 7 and overall mean and also for the states of Karnataka, Odisha and Jharkhand.**

Three years' performance of IET 30240 RP 6524-MSA-16-399-16-332 (Swarna / MTU 1001)

Year	P level	Zone		State	
IET 30240		**Zone (GY kg/ha)**	**% BC**	**State (GY) Kg/ha**	**% BC**
2023	P 0			OD (4650)	11.72
		Z 7 (4949)	27.03	KA (4778)	30.36
				TS (4444)	18.31
		Overall (4405)	18.45		
	P 50%	Z 7 (5667)	31.03	TS (5089)	14.51
				KA (5587)	31.27
		Overall (4928)	11.79		
2022	P 0	Z 7 (5256)	21	KA (6616)	56
		Overall (4763)	12		

Year	P level	Zone		State	
IET 30240		Zone (GY kg/ha)	% BC	State (GY) Kg/ha	% BC
	P 50%	Z 7 (5845)	10	TS (5196)	44
				KA (5832)	16
		Overall (4721)	8		
2021	P 0	Z 7 (5980)	33.48	KA (5980)	33.48
		Over all (5110)	20.82		
	P 50%	-	-	-	-

IET 30240(RP 6524-MSA-16-399-16-332) derived from the cross Swarna / MTU 1001) has recorded average days to 50% flowering of 111 days. Based on the performance under both P 0 and P 50%, IET 30233 found promising in Zone 7 and overall mean for all three testing years 2023, 2022 and 2021. Among states, it found promising for Telanganaand Karnataka. **Therefore, the entry IET 30233 found promising for zone 7 and overall mean and also for the states of Telangana and Karnataka.**

ADVANCE VARIETAL TRIAL 1 - LOWPHOSPHORUS TOLERANCE (AVT 1- LPT)

Locations: 8 **Test Entries: 25**

Checks: Positive –Swarna, Rasi and Vandana (Early check) **Table: 15b**
Sensitive - Improved Samba Mahsuri

AVT 1 Low Phosphorus Tolerance trial was constituted with 25 test entries, threetolerant checks Viz., Swarna, Rasi and Vandana (Early check) and one sensitive check (Improved Samba Mahsuri), two recurrent parents (Pusa 44 and Improved Samba Mahsuri). Among the test entries, 20 entries bred through classical breeding methods were in second year of testing, 3 NIL entries in the background of Improved Samba Mahsuri (IETs 32063, 32060, 32055) and two NILs in Pusa 44 back ground (IET 29558 and IET 29546) were in first year of testing. The trial was conducted at two levels of Phosphorus P 0 (No application of phosphorus), P 50 % (50% of recommended Phosphorus). In both the levels, Nitrogen and Potash are applied as per recommended doses. The trial was sent to 10 locations but the data was not received from 2 locations viz., Ludhiana and Vadagaon. The data from remaining 8 locations viz., ICAR NRRI, Pusa, Ranchi, Karjat, Maruteru, ICAR IIRR, Mandya and Gangavati was received. In these eight locations, the trial was conducted under both P 50 % and P 0 in seven locations but in Pusa centre, the experiment was conducted only in P 50% treatment but not under P 0. The data from Pusa under P 50% was not considered for analysis due to less CV (3.32%). Therefore, the data from remaining 7 locations was considered for analysis under both P 0 and P 50%. The entry qualifies for promotion/found promising if it is significantly superior (By considering CD value) over the best check either at P 0 or at P 50% either at zone level or overall mean. The entries are compared with respective checks based on days to 50% flowering. The entries having flowering duration of 80 to 90 days are compared with Vandana, the entries with days to

50% flowering 90 to 100 days are compared with Rasi and the entries with more than 100 days to 50% flowering are compared with Swarna. In most of the centres, the sensitive check, Improved Samba Mahsuri recorded lower yields compared to tolerant checks Swarna, Rasi and Vandana. Zone wise promotion of entries at P 0 and P 50 % is mentioned below

Zone wise promotion of entries at P 0 and P 50 % in AVT 1 LPT are tabulated

ZONE	P 0	P 50%
	Entries promoted/found promising under different zones / overall mean	
Zone III	IET 31106 (3773 kg/ha) Swarna (3173 kg/ha) Rasi (3065 kg/ha) Vandana (1907 kg/ha) CD = 288 kg	
Zone VII	IET 31110 (5497 kg/ha) IET 29546 (5319 kg/ha) IET 31097 (5098 kg/ha) IET 31102 (5080 kg/ha) IET 29558 (5052 kg/ha) IET 31105 (5045 kg/ha) IET 28070 (4855 kg/ha) IET 31103 (4849 kg/ha) *IET 31098 (4797 kg/ha) *IET 31106 (4712 kg/ha) *IET 31108 (4714 kg/ha) *IET 30241 (4545 kg/ha) *IET 29560 (4613 kg/ha) Swarna (4425 kg/ha) Rasi (4054 kg/ha) Vandana (3031 kg/ha) CD = 411 kg	IET 31097 (5983 kg/ha) IET 29546 (5792 kg/ha) *IET 31096 (5290) *IET 31103 (5706) *IET 31098 (5186) *IET 31106 (4991) *IET 31115 (4851) *IET 28070 (5655) *IET 31102 (4907) Swarna (5368 kg/ha) Rasi (4446 kg/ha) Vandana (3156 kg/ha) CD = 387 kg
Overall	IET 28070 (4480 kg/ha) IET 31110 (4447 kg/ha) IET 31106 (4407 kg/ha) Swarna (4018 kg/ha) Rasi (3948 kg/ha) Vandana (2878 kg/ha) CD = 272 kg	IET 28070 (5261 kg/ha) *IET 31097 (5087) *IET 31096 (4833) *IET 31103 (5049) *IET 31098 (4843) Swarna (4973 kg/ha) Rasi (4396 kg/ha) Vandana (3560 kg/ha) CD = 252 kg/ha

*The entries are compared with early tolerant checks since these entries have recorded <100 days to 50% flowering.

Zone III:

In zone III, at P 0 levels, **IET 31106 (3773 kg/ha) recorded significantly higher grain yield than best check hence promoted to AVT 2 LPT for 3rd year of testing**.

Zone VII:

Based on 50% flowering, the entries which have on par flowering duration with swarna are compared with swarna. Hence yield performance is compared with swarna for these entries. Eight entries viz., IETs 31110, 29546, 31097, 31102, 29558, 31105, 28070 and 31103 found significantly superior to best check (Swarna) in Zone VII, hence promoted to AVT 2 LPT for third year of testing. Seven entries IETs 31098, 31106, 31108, 30241, 29560, 31115 and 31097 recorded days to 50% flowering less than 100, hence compared to Rasi for yield performance. These entries yielded significantly higher than Rasi in zone VII. **A total of 14 entries Viz., IETs 31110, 29546, 31097, 31102, 29558, 31105, 28070, 31103, 31098, 31106, 31108, 30241, 29560 and 31115 yielded significantly higher yield than corresponding checks and promoted to AVT 2 LPT for third year of testing.**

Overall basis:

Based on 50% flowering, the entries which have on par flowering duration with swarna are compared with swarna. Hence yield performance is compared with swarna for these entries. Three entries IETs 28070, 31110 and 31106 found significantly superior to best check (Swarna) on overall basis. Four entries viz., IETs 31097, 31096, 31103 and 31098 recorded days to 50% flowering on par with Rasi and hence compared to Rasi. Four entries viz., IETs 31097, 31096, 31103 and 31098 yielded significantly higher yield than Rasi on over all basis. **Hence a total of 7 entries viz., IETs 28070, 31110, 31106, 31097, 31096, 31103 and 31098 yielded significantly higher yield than corresponding checks on over all yield basis. Hence these are promoted to AVT 2 LPT for 3rd year of testing.**

Promotions:

A total of 15 entries Viz., IETs 31110, 29546, 31097, 31102, 29558, 31105, 28070, 31103, 31098, 31106, 31108, 30241, 29560, 31096 and 31115 are promoted to AVT 2 LPT for third year of testing.

Performance of NILs

The performance of NILs under low Phosphorus condition is discussed below. There were two NILs Viz., IET 29558 and IET 29546 in the background of Pusa 44 and three NILs Viz., IETs 32063, 32060, 32055 in the background of Improved Samba Mahsuri.

NIL entry	Grain yield (kg/ha)			
	Zone 3	Zone 6	Zone 7	Overall
	P 0 Level			
IET 32063 (RP – ISM)	2316	4292	4270	3715
IET 32060 (RP – ISM)	2956	3417	3909	3566
IET 32055(RP – ISM)	2597	3583	4065	3576
Improved Samba Mahsuri (ISM)	3398	4667	4332	4113
IET 29558 (RP – Pusa 44)	**2956**	3292	**5052**	**4201**
IET 29546 (RP – Pusa 44)	2097	**4917**	**5319**	**4341**

NIL entry	Grain yield (kg/ha)			
	Zone 3	**Zone 6**	**Zone 7**	**Overall**
	P 0 Level			
Pusa 44	2292	3333	4049	3445
CD	288	631	411	272
	P 50% Level			
IET 32063	**3731**	4699	4678	4410
IET 32060	**3270**	4167	4842	4296
IET 32055	**3968**	4269	4722	**4442**
Improved Samba Mahsuri	2665	5278	4668	4183
IET 29558 (RP – Pusa 44)	2667	4778	**5513**	**4595**
IET 29546 (RP – Pusa 44)	2827	**5718**	**5792**	**4934**
Pusa 44	3383	4333	4797	4327
CD	452	717	387	252

Among the NILs of Improved Samba Mahsuri, IET 32055 found significantly high yielding than recurrent parent in Zone 3 and overall performance in P 50% application. Other two NILs IET 32063 and IET 32060 found significantly superior to recurrent parent in Zone 3 and Zone 6 under P 50% condition.

Among the NIL of Pusa 44,IET 29558 found significantly superior to recurrent parent Pusa 44 in Zone3, Zone 7 and Overall mean under P 0 levels. It also performed better than Recurrent parent in Zone 6, Zone 7 and Over all mean under P 50%. Similarly, another NIL of Pusa 44, IET 29546 found significantly superior to recurrent parent in Zone 6, Zone 7 and Overall mean under P 0 levels. Similarly, the entry IET 29546 found superior to recurrent parent in Zone 6, Zone 7 and Over all mean under P 50%. **Therefore, all the 3 NILs of Improved Samba Mahsuri (IETs 32063, 32060, 32055) and 2 NILs (IET 29558 and IET 29546) of Pusa 44 are promoted to AVT 2 LPT for second year of testing.**

INITIAL VARIETAL TRIAL -LOWPHOSPHORUS TOLERANCE (IVT- LPT)

Locations: 7 **Test Entries: 24**

Checks: **Positive –Swarna, Rasi and Vandana (Early check)** **Table: 15c**
Sensitive - Improved Samba Mahsuri

IVT Low Phosphorus Tolerance trial was constituted with 24 test entries, three tolerant checks Viz., Swarna, Rasi and Vandana (Early check) and one sensitive check (Improved Samba Mahsuri). All the test entries were in second year of testing. The trial was conducted at two levels of Phosphorus P 0 (No application of phosphorus), P 50 % (50% of recommended Phosphorus).In both the levels, Nitrogen and Potash are applied as per recommended doses. The trial was sent to 10 locations but the data was not received from 3 locations viz., Ludhiana, Ranchi and Vadagaon. The data from remaining 7 locations viz., ICAR NRRI, Pusa, Karjat, Maruteru, ICAR IIRR, Mandya and Gangavati was received. In these seven locations, the trial was conducted under both P 50 % and P 0 in six locations but in Pusa centre, the experiment was conducted only in P 50% treatment but not under P 0. The data from Pusa under P 50% was not considered for analysis due to less CV (3.37%). Therefore, the data from remaining 6 locations was considered for analysis under both P 0 and P 50%. The entry qualifies for promotion if it is significantly superior (By considering CD value) over the best check either at P 0 or at P 50% either at zone level or overall mean. The entries are compared with respective checks based on days to 50% flowering. The entries having flowering duration of 80 to 90 days are compared with Vandana, the entries with days to 50% flowering 90 to 100 days are compared with Rasi and the entries with more than 100 days to 50% flowering are compared with Swarna. In most of the centres, the sensitive check, Improved Samba Mahsuri recorded lower yields compared to tolerant checks Swarna, Rasi and Vandana. Zone wise promotion of entries at P 0 and P 50 % is mentioned below.

Zone wise promotion of entries at P 0 and P 50 % in IVT LPT are tabulated

ZONE	P 0	P 50%
	Entries promoted/found promising under different zones / overall mean	
Zone III	IET 31967 (3817 kg/ha) *IET 31969 (3638 kg/ha) *IET 31976 (3554 kg/ha) *IET 31966 (3424 kg/ha) *IET 31986 (3411 kg/ha) *IET 31972 (3224 kg/ha) Swarna (3426 kg/ha) Rasi (2167 kg/ha) Vandana (2301kg/ha) CD = 331 kg/ha	IET 31967 (5539 kg/ha) IET 31980 (5192 kg/ha) IET 31985 (4734 kg/ha) *IET 31966 (4490 kg/ha) *IET 31969 (4240 kg/ha) *IET 31968 (4146 kg/ha) *IET 31976 (4110 kg/ha) *IET 31986 (4012 kg/ha) *IET 31981 (3825 kg/ha) *IET 31982 (3309 kg/ha) Swarna (4024 kg/ha) Rasi (2791 kg/ha) Vandana (2611 kg/ha)

ZONE	P 0	P 50%
	Entries promoted/found promising under different zones / overall mean	
		CD = 497
Zone VI	IET 31973 (4998 kg/ha) IET 31975 (4891 kg/ha) IET 31984 (4889 kg/ha) IET 31985 (4866 kg/ha) IET 31979 (4844 kg/ha) IET 31980 (4844 kg/ha) Swarna (4058 kg/ha) Rasi (3978 kg/ha) Vandana (3244 kg/ha) CD = 453	IET 31975 (6049 kg/ha) IET 31973 (6008 kg/ha) IET 31979 (5988 kg/ha) Swarna (4058 kg/ha) Rasi (3978 kg/ha) Vandana (3244 kg/ha) CD = 453
Zone VII	IET 31973 (4992 kg/ha) IET 31969 (4781 kg/ha) *IET 31896 (4602 kg/ha) *IET 31976 (4578 kg/ha) *IET 31975 (4442 kg/ha) *IET 31107 (4254 kg/ha) Swarna (4371 kg/ha) Rasi (3610 kg/ha) Vandana (2370 kg/ha)	*IET 31986 (5206 kg/ha) *IET 31970 (5141 kg/ha) *IET 31975 (5009 kg/ha) *IET 31980 (4988 kg/ha) *IET 31976 (4845 kg/ha) *IET 31969 (4815 kg/ha) Swarna (5224 kg/ha) Rasi (4381 kg/ha) Vandana (2554 kg/ha) CD = 417
Overall	IET 31973 (4630 kg/ha) IET 31980 (4531 kg/ha) IET 31970 (4457 kg/ha) *IET 31966 (4403 kg/ha) *IET 31969 (4369 kg/ha) *IET 31976 (4242 kg/ha) *IET 31986 (4232 kg/ha) *IET 31107 (3862 kg/ha) Swarna (4161 kg/ha) Rasi (3431 kg/ha) Vandana (2504 kg/ha) CD = 280	*IET 31980 (5130 kg/ha) *IET 31975 (5057 kg/ha) *IET 31966 (4995 kg/ha) *IET 31986 (4928 kg/ha) *IET 31970 (4880 kg/ha) *IET 31976 (4786 kg/ha) *IET 31969 (4644 kg/ha) Swarna (4918 kg/ha) Rasi (4199 kg/ha) Vandana (2837 kg/ha) CD = 364

*The entries are compared with early tolerant checks since these entries have recorded <100 days to 50% flowering.

Promotions:

A total of 18 entries Viz., IETs 31967, 31980, 31985, 31973, 31975, 31984, 31979, 31969, 31970, 31976, 31966, 31986, 31972, 31968, 31981, 31982, 31896 and 31107 are promoted to AVT 1 LPT for second year of testing.

Table 15a.1 : Composition of entries in Advance Variety Trial 2 –Low Phosphorus Tolerance Trial (AVT 2-LPT), Kharif 2023.

Entry No.	IET No.	Designation	Cross Combination	GT
3rd year of testing:				
5601	30233	WGL 1495	MTU 1121*2 / Swarna	MS
5602	29549	RP 5977-MS-M-112-1-9-22-4-6-3	BPT 5204 Mutant	SB
5603	**Swarna (Positive Check)**			
5604	30230	RP 6112-MS-M-92-11-5-7-33-6-2	BPT 5204 Mutant	SB
5605	30252	RP Bio 4919-B2-NSR 5	KMR 3 / O.rufipogon	SB
5606	**Rasi (Positive Check)**			
5607	30235	RP 6522-MSA-16-24-16-1550	MTU 1010 / Swarna	MS
5608	**Vandana (Positive Very Early Duration Check)**			
5609	30242	RP 5977-MS-M-33-4-8-3-7-5-1	BPT 5204 Mutant	LS
5610	30240	RP 6524-MSA-16-399-16-332	Swarna / MTU 1010	MS
5611	**Improved Samba Mahsuri (Negative Check)**			

Table.15a.2 : Grain Yield (kg/ha) of AVT-2 LPT P(0) Kharif-2023

Entry No	IET No	ZONE III - EASTERN						ZONE VI -WESTERN		ZONE VII - SOUTHERN	
		Odisha (1)		Jharkhand (1)		Zone III(2)		Maharashtra (1)		Andhra Pradesh (1)	
		ICAR-NRRI (Cuttack)		Ranchi		Mean		Karjat		Maruteru	
5601	30233	3510	7	3333	3 *	3422	6	4357	4	5366	3
5602	29549	4442	3	2733	6	3588	3	2843		5024	4
5603	Swarna (Positive Check)	4162	4	1833		2998	8	4457	3	4715	6
5604	30230	3182	8	4000	1 *	3591	2	3567	7	4943	5
5605	30252	4521	2	3667	2 *	4094	1 *	3020	10	3699	8
5606	Rasi (Positive Check)	2344		2333	10	2339		4677	1	1732	
5607	30235	4079	5	3000	5	3540	4	3423	8	4252	7
5608	Vandana (Positive Very Early Duration Check)	2470	10	3011	4	2741	9	3637	6	2350	10
5609	30242	2611	9	2344	9	2478	10	3123	9	3211	9
5610	30240	4650	1	2361	8	3506	5	4030	5	5797	1
5611	Improved Samba Mahsuri (Negative Check)	3993	6	2417	7	3205	7	4587	2	5431	2
Exp. Mean		**3633**		**2821**		**3227**		**3793**		**4229**	
F Value		**11.02(p<0.0001)S**		**44.3(p<0.0001)S**		**13.63(p<0.0001)S**		**12.50(p<0.0001)S**		**23.36(p<0.0001)S**	
CD		700		264		392		505		743	
CV%		**11.32**		**5.50**		**7.13**		**7.82**		**10.32**	
D/S		01-07-2023		29-06-2023				28-06-2023		15-07-2023	
D/P		09-08-2023		22-08-2023				21-07-2023		26-08-2023	

Table.15a.2 (Contd) : Grain Yield (kg/ha) of AVT-2 LPT P(0) Kharif-2023

Entry No	IET No	ZONE VII - SOUTHERN										Overall Mean (7)	
		Telangana (1)		Karnataka				Karnataka (2)		Zone VII(4)			
		Rajendranagar		Mandya		Gangavathi		Mean		Mean			
5601	30233	4822	1 *	4722	4	5978	1	5350	1 *	5222	1 *	4584	1 *
5602	29549	4000	5	4782	3	5497	2	5140	2 *	4826	3 *	4189	3 *
5603	Swarna (Positive Check)	3756	7	3611	8	3502	9	3557	9	3896	7	3719	7
5604	30230	3944	6	4385	6	4728	4	4557	5 *	4500	4 *	4107	4 *
5605	30252	4422	4 *	4653	5	4696	5	4675	4 *	4368	5 *	4097	5 *
5606	Rasi (Positive Check)	3467	8	3571	9	3758	8	3665	8	3132	10	3126	10
5607	30235	4589	2 *	5050	2	3317	10	4184	6	4302	6 *	3959	6 *
5608	Vandana (Positive Very Early Duration Check)	2444	10	1587		4832	3	3210		2803		2904	
5609	30242	3444	9	4018	7	4111	7	4065	7	3696	8	3266	9
5610	30240	4444	3 *	5149	1	4407	6	4778	3 *	4949	2 *	4405	2 *
5611	Improved Samba Mahsuri (Negative Check)	2333		3502	10	3293		3398	10	3640	9	3651	8
Exp. Mean		**3788**		**4094**		**4374**		**4234**		**4121**		**3819**	
F Value		**25.35(p<0.0001)S**		**9.53(p<0.0001)S**		**20.53(p<0.0001)S**		**10.92(p<0.0001)S**		**33.16(p<0.0001)S**		**38.07(p<0.0001)S**	
CD		440		897		558		599		357		235	
CV%		**6.82**		**12.87**		**7.49**		**8.31**		**5.09**		**3.62**	
D/S		07-07-2023		07-08-2023		28-07-2023							
D/P		08-04-2023		04-09-2023		27-08-2023							

Table.15a.3 : Days to 50% Flowering, Plant Height and Panicles/sq.m of AVT-2 LPT P(0) Kharif-2023

Entry No	IET No	ZONE III - EASTERN									ZONE VI -WESTERN			ZONE VII - SOUTHERN		
		Odisha (1)			Jharkhand (1)			Zone III(2)			Maharashtra (1)			Andhra Pradesh (1)		
		ICAR-NRRI (Cuttack)			Ranchi			Mean			Karjat			Maruteru		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5601	30233	119	118	242	125	70		122	94	242	98	104	233	112	109	297
5602	29549	116	139	260	125	86		121	112	260	99	81	199	108	123	264
5603	Swarna (Positive Check)	118	104	277	125	57		122	81	277	98	77	237	110	103	297
5604	30230	96	121	313	123	76		110	99	313	98	76	224	89	120	264
5605	30252	105	137	203	126	89		116	113	203	97	85	213	104	135	264
5606	Rasi (Positive Check)	87	92	249	119	80		103	86	249	97	78	247	86	95	242
5607	30235	116	119	238	125	66		121	93	238	97	89	223	105	116	286
5608	Vandana (Positive Very Early Duration Check)	87	119	270	119	76		103	98	270	96	92	225	88	103	286
5609	30242	98	111	281	124	72		111	92	281	99	79	219	94	101	264
5610	30240	118	116	267	126	76		122	96	267	95	80	230	114	123	264
5611	Improved Samba Mahsuri (Negative Check)	118	106	256	125	63		122	84	256	97	83	243	100	99	297
Exp. Mean		**107**	**117**	**260**	**124**	**74**		**116**	**95**	**260**	**98**	**84**	**227**	**101**	**111**	**275**

Table. 15a.3 (Contd) : Days to 50% Flowering, Plant Height and Panicles/sq.m of AVT-2 LPT P(0) Kharif-2023

Entry No	IET No	ZONE VII - SOUTHERN															Overall Mean (7)		
		Telangana (1)			Karnataka						Karnataka (2)			Zone VII(4)					
		Rajendranagar			Mandya			Gangavathi			Mean			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5601	30233	115	100	341	105	85	306	108	106	354	106	96	330	110	100	324	112	99	295
5602	29549	117	105	308	97	106	295	98	126	306	97	116	300	105	115	293	109	109	272
5603	Swarna (Positive Check)	110	80	297	108	79	295	110	83	313	109	81	304	109	86	300	111	83	286
5604	30230	99	86	264	91	91	317	97	114	363	94	103	340	94	103	302	99	98	291
5605	30252	104	105	319	100	104	306	103	124	294	101	114	300	103	117	296	106	111	266
5606	Rasi (Positive Check)	92	88	242	91	88	306	91	104	324	91	96	315	90	94	279	95	89	268
5607	30235	117	96	320	99	104	329	103	113	313	101	108	321	106	107	312	109	100	285
5608	Vandana (Positive Very Early Duration Check)	81	104	209	80	99	317	77	124	306	78	111	311	81	107	279	90	102	269
5609	30242	105	90	231	92	86	317	91	112	312	91	99	314	95	97	281	100	93	271
5610	30240	118	96	330	105	102	340	104	119	332	104	110	336	110	110	316	111	102	294
5611	Improved Samba Mahsuri (Negative Check)	114	71	220	98	83	295	101	99	357	99	91	326	103	88	292	108	86	278
Exp. Mean		**106**	**93**	**280**	**97**	**93**	**311**	**98**	**111**	**325**	**97**	**102**	**318**	**101**	**102**	**298**	**104**	**98**	**280**

Table.15a.2 : Grain Yield (kg/ha) of AVT-2 LPT P(50) Kharif-2023

Entry No	IET No	ZONE III - EASTERN						ZONE VI -WESTERN		ZONE VII - SOUTHERN			
		Odisha (1)		Jharkhand (1)		Zone III(2)		Maharashtra (1)		Andhra Pradesh (1)		Telangana (1)	
		ICAR-NRRI (Cuttack)		Ranchi		Mean		Karjat		Maruteru		Rajendranagar	
5601	30233	3793	9	3926	4	3860	6	4600	4	5976	3	5289	1 *
5602	29549	5052	3	3504	7	4278	4	3077		5634	4	4367	6
5603	Swarna (Positive Check)	5263	1	3654	5	4459	2	4642	3	5325	6	4444	5
5604	30230	4129	7	4285	1 *	4207	5	3710	7	5553	5	4144	8
5605	30252	4739	4	4189	3 *	4464	1	3303	10	4309	8	5222	2 *
5606	Rasi (Positive Check)	2675		2366		2521		4897	1	2341		4333	7
5607	30235	4429	5	4236	2 *	4333	3	3522	8	4862	7	5167	3 *
5608	Vandana (Positive Very Early Duration Check)	2744	10	3088	8	2916	10	3822	6	2959	10	3444	10
5609	30242	4068	8	3522	6	3795	7	3380	9	3821	9	3811	9
5610	30240	5072	2	2499	10	3786	8	4258	5	6407	1	5089	4 *
5611	Improved Samba Mahsuri (Negative Check)	4219	6	2740	9	3480	9	4858	2	6041	2	3411	
Exp. Mean		**4199**		**3455**		**3827**		**4006**		**4839**		**4429**	
F Value		**14.06(p<0.0001)S**		**13.53(p<0.0001)S**		**14.86(p<0.0001)S**		**14.53(p<0.0001)S**		**23.36(p<0.0001)S**		**12.56(p<0.0001)S**	
CD		627		517		448		483		743		535	
CV%		**8.77**		**8.78**		**6.87**		**7.07**		**9.02**		**7.09**	
D/S		01-07-2023		29-06-2023				28-06-2023		15-07-2023		07-07-2023	
D/P		09-08-2023		22-08-2023				21-07-2023		26-08-2023		08-04-2023	

Table.15a.2 (Contd) : Grain Yield (kg/ha) of AVT-2 LPT P(50) Kharif-2023

Entry No	IET No	ZONE VII - SOUTHERN								Overall Mean (7)		Trial not considered	
		Karnataka				Karnataka (2)		Zone VII(4)				Bihar	
		Mandya		Gangavathi		Mean		Mean				@Pusa	
5601	30233	5635	1	5505	3	5570	2 *	5601	2 *	4961	1 *	4479	7
5602	29549	5258	3	5436	4	5347	3 *	5174	3 *	4618	3	4375	8
5603	Swarna (Positive Check)	4097	8	3434		3766	9	4325	7	4408	6	4340	9
5604	30230	4464	6	4271	8	4368	6	4608	6	4365	7	5139	2
5605	30252	4782	4	5563	2	5173	4 *	4969	5 *	4587	5	4757	5
5606	Rasi (Positive Check)	4345	7	4167	9	4256	8	3797	10	3589	10	5208	1
5607	30235	5407	2	4704	7	5056	5 *	5035	4 *	4618	3	4826	4
5608	Vandana (Positive Very Early Duration Check)	1716		5329	5	3523		3362		3300		4618	6
5609	30242	3661	9	4880	6	4271	7	4043	9	3878	9	5000	3
5610	30240	4683	5	6490	1	5587	1 *	5667	1 *	4928	2 *	3819	10
5611	Improved Samba Mahsuri (Negative Check)	3353	10	3798	10	3576	10	4151	8	4060	8	3333	
Exp. Mean		**4309**		**4870**		**4590**		**4612**		**4301**		**4536**	
F Value		**8.11(p<0.0001)S**		**15.12(p<0.0001)S**		**10.82(p<0.0001)S**		**35.40(p<0.0001)S**		**38.25(p<0.0001)S**		**28.46(p<0.0001)S**	
CD		1055		635		646		337		234		290	
CV%		**14.38**		**7.65**		**8.26**		**4.3**		**3.19**		**3.75**	
D/S		07-08-2023		28-07-2023								07-08-2023	
D/P		04-09-2023		27-08-2023								08-01-2023	

Table.15a.3 : Days to 50% Flowering, Plant Height and Panicles/sq.m of AVT-2 LPT P(50) Kharif-2023

Entry No	IET No	ZONE III - EASTERN									ZONE VI -WESTERN			ZONE VII - SOUTHERN					
		Odisha (1)			Jharkhand (1)			Zone III(2)			Maharashtra (1)			Andhra Pradesh (1)			Telangana (1)		
		ICAR-NRRI (Cuttack)			Ranchi			Mean			Karjat			Maruteru			Rajendranagar		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5601	30233	117	120	327	127	72		122	96	327	99	112	244	110	113	374	113	102	362
5602	29549	116	142	370	127	91		122	117	370	100	87	204	106	125	308	114	107	319
5603	Swarna (Positive Check)	118	100	345	127	61		123	80	345	99	84	244	108	105	319	106	86	324
5604	30230	97	120	348	125	69		111	94	348	99	83	232	87	122	319	96	90	341
5605	30252	107	139	352	128	93		118	116	352	98	91	224	102	136	297	101	115	374
5606	Rasi (Positive Check)	81	92	356	120	86		100	89	356	99	86	258	84	96	308	90	91	385
5607	30235	116	118	359	127	71		122	94	359	98	94	232	103	117	330	113	98	332
5608	Vandana (Positive Very Early Duration Check)	82	123	313	120	79		101	101	313	97	104	234	85	105	363	81	109	308
5609	30242	98	112	292	125	72		112	92	292	100	86	228	91	106	297	104	94	285
5610	30240	118	118	274	127	78		123	98	274	96	86	237	112	123	341	115	98	352
5611	Improved Samba Mahsuri (Negative Check)	118	106	324	127	66		122	86	324	98	99	251	97	106	330	111	80	286
Exp. Mean		**106**	**117**	**333**	**125**	**76**		**116**	**97**	**333**	**98**	**92**	**235**	**99**	**114**	**326**	**104**	**97**	**333**

Table.15a.3 (Contd) : Days to 50% Flowering, Plant Height and Panicles/sq.m of AVT-2 LPT P(50) Kharif-2023

Entry No	IET No	ZONE VII - SOUTHERN												Overall Mean (7)			Trial not considered		
		Karnataka						Karnataka (2)			Zone VII(4)						Bihar (0)		
		Mandya			Gangavathi			Mean			Mean						@Pusa		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5601	30233	105	88	340	109	108	318	107	98	329	109	102	349	111	102	327	105	107	242
5602	29549	97	107	329	100	140	286	99	124	307	104	120	310	109	114	303	104	135	239
5603	Swarna (Positive Check)	108	85	329	113	92	303	110	88	316	109	92	319	111	87	311	91	83	237
5604	30230	91	94	340	92	106	306	91	100	323	91	103	326	98	98	314	82	115	250
5605	30252	100	108	363	106	144	351	103	126	357	102	126	346	106	118	327	100	139	253
5606	Rasi (Positive Check)	91	89	329	92	100	326	91	95	327	89	94	337	94	92	327	79	91	268
5607	30235	99	105	340	101	111	308	100	108	324	104	108	328	108	102	317	107	107	250
5608	Vandana (Positive Very Early Duration Check)	80	99	329	78	125	264	79	112	296	81	110	316	89	106	302	70	112	248
5609	30242	92	88	329	92	109	306	92	99	317	95	99	304	100	95	289	81	103	266
5610	30240	105	104	329	102	114	324	104	109	326	109	110	336	111	103	309	111	100	254
5611	Improved Samba Mahsuri (Negative Check)	98	87	329	101	96	286	100	91	307	102	92	308	107	92	301	108	83	232
Exp. Mean		**97**	**96**	**335**	**99**	**113**	**307**	**98**	**104**	**321**	**99**	**105**	**325**	**104**	**101**	**312**	**94**	**107**	**249**

Table No. 15a.4 : Grain quality characteristics of entries in AVT 2-LPT, kharif 2023

Entry No.	Designation /IET No.	HULL	MILL	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC
5601	IET -30233	80.0	70.3	59.5	5.59	2.09	2.76	MS	VOC	4.0	20.88
5602	29549	79.2	69.6	62.6	5.08	2.21	2.29	SB	A	4.0	21.26
5603	**SWARNA**	78.3	68.2	60.8	5.05	2.17	2.32	SB	VOC	4.0	24.75
5604	30230	78.7	70.6	63.1	5.08	2.22	2.25	SB	VOC	4.0	24.58
5605	30252	77.1	66.4	56.5	5.28	2.38	2.21	SB	VOC	7.0	23.49
5606	**RASI (PC)**	79.2	68.1	59.6	5.11	2.38	2.14	SB	VOC	7.0	25.93
5607	30235	80.6	66.9	59.3	5.56	2.10	2.64	MS	VOC	4.0	20.76
5608	**VANDANA**	77.3	66.3	57.6	5.69	2.16	2.63	MS	A	4.0	27.25
5609	30242	79.9	67.2	58.6	6.75	2.12	3.16	LS	VOC	4.0	22.99
5610	30240	80.3	70.6	64.4	5.81	2.04	2.84	MS	VOC	4.0	24.34
5611	**ISM**	76.9	66.6	57.4	4.93	1.80	2.73	MS	A	4.0	23.46

HULL: Hulling (%); MILL: Milling (%); HRR: Head Rice Recovery (%); KL: Kernel Length(mm); KB: Kernel Breadth(mm); L/B: Length and breadth ratio; Grain Chalk: Grain Chalkiness; VOC: Very occasionally present; A: Absent ASV: Alkali Spreading Value; AC: Amylose Content(%); GC: Gel Consistency; LB: Long Bold; SB:Short Bold; LS: Long Slender; MS: Medium Slender; SS: Short Slender

Table. 15b.1 : Composition of entries in Advance Variety Trial 1 –Low Phosphorus Tolerance Trial (AVT 1-LPT), Kharif 2023.

Entry No.	IET No.	Designation	Cross Combination	GT	Yield Trial
2nd year of testing:					
5701	31097	CR 4395-6-3-47	CR Dhan 310 / CR Dhan 801 // 2* CR Dhan 310	LB	
5702	31096	RP 6459-C2-168-1	166S-Swarna / O.nivara // 14S-Swarna / O.nivara	LS	
5703	31101	RP Bio 4918-B2-175K-2	Swarna / O. nivara	MS	
5704	31103	RP 6252-BV/RIL-BV1024	BPT 5204 / Vardhan	SB	
5705	31098	CR 3562-2-1-1-3-1-1	Surendra / N 22	MS	
5706	31105	RP 6468-JBM 408-8-B-1-1-1-1	Krishna Hamsa / IRBB60 // Krishna Hamsa / IR 96321-1447-561-B-1 /// Krishna Hamsa / IR 81896-96-B-B-195 // Krishna Hamsa / Tetep	MS	
5707	31106	RP 6712-MS-SF-39-4-2-3-9-5-1	Samba Mahsuri Mutant-93*2 / BPT 5204	MS	
5708	31100	CR 4387-RGA-271	CR Dhan 202 / SR-72-1	MS	
5709	**Swarna (Positive Check)**				
5710	31108	RP 6691-HWR 31	IR 69502-6-SRN-3-UBN-1-B / O. glaberrima (TOG 6216)	MS	
5711	31115	RP 6689-PyF-111-23	NH 686 / NH 787	SB	
5712	28070	RP Bio 4919-B-B-13-7	KMR3 / O. rufipogon		
5713	30241 (R)	RP 6500-MAID-90-9-2-1-1-1-1	WGL14 / Improved Samba Mahsuri // WGL14 / Rathuheenati /// WGL14 / RP 5925-24 // WGL14 / IR 96321-1447-561-B-1 //// WGL14 / IR 81896-96-B-B-195 // WGL14 / RP Patho-3	MS	
5714	31102	RP 6690-MASC-12-46	WB 9 / BPT 5204	LS	
5715	31110	RP 5405-JBB-631 (B)-B-BB-1-1-1-1	Swarna / IRGC 4105 // Swarna	SB	
5716	**Rasi (Positive Check)**				
5717	28075	RP Bio 5477-NH-663	N 22 Mutant		
5718	29560	RP 5593-83-27-1 (PSV 2081)	MTU 1010 / N22		
5719	31112	RP 6689-PyF 111-25	NH 686 / NH787	SB	
5720	**Vandana (Positive Very Early Duration Check)**				
5721	28776	RP 6166-47	MTU 1010 / O.rufipogon		
5722	30245 (R)	RP 6499-MAID-93-12-9-2-1-1-1	WGL14 / RP Patho-3 // WGL14 / Rathuheenati // /WGL14 / RP 5925-24 // WGL14 / IR96321-1447-561-B-1 //// WGL14 / IR 81896-96-B-B-195	MS	
2723	28076	RP Bio 4918-B-B-166-30	Swarna /O. nivara		
1st year of testing (NILs):					
5724	32063	RP 6757-RMS-22-17-34-47	Improved Samba Mahsuri *2// RP bio patho-1 / RP 2068 /Swarna	MS	Late

Entry No.	IET No.	Designation	Cross Combination	GT	Yield Trial
5725	32060	RP 6754-RMS 23-65-78-90	Improved Samba Mahsuri * 2 // RP 2068 / Swarna	MS	Late
5726	32055	RP 6750-RMS-2-23-67-91	Improved Samba Mahsuri*2 // FL478 / Swarna	MS	Late
5727	**Improved Samba Mahsuri (RP and Sensitive Check)**				
5728	29558 (R)	Pusa 5417-15-11-9-50-27	Pusa 44 / IR 64-Pup 1-F // Pusa 44*2	LS	Late
5729	29546 (R)	Pusa 5417-15-11-9-54-17	Pusa 44 / IR 64-Pup 1-F // Pusa 44*2	LS	Late
5730	**Pusa 44 (RP)**				

Table. 15b.2 : Grain Yield (kg/ha) of AVT-1 LPT P(0) Kharif-2023

Entry No	IET No	ZONE III - EASTERN						ZONE VI -WESTERN		ZONE VII - SOUTHERN	
		Odisha (1)		Jharkhand (1)		Zone III(2)		Maharashtra (1)		Andhra Pradesh (1)	
		ICAR-NRRI (Cuttack)		Ranchi		Mean		Karjat		Maruteru	
5701	31097	3606	10	1225		2416		3375		5122	
5702	31096	3066		3228	8	3147	9	4250		4301	
5703	31101	2766		1458		2112		4792	6	4187	
5704	31103	3622	9	2042		2832		4667	9	4894	
5705	31098	3662	8	3403	3	3533	2	4083		6211	3
5706	31105	2465		1614		2040		3500		5935	5
5707	31106	4202	3	3344	5	3773	1 *	4458		3602	
5708	31100	2802		1614		2208		3333		4171	
5709	Swarna (Positive Check)	2943		3403	3	3173	8	4083		6089	4
5710	31108	2467		2158		2313		2833		4967	
5711	31115	2519		2100		2310		4833	5	4382	
5712	28070	3264		3344	5	3304	5	5333	1	3585	
5713	30241 (R)	3569		1614		2592		2792		5667	9
5714	31102	2188		2625		2407		5208	3	5659	10
5715	31110	3591		1594		2593		3958		6675	1
5716	Rasi (Positive Check)	2449		3681	1	3065	10	5292	2	2683	
5717	28075	3719	7	3228	8	3474	3	4708	8	2593	
5718	29560	3459		2217		2838		3750		3455	
5719	31112	3204		2256		2730		3458		2553	
5720	Vandana (Positive Very Early Duration Check)	2216		1598		1907		4208		1537	
5721	28776	2906		3519	2	3213	7	3542		2675	
5722	30245 (R)	4210	2	1750		2980		2917		5862	7
5723	28076	4214	1	2333		3274	6	4750	7	4659	
5724	32063	2882		1750		2316		4292		4959	
5725	32060	3850	5	2061		2956		3417		4211	
5726	32055	3832	6	1361		2597		3583		4715	
5727	Improved Samba Mahsuri (RP and Sensitive Check)	4151	4	2644	10	3398	4	4667	9	5789	8
5728	29558 (R)	2606		3306	7	2956		3292		6602	2
5729	29546 (R)	2482		1711		2097		4917	4	5878	6
5730	Pusa 44 (RP)	2523		2061		2292		3333		3846	
Exp. Mean		**3181**		**2341**		**2761**		**4054**		**4582**	
F Value		**14.48(p<0.0001)S**		**26.08(p<0.0001)S**		**23.23(p<0.0001)S**		**10.83(p<0.0001)S**		**14.10(p<0.0001)S**	
CD		463		415		288		631		1001	
CV%		**8.90**		**10.85**		**6.37**		**9.52**		**13.37**	
D/S		01-07-2023		02-07-2023				29-06-2023		15-07-2023	
D/P		09-08-2023		22-08-2023				25-07-2023		26-08-2023	

Table. 15b.2 (Contd) : Grain Yield (kg/ha) of AVT-1 LPT P(0) Kharif-2023

Entry No	IET No	ZONE VII - SOUTHERN										Overall Mean (7)	
		Telangana (1)		Karnataka				Karnataka (2)		Zone VII(4)			
		Rajendranagar		Mandya		Gangavathi		Mean		Mean			
5701	31097	4567	9 *	5431	4	5272	5	5352	2	5098	3 *	4085	10
5702	31096	3533		4722		4191		4457		4187		3899	
5703	31101	3667		4333		4247		4290		4109		3636	
5704	31103	4533	10 *	5236	9	4732		4984	9	4849	8 *	4247	7
5705	31098	3000		5389	6	4588		4989	8	4797	9	4334	6
5706	31105	5200	1 *	5014		4030		4522		5045	6 *	3965	
5707	31106	4767	5 *	4750		5729	3	5240	5	4712		4407	3 *
5708	31100	4033		4347		3293		3820		3961		3370	
5709	Swarna (Positive Check)	3833		4347		3429		3888		4425		4018	
5710	31108	4700	7*	4542		4647		4595		4714	10	3759	
5711	31115	3067		4389		5184	6	4787		4256		3782	
5712	28070	4733	6 *	6542	1 *	4559		5551	1 *	4855	7 *	4480	1 *
5713	30241 (R)	4400		4764		3349		4057		4545		3736	
5714	31102	4833	4 *	5486	3	4343		4915		5080	4 *	4335	5
5715	31110	4700	7 *	5042		5569	4	5306	3	5497	1 *	4447	2 *
5716	Rasi (Positive Check)	3633		5083		4816	10	4950	10	4054		3948	
5717	28075	3667		5278	8	4175		4727		3928		3910	
5718	29560	5000	2 *	5917	2	4079		4998	7	4613		3982	
5719	31112	3700		4500		6058	1	5279	4	4203		3676	
5720	Vandana (Positive Very Early Duration Check)	2867		1861		5857	2	3859		3031		2878	
5721	28776	4267		4139		3766		3953		3712		3545	
5722	30245 (R)	2900		4514		5136	7	4825		4603		3898	
5723	28076	3500		3986		3510		3748		3914		3850	
5724	32063	4333		3861		3926		3894		4270		3715	
5725	32060	4033		3875		3518		3697		3909		3566	
5726	32055	4233		3792		3518		3655		4065		3576	
5727	Improved Samba Mahsuri (RP and Sensitive Check)	2700		3847		4992	9	4420		4332		4113	9
5728	29558 (R)	3767		5222	10	4615		4919		5052	5 *	4201	8
5729	29546 (R)	4933	3 *	5417	5	5048	8	5233	6	5319	2 *	4341	4
5730	Pusa 44 (RP)	3167		5361	7	3822		4592		4049		3445	
Exp. Mean		**4009**		**4700**		**4467**		**4583**		**4439**		**3905**	
F Value		**10.67(p<0.0001)S**		**6.81(p<0.0001)S**		**11.48(p<0.0001)S**		**8.89(p<0.0001)S**		**14.04(p<0.0001)S**		**14.64(p<0.0001)S**	
CD		603		974		636		557		411		272	
CV%		**9.20**		**12.68**		**8.71**		**7.43**		**5.67**		**4.27**	
D/S		07-07-2023		07-08-2023		28-07-2023							
D/P		08-04-2023		04-09-2023		27-08-2023							

Table. 15b. 3 : Days to 50% Flowering, Plant Height and Panicles/sq.m of AVT-1 LPT P(0) Kharif-2023

Entry No	IET No	ZONE III - EASTERN									ZONE VI -WESTERN			ZONE VII - SOUTHERN		
		Odisha (1)			Jharkhand (1)			Zone III(2)			Maharashtra (1)			Andhra Pradesh (1)		
		ICAR-NRRI (Cuttack)			Ranchi			Mean			Karjat			Maruteru		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5701	31097	96	118	292	103	73		100	95	292	100	127	226	98	107	297
5702	31096	95	112	267	98	74		96	93	267	98	140	220	95	110	297
5703	31101	108	111	267	106	60		107	85	267	110	95	299	105	110	264
5704	31103	94	120	274	119	83		107	101	274	103	126	293	100	107	231
5705	31098	109	134	256	107	83		108	108	256	102	129	238	102	127	264
5706	31105	109	112	302	125	76		117	94	302	110	124	153	107	114	264
5707	31106	100	122	281	105	82		102	102	281	110	117	269	93	112	253
5708	31100	95	105	284	103	70		99	87	284	98	100	212	98	84	308
5709	Swarna (Positive Check)	119	107	373	106	57		113	82	373	113	100	276	109	104	264
5710	31108	101	117	324	109	85		105	101	324	109	132	190	96	105	264
5711	31115	82	92	348	109	66		96	79	348	86	106	284	98	103	286
5712	28070	94	114	260	104	78		99	96	260	96	125	292	92	103	275
5713	30241 (R)	117	120	377	116	69		117	94	377	110	111	193	111	93	264
5714	31102	102	113	370	111	72		107	92	370	95	116	274	98	113	341
5715	31110	120	117	281	106	71		113	94	281	110	127	257	115	113	264
5716	Rasi (Positive Check)	82	92	348	103	63		93	78	348	85	102	287	90	84	264
5717	28075	93	95	284	106	63		99	79	284	86	103	286	88	99	242
5718	29560	86	105	299	106	73		96	89	299	92	107	232	97	104	242
5719	31112	82	90	341	106	63		94	77	341	88	118	214	91	82	264
5720	Vandana (Positive Very Early Duration Check)	82	124	284	96	84		89	104	284	92	117	238	88	104	264
5721	28776	99	106	235	121	71		110	89	235	99	113	230	96	107	242
5722	30245 (R)	118	115	363	105	66		112	91	363	103	109	217	112	120	286
5723	28076	88	101	345	103	65		96	83	345	98	99	238	91	84	297
5724	32063	106	105	256	101	61		104	83	256	97	91	254	105	95	297
5725	32060	111	113	324	119	62		115	87	324	109	114	225	102	107	297
5726	32055	117	104	274	98	62		107	83	274	111	108	219	104	92	275
5727	Improved Samba Mahsuri (RP and Sensitive Check)	114	108	377	109	61		112	84	377	109	110	256	105	105	275
5728	29558 (R)	105	100	341	107	67		106	84	341	100	107	243	105	103	264
5729	29546 (R)	106	102	373	104	64		105	83	373	101	106	244	97	109	253
5730	Pusa 44 (RP)	106	97	306	126	64		116	80	306	102	101	253	98	103	286
Exp. Mean		**101**	**109**	**310**	**108**	**70**		**105**	**89**	**310**	**101**	**113**	**244**	**100**	**103**	**273**

Table. 15b.3 (Contd) : Days to 50% Flowering, Plant Height and Panicles/sq.m of AVT-1 LPT P(0) Kharif-2023

Entry No	IET No	ZONE VII - SOUTHERN															Overall Mean (7)		
		Telangana (1)			Karnataka						Karnataka (2)			Zone VII(4)					
		Rajendranagar			Mandya			Gangavathi			Mean			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5701	31097	111	80	284	100	90	306	103	114.5	303	101	102	304	103	99	299	102	101	285
5702	31096	109	73	247	100	84	238	104	110	281	102	97	260	102	95	265	100	100	258
5703	31101	116	84	321	109	80	295	110	102	250	109	91	272	110	94	280	109	92	283
5704	31103	107	111	272	93	99	261	100	118.5	333	97	109	297	99	109	279	102	109	277
5705	31098	108	105	324	94	102	283	96	117	279	95	110	281	99	112	286	102	114	274
5706	31105	110	104	321	100	93	283	108	118	336	104	105	310	106	107	303	110	106	277
5707	31106	104	102	255	90	88	272	93	111	299	91	99	286	94	102	273	99	105	271
5708	31100	104	104	262	95	86	261	101	104.5	330	98	95	295	99	95	291	99	93	276
5709	Swarna (Positive Check)	112	91	305	107	73	295	112	92	341	110	83	318	110	88	304	111	89	309
5710	31108	105	97	352	90	89	272	92	108	334	91	99	303	95	100	305	100	105	289
5711	31115	91	88	262	89	89	306	84	97	294	86	93	300	90	94	290	91	92	297
5712	28070	102	99	297	93	90	272	98	116.5	399	96	103	335	96	102	316	97	104	299
5713	30241 (R)	105	92	307	100	86	272	105	108.5	323	102	97	297	104	95	292	109	97	289
5714	31102	107	96	268	90	88	272	95	109.5	268	93	99	270	96	101	284	100	101	299
5715	31110	114	103	337	110	85	249	112	108.5	265	111	97	257	112	101	275	112	104	275
5716	Rasi (Positive Check)	90	88	270	90	79	272	85	97.5	258	87	88	265	88	87	266	89	87	283
5717	28075	102	87	378	93	79	272	96	96.5	342	95	88	307	95	90	308	95	89	301
5718	29560	105	93	353	90	85	306	94	101.5	300	92	93	303	96	95	301	96	96	289
5719	31112	84	88	243	90	83	272	84	101.5	288	87	92	280	87	90	269	89	90	270
5720	Vandana (Positive Very Early Duration Check)	84	92	235	80	94	272	76	115.5	253	78	105	262	81	102	257	86	104	258
5721	28776	100	88	288	105	84	261	99	103.5	288	102	94	274	100	95	271	103	96	257
5722	30245 (R)	110	86	284	100	85	295	104	104.5	278	102	95	286	106	98	286	107	98	287
5723	28076	100	86	314	96	81	261	97	97.5	303	96	89	282	96	88	291	96	88	293
5724	32063	105	76	287	90	74	261	96	84.5	299	93	79	280	98	82	285	100	84	276
5725	32060	105	93	300	99	80	272	104	97	293	102	88	283	102	93	289	107	95	285
5726	32055	105	81	264	99	75	249	102	98.5	275	100	87	262	102	87	265	105	89	259
5727	Improved Samba Mahsuri (RP and Sensitive Check)	107	84	354	101	76	249	101	93.5	305	101	85	277	103	89	292	107	91	303
5728	29558 (R)	102	86	286	99	82	249	101	100.5	290	100	91	270	101	92	272	103	92	279
5729	29546 (R)	104	99	308	99	85	283	101	98	256	100	92	269	100	96	274	102	95	286
5730	Pusa 44 (RP)	99	81	346	99	74	283	101	99.5	289	100	87	286	100	89	298	104	88	294
Exp. Mean		**104**	**91**	**298**	**96**	**85**	**273**	**98**	**104**	**298**	**97**	**94**	**286**	**99**	**96**	**285**	**101**	**96**	**283**

Table. 15b.2 : Grain Yield (kg/ha) of AVT-1 LPT P(50) Kharif-2023

Entry No	IET No	ZONE III - EASTERN						ZONE VI -WESTERN		ZONE VII - SOUTHERN	
		Odisha (1)		Jharkhand (1)		Zone III(2)		Maharashtra (1)		Andhra Pradesh (1)	
		ICAR-NRRI (Cuttack)		Ranchi		Mean		Karjat		Maruteru	
5701	31097	3682		4083	6	3883		3912		5561	
5702	31096	5041	2	2158		3600		5472	7	6772	2
5703	31101	4050		5250	1	4650	1	5375	9	5122	
5704	31103	4639	6	2372		3506		5509	6	6358	7
5705	31098	3947		4083	6	4015	6	5125		6659	3
5706	31105	2778		2372		2575		4037		3024	
5707	31106	4335	9	1750		3043		5060		4472	
5708	31100	3773		4083	6	3928	9	4130		4431	
5709	Swarna (Positive Check)	5019	3	3694		4357	2	4630		6545	6
5710	31108	2821		2217		2519		3477		2341	
5711	31115	2635		2372		2504		5616	5	5260	
5712	28070	4432	8	3850	9	4141	5	5926	2	3610	
5713	30241 (R)	3629		2061		2845		3574		5187	
5714	31102	2958		2139		2549		5745	3	2683	
5715	31110	5484	1	3154		4319	3	4644		6618	5
5716	Rasi (Positive Check)	2732		4169	4	3451		6088	1	2829	
5717	28075	4267		1167		2717		5231		3593	
5718	29560	4774	5	3854	8	4314	4	4264		2122	
5719	31112	3413		3500		3457		4181		3358	
5720	Vandana (Positive Very Early Duration Check)	2338		5102	2	3720		4861		2764	
5721	28776	3174		2217		2696		4352		3593	
5722	30245 (R)	4954	4	2917		3936	8	3958		5138	
5723	28076	4575	7	3228		3902	10	5440	8	4041	
5724	32063	2912		4550	3	3731		4699		5805	9
5725	32060	4284	10	2256		3270		4167		5512	
5726	32055	4202		3733	10	3968	7	4269		5675	10
5727	Improved Samba Mahsuri (RP and Sensitive Check)	4162		1167		2665		5278	10	5984	8
5728	29558 (R)	2728		2606		2667		4778		7089	1 8%
5729	29546 (R)	3048		2606		2827		5718	4	6650	4
5730	Pusa 44 (RP)	3266		3500		3383		4333		5203	
Exp. Mean		**3802**		**3074**		**3438**		**4795**		**4800**	
F Value		**11.72(p<0.0001)S**		**24.71(p<0.0001)S**		**15.97(p<0.0001)S**		**7.67(p<0.0001)S**		**19.50(p<0.0001)S**	
CD		694		593		452		717		941	
CV%		**11.18**		**11.8**		**8.04**		**9.15**		**12**	
D/S		01-07-2023		02-07-2023				29-06-2023		15-07-2023	
D/P		09-08-2023		22-08-2023				25-07-2023		26-08-2023	

Table. 15b.2 (Contd) : Grain Yield (kg/ha) of AVT-1 LPT P(50) Kharif-2023

Entry No	IET No	ZONE VII - SOUTHERN								Overall Mean (7)		Trial not considered	
		Telangana (1)		Karnataka				Karnataka (2)		Zone VII(4)			Bihar (0)
		Rajendranagar		Mandya		Gangavathi		Mean		Mean			@Pusa
5701	31097	5167	2 *	6295	3	6907	2	6601	1 *	5983	1 *	5087	3	5048	
5702	31096	3767		5226		5396		5311		5290	8	4833	8	5095	8
5703	31101	4133		4889		4776		4833		4730		4799	9	5000	
5704	31103	4700		6067	4	5697	9	5882	6	5706	4	5049	4	5048	
5705	31098	3767		5591		4728		5160		5186	9	4843	7	5000	
5706	31105	4900	7 *	5608		6178	3	5893	5	4928		4128		4952	
5707	31106	4833	8	5209		5449		5329		4991		4444		5000	
5708	31100	3867		4338		4199		4269		4209		4117		5381	1
5709	Swarna (Positive Check)	4267		4858		5801	8	5330		5368	7	4973	5	4000	
5710	31108	4967	4 *	5868	8	5449		5659		4656		3877		5048	
5711	31115	3567		5103		5473		5288		4851		4289		4905	
5712	28070	6000	1 *	6830	1	6178	3	6504	2 *	5655	5	5261	1 *	5286	3
5713	30241 (R)	4833	8	5347		4808		5078		5044	10	4206		4952	
5714	31102	4933	6 *	5882	7	6130	5	6006	4	4907		4353		5095	8
5715	31110	4767	10	5470		6090	6	5780	8	5736	3	5175	2	4381	
5716	Rasi (Positive Check)	4000		5546		5409		5478		4446		4396		5048	
5717	28075	3833		6005	5	5625	10	5815	7	4764		4246		5381	1
5718	29560	4733		6325	2	5946	7	6136	3	4782		4574		5000	
5719	31112	3833		4461		7051	1	5756	9	4676		4257		5190	4
5720	Vandana (Positive Very Early Duration Check)	3300		1726		4832		3279		3156		3560		4952	
5721	28776	4367		4385		3606		3996		3988		3671		4952	
5722	30245 (R)	3400		4263		4920		4592		4430		4221		5095	8
5723	28076	3767		4200		3574		3887		3896		4118		5000	
5724	32063	4600		4132		4175		4154		4678		4410		4952	
5725	32060	4967	4 *	4201		4688		4445		4842		4296		4762	
5726	32055	4367		3911		4936		4424		4722		4442		4619	
5727	Improved Samba Mahsuri (RP and Sensitive Check)	3033		4263		5393		4828		4668		4183		4905	
5728	29558 (R)	3933		5684	10	5345		5515		5513	6	4595	10	5190	4
5729	29546 (R)	5167	2 *	5927	6	5425		5676	10	5792	2 *	4934	6	5095	8
5730	Pusa 44 (RP)	3900		5822	9	4263		5043		4797		4327		5143	6
Exp. Mean		**4322**		**5114**		**5281**		**5198**		**4879**		**4455**		**4983**	
F Value		**10.24(p<0.0001)S**		**5.51(p<0.0001)S**		**25.87(p<0.0001)S**		**10.73(p<0.0001)S**		**18.70(p<0.0001)S**		**21.62(p<0.0001)S**		**7.57(p<0.0001)S**	
CD		575		1197		455		671		387		252		271	
CV%		**8.15**		**14.32**		**5.27**		**7.9**		**4.86**		**3.46**		**3.32**	
D/S		07-07-2023		07-08-2023		28-07-2023								07-08-2023	
D/P		08-04-2023		04-09-2023		27-08-2023								08-01-2023	

Table. 15b.3 : Days to 50% Flowering, Plant Height and Panicles/sq.m of AVT-1 LPT P(50) Kharif-2023

Entry No	IET No	ZONE III - EASTERN									ZONE VI -WESTERN			ZONE VII - SOUTHERN					
		Odisha (1)			Jharkhand (1)			Zone III(2)			Maharashtra (1)			Andhra Pradesh (1)			Telangana (1)		
		ICAR-NRRI (Cuttack)			Ranchi			Mean			Karjat			Maruteru			Rajendranagar		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5701	31097	95	117	334	104	72		99	95	334	99	124	233	96	108	341	101	88	365
5702	31096	94	97	366	98	74		96	85	366	99	142	231	95	113	341	98	89	339
5703	31101	108	107	295	106	60		107	84	295	109	99	305	105	111	286	105	85	265
5704	31103	95	116	361	120	83		107	100	361	102	123	290	100	108	275	103	111	253
5705	31098	110	121	331	108	81		109	101	331	100	125	246	102	129	297	102	108	233
5706	31105	107	104	338	128	74		118	89	338	109	127	225	106	115	297	105	105	238
5707	31106	99	120	363	106	82		103	101	363	109	120	272	92	115	308	102	104	257
5708	31100	95	103	281	105	57		100	80	281	97	96	228	96	101	341	101	105	241
5709	Swarna (Positive Check)	117	106	402	108	85		113	95	402	112	105	284	108	104	297	108	93	228
5710	31108	99	113	345	111	65		105	89	345	107	127	201	80	106	275	103	98	317
5711	31115	78	103	373	112	78		95	90	373	87	109	295	92	104	297	88	93	254
5712	28070	93	111	341	106	70		99	91	341	97	128	302	88	103	297	102	101	264
5713	30241 (R)	118	113	391	117	72		118	93	391	109	115	203	110	114	308	106	97	268
5714	31102	102	113	423	113	72		107	93	423	92	115	284	97	114	352	103	92	243
5715	31110	117	110	309	109	71		113	91	309	110	130	265	115	113	308	110	103	286
5716	Rasi (Positive Check)	78	97	405	105	59		92	78	405	85	105	290	88	85	308	92	89	285
5717	28075	92	93	327	109	62		101	78	327	87	107	290	86	100	275	98	89	275
5718	29560	83	106	359	108	73		96	89	359	91	108	238	92	105	231	104	88	217
5719	31112	80	93	395	109	63		95	78	395	86	117	225	88	83	341	83	94	226
5720	Vandana (Positive Very Early Duration Check)	77	118	334	98	82		88	100	334	90	119	249	86	125	330	83	84	213
5721	28776	97	111	295	120	73		108	92	295	98	118	240	93	109	308	101	91	244
5722	30245 (R)	116	119	448	108	66		112	92	448	103	114	234	110	121	297	109	89	225
5723	28076	83	99	363	105	61		94	80	363	97	99	251	89	84	330	101	96	275
5724	32063	107	108	348	104	63		106	86	348	95	94	265	103	95	330	105	87	269
5725	32060	110	114	352	121	62		116	88	352	109	118	238	102	107	319	102	94	191
5726	32055	114	107	338	101	60		107	84	338	109	105	236	102	92	308	102	87	254
5727	Improved Samba Mahsuri (RP and Sensitive Check)	112	107	395	110	61		111	84	395	107	112	263	103	106	330	101	86	283
5728	29558 (R)	105	104	366	109	68		107	86	366	99	110	256	98	103	297	103	87	353
5729	29546 (R)	105	108	373	105	64		105	86	373	101	106	252	94	109	264	106	104	324
5730	Pusa 44 (RP)	104	100	348	127	64		116	82	348	99	105	265	94	106	319	99	93	286
Exp. Mean		**100**	**108**	**357**	**110**	**69**		**105**	**89**	**357**	**100**	**114**	**255**	**97**	**106**	**307**	**101**	**94**	**266**

Table. 15b.3 (Contd) : Days to 50% Flowering, Plant Height and Panicles/sq.m of AVT-1 LPT P(50) Kharif-2023

Entry No	IET No	ZONE VII - SOUTHERN									Overall Mean (7)			Trial not considered		
		Karnataka						Karnataka (2)			Zone VII(4)						Bihar (0)		
		Mandya			Gangavathi			Mean			Mean						@Pusa		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5701	31097	100	97	261	100	115	288	100	106	274	99	102	313	99	103	304	95	111	265
5702	31096	100	79	261	104	104	275	102	91	268	99	96	304	98	100	302	88	108	255
5703	31101	109	82	249	110	98	315	109	90	282	107	94	279	108	92	286	105	90	252
5704	31103	93	96	227	101	109	279	97	103	253	99	106	258	102	107	281	93	107	251
5705	31098	94	100	272	96	111	270	95	105	271	98	112	268	102	111	275	104	142	255
5706	31105	100	88	249	108	105	310	104	97	279	105	103	273	109	103	276	109	97	249
5707	31106	90	97	249	91	110	260	90	103	255	94	107	269	98	107	285	104	103	255
5708	31100	95	81	238	103	102	310	99	91	274	99	97	283	99	92	273	88	93	271
5709	Swarna (Positive Check)	107	71	295	111	86	304	109	78	299	109	88	281	110	93	302	115	77	253
5710	31108	90	96	249	91	107	300	90	101	275	91	102	285	97	102	281	107	100	256
5711	31115	89	90	238	83	94	273	86	92	255	88	95	265	90	96	288	73	95	256
5712	28070	93	95	249	99	107	330	96	101	290	95	101	285	97	102	297	87	117	256
5713	30241 (R)	100	86	249	105	105	265	103	95	257	105	100	273	109	100	281	107	100	262
5714	31102	90	90	283	96	105	303	93	97	293	97	100	295	99	100	315	90	107	255
5715	31110	110	84	272	109	107	319	109	95	296	111	102	296	111	103	293	116	96	251
5716	Rasi (Positive Check)	90	80	261	83	99	275	86	89	268	88	88	282	89	88	304	77	91	257
5717	28075	93	78	227	95	90	315	94	84	271	93	89	273	94	88	285	84	84	255
5718	29560	90	82	306	93	99	293	91	90	300	95	93	262	94	94	274	83	105	253
5719	31112	90	83	249	85	96	366	87	89	307	86	89	296	89	90	300	75	95	257
5720	Vandana (Positive Very Early Duration Check)	80	91	261	73	106	225	77	98	243	80	102	257	84	104	269	74	116	259
5721	28776	105	86	227	99	102	272	102	94	249	99	97	262	102	99	264	87	117	235
5722	30245 (R)	100	87	249	105	103	308	102	95	279	106	100	270	107	100	294	107	86	232
5723	28076	96	78	261	97	84	315	97	81	288	96	85	295	95	86	299	88	95	241
5724	32063	90	77	261	97	84	308	94	80	284	99	86	292	100	87	297	104	75	231
5725	32060	99	80	238	104	88	281	101	84	259	102	92	257	107	95	270	107	91	251
5726	32055	99	76	272	103	96	255	101	86	264	101	88	272	104	89	277	109	80	237
5727	Improved Samba Mahsuri (RP and Sensitive Check)	101	74	306	101	84	285	101	79	296	101	88	301	105	90	310	109	77	254
5728	29558 (R)	99	80	249	100	98	275	99	89	262	100	92	294	102	93	299	100	100	260
5729	29546 (R)	99	81	272	103	99	290	101	90	281	100	98	288	102	96	296	99	107	257
5730	Pusa 44 (RP)	99	79	283	104	87	262	101	83	273	99	91	288	104	91	294	101	84	264
Exp. Mean		**96**	**85**	**259**	**98**	**99**	**291**	**97**	**92**	**275**	**98**	**96**	**281**	**100**	**97**	**289**	**96**	**98**	**253**

Table. 15c.1 : Composition of entries in Initial Variety Trial –Low Phosphorus Tolerance Trial (IVT-LPT), Kharif 2023.

Entry No.	IET No.	Designation	Cross Combination	GT
1st year of testing:				
5801	31966	HURS23-15	NDR 97 / HUR 105	LB
5802	31967	RP 6747-19087-1-1	WGL 14 / ISM // WGL 14 / RP Patho-1 /// WGL 14 / Rathuheenati // WGL 14 / RP 5925-24 //// WGL 14 / RP 5925-23 // WGL 14 / IR 96321-1447-561-B-1 ///// WGL 14 / IR 81896-96-B-B-195 // WGL 14 / IR 74371-46-1-1-13 ///// WGL 14 / RP Patho-2 // WGL 14 / RP Patho-3	MS
5803	31968	CR 4466-126-WB-1	CR Dhan 202 / CR 4383-RGA-216	MS
5804	31969	RP6256-RJ/RIL-RJ385	Rasi / Jaya	LS
5805	31970	CR 3426-115-125-11	Apo / *O. nivara*	MS
5806	31107	CR 4397-4-6-27	Lalat MAS / CR Dhan 801 // 2* Lalat MAS	LB
5807	31971	RCPL 1-441		
5808	**Swarna (Positive Check)**			
5809	31972	RP5976-26-13-12-88	Improved Samba Mahsuri / Wazuhophek	MS
5810	31973	RP 6772-MSA 16-439	Rasi / IR 64	MB
5811	31974	RP Bio 4919-NSR 105	KMR 3 / O. rufipogon WR 120	LS
5812	31116	RP6238-BV/RIL-RV132	Rasi / Vibhava	
5813	31975	CR 4432-3-2-2-1-1-1	CR 3562-2-1-1-1-1-1 / CR 3494-15-1-1-1-1	MB
5814	**Rasi (Positive Check)**			
5815	31976	CR 4467-RGA-100	CR Dhan 202 / Vandana	MS
5816	31977	RP 6774-19095	WGL 14/ Improved Samba Mahsuri // WGL14 / Rathuheenati /// WGL 14 / IR 96321-1447-561-B-1// WGL 14 / IR 74371-46-1-1-13	
5817	31978	RP6737-MS-M-RP-KP-87	TI-17 / BPT5204	SB
5818	31979	CR 4414-1-1-1-1-2-1	CR 3561-3-2-1-1-1-1 / CR 3494-1-1-1-1-1-1	MB
5819	31980	CR 4352- 3-1-1-2-1-1	CR 3511-3-4-1-1-1-1 / CR 3504-14-1-1-1-1-1	MS
5820	**Vandana (Positive Very Early Check)**			
5821	31981	RP5976-27-26-4-91	Improved Samba Mahsuri / Wazuhophek	MS
5822	31982	RP6238-RV/RIL-RV190	Rasi / Vibhava	LS
5823	31983	RP6459-DB9	Swarna // 148S Swarna / O. nivara	LS
5824	31984	RP6736-KS-62-8-7	SM 93 / BPT 5204	SS
5825	31985	RP 6773-MSAC 4-5	IR 64 / Wazuhophek	LS
5826	31986	RP6255-SP/RIL-SP38-1	Sampada / Prasanna	LS
5827	31987	RP6736-MS-M-93-89	SM 93 / BPT 5204	SS
5828	**Improved Samba Mahsuri (Susceptible Check)**			

Table. 15c..2: Grain Yield (kg/ha) of IVT LPT P(0) Kharif-2023

Entry No	IET No	ZONE III - EASTERN				ZONE VI -WESTERN				ZONE VII - SOUTHERN			
		Odisha (1)		Zone III		Maharashtra (1)		Zone IV		Andhra Pradesh (1)		Telangana (1)	
		ICAR-NRRI (Cuttack)		Mean		Karjat		Mean		Maruteru		Rajendranagar	
5801	31966	3424		3424		4222	10	4222	10	4821		4556	8 *
5802	31967	3817	1 *	3817	1 *	3444		3444		5211	8	3922	
5803	31968	3337		3337		3644		3644		4943	10	3844	
5804	31969	3638	4	3638	4	3441		3441		5260	7	3778	
5805	31970	3573	6	3573	6	4202		4202		5967	1	2956	
5806	31107	2624		2624		3533		3533		4285		4489	
5807	31971	2491		2491		4354	8	4354	8	2789		2944	
5808	Swarna (Positive Check)	3426		3426		4058		4058		5398	4	4000	
5809	31972	3224		3224		4378	7	4378	7	3943		4522	9 *
5810	31973	2814		2814		4998	1 *	4998	1 *	4276		4944	4 *
5811	31974	2601		2601		3314		3314		3285		5044	1 *
5812	31116	2138		2138		4181		4181		3333		3456	
5813	31975	3404		3404		4891	2 *	4891	2 *	5390	5	3911	
5814	Rasi (Positive Check)	2167		2167		3978		3978		2244		3511	
5815	31976	3554	7	3554	7	3584		3584		3293		4100	
5816	31977	3492	8	3492	8	3624		3624		5699	2	3022	
5817	31978	3487	9	3487	9	3644		3644		4285		4867	6 *
5818	31979	2942		2942		4844	5 *	4844	5 *	3715		4667	7 *
5819	31980	3677	2	3677	2	4844	5 *	4844	5 *	5285	6	4444	
5820	Vandana (Positive Very Early Check)	2301		2301		3244		3244		1472		3056	
5821	31981	2956		2956		3978		3978		5106	9	4522	9 *
5822	31982	2231		2231		4000		4000		4114		4900	5 *
5823	31983	2330		2330		4310	9	4310	9	1943		4022	
5824	31984	3448	10	3448	10	4889	3 *	4889	3 *	3699		4156	
5825	31985	3654	3	3654	3	4866	4 *	4866	4 *	4756		5033	2 *
5826	31986	3411		3411		3577		3577		5407	3	5000	3 *
5827	31987	3590	5	3590	5	4044		4044		3520		4289	
5828	ISM (Susceptible Check)	3236		3236		3644		3644		2837		2911	
Exp. Mean		**3107**		**3107**		**4062**		**4062**		**4153**		**4102**	
F Value		**19.68(p<0.0001)S**		**9.68(p<0.0001)**		**10.80(p<0.0001)S**		**10.80(p<0.0001)S**		**16.13(p<0.0001)S**		**14.69(p<0.0001)S**	
CD		331		331		453		453		823		496	
CV%		**6.52**		**6.52**		**6.81**		**6.81**		**12.1**		**7.39**	
D/S		07-01-2023				29-06-2023				15-07-2023		07-07-2023	
D/P		08-09-2023				24-07-2023				26-08-2023		08-04-2023	
Local Check Name													

Table. 15c..2 (Contd): Grain Yield (kg/ha) of IVT LPT P(0) Kharif-2023

Entry No	IET No	ZONE VII - SOUTHERN								Overall Mean (6)	
		Karnataka				Karnataka (2)		Zone VII(4)			
		Mandya		Gangavathi		Mean		Mean			
5801	31966	5916	1	3478		4697	8	4693	5	4403	4
5802	31967	4734	9	4772	8	4753	7	4660	8	4317	8
5803	31968	5029	5	4872	6	4951	6 *	4672	6	4278	9
5804	31969	5287	4	4800	7	5044	4 *	4781	2 *	4367	5
5805	31970	5454	3	4591	9	5023	5 *	4742	3	4457	3 *
5806	31107	4746	8	3494		4120		4254		3862	
5807	31971	3421		2821		3121		2994		3137	
5808	Swarna (Positive Check)	3781		4303		4042		4371		4161	
5809	31972	4321		3446		3884		4058		3972	
5810	31973	4849	6	5897	2	5373	2 *	4992	1 *	4630	1 *
5811	31974	4541		6058	1	5300	3 *	4732	4	4141	
5812	31116	3277		3125		3201		3298		3252	
5813	31975	4836	7	3630		4233		4442		4344	7
5814	Rasi (Positive Check)	3218		5465	3	4342		3610		3431	
5815	31976	5800	2	5120	4	5460	1 *	4578	10	4242	10
5816	31977	4168		4527	10	4348	10	4354		4089	
5817	31978	4000		4095		4048		4312		4063	
5818	31979	3681		3798		3740		3965		3941	
5819	31980	4593	10	4343		4468	9	4666	7	4531	2 *
5820	Vandana (Positive Very Early Check)	695		4255		2475		2370		2504	
5821	31981	4464		3550		4007		4411		4096	
5822	31982	4553		3502		4028		4267		3883	
5823	31983	4129		4335		4232		3607		3512	
5824	31984	2985		2989		2987		3457		3694	
5825	31985	4116		3734		3925		4410		4360	6
5826	31986	4257		3742		4000		4602	9	4232	
5827	31987	3611		4891	5	4251		4078		3991	
5828	ISM (Susceptible Check)	3367		3758		3563		3218		3292	
Exp. Mean		**4208**		**4192**		**4200**		**4164**		**3971**	
F Value		**7.97(p<0.0001)S**		**24.40(p<0.0001)S**		**13.98(p<0.0001)S**		**20.50(p<0.0001)S**		**23.50(p<0.0001)S**	
CD		1041		473		559		388		280	
CV%		**15.12**		**6.89**		**8.13**		**5.7**		**4.31**	
D/S		08-07-2023		28-07-2023							
D/P		09-02-2023		28-08-2023							
Local Check Name											

Table. 15c..3 : Days to 50% Flowering, Plant Height and Panicles/sq.m of IVT LPT P(0) Kharif-2023

Entry No	IET No	ZONE III - EASTERN						ZONE VI -WESTERN						ZONE VII - SOUTHERN					
		Odisha (1)			Zone III			Maharashtra (1)			Zone III			Andhra Pradesh (1)			Telangana (1)		
		CAR-NRRI (Cuttack			Mean			Karjat			Mean			Maruteru			Rajendranagar		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5801	31966	97	110	231	97	110	231	93	102	216	93	102	216	97	96	242	107	95	328
5802	31967	118	115	306	118	115	306	100	110	198	100	110	198	108	121	341	112	97	298
5803	31968	102	121	256	102	121	256	99	127	229	99	127	229	106	120	275	98	92	274
5804	31969	95	115	284	95	115	284	96	106	223	96	106	223	98	105	253	102	94	282
5805	31970	102	133	267	102	133	267	95	134	223	95	134	223	90	134	308	110	116	332
5806	31107	105	115	277	105	115	277	97	114	227	97	114	227	89	112	242	105	88	278
5807	31971	93	99	252	93	99	252	90	119	264	90	119	264	92	149	242	102	103	290
5808	Swarna (Positive Check)	117	100	284	117	100	284	92	108	240	92	108	240	112	110	275	114	87	303
5809	31972	98	124	302	98	124	302	101	118	251	101	118	251	106	118	297	110	102	302
5810	31973	107	121	277	107	121	277	99	120	272	99	120	272	104	108	231	111	104	284
5811	31974	102	126	277	102	126	277	95	136	240	95	136	240	111	135	242	110	115	290
5812	31116	95	116	245	95	116	245	100	115	254	100	115	254	90	110	253	101	97	293
5813	31975	107	120	313	107	120	313	99	103	304	99	103	304	99	120	264	105	90	316
5814	Rasi (Positive Check)	83	98	309	83	98	309	86	94	228	86	94	228	77	86	242	98	94	265
5815	31976	97	122	270	97	122	270	92	109	228	92	109	228	97	111	264	105	103	251
5816	31977	113	117	302	113	117	302	99	110	224	99	110	224	109	120	286	110	92	321
5817	31978	106	144	164	106	144	164	101	145	229	101	145	229	118	151	242	108	114	268
5818	31979	105	128	284	105	128	284	97	109	293	97	109	293	104	105	264	107	95	305
5819	31980	101	133	288	101	133	288	95	125	280	95	125	280	98	122	275	108	107	235
5820	Vandana (Positive Very Early Check)	82	125	242	82	125	242	90	100	254	90	100	254	93	122	330	91	106	234
5821	31981	103	121	281	103	121	281	101	117	275	101	117	275	103	122	242	108	103	289
5822	31982	96	103	320	96	103	320	100	97	239	100	97	239	97	103	242	102	93	302
5823	31983	98	109	295	98	109	295	95	108	223	95	108	223	95	90	264	105	107	308
5824	31984	113	118	320	113	118	320	106	118	326	106	118	326	99	115	297	99	106	303
5825	31985	107	117	277	107	117	277	101	104	328	101	104	328	101	106	308	106	93	257
5826	31986	95	120	274	95	120	274	93	112	252	93	112	252	103	104	242	102	101	317
5827	31987	113	110	270	113	110	270	112	104	237	112	104	237	120	107	275	117	104	251
5828	ISM (Susceptible Check)	117	102	284	117	102	284	100	97	239	100	97	239	89	106	242	106	85	318
Exp. Mean		**102**	**117**	**277**	**102**	**117**	**277**	**97**	**113**	**250**	**97**	**113**	**250**	**100**	**115**	**267**	**106**	**99**	**289**

Table. 15c.3 (Contd) : Days to 50% Flowering, Plant Height and Panicles/sq.m of IVT LPT P(0) Kharif-2023

Entry No	IET No	ZONE VII - SOUTHERN												Overall Mean (6)		
		Karnataka						Karnataka (2)			Zone VII(4)					
		Mandya			Gangavathi			Mean			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5801	31966	100	87	238	102	97	257	101	92	247	101	94	266	99	98	252
5802	31967	103	88	249	112	96	276	107	92	263	109	101	291	109	105	278
5803	31968	104	96	249	102	103	257	103	99	253	102	103	264	102	110	257
5804	31969	92	94	249	101	104	255	96	99	252	98	99	260	97	103	258
5805	31970	96	109	227	104	131	230	100	120	228	100	123	274	100	126	264
5806	31107	90	87	238	95	97	271	93	92	255	95	96	257	97	102	255
5807	31971	90	97	238	97	118	260	94	108	249	95	117	258	94	114	258
5808	Swarna (Positive Check)	107	72	249	108	84	247	107	78	248	110	88	269	108	93	266
5809	31972	100	90	238	106	103	236	103	97	237	106	103	268	104	109	271
5810	31973	100	105	249	105	108	257	103	106	253	105	106	255	105	111	262
5811	31974	100	108	249	101	142	310	100	125	280	105	125	273	103	127	268
5812	31116	92	83	215	95	92	222	94	87	218	95	95	246	96	102	247
5813	31975	95	86	238	98	95	285	96	90	262	99	98	276	100	102	287
5814	Rasi (Positive Check)	89	83	238	86	90	278	87	86	258	87	88	256	86	91	260
5815	31976	94	98	227	99	106	221	96	102	224	99	104	241	97	108	243
5816	31977	102	84	249	106	90	248	104	87	248	107	97	276	106	102	272
5817	31978	106	116	215	109	127	210	108	122	212	110	127	234	108	133	221
5818	31979	99	88	238	101	106	250	100	97	244	103	99	264	102	105	272
5819	31980	97	96	238	100	115	248	98	105	243	101	110	249	100	116	261
5820	Vandana (Positive Very Early Check)	79	86	215	75	103	203	77	94	209	85	104	245	85	107	246
5821	31981	100	90	249	106	98	217	103	94	233	104	103	249	103	109	259
5822	31982	102	82	272	106	80	247	104	81	260	102	89	266	100	93	270
5823	31983	100	85	238	101	95	294	101	90	266	100	94	276	99	99	270
5824	31984	100	92	238	102	103	256	101	97	247	100	104	274	103	109	290
5825	31985	105	89	238	103	98	330	104	94	284	103	97	283	104	101	290
5826	31986	90	90	249	97	103	239	94	96	244	98	99	262	97	105	262
5827	31987	108	87	249	120	99	281	114	93	265	116	99	264	115	102	260
5828	ISM (Susceptible Check)	101	73	238	101	85	268	101	79	253	99	87	266	102	91	265
Exp. Mean		**98**	**91**	**240**	**101**	**102**	**255**	**100**	**96**	**248**	**101**	**102**	**263**	**101**	**106**	**263**

Table. 15c.2: Grain Yield (kg/ha) of IVT LPT P(50) Kharif-2023

Entry No	IET No	ZONE III - EASTERN				ZONE VI -WESTERN		ZONE VII - SOUTHERN			
		Odisha (1)		Zone III(1)		Maharashtra (1)		Andhra Pradesh (1)		Telangana (1)	
		ICAR-NRRI (Cuttack)		Mean		Karjat		Maruteru		Rajendranagar	
5801	31966	4490	4	4490	4	4840		5252		5256	2 *
5802	31967	5539	1 *	5539	1 *	4486		5699	9	3933	
5803	31968	4146	10	4146	10	4465		4593		3989	
5804	31969	4240	8	4240	8	4362		4854		3978	
5805	31970	3925		3925		4794		6350	4	3289	
5806	31107	3557		3557		4650		4472		4933	8 *
5807	31971	3196		3196		4988		2764		3378	
5808	Swarna (Positive Check)	4024		4024		4588		6683	1	4278	
5809	31972	3748		3748		5226	9	5707	8	4667	
5810	31973	3621		3621		6008	2 *	5585	10	5089	5 *
5811	31974	3457		3457		4753		3472		5711	1 *
5812	31116	2684		2684		5391	8	3350		4022	
5813	31975	4257	7	4257	7	6049	1 *	5846	5	4044	
5814	Rasi (Positive Check)	2791		2791		4877		4390		3733	
5815	31976	4110		4110		5226	9	4724		4489	
5816	31977	4175	9	4175	9	4568		5829	6	3600	
5817	31978	4408	5	4408	5	4774		4057		5067	6 *
5818	31979	4312	6	4312	6	5988	3 *	4073		4800	*
5819	31980	5192	2 *	5192	2 *	5638	5	5488		5200	4 *
5820	Vandana (Positive Very Early Check)	2611		2611		4198		1780		3522	
5821	31981	3825		3825		5103		4870		4922	9 *
5822	31982	3309		3309		5062		4976		4978	7 *
5823	31983	2629		2629		5597	6	3480		3689	
5824	31984	3878		3878		5720	4	4447		4111	
5825	31985	4734	3 *	4734	3 *	5597	6	6480	3	4900	10 *
5826	31986	4012		4012		4733		5724	7	5244	3 *
5827	31987	4006		4006		5021		6488	2	4100	
5828	ISM (Susceptible Check)	3797		3797		4595		3415		3422	
Exp. Mean		**3881**		**3881**		**5046**		**4816**		**4369**	
F Value		**15.24(p<0.0001)S**		**(p<0.0001)S**		**2.22(p<0.0056)S**		**9.55(p<0.0001)S**		**13.36(p<0.0001)S**	
CD		497		497		1012		1078		514	
CV%		**7.83**		**7.83**		**12.25**		**13.68**		**7.18**	
D/S		07-01-2023				29-06-2023		15-07-2023		07-07-2023	
D/P		08-09-2023				24-07-2023		26-08-2023		08-04-2023	

Table. 15c.2 (Contd): Grain Yield (kg/ha) of IVT LPT P(50) Kharif-2023

Entry No	IET No	ZONE VII - SOUTHERN								Overall Mean (6)		Trial not considered	
		Karnataka				Karnataka (2)		Zone VII(4)				Bihar (0)	
		Mandya		Gangavathi		Mean		Mean				@Pusa	
5801	31966	6523	1	3606		5065	8	5159	5	4995	5	4190	
5802	31967	5107	9	4551		4829		4823		4886	8	3267	
5803	31968	6379	2	4704		5542	2 *	4916		4713		5469	3
5804	31969	5692	3	4736		5214	4	4815		4644		4048	
5805	31970	5355	5	5569	3	5462	3	5141	6	4880	9	4190	
5806	31107	5042	10	4295		4669		4686		4492		4119	
5807	31971	3369		3838		3604		3337		3589		4048	
5808	Swarna (Positive Check)	4245		5689	2	4967	9	5224	2	4918	7	2628	
5809	31972	5134	8	4407		4771		4979	10	4815	10	4190	
5810	31973	5003		5337	6	5170	5	5254	1	5107	3	4190	
5811	31974	5222	7	5946	1	5584	1 *	5088	7	4760		4190	
5812	31116	3861		3758		3810		3748		3844		4261	7
5813	31975	5492	4	4655		5074	7	5009	8	5057	4	3977	
5814	Rasi (Positive Check)	4496		4904	10	4700		4381		4199		3409	
5815	31976	5278	6	4888		5083	6	4845		4786		4190	
5816	31977	4117		4335		4226		4470		4437		3267	
5817	31978	4185		5353	5	4769		4666		4641		3906	
5818	31979	4219		4343		4281		4359		4623		3764	
5819	31980	4231		5032	8	4632		4988	9	5130	2	3906	
5820	Vandana (Positive Very Early Check)	786		4127		2457		2554		2837		5540	2
5821	31981	4695		4255		4475		4686		4612		5611	1
5822	31982	4233		3729		3981		4479		4381		4261	7
5823	31983	3408		4359		3884		3734		3860		4332	6
5824	31984	2899		2804		2852		3565		3977		3196	
5825	31985	4309		4968	9	4639		5164	4	5165	1	4119	
5826	31986	4630		5224	7	4927	10	5206	3	4928	6	5327	4
5827	31987	3575		4663		4119		4707		4642			
5828	ISM (Susceptible Check)	4321		5417	4	4869		4144		4161		4403	5
Exp. Mean		**4493**		**4625**		**4559**		**4576**		**4538**		**4148**	
F Value		**12.96(p<0.0001)S**		**20.51(p<0.0001)S**		**16.85(p<0.0001)S**		**19.02(p<0.0001)S**		**16.43(p<0.0001)S**		**70.98(p<0.0001)S**	
CD		878		433		507		417		364		229	
CV%		**11.94**		**5.71**		**6.79**		**5.56**		**4.89**		**3.37**	
D/S		08-07-2023		28-07-2023								13-07-2023	
D/P		09-02-2023		28-08-2023								08-01-2023	

Table. 15c.3 : Days to 50% Flowering, Plant Height and Panicles/sq.m of IVT LPT P(50) Kharif-2023

Entry No	IET No	ZONE III - EASTERN						ZONE VI -WESTERN			ZONE VII - SOUTHERN					
		Odisha (1)			Zone III(1)			Maharashtra (1)			Andhra Pradesh (1)			Telangana (1)		
		ICAR-NRRI (Cuttack)			Mean			Karjat			Maruteru			Rajendranagar		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5801	31966	98	111	288	98	111	288	92	107	223	95	97	264	104	107	349
5802	31967	117	111	405	117	111	405	98	115	208	106	123	374	103	104	332
5803	31968	98	124	299	98	124	299	98	129	235	104	120	297	100	97	261
5804	31969	94	120	309	94	120	309	93	115	231	97	106	264	97	97	295
5805	31970	100	136	288	100	136	288	94	140	234	89	136	341	99	126	339
5806	31107	110	120	309	110	120	309	95	120	236	88	113	264	90	103	334
5807	31971	94	111	281	94	111	281	89	121	274	91	153	264	87	99	260
5808	Swarna (Positive Check)	117	108	341	117	108	341	90	99	250	110	111	297	106	88	315
5809	31972	103	123	331	103	123	331	100	120	260	105	118	330	93	100	323
5810	31973	107	127	320	107	127	320	97	115	278	103	110	264	107	110	305
5811	31974	102	135	370	102	135	370	94	143	245	110	136	275	105	125	350
5812	31116	95	114	309	95	114	309	98	118	261	90	111	286	89	93	311
5813	31975	109	122	324	109	122	324	97	111	310	98	121	297	95	94	323
5814	Rasi (Positive Check)	82	112	352	82	112	352	84	95	237	76	88	286	89	94	222
5815	31976	95	124	299	95	124	299	91	122	242	93	113	297	98	102	285
5816	31977	112	125	320	112	125	320	98	110	235	108	122	341	101	103	324
5817	31978	103	140	164	103	140	164	100	141	242	117	152	286	104	128	258
5818	31979	105	126	320	105	126	320	97	119	299	103	106	308	97	107	275
5819	31980	100	131	320	100	131	320	94	139	279	96	122	308	98	108	317
5820	Vandana (Positive Very Early Check)	81	124	288	81	124	288	89	99	263	92	122	374	82	106	264
5821	31981	99	127	324	99	127	324	101	122	281	102	122	286	101	108	360
5822	31982	95	97	327	95	97	327	99	101	245	94	105	297	94	106	322
5823	31983	96	109	356	96	109	356	94	108	231	92	92	341	90	104	331
5824	31984	110	116	341	110	116	341	104	122	322	98	119	341	91	104	344
5825	31985	107	118	352	107	118	352	100	113	321	100	108	330	101	103	289
5826	31986	94	115	320	94	115	320	92	103	261	102	105	264	91	103	386
5827	31987	111	96	331	111	96	331	111	112	243	119	107	297	112	114	329
5828	ISM (Susceptible Check)	116	114	366	116	114	366	98	101	213	88	107	275	98	89	295
Exp. Mean		**102**	**119**	**320**	**102**	**119**	**320**	**96**	**116**	**256**	**99**	**116**	**302**	**97**	**104**	**311**

Table. 15c.3 (Contd) : Days to 50% Flowering, Plant Height and Panicles/sq.m of IVT LPT P(50) Kharif-2023

Entry No	IET No	ZONE VII - SOUTHERN												Overall Mean (6)			Trial not considered		
		Karnataka						Karnataka (2)			Zone VII(4)						Bihar (0)		
		Mandya			Gangavathi			Mean			Mean						@Pusa		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5801	31966	100	86	261	103	100	252	101	93	256	100	98	281	98	101	273	89	107	228
5802	31967	103	91	261	113	94	243	108	92	252	106	103	302	106	106	304	105	97	225
5803	31968	104	96	261	103	99	242	104	97	251	103	103	265	101	111	266	92	115	220
5804	31969	92	95	261	101	106	270	96	100	265	97	101	272	95	106	272	90	116	243
5805	31970	96	110	272	105	134	366	100	122	319	97	126	329	97	130	307	91	141	259
5806	31107	90	146	261	98	108	268	94	127	264	92	117	282	95	118	279	97	98	237
5807	31971	90	100	261	101	126	229	95	113	245	92	119	253	92	118	261	76	123	235
5808	Swarna (Positive Check)	107	112	272	111	86	263	109	99	268	108	99	287	107	100	290	105	74	193
5809	31972	100	94	261	106	103	263	103	99	262	101	104	294	101	110	295	95	108	243
5810	31973	100	104	272	109	110	235	104	107	254	105	108	269	104	113	279	99	100	227
5811	31974	100	110	261	101	127	270	101	118	265	104	124	289	102	129	295	96	133	235
5812	31116	92	85	238	96	85	247	94	85	243	92	94	270	93	101	275	98	109	231
5813	31975	95	88	249	99	99	240	97	93	245	97	100	277	99	106	291	100	96	207
5814	Rasi (Positive Check)	89	88	249	84	89	217	87	88	233	84	90	243	84	94	260	76	100	201
5815	31976	94	90	261	101	112	252	97	101	256	96	104	274	95	111	273	84	115	248
5816	31977	102	89	249	106	87	221	104	88	235	104	100	284	104	106	282	104	99	182
5817	31978	106	106	227	111	130	207	109	118	217	110	129	244	107	133	231	101	130	204
5818	31979	99	92	238	102	108	310	100	100	274	100	103	283	100	110	292	99	100	223
5819	31980	97	96	261	104	116	317	100	106	289	99	111	300	98	119	300	93	128	258
5820	Vandana (Positive Very Early Check)	79	83	238	73	104	260	76	93	249	82	104	284	83	106	281	73	110	242
5821	31981	100	91	249	106	102	265	103	97	257	102	106	290	101	112	294	94	114	231
5822	31982	102	86	272	105	92	238	104	89	255	99	97	282	98	98	284	83	92	221
5823	31983	100	84	249	102	95	305	101	89	277	96	94	307	96	99	302	87	105	227
5824	31984	100	90	261	103	103	275	101	96	268	98	104	305	101	109	314	106	103	211
5825	31985	105	86	272	103	102	270	104	94	271	102	100	290	103	105	306	99	102	228
5826	31986	90	97	249	94	100	363	92	98	306	94	101	316	94	104	307	83	118	234
5827	31987	108	92	272	120	102	239	114	97	255	115	104	284	113	104	285			
5828	ISM (Susceptible Check)	101	84	261	100	84	233	100	84	247	97	91	266	100	96	274	104	119	241
Exp. Mean		**98**	**95**	**257**	**102**	**103**	**263**	**100**	**99**	**260**	**99**	**105**	**283**	**99**	**109**	**285**	**93**	**109**	**227**

ADVANCE VARIETAL TRIAL 2 - LOW NITROGEN TOLERANCE (AVT 2 LNT)

Locations: 8 **Test Entries: 6**

Checks: Positive –Swarna, Varadhan, Rasi (early) **Table: 16a**
Sensitive - Improved Samba Mahsuri

AVT 2 Low Nitrogen Tolerance trial (AVT 2 LNT) was constituted with 6 test entries, three positive checks Viz.,Swarna, Varadha andRasi (early) and one Sensitive check (Improved Samba Mahsuri). All 6 test entries were in third year of testing.The trial was conducted at two levels of Nitrogen N 0 (No application of Nitrogen), N 50 % (50% of recommended Nitrogen). In both the levels, Phosphorus and Potash are applied as per recommended doses.The trial was sent to 10locations but the data was not received from 2 locations viz., Ludhiana and Vadagaon.The data from remaining 8 locations viz.,ICAR-NRRI, Pusa, Ranchi, Karjat, Maruteru, ICAR-IIRR (Rajendranagar), Mandya and Gangavati were received.In most of the locations, the trial was conducted under both N 50 % and N 0. In Pusa, the trial was conducted only under N 50%. The data from Karjat under N 0 was not considered due to non significance in grain yield. Under N 50%, data from all 8 locations was considered for analysis.The entry found to be superior to best check if it is significantly superior (By considering CD value) over the best check either at N 0 or at N 50% either at zonal level or overall mean.The entries are compared with respective checks based on days to 50% flowering in that particular zone.

Performance of promising entries in AVT 2 LNT trial at 0% and 50% of recommended dose of nitrogen during Kharif 2023

ZONE	Entries found superior under different zones / overall mean	
	N 0	N 50%
Zone III		IET 29578 (5410) IET 30270 (5077) IET 30261 (4967) IET 29577 (4885) Swarna (4455 kg/ha) Rasi (3263 kg/ha) Varadhan (3094 kg/ha) CD = 401 kg/ha
Zone VII	*IET 29581 (4415) Swarna (4632 kg/ha) Rasi (3967 kg/ha) Vandana (2151 kg/ha) CD = 483 kg/ha	*IET 29581 (4846) Swarna (5311 kg/ha) Rasi (4365 kg/ha) Vandana (2829 kg/ha) CD = 417 kg/ha
Overall	*IET 29581 (3950) Swarna (4381 kg/ha) Rasi (3382 kg/ha) Vandana (1962 kg/ha) CD = 358 kg/ha	IET 30261 (5119) *IET 29581 (4575) Swarna (4710 kg/ha) Rasi (3928 kg/ha) Vandana (3108 kg/ha) CD = 303 kg/ha

*The entry is compared with early checks either Rasi or Varadhan based on flowering duration.

Zone III: Based on 50% flowering, the entries which have on par flowering duration with swarna are compared with swarna. **In zone III, at N 50% levels, four entries IETs 29578, 30270, 30261 and 29577 significantly out yielded the best check (Swarna).**

Overall basis: Based on 50% flowering, the entries which have on par flowering duration with swarna are compared withswarna. Only one entry IET 30261 yielded significantly superior to best check Swarna under N 50%. But the entry IET 29581 recorded 98 days to 50% flowering. Hence its performance is compared to early checks Rasi or Varadhan. On overall basis IET 29581 yielded significantly higher yield compared to its respective check under both N 0 as well as N 50%. **Therefore, on overall basis IET 30261 and IET 29581 out yielded their respective checks and found superior.**

Three years performance of entries

IET 29578CR 3756-2-4-2-1-1-1 (Salivahana / Krishnaveni)

Year	**P level**	**Zone**		**State**	
IET 29578		**Zone (GY kg/ha)**	**% BC**	**State (GY) Kg/ha**	**%BC**
2023	N 0				
	N 50	Z 3 (5410)	21.44	BI (5354)	23.28
				JH (4841)	55.27
2022	N 0	Z 2 (3467)	19.55	HA (3467)	19.55
		Z 7 (3949)	5.76	KA (4566)	36.7
	N 50	Z 2 (3967)	23.96	HA (3967)	23.96
		Z 7 (4530)	7.8	KA (3775)	32.71
		Overall (4355)	5.6		
2021	N 0	Z 7 (4090)	7.07	KA (6140)	14.34
	N 50	Z 2 (7450)	11.86	PB (7450)	11.86
		Overall (5600)	15.46	TS (6080)	11.97

IET 29578 (CR 3756-2-4-2-1-1-1) derived from the cross Salivahana / Krishnavenihas recorded average days to 50% flowering of 105 days. Based on the performance under both N 0 and N 50%, IET 29578 found superior in Zone 2, Zone 7 and overall mean for two testing years 2022 and 2021. In addition, the entry also found superior to best check in Zone 3 during 2023. Among states, it is found promising for Karnataka and Haryana. **Therefore, the entry IET 29578found promising for Zone 2, Zone 7 and overall mean and also for the states of, Karnataka and Haryana.**

IET 29577RP 5594-71-14-2-1 (MTU 1010 / RPHR 1005)

Year	P level	Zone		State	
IET 29577		**Zone (GY kg/ha)**	**% BC**	**State (GY) Kg/ha**	**%BC**
2023	N 0			TS (4544)	34.95
	N 50	Z 3 (4885)	9.6	JH (4900)	57.91
				TS (5444)	33.13
2022	N 0	Z 2 (3900)	34.48	HA (3900)	34.48
		Z 7 (3953)	5.87	TS (3742)	14.68
				KA (3980)	19.16
		Overall (3672)	5		
	N 50	Z 2 (4033)	26	HA (4033)	26
				JH (3600)	14.9
		Z 7 (4713)	12.24	KA (4866)	28.9
		Overall (4397)	6.6		
2021	N 0	Z 2 (5940)	7.41		
		Z 7 (5260)	37.69	KA (6490)	20.8
				TS (4030)	64.48
		Overall (5490)	27.08		
	N 50	Z 2 (8820)	32.43	PB (8820)	32.43
		Z 3 (3920)	5.66	JH (3920)	5.66
				TS (6230)	14.73
		Overall (6310)	30.1		

IET 29577(RP 5594-71-14-2-1) derived from the cross MTU 1010 / RPHR 1005has recorded average days to 50% flowering of 104 days. Based on the performance under both N 0 and N 50%, IET 29578 found superior in Zone 2, Zone 7 and overall mean for two testing years 2022 and 2021. In addition, the entry also found superior to best check in Zone 3 during 2023 and 2021. Among states, it is found promising for Telangana and Jharkhand for all 3 years (2023, 2022, 2021) and Karnataka for 2022 and 2021. **Therefore, the entry IET 29577found promising for Zone 2, Zone 3, Zone 7 and overall mean and also for the states of Telangana, Jharkhand and Karnataka.**

IET 29581RP 6255-BV / RIL / BPT / Varadhan / 1696 (BPT 5204 / Varadhan)

Year	P level	Zone		State	
IET 29581		**Zone (GY kg/ha)**	**% BC**	**State (GY) Kg/ha**	**%BC**
2023	N 0	Z 7 (4415)	11.29	TS (3944)	31.46
				KA (4537)	33.79
		Over all (3950)	16.79		
	N 50	Z 3 (4716)	19.3	JH (3430)	55.55
		Z 7 (4846)	11.02	TS (4789)	28
				KA (4855)	17.45
		Overall (4575)	16.47		
2022	N 0	Z 2 (2900)	5.7	HA (2900)	5.7
	N 50	Z 2 (3367)	5.2	HA (3367)	5.2
				TS (4836)	10.38
2021	N 0	Z 2 (6220)	12.47	PB (6220)	12.47
		Z 7 (4540)	18.84	KA (5610)	5
				TS (3470)	41.63
		Overall (5100)	18.05		
	N 50	Z 2 (9060)	36	PB (9060)	36
		Z 3 (4000)	10.8	JH (4000)	10.8
		Overall (5880)	29.5		

IET 29581 (RP 6255-BV / RIL / BPT / Varadhan / 1696) derived from the cross BPT 5204 / Varadhan has recorded average days to 50% flowering of 98 days, hence compared its performance with best early check. Based on the performance under both N 0 and N 50%, IET 29581found superior in Zone 3, Zone 7 and overall mean for all 3 testing years viz., 2023, 2022 and 2021.Among states, it is found promising for Telangana and Karnataka for all 3 years (2023, 2022, 2021) and Jharkhand for 2023 and 2021 and Punjab for 2022, 2021. **Therefore, the entry IET 29581 found promising for Zone 3, Zone 7 and overall mean and also for the states of Telangana, Karnataka and Jharkhand**

IET 30261

Year	P level	Zone		State	
IET 30261		**Zone (GY kg/ha)**	**% BC**	**State (GY) Kg/ha**	**%BC**
2023	N 0			TS (4200))	24.74
	N 50	Z 3 (4967)	11.49	BI (4899)	12.8
				JH (4247)	36.86
		Overall (5119)	8.68		
2022	N 0	Z 7 (4740)	26.94	AP (5454)	10.52
				TS (3725)	12.16
				KA (4890)	46.40
		Overall (3949)	11.99		
	N 50			JH (3800)	21.29
		Z 7 (5778)	37.60	AP (5617)	11.25
				KA (5859)	55.20
		Overall (4806)	16.55		
2021	N 0	Z 7 (4340)	13.61	KA (6320)	17.69
		Overall (4510)	5		
	N 50	Z 2 (12090)	81.53	PB (12090)	81.53
		Z 7 (5180)	5	TS (6240)	14.91
		Overall (7490)	54.43		

IET 30261 (RP 6317-RMS-S35-BC2F4-49-25-12-18) derived from the cross MTU 1121*2 / Swarnahas recorded average days to 50% flowering of 106 days. Based on the performance under both N 0 and N 50%, IET 30261 found superior in Zone 7 and overall mean for all 3 testing years viz., 2023, 2022 and 2021. In addition, it found superiorin Z 3 (2023) and zone 2 (2021). Among states, it is found superior in Telangana and Karnataka and Jharkhand for two years and also one year in Bihar (2023), Andhra Pradesh (2022) and Punjab (2021). **Therefore, the entry IET 30261found promising for Zone 7 and overall mean and also for the states of Telangana, Karnataka and Jharkhand.**

IET 30273

Year	P level	Zone		State	
IET 30273		**Zone (GY kg/ha)**	**% BC**	**State (GY) Kg/ha**	**%BC**
2023	N 0			JH (3176)	12.90
	N 50			JH (4165)	34.22
2022	N 0	Z 2 (3467)	19.55	HA (3467)	19.55
				KA (4131)	23.68
	N 50	Z 2 (3600)	12.5	HA (3600)	12.5
				JH (3600)	14.9
		Z 7 (4558)	8.5	KA (4740)	25.56
2021	N 0	Z 2 (10180)	84.08	PB (10180)	84.08
		Z 7 (4430)	15.96	KA (6270)	16.76
				TS (2450)	5.89
		Overall (4320)	46.99		
	N 50	Z 2 (13630)	104	PB (13630)	104
		Z 3 (3920)	5.66	JH (3920)	5.66
		Overall (7400)	52.57		

IET 30273 (CR 3516-1-1-1-1-1-1) derived from the cross Birupa / Pusa 44 nahas recorded average days to 50% flowering of 103 days. Based on the performance under both N 0 and N 50%, IET 30273 found superior in Zone 2 and Zone 7 for 2 testing years viz., 2022 and 2021. In addition, it found superior on overall basis during 2021. Among states, it is found superior in Jharkhand for all 3 years of testing viz., 2023, 2022 and 2021. It was also found superior to best check in Karnataka during 2022 and 2021. The entry found superior in only one year in Haryana (2022), Punjab (2021) and Telangana (2021). **Therefore, the entry IET 30273found promising for Zone 2 and zone 7 and also for the states of Karnataka and Jharkhand.**

IET 30270

Year	P level	Zone		State	
IET 30270		**Zone (GY kg/ha)**	**% BC**	**State (GY) Kg/ha**	**%BC**
2023	N 0	-	-	-	-
	N 50	Z 3 (5077)	13.96	BI (5101)	17.45
				JH (4410)	45.93
2022	N 0	Z 2 (3900)	34.48	HA (3900)	34.48
		Z 7 (4476)	19.87	KA (4687)	40.33
		Overall (3526)	10.35		
	N 50	Z 2 (3933)	21.87	HA (3933)	21.87
				JH (3800)	21.29
		Z 7 (4199)	7.23	KA (3775)	11.65
2021	N 0	Z 2 (10790)	95.11	PB (10790)	95.11
		Z 7 (4530)	18.59	KA (6320)	17.69
				TS (2750)	8.69
		Overall (6620)	53.24		
	N 50	Z 2 (10440)	56.76	PB (10440)	56.76
		Overall (6370)	31.34		

IET 30270(CR 4358-3-3-1-2-1) derived from the cross CR 3543-6-3-1-2-1-1 / CR 3510-12-1-1-2-1-1. It has recorded average days to 50% flowering of 105 days.Based on the performance under both N 0 and N 50%, IET 30270 found superior in Zone 2, Zone 7 and overall mean for 2 testing years viz., 2022 and 2021. In addition, it found superior in Z 3 (2023). Among states, it is found superior for two years in Karnataka (2022, 2021) and Jharkhand (2023,2022)and also one year in Bihar (2023), Haryana (2022), Telangana (2021) and Punjab (2021). **Therefore, the entry IET 30261found promising for Zone 2,Zone 7 and overall mean and also for the states of Karnataka and Jharkhand.**

ADVANCE VARIETAL TRIAL 1 - LOW NITROGEN TOLERANCE (AVT 1 LNT)

Locations: 8 **Test Entries: 16**

Checks: Positive –Swarna, Varadhan, Rasi (early) **Table: 16b**
Sensitive - Improved Samba Mahsuri

AVT 1 Low Nitrogen Tolerance trial (AVT 1 LNT) was constituted with 16 test entries, three Tolerant checks Viz., Swarna, Varadhan, Rasi (early) and one sensitive check (Improved Samba Mahsuri). All 16 test entries were in second year of testing. The trial was conducted at two levels of Nitrogen N 0 (No application of Nitrogen), N 50 % (50% of recommended Nitrogen). In both the levels, Phosphorus and Potash are applied as per recommended doses. The trial was sent to 10 locations but the data was not received from 2 locations viz., Ludhiana and Vadagaon. The data from remaining 8 locations viz., ICAR-NRRI, Pusa, Ranchi, Karjat, Maruteru, ICAR-IIRR, Mandya and Gangavati were received. In all seven locations, the trial was conducted under both N 50 % and N 0. But Pusa conducted the experiment at N 50% and do not conduct under N 0. The data from Ranchi centre was not considered due to low experimental mean (1985 kg/ha) under N 0 condition. So data from six location was considered for N 0. Under N 50%, data from all 8 locations was considered for analysis. The entry qualifies for promotion if it is significantly superior (By considering CD value) over the best check either at N 0 or at N 50% either at zonal level or overall mean. The entries are compared with respective checks based on days to 50% flowering in that particular zone.

Performance of promising entries in AVT1-LNT trial at 0% and 50% recommended dose of nitrogen during Kharif 2023

ZONE	N 0	N 50%
	Entries promoted/found promising under different zones / overall mean	
Zone III	*IET 31119 (4964 kg/ha) *IET 31120 (4862 kg/ha) *IET 29579 (4158 kg/ha) *IET 31118 (3723 kg/ha) *IET 31131 (3704 kg/ha) *IET 31132 (3439 kg/ha) Swarna (4686 kg/ha) Rasi (2807 kg/ha) CD = 584 kg/ha	IET 31135 (5450 kg/ha) IET 31120 (5378 kg/ha) IET 29579 (5186 kg/ha) *IET 30269 (4550 kg/ha) *IET 31128 (4335 kg/ha) *IET 31119 (4259 kg/ha) *IET 31118 (4238 kg/ha) *IET 31126 (4087 kg/ha) *IET 31131 (4060 kg/ha) Swarna (4458 kg/ha) Varadhan (4739 kg/ha) Rasi (3579 kg/ha) CD = 354 kg/ha
Zone VI	*IET 31118 (5400 kg/ha) *IET 31135 (4761 kg/ha) *IET 31134 (4650 kg/ha) *IET 29579 (4511 kg/ha) Swarna (5009 kg/ha) Rasi (3660 kg/ha)	IET 31132 (7308 kg/ha) IET 31134 (6581 kg/ha) IET 29579 (6346 kg/ha) IET 31126 (5598 kg/ha) *IET 31131 (5342 kg/ha) *IET 31135 (5342 kg/ha)

ZONE	N 0	N 50%
	Entries promoted/found promising under different zones / overall mean	
	CD = 710 kg/ha	*IET 31128 (5321 kg/ha) Swara (4637 kg/ha) Rasi (4423 kg/ha) CD = 858 kg/ha
Zone VII	*IET 31126 (4597 kg/ha) *IET 31135 (4278 kg/ha) *IET 31124 (4126 kg/ha) *IET 31132 (4044 kg/ha) Swarna (4564 kg/ha) Varadhan (6585 kg/ha) Rasi (3594 kg/ha) CD = 409 kg/ha	*IET 31126 (5067 kg/ha) *IET 31124 (4711 kg/ha) *IET 31132 (4299 kg/ha) *IET 31118 (4264 kg/ha) *IET 31117 (3932 kg/ha) *IET 31131 (3872 kg/ha) Swarna (4677 kg/ha) Rasi (3346 kg/ha) CD = 411 kg/ha
Overall	*IET 31135 (4368 kg/ha) *IET 31119 (4245 kg/ha) *IET 31134 (4098 kg/ha) *IET 31132 (4045 kg/ha) *IET 31124 (3970 kg/ha) Swarna (4658 kg/ha) Varadhan (6585 kg/ha) Rasi (3474 kg/ha) CD = 321 kg/ha	*IET 31132 (4724 kg/ha) *IET 31118 (4274 kg/ha) *IET 31117 (4241 kg/ha) *IET 31131 (4126 kg/ha) Swarna (4590 kg/ha) Varadhan (5286 kg/ha) Ras (3568 kg/ha) CD = 285

*The entries are compared with early check (Rasi) since their days to 50% flowering is less than 100.

Based on the performance of entries in different zones and overall basis under both N 0 and N 50%, a total of 14 entries viz., IETs 31132, 31134, 29579, 31126, 31135, 31120, 31119, 31120, 31118, 31131, 30269, 31128, 31124 and 31117 are promoted to third year of testing in AVT 2 LNT.

INITIAL VARIETAL TRIAL -LOW NITROGEN TOLERANCE (IVT- LNT)

Locations: 8 **Test Entries: 25**

Checks: Tolerant –Swarna, Varadhan, Rasi (early) **Table: 16c**
Sensitive - Improved Samba Mahsuri
Observational check – DRR Dhan 64

IVT Low Nitrogen Tolerance trial (IVT LNT) was constituted with 25 test entries, three Tolerant checks *Viz*., Swarna, Varadhan, Rasi (early) and one sensitive check (Improved Samba Mahsuri). In addition, DRR Dhan 64 was introduced as observational check in this trial. The trial was conducted at two levels of Nitrogen N 0 (No application of Nitrogen), N 50 % (50% of recommended Nitrogen). In both the levels, Phosphorus and Potash are applied as per recommended doses. The trial was sent to 10 locations but the data was not received from 2 locations viz., Ludhiana and Vadagaon. The data from remaining 8 locations viz., ICAR-NRRI, Pusa, Ranchi, Karjat, Maruteru, ICAR-IIRR, Mandya and Gangavati were received. In all seven locations, the trial was conducted under both N 50 % and N 0. But at Pusa experiment was conducted at N 50% only and do not conduct the experiment under N 0. So data from seven locations was considered for N 0 whereas under N 50%, data from all 8 locations was considered for analysis. The entry qualifies for promotion if it is significantly superior (By considering CD value) over the best check either at N 0 or at N 50% either at zonal level or overall mean. The entries are compared with respective checks based on days to 50% flowering in that particular zone.

Performance of promising entries in IVT - LNT trial at 0% and 50% recommended dose of nitrogen during Kharif 2023

ZONE	N 0	N 50%
	Entries promoted under different zones / overall mean	
Zone III	IET 31994 (4191 kg/ha) IET 32005 (4140 kg/ha) IET 31995 (4009 kg/ha) Swarna (3522 kg/ha) Rasi (2585 kg/ha) Varadhan (3268 kg/ha) DRR Dhan 64 (3353 kg/ha) CD = 331 kg/ha	IET 31995 (5287 kg/ha) IET 31994 (5262 kg/ha) IET 32005 (5161 kg/ha) IET 31990 (5128 kg/ha) IET 32003 (5113 kg/ha) Swarna (4363 kg/ha) Rasi (3839 kg/ha) Varadhan (4587 kg/ha) DRR Dhan 64 (4486 kg/ha) CD = 324 kg/ha
Zone VII	IET 32005 (5527 kg/ha) *IET 32010 (4790 kg/ha) *IET 32009 (4530 kg/ha) *IET 31993 (4403 kg/ha) *IET 31989 (4236 kg/ha) *IET 31999 (4180 kg/ha) *IET 31997 (3887 kg/ha) *IET 31995 (3886 kg/ha) Swarna (4862 kg/ha)	IET 32005 (6243 kg/ha) IET 31998 (5825 kg/ha) *IET 31989 (4582 kg/ha) *IET 32009 (4825 kg/ha) *IET 32010 (4881 kg/ha) Swarna (5408 kg/ha) Rasi (4209 kg/ha) Varadhan (4128 kg/ha) DRR Dhan 64 (4201 kg/ha)

ZONE	N 0	N 50%
	Entries promoted under different zones / overall mean	
	Rasi (3566 kg/ha) Varadhan (3490 kg/ha) DRR Dhan 64 (3441 kg/ha) CD = 315 kg/ha	CD = 373 kg/ha
Overall	IET 32005 (4864 kg/ha) *IET 31995 (3995 kg/ha) *IET 32009 (3957 kg/ha) Swarna (4340 kg/ha) Rasi (3334 kg/ha) Varadhan (3556 kg/ha) DRR Dhan 64 (3500 kg/ha) CD = 230 kg/ha	IET 32005 (5677 kg/ha) IET 31998 (5825 kg/ha) IET 31994 (5182 kg/ha) *IET 31995 (4905 kg/ha) *IET 32010 (4881 kg/ha) Swarna (4914 kg/ha) Rasi (4166 kg/ha) Varadhan (4453 kg/ha) DRR Dhan 64 (4397 kg/ha) CD = 424 kg/ha

*The entries are compared with early check (Rasi) since their days to 50% flowering is less than 100.

Promotions:

Based on the performance of entries in different zones and overall basis under both N 0 and N50%, a total of 12 entries viz., IETs 31994, 32005, 31995, 31990, 32003, 31998, 32010, 32009, 31993, 31989, 31999, 31997 are **promoted to second year of testing in AVT 1 LNT.**

Table No.16a.1 Composition of entries in Advance Variety Trial 2 – Low Nitrogen Tolerance Trial (AVT 2-LNT), Kharif 2023.

Entry No.	IET No.	Designation	Cross Combination	GT
3rd year of testing:				
5901	30270	CR 4358-3-3-1-2-1	CR 3543-6-3-1-2-1-1 / CR 3510 -12-1-1-2-1-1	MS
5902	29581	RP 6255-BV / RIL / BPT / Varadhan / 1696	BPT 5204 / Varadhan	MB
5903	**Swarna (Positive Check)**			
5904	30261	RP 6317-RMS-S35-BC2F4-49-25-12-18	MTU 1121 * 2 / Swarna	LS
5905	**Varadhan (Positive Check)**			
5906	29577	RP 5594-71-14-2-1	MTU 1010 / RPHR 1005	MS
5907	**Rasi (Positive Check)**			
5908	29578	CR 3756-2-4-2-1-1-1	Salivahana / Krishnaveni	MS
5909	30273	CR 3516 -1-1-1-1-1-1	Birupa / Pusa 44	SB
5910	**Improved Samba Mahsuri (Susceptible Check)**			

Table.16a.2 : Grain Yield (kg/ha) of AVT-2 LNT N(0) Kharif-2023

Entry No	IET No	ZONE III - EASTERN						ZONE VII - SOUTHERN			
		Odisha (1)		Jharkhand (1)		Zone III(2)		Andhra Pradesh (1)		Telangana (1)	
		ICAR-NRRI (Cuttack)		Ranchi		Mean		Maruteru		Rajendranagar	
5901	30270	4210	5	2250	5	3230	5	4748	6	3467	4
5902	29581	4013	6	2025	7	3019	7	4642	7	3944	3 *
5903	Swarna (Positive Check)	4942	1	2813	2	3878	1	5382	4	3367	5
5904	30261	4407	3	2588	4	3498	3	4634	8	4200	2 *
5905	Varadhan (Positive Check)	2083	10	1088	9	1586	10	1431	10	3000	7
5906	29577	3750	8	2670	3	3210	6	5618	3	4544	1 *
5907	Rasi (Positive Check)	3397	9	1028	10	2213	9	6220	1	2867	8
5908	29578	4420	2	2100	6	3260	4	5780	2	3289	6
5909	30273	4393	4	3176	1 *	3785	2	4894	5	2589	9
5910	Improved Samba Mahsuri (Susceptible Check)	3934	7	1725	8	2830	8	3049	9	2356	10
Exp. Mean		**3955**		**2146**		**3050**		**4640**		**3362**	
F Value		**12.75(p<0.0001)S**		**80.63(p<0.0001)S**		**33.10(p<0.0001)S**		**15.70(p<0.0001)S**		**22.42(p<0.0001)S**	
CD		607		213		330		970		407	
CV%		**8.94**		**5.79**		**6.3**		**12.19**		**7.05**	
D/S		07-04-2023		29-06-2023				15-07-2023		07-07-2023	
D/P		28-07-2023		16-08-2023				26-08-2023		44934	

Table.16a.2 (Contd) : Grain Yield (kg/ha) of AVT-2 LNT N(0) Kharif-2023

Entry No	IET No	ZONE VII - SOUTHERN								Overall Mean (6)		Trial not considered	
		Karnataka				Karnataka (2)		Zone VII(4)				Maharashtra (0)	
		Mandya		Gangavathi		Mean		Mean				@Karjat	
5901	30270	3574	4	5377	3	4476	4	4292	6	3938	6	2767	7
5902	29581	3809	2	5264	4	4537	3	4415	4	3950	4	2630	9
5903	Swarna (Positive Check)	3506	5	6274	1	4890	2	4632	2	4381	1	2656	8
5904	30261	3765	3	6018	2	4892	1	4654	1	4269	2	3623	2
5905	Varadhan (Positive Check)	1086	10	3085	10	2086	10	2151	10	1962	10	3410	3
5906	29577	4154	1	3742	7	3948	6	4515	3	4080	3	3684	1
5907	Rasi (Positive Check)	3272	7	3510	9	3391	8	3967	7	3382	8	3150	4
5908	29578	3216	8	4885	5	4051	5	4293	5	3948	5	2786	6
5909	30273	3444	6	3554	8	3499	7	3620	8	3675	7	3077	5
5910	Improved Samba Mahsuri (Susceptible Check)	2593	9	3960	6	3277	9	2990	9	2936	9	2547	10
Exp. Mean		**3242**		**4567**		**3904**		**3953**		**3652**		**3033**	
F Value		**10.56(p<0.0001)S**		**9.33(p<0.0001)S**		**12.29(p<0.0001)S**		**20.69(p<0.0001)S**		**30.09(p<0.0001)S**		**1.81(p<0.1275)NS**	
CD		744		1001		674		483		358		**NS**	
CV%		**13.38**		**12.78**		**10.06**		**7.12**		**5.71**		**17.54**	
D/S		08-07-2023		08-01-2023								28-06-2023	
D/P		44966		45025								21-07-2023	

Table.16a.3 : Days to 50% Flowering, Plant Height and Panicles/sq.m of AVT-2 LNT N(0) Kharif-2023

Entry No	IET No	ZONE III - EASTERN									ZONE VII - SOUTHERN					
		Odisha (1)			Jharkhand (1)			Zone III(2)			Andhra Pradesh (1)			Telangana (1)		
		AR-NRRI (Cuttac			Ranchi			Mean			Maruteru			Rajendranagar		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5901	30270	110	112	212	115	76		113	94	212	102	89	286	107	94	198
5902	29581	105	107	231	112	81		109	94	231	95	92	297	94	86	271
5903	Swarna (Positive Check)	101	93	246	94	58		98	75	246	108	88	286	112	77	304
5904	30261	108	104	166	117	72		112	88	166	103	113	319	111	97	246
5905	Varadhan (Positive Check)	89	110	221	95	80		92	95	221	90	94	286	83	104	259
5906	29577	107	100	180	117	73		112	87	180	98	125	330	106	102	227
5907	Rasi (Positive Check)	86	102	234	96	63		91	82	234	88	113	330	87	75	260
5908	29578	112	114	212	115	81		114	97	212	103	118	341	109	94	312
5909	30273	103	107	189	116	84		109	96	189	102	102	297	101	96	238
5910	Improved Samba Mahsuri (Susceptible Check)	106	96	248	115	60		110	78	248	97	89	275	104	88	246
Exp. Mean		**103**	**104**	**214**	**109**	**73**		**106**	**89**	**214**	**99**	**102**	**305**	**102**	**91**	**256**

Table.16a.3 (Contd) : Days to 50% Flowering, Plant Height and Panicles/sq.m of AVT-2 LNT N(0) Kharif-2023

Entry No	IET No	ZONE VII - SOUTHERN												Overall Mean (6)			Trial not considered		
		Karnataka						Karnataka (2)			Zone VII(4)						Maharashtra (0)		
		Mandya			Gangavathi			Mean			Mean						@Karjat		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5901	30270	96	90	227	102	101	252	99	95	239	101	93	241	105	94	235	97	89	199
5902	29581	92	99	249	99	99	228	95	99	239	98	94	261	101	94	255	99	78	191
5903	Swarna (Positive Check)	107	75	272	112	82	280	109	78	276	109	80	286	106	79	278	97	86	198
5904	30261	100	94	261	105	92	275	102	93	268	105	99	275	107	95	253	98	77	232
5905	Varadhan (Positive Check)	80	94	227	78	100	318	79	97	272	83	98	272	86	97	262	96	93	225
5906	29577	95	95	261	103	89	242	99	92	251	100	103	265	104	97	248	96	84	245
5907	Rasi (Positive Check)	90	88	261	89	81	285	89	84	273	88	89	284	89	87	274	96	93	218
5908	29578	92	94	272	99	103	289	95	98	281	101	102	303	105	101	285	99	85	212
5909	30273	96	97	238	101	81	280	98	89	259	100	94	263	103	94	249	98	76	218
5910	Improved Samba Mahsuri (Susceptible Check)	100	75	261	101	92	285	100	83	273	100	86	267	104	83	263	97	74	184
Exp. Mean		**95**	**90**	**253**	**98**	**92**	**273**	**97**	**91**	**263**	**99**	**94**	**272**	**101**	**92**	**260**	**97**	**83**	**212**

Table.16a.2 : Grain Yield (kg/ha) of AVT-2 LNT N(50) Kharif-2023

Entry No	IET No	ZONE III - EASTERN								ZONE VI -WESTERN	
		Odisha (1)		Bihar (1)		Jharkhand (1)		Zone III(3)		Maharashtra (1)	
		ICAR-NRRI (Cuttack)		Pusa		Ranchi		Mean		Karjat	
5901	30270	5720	4	5101	3 *	4410	3 *	5077	2 *	3123	7
5902	29581	5364	6	5354	1 *	3430	6	4716	6	3070	9
5903	Swarna (Positive Check)	6354	1	3990	9	3022	8	4455	7	3073	8
5904	30261	5756	3	4899	4	4247	4 *	4967	3 *	4617	2
5905	Varadhan (Positive Check)	2954	10	4343	7	1985	10	3094	10	4263	3
5906	29577	5261	7	4495	6	4900	1 *	4885	4 *	4697	1
5907	Rasi (Positive Check)	4300	9	3283	10	2205	9	3263	9	4173	4
5908	29578	6058	2	5354	1 *	4818	2 *	5410	1 *	3957	6
5909	30273	5468	5	4747	5	4165	5 *	4793	5	4150	5
5910	Improved Samba Mahsuri (Susceptible Check)	4685	8	4040	8	3103	7	3943	8	3040	10
Exp. Mean		**5192**		**4561**		**3628**		**4460**		**3816**	
F Value		**10.86(p<0.0001)S**		**7.34(p<0.0001)S**		**21.55(p<0.0001)S**		**27.55(p<0.0001)S**		**2.44(p<0.0451)S**	
CD		810		664		609		401		1158	
CV%		**9.10**		**8.49**		**9.78**		**5.25**		**17.69**	
D/S		07/04/2023		13-07-2023		29-06-2023				28-06-2023	
D/P		28-07-2023		08/02/2023		16-08-2023				21-07-2023	

Table.16a.2 (Contd) : Grain Yield (kg/ha) of AVT-2 LNT N(50) Kharif-2023

Entry No	IET No	ZONE VII - SOUTHERN												Overall Mean (8)	
		Andhra Pradesh (1)		Telangana (1)		Karnataka				Karnataka (2)		Zone VII(4)			
		Maruteru		Rajendranagar		Mandya		Gangavathi		Mean		Mean			
5901	30270	4992	6	4400	4	4914	3	5343	4	5129	3	4912	4	4750	4
5902	29581	4886	7	4789	3 *	4562	5	5147	5	4855	4	4846	5	4575	6
5903	Swarna (Positive Check)	5626	4	4089	5	4543	6	6985	1	5764	1	5311	2	4710	5
5904	30261	4878	8	5111	2 *	4605	4	6840	2	5723	2	5359	1	5119	1 *
5905	Varadhan (Positive Check)	1675	10	3733	7	1864	10	4043	9	2954	10	2829	10	3108	10
5906	29577	5862	3	5444	1 *	5000	2	4409	7	4705	6	5179	3	5009	2
5907	Rasi (Positive Check)	6463	1	3644	8	3685	7	3668	10	3677	9	4365	8	3928	8
5908	29578	6024	2	4011	6	3481	9	5548	3	4515	7	4766	6	4906	3
5909	30273	5138	5	3244	10	5136	1	4396	8	4766	5	4479	7	4556	7
5910	Improved Samba Mahsuri (Susceptible Check)	3293	9	3378	9	3549	8	4702	6	4126	8	3731	9	3724	9
Exp. Mean		**4884**		**4184**		**4134**		**5108**		**4621**		**4578**		**4438**	
F Value		**15.70(p<0.0001)S**		**18.94(p<0.0001)S**		**9.44(p<0.0001)S**		**27.44(p<0.0001)S**		**23.62(p<0.0001)S**		**25.76(p<0.0001)S**		**32.83(p<0.0001)S**	
CD		970		468		881		572		481		417		303	
CV%		**11.58**		**6.52**		**12.43**		**6.53**		**6.06**		**5.31**		**3.98**	
D/S		15-07-2023		07/07/2023		08/07/2023		08/01/2023							
D/P		26-08-2023		08/01/2023		09/02/2023		04/09/2023							

Table.16a.3 : Days to 50% Flowering, Plant Height and Panicles/sq.m of AVT-2 LNT N(50) Kharif-2023

Entry No	IET No	ZONE III - EASTERN												ZONE VI -WESTERN			ZONE VII - SOUTHERN		
		Odisha (1)			Bihar (1)			Jharkhand (1)			Zone III(3)			Maharashtra (1)			Andhra Pradesh (1)		
		ICAR-NRRI (Cuttack)			Pusa			Ranchi			Mean			Karjat			Maruteru		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5901	30270	111	119	252	99	95	245	118	79		109	98	249	99	98	238	103	101	352
5902	29581	105	113	276	87	95	224	114	86		102	98	250	100	84	224	97	97	363
5903	Swarna (Positive Check)	101	101	294	104	82	234	97	61		101	81	264	99	93	232	109	102	330
5904	30261	108	110	240	100	92	242	114	75		107	92	241	99	82	265	104	113	385
5905	Varadhan (Positive Check)	90	112	266	71	82	229	95	83		85	92	248	97	98	254	92	96	341
5906	29577	107	101	244	91	88	233	116	77		105	89	239	97	98	271	100	129	385
5907	Rasi (Positive Check)	87	85	264	75	82	228	97	67		86	78	246	98	100	251	89	118	363
5908	29578	113	123	241	97	100	250	115	85		108	103	245	100	100	238	104	125	385
5909	30273	103	115	231	96	85	231	117	88		105	96	231	100	83	241	104	108	330
5910	Improved Samba Mahsuri (Susceptible Check)	106	99	263	103	84	228	116	66		108	83	245	99	84	205	98	96	297
Exp. Mean		**103**	**108**	**257**	**92**	**89**	**234**	**110**	**77**		**102**	**91**	**246**	**99**	**92**	**242**	**100**	**108**	**353**

Table.16a.3 (Contd) : Days to 50% Flowering, Plant Height and Panicles/sq.m of AVT-2 LNT N(50) Kharif-2023

Entry No	IET No	ZONE VII - SOUTHERN															Overall Mean (8)		
		Telangana (1)			Karnataka						Karnataka (2)			Zone VII(4)					
		Rajendranagar			Mandya			Gangavathi			Mean			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5901	30270	110	106	293	96	101	283	101	103	267	98	102	275	102	103	299	105	100	276
5902	29581	93	104	356	92	102	261	97	104	285	95	103	273	95	101	316	98	98	284
5903	Swarna (Positive Check)	122	92	271	107	78	317	112	82	300	109	80	309	112	89	305	106	86	283
5904	30261	119	99	290	100	95	283	104	90	257	102	92	270	107	99	304	106	94	280
5905	Varadhan (Positive Check)	85	106	381	80	91	238	77	98	226	79	94	232	83	98	296	86	96	276
5906	29577	112	106	348	95	95	261	106	93	297	100	94	279	103	106	323	103	98	291
5907	Rasi (Positive Check)	88	89	323	90	92	261	89	76	239	89	84	250	89	94	296	89	88	275
5908	29578	111	113	293	92	91	249	101	103	297	96	97	273	102	108	306	104	105	279
5909	30273	111	100	378	96	100	295	100	86	295	98	93	295	103	98	324	103	96	286
5910	Improved Samba Mahsuri (Susceptible Check)	112	89	286	100	74	317	100	94	285	100	84	301	103	88	296	104	86	269
Exp. Mean		**106**	**100**	**322**	**95**	**92**	**277**	**98**	**93**	**275**	**97**	**92**	**276**	**100**	**98**	**307**	**100**	**95**	**280**

Table.16a.4 : Grain quality characteristics of entries in AVT 2- LNT, kharif 2023

Entry No.	Designation / IET No.	HULL	MILL	HRR	KL	KB	L/B	Grian Type	Grain Chalk	ASV	AC	GC
5901	30270	79.5	69.6	58.5	5.07	2.16	2.34	SB	VOC	4.0	22.82	63
5902	29581	78.8	66.2	58.8	5.24	2.32	2.25	SB	VOC	4.0	22.73	22
5903	**SWARNA**	78.4	66.0	58.1	4.84	2.17	2.23	SB	A	4.0	23.40	35
5904	30261	80.4	66.2	56.9	5.24	2.15	2.43	SB	VOC	4.0	22.02	53
5905	**VARADHAN**	80.0	66.5	58.5	4.34	2.34	2.28	SB	VOC	4.0	25.81	66
5906	29577	81.2	68.9	59.3	5.04	2.14	2.35	SB	VOC	4.0	23.84	25
5907	**RASI**	79.7	64.4	57.3	4.93	2.28	2.16	SB	VOC	7.0	27.60	22
5908	29578	78.7	68.6	55.1	5.34	1.94	2.74	MS	A	4.0	19.77	22
5909	30273	80.7	71.8	63.5	4.99	2.56	1.94	SB	VOC	4.0	22.44	24
5910	**ISM**	77.4	67.8	58.4	4.94	1.81	2.72	MS	VOC	4.0	23.96	22

HULL: Hulling (%); MILL: Milling (%); HRR: Head Rice Recovery (%); KL: Kernel Length (mm); KB: Kernel Breadth (mm); L/B: Length and breadth ratio; Grain Chalk: Grain Chalkiness; VOC: Very occasionally present; A: Absent ASV: Alkali Spreading Value; AC: Amylose Content (%); GC: Gel Consistency; LB: Long Bold; SB: Short Bold; LS: Long Slender; MS: Medium Slender; SS: Short Slender

Table No. 16b.1 : Composition of entries in Advance Variety Trial 1 – Low Nitrogen Tolerance Trial (AVT 1-LNT), Kharif 2023.

Entry No.	IET No.	Designation	Cross Combination	GT
2nd year of testing:				
6001	31124	CR 4418-4-1-2-1-3-1	CR 3553-9-2-1-1-1-1 / CR 3510 -12-1-1-2-1-1	MS
6002	31119	RP 6252-BV/RIL-BV181	BPT 5204 / Varadhan	SB
6003	31117	CR 4340-6-1-GSR IR2-1-R6-N3-N4-N68-N35	WTR / Haoannong	LS
6004	31127	RP 6328-218-B-29-1 (PSV 1103)	APMS 6B / FL 478	MB
6005	31130	CR 4383-RGA-35	C 745-3-1-1-1-1 / IET 27218 // Annada	LS
6006	**Varadhan (Positive Check)**			
6007	31129	RP 6529-RMS-1757-3-47-84	MTU 1010*2 / Improved Samba Mahsuri	LS
6008	31120	CR 3549-3-5-2-1-1-1	ADT 43 / Annapurna	MS
6009	31131	RP 6529- RMS-1708-65-97-14	MTU 1010*2 / Improved Samba Mahsuri	LS
6010	**Swarna (Positive Check)**			
6011	31134	CR 4392-RGA-16	C 767-4-2-1-1 / IET 27218 // N22	MS
6012	31132	RP 6715-MS-SS-999-11-6-2-5-4-2	Samba Mahsuri Mutant-SS 999 / BPT 5204	MS
6013	31126	RP 6714-MS-SS-8-4-7-2-11-5-3	Samba Mahsuri Mutant-8 / BPT 5204	LS
6014	**Rasi (Positive Check)**			
6015	29579 (R)	RP Bio 4918-B-B-166-23	Swarna / O. nivara	LS
6016	31135	RP 6252-BV/RIL-BV24	BPT 5204 / Varadhan	SB
6017	31118	RP 6420-C10-21	MTU 1010 /Tualsi	MS
6018	31128	RP 6252-BV/RIL-BV38	BPT 5204 / Varadhan	MB
6019	**Improved Samba Mahsuri (Susceptible Check)**			
6020	30269 (R)	RP 6252-BV / RIL-BV202	BPT 5204 / Varadhan	SB

Table.16b.2 : Grain Yield (kg/ha) of AVT-1 LNT N(0) Kharif-2023

Entry No	IET No	ZONE III - EASTERN				ZONE VI -WESTERN (1)		ZONE VII - SOUTHERN			
		Odisha (1)		Zone III(1)		Maharashtra (1)		Andhra Pradesh (1)		Telangana (1)	
		ICAR-NRRI (Cuttack)		Mean		Karjat		Maruteru		Rajendranagar	
6001	31124	4063	9	4063	9	3254		5659	4	3133	
6002	31119	4964	1	4964	1	5015	3	2350		3778	6 *
6003	31117	4510	5	4510	5	4038	10	3016		4211	1 *
6004	31127	2956		2956		3169		2317		2733	
6005	31130	4443	6	4443	6	3829		3545		2889	
6006	Varadhan (Positive Check)							6585	1		
6007	31129	3840		3840		3472		3496		3889	4 *
6008	31120	4862	2	4862	2	5338	2	4463	9	4078	3 *
6009	31131	3704		3704		3701		2813		2956	
6010	Swarna (Positive Check)	4686	3	4686	3	5009	4	5033	6	3289	
6011	31134	3330		3330		4650	7	5748	3	2344	
6012	31132	3439		3439		4654	6	3967		3622	8
6013	31126	4566	4	4566	4	4244	9	6488	2	3378	10
6014	Rasi (Positive Check)	2807		2807		3660		4577	8	2944	
6015	29579 (R)	4158	8	4158	8	4511	8	5285	5	3844	5 *
6016	31135	4332	7	4332	7	4761	5	3472		4089	2 *
6017	31118	3723		3723		5400	1	4073		2900	
6018	31128	3751		3751		3987		2276		3444	9
6019	Improved Samba Mahsuri (Susceptible Check)	4036	10	4036	10			4854	7	2200	
6020	30269 (R)	3874		3874		3590		4163	10	3689	7 *
Exp. Mean		**4002**		**4002**		**4238**		**4209**		**3337**	
F Value		**8.13(p<0.0001)S**		**8.13(p<0.0001)S**		**7.63(p<0.0001)S**		**23.07(p<0.0001)S**		**16.35(p<0.0001)S**	
CD		584		584		710		775		398	
CV%		**8.81**		**8.81**		**10.09**		**11.15**		**7.21**	
D/S		04-07-2023				29-06-2023		15-07-2023		07-07-2023	
D/P		28-07-2023				25-07-2023		26-08-2023		08-01-2023	

Table.16b.2 (Contd) : Grain Yield (kg/ha) of AVT-1 LNT N(0) Kharif-2023

Entry No	IET No	ZONE VII - SOUTHERN								Overall Mean (6)		Trial not considered	
		Karnataka				Karnataka (2)		Zone VII(4)				Jharkhand (0)	
		Mandya		Gangavathi		Mean		Mean				@Ranchi	
6001	31124	3804		3907		3856		4126	9	3970		1200	
6002	31119	4375	5	4987	4	4681	5	3873		4245	7	1460	
6003	31117	3843		3136		3490		3552		3792		2100	9
6004	31127	3148		3021		3085		2805		2891		1400	
6005	31130	3110		4163		3637		3427		3663		2200	7
6006	Varadhan (Positive Check)							6585	1	6585	1	3400	1
6007	31129	4198	8	4133		4166		3929		3838		1933	
6008	31120	4313	7	5194	3	4754	4	4512	5	4708	2	3333	2
6009	31131	4475	4	3747		4111		3498		3566		1600	
6010	Swarna (Positive Check)	3696		6237	1	4967	2	4564	4	4658	3	1200	
6011	31134	3627		4891	7	4259	10	4153	8	4098	8	1800	
6012	31132	4367	6	4221	10	4294	8	4044	10	4045	10	2200	7
6013	31126	3866		4655	9	4261	9	4597	3	4533	4	2267	6
6014	Rasi (Positive Check)	3657		3197		3427		3594		3474		1100	
6015	29579 (R)	4491	3	4784	8	4638	6	4601	2	4512	5	2600	3
6016	31135	4639	2 *	4912	6	4776	3	4278	6	4368	6	2400	4
6017	31118	3951	10	3902		3927		3707		3992		1467	
6018	31128	4668	1 *	5321	2	4995	1	3927		3908		2400	4
6019	Improved Samba Mahsuri (Susceptible Check)	2670		4046		3358		3443		3561		1633	
6020	30269 (R)	4035	9	4976	5	4506	7	4216	7	4055	9	2000	10
Exp. Mean		**3944**		**4391**		**4167**		**4071**		**4123**		**1985**	
F Value		**2.85(p<0.0001)S**		**15.48(p<0.0001)S**		**8.77(p<0.0001)S**		**26.25(p<0.0001)S**		**26.25(p<0.0001)S**		**20.96(p<0.0001)S**	
CD		884		590		539		409		321		386	
CV%		**13.54**		**8.11**		**7.81**		**6.08**		**4.71**		**11.76**	
D/S		07-08-2023		01-08-2023								01-07-2023	
D/P		01-09-2023		04-09-2023								14-08-2023	

Table.16b.3 : Days to 50% Flowering, Plant Height and Panicles/sq.m of AVT-1 LNT N(0) Kharif-2023

Entry No	IET No	ZONE III - EASTERN						ZONE VI -WESTERN (1)			ZONE VII - SOUTHERN					
		Odisha (1)			Zone III(1)			Maharashtra (1)			Andhra Pradesh (1)			Telangana (1)		
		ICAR-NRRI (Cuttack)			Mean			Karjat			Maruteru			Rajendranagar		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
6001	31124	102	104	213	102	102	213	99	124	209	96	124	330	98	90	248
6002	31119	89	115	219	89	89	219	100	118	281	98	104	275	103	93	286
6003	31117	102	104	218	102	102	218	95	110	243	90	91	286	102	95	209
6004	31127	105	105	208	105	105	208	97	114	218	89	100	275	103	96	279
6005	31130	114	102	251	114	114	251	99	104	240	98	98	286	107	85	246
6006	Varadhan (Positive Check)										100	117	297			
6007	31129	108	111	181	108	108	181	99	118	216	97	116	286	110	112	312
6008	31120	89	121	223	89	89	223	101	157	273	113	128	330	109	104	415
6009	31131	95	99	184	95	95	184	92	113	240	89	92	264	92	105	208
6010	Swarna (Positive Check)	102	99	251	102	102	251	109	93	296	112	109	286	105	79	264
6011	31134	77	101	167	77	77	167	98	107	240	103	112	286	107	87	238
6012	31132	80	113	228	80	80	228	101	118	269	91	118	341	94	91	286
6013	31126	107	108	222	107	107	222	97	109	256	97	111	308	106	97	297
6014	Rasi (Positive Check)	89	87	223	89	89	223	91	97	229	88	83	275	88	79	253
6015	29579 (R)	97	114	233	97	97	233	99	123	260	96	116	330	108	93	324
6016	31135	102	112	228	102	102	228	99	118	253	93	117	275	105	95	231
6017	31118	99	108	221	99	99	221	95	114	259	94	113	297	97	128	349
6018	31128	102	114	192	102	102	192	99	120	240	97	102	330	107	96	363
6019	Improved Samba Mahsuri (Susceptible Check)	104	98	206	104	104	206		.		102	89	297	112	82	328
6020	30269 (R)	102	103	192	102	102	192	97	112	240	97	108	330	104	99	315
Exp. Mean		**98**	**106**	**214**	**98**	**98**	**214**	**98**	**115**	**248**	**97**	**107**	**299**	**103**	**95**	**287**

Table.16b.3 (Contd) : Days to 50% Flowering, Plant Height and Panicles/sq.m of AVT-1 LNT N(0) Kharif-2023

Entry No	IET No	ZONE VII - SOUTHERN												Overall Mean (6)			Trial not considered		
		Karnataka						Karnataka (2)			Zone VII(4)						Jharkhand		
		Mandya			Gangavathi			Mean			Mean						@Ranchi		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
6001	31124	93	92	261	97	86	270	95	89	265	96	98	277	97	103	255	106	83	
6002	31119	100	96	238	104	93	282	102	95	260	101	96	270	99	103	264	110	88	
6003	31117	95	86	249	102	89	247	98	87	248	97	90	248	98	96	242	110	80	
6004	31127	95	80	215	97	86	248	96	83	231	96	91	254	97	97	240	104	84	
6005	31130	109	79	249	110	84	289	110	81	269	106	87	268	106	92	260	112	81	
6006	Varadhan (Positive Check)										100	117	297	100	117	297	111	86	
6007	31129	110	88	238	107	94	253	109	91	245	106	103	272	105	107	248	111	85	
6008	31120	103	109	249	112	104	280	108	106	265	109	111	319	104	121	295	113	97	
6009	31131	91	89	238	93	90	229	92	90	234	91	94	235	92	98	227	100	80	
6010	Swarna (Positive Check)	94	68	272	115	81	318	104	74	295	106	84	285	106	88	281	116	63	
6011	31134	98	85	238	105	92	260	102	89	249	104	94	256	98	97	238	110	86	
6012	31132	91	93	272	91	98	300	91	95	286	92	100	300	91	105	283	110	102	
6013	31126	92	90	238	102	102	248	97	96	243	99	100	273	100	103	261	110	85	
6014	Rasi (Positive Check)	88	82	238	91	79	276	90	80	257	89	81	261	89	84	249	94	78	
6015	29579 (R)	97	91	261	107	91	265	102	91	263	102	98	295	101	105	279	110	92	
6016	31135	92	99	249	101	102	284	97	101	266	98	103	260	99	107	253	108	96	
6017	31118	89	99	249	94	106	209	92	103	229	94	112	276	95	112	264	103	92	
6018	31128	103	98	238	101	104	243	102	101	241	102	100	294	101	106	268	109	86	
6019	Improved Samba Mahsuri (Susceptible Check)	102	74	261	102	82	295	102	78	278	104	82	295	104	85	277	111	68	
6020	30269 (R)	95	91	261	101	93	341	98	92	301	99	97	312	99	101	280	112	91	
Exp. Mean		**97**	**89**	**248**	**102**	**92**	**270**	**99**	**91**	**259**	**100**	**97**	**277**	**99**	**101**	**263**	**109**	**85**	

Table.16b.2 : Grain Yield (kg/ha) of AVT-1 LNT N(50) Kharif-2023

Entry No	IET No	ZONE III - EASTERN								ZONE VI -WESTERN		ZONE VII - SOUTHERN	
		Odisha (1)		Bihar (1)		Jharkhand (1)		Zone III(3)		Maharashtra (1)		Andhra Pradesh (1)	
		ICAR-NRRI (Cuttack)		Pusa		Ranchi		Mean		Karjat		Maruteru	
6001	31124	6149	5	5177	3	2199		4508	7	4444		6016	4
6002	31119	5612	10	4167		2998		4259		4551	10	2959	
6003	31117	6042	6	4230	10	3248		4507	8	4679	8	3293	
6004	31127	3627		5240	2	2099		3655		2885		3756	
6005	31130	5444		4356	8	3598	8	4466	9	2799		4114	
6006	Varadhan (Positive Check)			4230	10	5247	1	4739	4			6382	3
6007	31129	5140		3977		4597	4	4571	5	3077		4203	
6008	31120	7501	2	3535		5097	3	5378	2 *	2650		6398	2
6009	31131	5150		4482	6	2548		4060		5342	5	3488	
6010	Swarna (Positive Check)	7947	1	3030		2398		4458	10	4637	9	5390	5
6011	31134	4969		3409		3248		3875		6581	2 *	4553	9
6012	31132	4994		3093		5197	2	4428		7308	1 *	4341	10
6013	31126	5759	9	2904		3598	8	4087		5598	4 *	6512	1
6014	Rasi (Positive Check)	3735		5303	1	1699		3579		4423		2626	
6015	29579 (R)	6981	4	4230	10	4347	6	5186	3 *	6346	3 *	4902	8
6016	31135	7119	3	4735	4	4497	5	5450	1 *	5342	5	5073	7
6017	31118	4922		4545	5	3248		4238		4423		3537	
6018	31128	5090		4167		3748	7	4335		5321	7	3650	
6019	Improved Samba Mahsuri (Susceptible Check)	5932	7	3220		3298		4150				5089	6
6020	30269 (R)	5783	8	4419	7	3448	10	4550	6	4295		4154	
Exp. Mean		**5679**		**4122**		**3518**		**4424**		**4706**		**4522**	
F Value		**17.19(p<0.0001)S**		**33.43(p<0.0001)S**		**37.90(p<0.0001)S**		**14.91(p<0.0001)S**		**17.29(p<0.0001)S**		**21.57(p<0.0001)S**	
CD		757		343		465		354		858		696	
CV%		**8.06**		**5.03**		**7.99**		**4.84**		**10.99**		**9.31**	
D/S		04-07-2023		07-11-2023		01-07-2023				29-06-2023		15-07-2023	
D/P		28-07-2023		08-02-2023		14-08-2023				25-07-2023		26-08-2023	

Table.16b.2 (Contd) : Grain Yield (kg/ha) of AVT-1 LNT N(50) Kharif-2023

Entry No	IET No	ZONE VII - SOUTHERN										Overall Mean (8)	
		Telangana (1)		Karnataka				Karnataka (2)		Zone VII(4)			
		Rajendranagar		Mandya		Gangavathi		Mean		Mean			
6001	31124	3833		4892	7	4104		4498		4711	7	4602	8
6002	31119	4289	4 *	5586	1	4899	9	5243	3	4433		4383	
6003	31117	4278	5 *	4437		3721		4079		3932		4241	
6004	31127	3022		3951		3506		3729		3559		3511	
6005	31130	3611		3503		4359		3931		3897		3973	
6006	Varadhan (Positive Check)									6382	1	5286	1
6007	31129	4200	7 *	4676	9	4901	8	4789	10	4495	10	4346	
6008	31120	5378	1 *	5000	6	5104	7	5052	5	5470	2	5083	4
6009	31131	3089		5262	4	3647		4455		3872		4126	
6010	Swarna (Positive Check)	3556		3943		5819	1	4881	8	4677	8	4590	9
6011	31134	3267		4498		4777	10	4638		4274		4413	
6012	31132	4111	8 *	4576		4168		4372		4299		4724	6
6013	31126	3822		4599	10	5333	5	4966	6	5067	4	4766	5
6014	Rasi (Positive Check)	3322		4020		3417		3719		3346		3568	
6015	29579 (R)	4456	3 *	5062	5	4728		4895	7	4787	6	5132	3
6016	31135	4511	2 *	5448	3	5269	6	5359	2	5075	3	5249	2
6017	31118	3867	10	4213		5439	4	4826	9	4264		4274	
6018	31128	4244	6 *	5556	2	5707	2	5632	1 *	4789	5	4685	7
6019	Improved Samba Mahsuri (Susceptible Check)	2944		2778		3998		3388		3702		3894	
6020	30269 (R)	3956	9	4722	8	5497	3	5110	4	4582	9	4534	10
Exp. Mean		**3882**		**4564**		**4652**		**4608**		**4481**		**4469**	
F Value		**10.55(p<0.0001)S**		**2.81(p<0.0034)S**		**9.24(p<0.0001)S**		**5.58(p<0.0001)S**		**22.13(p<0.0001)S**		**23.44(p<0.0001)S**	
CD		519		1187		693		706		411		285	
CV%		**8.07**		**15.7**		**8.99**		**9.26**		**5.54**		**3.86**	
D/S		07-07-2023		07-08-2023		01-08-2023							
D/P		08-01-2023		001-09-2023		04-09-2023							

Table.16b.3 : Days to 50% Flowering, Plant Height and Panicles/sq.m of AVT-1 LNT N(50) Kharif-2023

Entry No	IET No	ZONE III - EASTERN												ZONE VI - WESTERN			ZONE VII - SOUTHERN		
		Odisha (1)			Bihar (1)			Jharkhand (1)			Zone III(3)			Maharashtra (1)			Andhra Pradesh (1)		
		ICAR-NRRI (Cuttack)			Pusa			Ranchi			Mean			Karjat			Maruteru		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
6001	31124	103	112	255	98	94	253	113	86		104	97	254	101	115	217	98	132	385
6002	31119	90	119	257	97	101	256	112	91		99	104	257	101	120	284	97	117	308
6003	31117	103	104	272	88	128	254	110	83		100	105	263	96	109	253	92	102	341
6004	31127	106	104	254	87	96	261	110	87		101	96	258	99	111	220	91	106	319
6005	31130	115	103	275	96	81	246	113	84		108	89	261	99	105	249	101	115	330
6006	Varadhan (Positive Check)				90	77	253	114	89		102	83	253				104	117	319
6007	31129	109	112	239	99	86	261	113	88		107	95	250	98	119	228	98	120	319
6008	31120	90	126	276	107	109	251	115	100		104	112	264	101	131	285	115	134	396
6009	31131	96	102	230	93	83	257	94	83		94	89	243	90	113	247	90	100	297
6010	Swarna (Positive Check)	103	99	309	108	78	254	118	66		110	81	281	107	96	296	115	110	341
6011	31134	78	105	250	97	96	236	111	89		96	97	243	97	106	253	104	121	330
6012	31132	81	116	295	102	109	248	113	100		99	108	271	100	127	282	92	118	385
6013	31126	108	107	270	104	101	242	115	83		109	97	256	96	113	260	98	116	330
6014	Rasi (Positive Check)	90	90	260	79	72	245	94	76		88	79	253	90	98	233	90	90	319
6015	29579 (R)	98	113	302	92	100	251	110	90		100	101	277	96	126	266	98	118	352
6016	31135	103	116	280	92	94	256	110	98		102	103	268	94	118	268	97	127	286
6017	31118	100	108	259	87	118	255	103	94		97	107	257	92	117	271	96	121	352
6018	31128	103	115	259	97	99	244	110	88		103	101	251	96	120	251	98	109	385
6019	Improved Samba Mahsuri (Susceptible Check)	105	98	315	108	74	235	113	70		109	81	275				104	96	374
6020	30269 (R)	103	111	240	95	101	260	111	93		103	102	250	97	116	251	98	114	363
Exp. Mean		**99**	**108**	**268**	**96**	**94.85**	**251**	**110**	**87**		**102**	**96**	**259**	**97**	**114**	**256**	**99**	**114**	**342**

Table.16b.3 (Contd) : Days to 50% Flowering, Plant Height and Panicles/sq.m of AVT-1 LNT N(50) Kharif-2023

Entry No	IET No	ZONE VII - SOUTHERN												Overall Mean (8)		
		Telangana (1)			Karnataka						Karnataka (2)			Zone VII(4)					
		Rajendranagar			Mandya			Gangavathi			Mean			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
6001	31124	106	107	308	93	95	261	97	94	250	95	94	255	98	107	301	101	104	275
6002	31119	108	95	245	100	103	261	101	106	294	101	104	277	102	105	277	101	106	272
6003	31117	105	97	326	95	88	272	100	93	287	97	90	279	98	95	306	99	100	286
6004	31127	101	104	308	95	87	261	95	92	272	95	89	266	96	97	290	98	98	271
6005	31130	113	110	339	109	85	283	109	91	289	109	88	286	108	100	310	107	97	287
6006	Varadhan (Positive Check)													104	117	319	102	94	286
6007	31129	111	125	287	110	97	249	108	99	339	109	98	294	107	110	299	106	106	274
6008	31120	113	115	371	103	104	272	112	118	305	108	111	289	111	118	336	107	117	308
6009	31131	97	109	319	91	82	261	92	99	292	91	91	276	92	98	292	93	96	272
6010	Swarna (Positive Check)	109	87	334	94	77	272	116	81	260	105	79	266	108	89	302	109	87	295
6011	31134	109	104	265	98	87	272	107	94	305	102	91	289	104	102	293	100	100	273
6012	31132	92	112	273	91	95	283	93	98	318	92	97	301	92	106	315	96	109	298
6013	31126	106	106	393	92	88	272	99	95	268	95	91	270	99	101	316	102	101	291
6014	Rasi (Positive Check)	95	76	282	88	84	261	92	77	240	90	81	250	91	82	276	90	83	263
6015	29579 (R)	114	104	355	97	97	249	108	100	228	102	98	239	104	105	296	102	106	286
6016	31135	109	107	286	92	94	261	100	105	368	96	99	314	100	108	300	100	107	286
6017	31118	102	131	304	89	96	261	92	104	337	91	100	299	95	113	314	95	111	291
6018	31128	107	99	312	103	101	249	103	105	252	103	103	251	103	104	300	102	105	279
6019	Improved Samba Mahsuri (Susceptible Check)	112	98	315	102	73	272	102	80	243	102	76	258	105	87	301	107	84	292
6020	30269 (R)	107	105	322	95	96	249	102	98	292	98	97	271	100	103	307	101	104	282
Exp. Mean		**106**	**105**	**313**	**97**	**91**	**264**	**101**	**96**	**286**	**99**	**94**	**275**	**101**	**102**	**302**	**101**	**101**	**283**

Table No. 16c.1 : Composition of entries in Initial Variety Trial – Low Nitrogen Tolerance Trial (IVT-LNT), Kharif 2023.

Entry No.	IET No.	Designation	Cross Combination	GT
1st year of testing:				
6101	31988	NVSR 1163	NAUR-1 / IET 23471	SB
6102	31989	RP 6460-C3-206	166S Swarna / O. Nivara // 148S-Swarna / O.nivara	MS
6103	31990	RP 6252-BV/RIL-BV31	BPT 5204 / Vardhan	LS
6104	31991	RP 6533-15-21-6-1	Swarna*2 / Improved Samba Mahsuri	MS
6105	31992	CR 4478-1-3-1-1-3-1	Tapaswini / CR 3494-15-1-1-1-1-	MS
6106	31993	RP 6254-SB/RIL-SB261	Sampada / BPT5204	LS
6107	**Swarna (Positive Check)**			
6108	31994	RP 6256-RJ/RIL-RJ162	Rasi / Jaya	LS
6109	31995	RP 6427-db-111	Jaya / DRR Dhan 44	LB
6110	31996	NVSR 1139	NAUR-1 / IET 23445	LB
6111	31997	RP 6734-JS-1-2-6	TI-46 / BPT 5204	SS
6112	31998	CR 4477-2-3-2-1-1-1	CR 3511-3-2-2-5-1-1 / CR3557-2-1-1-1-1-1	MS
6113	31999	NVSR 1184	GNR-3 / IET-23459	LB
6114	**Rasi (Positive Check)**			
6115	32000	RP 6736-SP-M-MS-KS-63-10-4	SM 93 / BPT 5204	MS
6116	32001	CR 4340-2-7-GSR IR2-1-R6-N1-N1-N41-N2	WTR / Haoannong	LB
6117	32002	RP 6257-SJ/RIL-SJ1704	Sampada / Jaya	LS
6118	32003	CR 3522-4-1-1-1-1-1	Vijetha / ADT 43	LS
6119	32004	RP 6458-C1-151	Swarna // 166S-Swarna / O.nivara	LS
6120	32005	CR 4374-3-1-2-1-1	CR 3497-7-1-3-1-1-1 / CR 3561-5-1-1-1-1-1-3	MS
6121	**Improved Samba Mahsuri (Susceptible Check)**			
6122	32006	RP 6533-36-45-27-9	Swarna*2 / Improved Samba Mahsuri	MS
6123	32007	RP 5976-27-2-4-19	Improved Samba Mahsuri / Wazuhophek	MS
6124	32008	CR 4483-2-2-2-1-3-1	CR 3580-3-2-1-1-1 / Harishankar	MS
6125	32009	RP 6252-BV/RIL-BV305	BPT 5204 / Vardhan	LS
6126	**DRR Dhan 64 (Positive Observational Check)**			
6127	32010	RP 6257-SJ/RIL-SJ228	Sampada / Jaya	LS
6128	32011	RP 6681-RMS-27-19-69-82	Improved Samba Mahsuri *2 / ST 12	MS
6129	32012	CR 4468-RGA-162-3	CR 4385-RGA-7 / Annada	MS
6130	**Varadhan (Positive Check)**			

Table. 16c.2 : Grain Yield (kg/ha) of IVT LNT N(0) Kharif-2023

Entry No	IET No	ZONE III - EASTERN						ZONE VI -WESTERN (1)	
		Odisha (1)		Jharkhand (1)		Zone III(2)		Maharashtra (1)	
		ICAR-NRRI (Cuttack)		Ranchi		Mean		Karjat	
6101	31988	3668		1455		2562		4337	
6102	31989	3456		1132		2294		3494	
6103	31990	4272	5	2668	8	3470	7	4609	5
6104	31991	2540		1714		2127		4757	3
6105	31992	4288	4	2005		3147		3379	
6106	31993	4207	8	1196		2702		3988	
6107	Swarna (Positive Check)	4393	2	2651	10	3522	6	3889	
6108	31994	4243	7	4139	1 *	4191	1 *	3477	
6109	31995	4412	1	3605	3 *	4009	3 *	4383	
6110	31996	3604		1678		2641		4560	7
6111	31997	3740		1681		2711		3362	
6112	31998	4256	6	3395	5 *	3826	4	4519	9
6113	31999	4312	3	970		2641		4222	
6114	Rasi (Positive Check)	2745		2425		2585		3909	
6115	32000	3438		970		2204		4778	2
6116	32001	3845		1132		2489		4243	
6117	32002	3971		2651	10	3311		3276	
6118	32003	4178		2425		3302		4111	
6119	32004	2648		1681		2165		4066	
6120	32005	4173		4106	2 *	4140	2 *	3663	
6121	Improved Samba Mahsuri (Susceptible Check)	3543		1714		2629		3498	
6122	32006	3470		2645		3058		3947	
6123	32007	4046		1132		2589		4588	6
6124	32008	4205	10	2638		3422	9	4728	4
6125	32009	4064		1681		2873		3835	
6126	DRR Dhan 64 (Positive Observational Check)	4055		2651	10	3353	10	4029	
6127	32010	4207	8	2134		3171		4856	1
6128	32011	4162		2748	6	3455	8	4560	7
6129	32012	3799		3589	4 *	3694	5	4477	10
6130	Varadhan (Positive Check)	3820		2716	7	3268		4395	
Exp. Mean		**3859**		**2244**		**3051**		**4131**	
F Value		**6.33(p<0.0001)S**		**31.67(p<0.0001)S**		**24.04(p<0.0001)S**		**3.33(p<0.0001)S**	
CD		553		446		331		720	
CV%		**8.77**		**12.15**		**6.64**		**10.66**	
D/S		07-04-2023		07-01-2023				29-06-2023	
D/P		28-07-2023		21-08-2023				24-07-2023	
LOCAL CHECK									

Table. 16c.2 (Contd) : Grain Yield (kg/ha) of IVT LNT N(0) Kharif-2023

Entry No	IET No	ZONE VII - SOUTHERN										Overall Mean (7)	
		Andhra Pradesh (1)		Telangana (1)		Karnataka				Karnataka (2)		Zone VII(4)			
		Maruteru		Rajendranagar		Mandya		Gangavathi		Mean		Mean			
6101	31988	3691		3567		2826		3354		3090		3360		3271	
6102	31989	2837		4000		5002	2	5104		5053	4	4236	10	3575	
6103	31990	3691		4322	8	4008	8	4728		4368		4187		4043	8
6104	31991	5146	6	4300	9	1772		2147		1960		3341		3197	
6105	31992	2992		4556	5 *	7353	1	4351		5852	1 *	4813	4	4132	6
6106	31993	3967		4422	6 *	4440	3	4784		4612	9	4403	9	3858	
6107	Swarna (Positive Check)	6057	2	3678		3120		6593	2	4857	7	4862	3	4340	3
6108	31994	3829		4333	7	4142	6	5970	4	5056	3	4569	7	4305	5
6109	31995	4537	8	3867		3943	9	3197		3570		3886		3992	9
6110	31996	3561		3956		3770		4183		3977		3868		3616	
6111	31997	4341	9	3544		2301		5361	9	3831		3887		3476	
6112	31998	3683		4944	4 *	4377	4	5529	7	4953	5	4633	6	4386	2
6113	31999	3516		3622		3932	10	5649	6	4791	8	4180		3746	
6114	Rasi (Positive Check)	2919		3289		3565		4489		4027		3566		3334	
6115	32000	5610	5	3278		3208		4311		3760		4102		3656	
6116	32001	6041	3	4244		3360		5825	5	4593	10	4868	2	4099	7
6117	32002	3195		3050		3242		5321	10	4282		3702		3529	
6118	32003	3577		3350		2841		4535		3688		3576		3574	
6119	32004	3041		3156		2495		6522	3	4509		3804		3373	
6120	32005	6732	1	5072	3 *	3662		6643	1	5153	2	5527	1 *	4864	1 *
6121	Improved Samba Mahsuri (Susceptible Check)	5634	4	2433		2474		4079		3277		3655		3339	
6122	32006	4138	10	4056		2019		3827		2923		3510		3443	
6123	32007	3252		5233	1 *	3648		3197		3423		3833		3585	
6124	32008	4106		3444		3137		4593		3865		3820		3836	
6125	32009	4065		4289	10	4278	5	5489	8	4884	6	4530	8	3957	10
6126	DRR Dhan 64 (Positive Observational Check)	2748		3778		3630		3609		3620		3441		3500	
6127	32010	5106	7	5122	2 *	4123	7	4808		4466		4790	5	4337	4
6128	32011	4033		4044		2647		3510		3079		3559		3672	
6129	32012	3089		2806		2860		4143		3502		3225		3538	
6130	Varadhan (Positive Check)	2878		3900		3810		3370		3590		3490		3556	
Exp. Mean		**4067**		**3922**		**3533**		**4641**		**4087**		**4041**		**3771**	
F Value		**15.05(p<0.0001)S**		**17.60(p<0.0001)S**		**16.23(p<0.0001)S**		**26.65(p<0.0001)S**		**27.04(p<0.0001)S**		**24.91(p<0.0001)S**		**22.49(p<0.0001)S**	
CD		773		447		723		591		441		315		230	
CV%		**11.62**		**6.97**		**12.52**		**7.8**		**6.6**		**4.76**		**3.74**	
D/S		15-07-2023		07-07-2023		08-07-2023		08-01-2023							
D/P		26-08-2023		44934		44935		45055							
LOCAL CHECK															

Table. 16c.3 : Days to 50% Flowering, Plant Height and Panicles/sq.m of IVT LNT N(0) Kharif-2023

Entry No	IET No	ZONE III - EASTERN									ZONE VI -WESTERN					
		Odisha (1)			Jharkhand (1)			Zone III(2)			Maharashtra (1)			Zone VI(1)		
		ICAR-NRRI (Cuttack)			Ranchi			Mean			Karjat			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
6101	31988	99	105	189	101	65		100	85	189	89	107	279	89	107	279
6102	31989	88	158	190	96	88		92	123	190	96	152	242	96	152	242
6103	31990	101	115	215	105	76		103	95	215	94	113	292	94	113	292
6104	31991	107	94	179	118	56		112	75	179	94	101	309	94	101	309
6105	31992	98	131	223	106	78		102	104	223	101	127	260	101	127	260
6106	31993	90	116	214	126	69		108	92	214	93	115	242	93	115	242
6107	Swarna (Positive Check)	101	96	213	104	51		102	73	213	110	96	225	110	96	225
6108	31994	96	108	222	104	65		100	87	222	94	111	237	94	111	237
6109	31995	85	104	169	107	64		96	84	169	92	104	290	92	104	290
6110	31996	90	115	191	109	65		100	90	191	92	109	309	92	109	309
6111	31997	94	98	230	109	53		102	76	230	98	108	273	98	108	273
6112	31998	104	106	207	103	63		104	85	207	101	111	287	101	111	287
6113	31999	92	112	195	116	57		104	84	195	94	98	258	94	98	258
6114	Rasi (Positive Check)	84	82	205	111	51		98	67	205	88	96	254	88	96	254
6115	32000	105	116	208	106	62		106	89	208	110	115	259	110	115	259
6116	32001	111	113	170	104	60		108	87	170	95	117	278	95	117	278
6117	32002	94	102	233	106	61		100	82	233	94	94	241	94	94	241
6118	32003	105	120	222	106	53		106	87	222	100	125	251	100	125	251
6119	32004	94	93	223	107	53		101	73	223	95	90	274	95	90	274
6120	32005	107	109	241	96	60		102	84	241	110	96	224	110	96	224
6121	Improved Samba Mahsuri (Susceptible Check)	100	95	210	120	50		110	73	210	99	102	224	99	102	224
6122	32006	91	101	213	105	60		98	80	213	99	105	213	99	105	213
6123	32007	99	116	195	103	64		101	90	195	100	113	295	100	113	295
6124	32008	97	113	206	101	65		99	89	206	98	121	294	98	121	294
6125	32009	88	105	220	120	66		104	86	220	95	108	226	95	108	226
6126	DRR Dhan 64 (Positive Observational Check)	94	104	207	98	55		96	79	207	94	104	229	94	104	229
6127	32010	105	114	205	110	74		108	94	205	85	108	286	85	108	286
6128	32011	98	100	194	106	54		102	77	194	100	100	269	100	100	269
6129	32012	91	113	155	103	68		97	90	155	96	114	272	96	114	272
6130	Varadhan (Positive Check)	85	105	201	124	66		105	85	201	91	122	231	91	122	231
Exp. Mean		**96**	**109**	**205**	**108**	**62**		**102**	**85**	**205**	**97**	**109**	**261**	**97**	**109**	**261**

Table. 16c.3 (Contd) : Days to 50% Flowering, Plant Height and Panicles/sq.m of IVT LNT N(0) Kharif-2023

Entry No	IET No	ZONE VII - SOUTHERN																		Overall Mean (7)		
		Andhra Pradesh (1)			Telangana (1)			Karnataka						Karnataka (2)			Zone VII(4)					
		Maruteru			Rajendranagar			Mandya			Gangavathi			Mean			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
6101	31988	92	118	341	103	93	224	91	102	249	97	94	270	94	98	259	95	102	271	96	98	259
6102	31989	91	132	330	103	138	301	96	131	249	101	147	282	98	139	266	98	137	291	96	135	266
6103	31990	101	110	275	110	105	253	93	93	215	99	103	286	96	98	251	101	102	257	101	102	256
6104	31991	97	98	308	111	95	308	98	73	261	107	79	213	103	76	237	104	86	272	105	85	263
6105	31992	105	127	286	110	104	252	97	101	238	102	104	293	99	102	265	103	109	267	103	110	259
6106	31993	96	106	341	102	106	216	96	93	261	101	92	223	98	92	242	99	99	260	101	99	249
6107	Swarna (Positive Check)	114	107	308	106	75	213	108	68	261	113	80	282	111	74	271	110	82	266	108	82	250
6108	31994	104	103	308	108	91	271	96	93	272	100	99	275	98	96	273	102	96	281	100	96	264
6109	31995	90	106	352	104	113	249	90	92	238	97	91	270	93	91	254	95	100	277	95	96	261
6110	31996	91	104	286	102	104	255	93	89	238	100	90	238	96	89	238	96	97	254	97	97	253
6111	31997	92	88	308	100	113	242	92	84	261	94	84	250	93	84	255	94	92	265	97	90	261
6112	31998	101	122	363	107	104	287	95	89	249	101	89	228	98	89	239	101	101	282	102	98	270
6113	31999	83	92	275	107	104	282	95	88	249	100	93	191	98	90	220	96	94	249	98	92	242
6114	Rasi (Positive Check)	71	82	297	93	81	260	93	81	261	91	78	222	92	79	241	87	80	260	90	79	250
6115	32000	98	117	264	113	93	249	93	81	261	98	88	223	95	84	242	100	95	249	103	96	244
6116	32001	94	124	297	113	106	293	107	93	215	110	97	211	108	95	213	106	105	254	105	102	244
6117	32002	97	101	297	105	94	254	97	84	272	99	90	364	98	87	318	99	92	297	99	89	277
6118	32003	97	123	275	110	107	257	110	86	272	111	98	258	111	92	265	107	103	265	106	102	256
6119	32004	104	94	363	104	93	253	92	69	261	102	84	268	97	77	264	101	85	286	100	82	274
6120	32005	112	112	297	119	106	271	111	81	272	117	86	305	114	83	288	115	96	286	110	93	268
6121	Improved Samba Mahsuri (Susceptible Check)	103	103	341	111	93	253	101	65	261	102	79	245	101	72	253	104	85	275	105	84	255
6122	32006	102	109	330	101	94	238	91	77	249	100	83	272	95	80	260	98	91	272	98	90	253
6123	32007	100	114	297	111	119	308	100	95	261	110	93	243	105	94	252	105	105	277	103	102	267
6124	32008	97	122	352	113	104	275	92	90	227	102	98	265	97	94	246	101	103	280	100	102	270
6125	32009	97	109	352	99	100	253	94	88	261	97	95	263	96	91	262	97	98	282	99	96	262
6126	DRR Dhan 64 (Positive Observational Check)	95	104	330	100	108	282	88	94	238	97	100	338	92	97	288	95	101	297	95	95	271
6127	32010	92	111	275	105	103	241	94	92	238	100	101	242	97	96	240	98	102	249	99	100	248
6128	32011	105	102	275	114	101	285	95	78	249	108	79	198	102	78	224	106	90	252	104	88	245
6129	32012	96	116	297	117	121	242	96	98	261	101	92	270	98	95	265	102	107	267	100	103	249
6130	Varadhan (Positive Check)	90	116	275	103	110	265	90	91	272	96	94	200	93	92	236	95	103	253	97	101	241
Exp. Mean		**97**	**109**	**310**	**107**	**103**	**261**	**96**	**88**	**252**	**102**	**92**	**256**	**99**	**90**	**254**	**100**	**98**	**270**	**100**	**96**	**257**

Table. 16c.2 : Grain Yield (kg/ha) of IVT LNT N(50) Kharif-2023

Entry No	IET No	ZONE III - EASTERN								ZONE VI -WESTERN	
		Odisha (1)		Bihar (1)		Jharkhand (1)		Zone III(3)		Maharashtra (1)	
		ICAR-NRRI (Cuttack)		Pusa		Ranchi		Mean		Karjat	
6101	31988	4786		4105	5	4018		4303		4856	
6102	31989	4227		3830		2162		3406		4362	
6103	31990	6359	5	3860		5166	4 *	5128	4 *	6049	1
6104	31991	4107		3615		2105		3276		5350	
6105	31992	6401	4	3922		4401	8	4908	6	4033	
6106	31993	6278	8	3922		2105		4102		4630	
6107	Swarna (Positive Check)	6067	10	3309		3712		4363		4588	
6108	31994	6477	2	4105	5	5204	3 *	5262	2 *	4671	
6109	31995	6291	7	5208	2	4362	9	5287	1 *	5432	9
6110	31996	5341		3860		2216		3806		5391	10
6111	31997	5200		3676		2128		3668		4465	
6112	31998	6320	6	3922		4439	7	4894	8	4938	
6113	31999	6045		4105	5	1990		4047		5494	7
6114	Rasi (Positive Check)	4763		3615		3138		3839		4979	
6115	32000	5751				3115		4433		6049	1
6116	32001	6216	9	4044	8	2105		4122		5761	3
6117	32002	5145		3983		4018		4382		4691	
6118	32003	5923		3983		5434	1 *	5113	5 *	5247	
6119	32004	4702		4044	8	3176		3974		5206	
6120	32005	6403	3	3799		5281	2 *	5161	3 *	4959	
6121	ISM (Susceptible Check)	4993		3983		2066		3681		4115	
6122	32006	5135		3860		3138		4044		4877	
6123	32007	5501		3860		3100		4154		5700	4
6124	32008	5742		3799		5166	4 *	4902	7	5658	5
6125	32009	5073		3922		2219		3738		4609	
6126	DRR Dhan 64 (Positive Observational Check)	5596		3615		4248	10	4486		4918	
6127	32010	6679	1	3738		3138		4518		5597	6
6128	32011	4996		4044	8	3482		4174		5350	
6129	32012	4835		4228	3	4936	6 *	4666	9	5473	8
6130	Varadhan (Positive Check)	4687		5515	1	3559		4587	10	5350	
Exp. Mean		**5535**		**3982**		**3511**		**4347**		**5093**	
F Value		**9.17(p<0.0001)S**		**8.93(p<0.0001)S**		**37.31(p<0.0001)S**		**22.62(p<0.0001)S**		**3.20(p<0.0001)S**	
CD		660		425		522		324		828	
CV%		**7.30**		**6.53**		**9.09**		**4.57**		**9.95**	
D/S		07-04-2023		13-07-2023		07-01-2023				29-06-2023	
D/P		28-07-2023		08-03-2023		21-08-2023				24-07-2023	
LOCAL CHECK											

Table. 16c.2 (Contd) : Grain Yield (kg/ha) of IVT LNT N(50) Kharif-2023

Entry No	IET No	ZONE VII - SOUTHERN										Overall Mean (8)	
		Andhra Pradesh (1)		Telangana (1)		Karnataka				Karnataka (2)		Zone VII(4)			
		Maruteru		Rajendranagar		Mandya		Gangavathi		Mean		Mean			
6101	31988	3902		4500		3434		3657		3546		3873		4157	
6102	31989	3951		4356		5478	3	6651	2	6065	1 *	5109	7	4377	
6103	31990	4415		4656		4789	10	5817	7	5303	10	4919		5139	4
6104	31991	4041		4644		2103		3510		2807		3575		3684	
6105	31992	3902		6078	3 *	6298	1	5665	9	5982	3 *	5486	3	5088	5
6106	31993	4057		4767	10	5133	6	5954	5	5544	4	4978	9	4606	
6107	Swarna (Positive Check)	6789	2	4133		4420		6290	3	5355	8	5408	5	4914	7
6108	31994	5146	7.5	4856	8	4836	9	6162	4	5499	6	5250	6	5182	3 *
6109	31995	4033		4267		4777		4872		4825		4487		4905	8
6110	31996	3585		4244		4729		5641	10	5185		4550		4376	
6111	31997	3789		3778		3279		5160		4220		4002		3934	
6112	31998	6390	3	6033	4 *	5573	2	5304		5439	7	5825	2 *	5365	2 *
6113	31999	4439		4633		5133	6	5921	6	5527	5	5032	8	4720	
6114	Rasi (Positive Check)	3626		3856		4385		4968		4677		4209		4166	
6115	32000	5146	7.5	4894	7	3813		4319		4066		4543		4727	10
6116	32001	5911	5	5800	5 *	4431		5641	10	5036		5446	4	4989	6
6117	32002	3634		4056		4195		5801	8	4998		4422		4440	
6118	32003	4016		4478		3708		4455		4082		4164		4656	
6119	32004	3992		3378		2934		5449		4192		3938		4110	
6120	32005	6894	1	6100	2 *	4896	8	7083	1	5990	2 *	6243	1 *	5677	1 *
6121	ISM (Susceptible Check)	6358	4	3711		3030		4665		3848		4441		4115	
6122	32006	4902	10	4611		2804		3678		3241		3999		4126	
6123	32007	4512		6222	1 *	4503		3870		4187		4777		4659	
6124	32008	4073		4622		3969		4503		4236		4292		4692	
6125	32009	3992		4611		5265	5	5433		5349	9	4825		4391	
6126	DRR Dhan 64 (Positive Observational Check)	3780		4800	9	4432		3790		4111		4201		4397	
6127	32010	4016		5433	6 *	5276	4	5168		5222		4973	10	4881	9
6128	32011	5813	6	4411		3564		4295		3930		4521		4494	
6129	32012	4927	9	3650		4183		4415		4299		4294		4581	
6130	Varadhan (Positive Check)	4228		4278		4730		3277		4004		4128		4453	
Exp. Mean		**4609**		**4662**		**4337**		**5047**		**4692**		**4664**		**4600**	
F Value		**15.30(p<0.0001)S**		**17.83(p<0.0001)S**		**6.26(p<0.0001)S**		**16.69(p<0.0001)S**		**14.23(p<0.0001)S**		**21.07(p<0.0001)S**		**25.57(p<0.0001)S**	
CD		702		493		1031		663		615		373		242	
CV%		**9.31**		**6.47**		**14.55**		**8.04**		**8.02**		**4.90**		**3.21**	
D/S		15-07-2023		07-07-2023		08-07-2023		08-01-2023							
D/P		26-08-2023		08-01-2023		09-01-2023		09-05-2023							
LOCAL CHECK															

Table. 16c.3 : Days to 50% Flowering, Plant Height and Panicles/sq.m of IVT LNT N(0) Kharif-2023

Entry No	IET No	ZONE III - EASTERN												ZONE VI -WESTERN		
		Odisha (1)			Bihar (1)			Jharkhand (1)			Zone III(3)			Maharashtra (1)		
		ICAR-NRRI (Cuttack)			Pusa			Ranchi			Mean			Karjat		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
6101	31988	99	113	235	83	95	199	103	67		95	92	217	92	108	288
6102	31989	89	161	234	91	131	202	99	89		93	127	218	98	149	242
6103	31990	104	122	258	87	100	210	108	82		100	101	234	97	119	297
6104	31991	108	102	223	93	90	203	121	54		107	82	213	100	102	313
6105	31992	99	135	271	98	92	208	108	79		102	102	240	104	130	267
6106	31993	92	113	297	87	87	213	126	70		102	90	255	96	114	251
6107	Swarna (Positive Check)	102	96	256	103	87	190	105	53		103	79	223	111	96	238
6108	31994	97	112	262	91	86	210	104	69		97	89	236	96	118	173
6109	31995	85	105	217	81	93	233	106	67		91	88	225	96	108	263
6110	31996	91	118	260	88	92	230	109	61		96	90	245	96	109	313
6111	31997	94	103	309	97	75	218	110	59		101	79	263	101	113	278
6112	31998	105	110	253	96	92	215	108	60		103	87	234	103	117	292
6113	31999	93	115	225	92	87	213	118	58		101	87	219	96	101	270
6114	Rasi (Positive Check)	84	86	239	78	74	201	112	57		91	72	220	93	98	264
6115	32000	106	125	235		.		109	65		108	95	235	113	120	266
6116	32001	114	118	234	88	95	218	109	62		104	92	226	99	119	287
6117	32002	94	106	269	89	93	218	107	64		97	88	244	99	104	248
6118	32003	106	127	245	99	95	222	108	59		104	94	233	103	128	257
6119	32004	95	99	261	89	76	213	108	51		97	75	237	100	98	280
6120	32005	108	113	285	103	85	222	98	61		103	86	253	112	104	235
6121	ISM (Susceptible Check)	101	100	256	105	72	203	121	49		109	74	230	101	101	232
6122	32006	92	105	254	98	84	213	106	64		99	84	234	102	107	226
6123	32007	99	122	221	97	85	220	105	66		100	91	221	103	116	305
6124	32008	98	116	242	97	93	200	101	71		99	93	221	104	123	304
6125	32009	88	111	304	88	88	208	118	66		98	88	256	101	108	233
6126	DRR Dhan 64 (Positive Observational Check)	94	112	307	86	97	212	100	62		94	90	259	100	110	240
6127	32010	107	118	242	88	95	213	112	72		102	95	228	90	110	291
6128	32011	98	106	239	97	72	217	108	57		101	78	228	103	100	276
6129	32012	91	118	207	91	87	229	104	76		96	94	218	101	116	280
6130	Varadhan (Positive Check)	86	109	253	95	77	234	126	72		102	86	244	98	127	246
Exp. Mean		**97**	**113**	**253**	**92**	**89**	**213**	**109**	**65**		**100**	**89**	**234**	**100**	**112**	**265**

Table. 16c.3 (Contd) : Days to 50% Flowering, Plant Height and Panicles/sq.m of IVT LNT N(0) Kharif-2023

Entry No	IET No	ZONE VII - SOUTHERN																		Overall Mean (8)		
		Andhra Pradesh (1)			Telangana (1)			Karnataka						Karnataka (2)			Zone VII(4)					
		Maruteru			Rajendranagar			Mandya			Gangavathi			Mean			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
6101	31988	93	130	374	104	102	312	91	103	249	95	103	228	93	103	239	96	109	291	95	103	269
6102	31989	94	142	374	106	146	312	96	141	238	96	147	276	96	144	257	98	144	300	96	138	268
6103	31990	102	119	330	109	109	316	93	95	249	102	111	264	97	103	257	102	108	290	100	107	275
6104	31991	104	108	330	114	96	317	98	80	283	106	91	276	102	86	280	105	94	302	106	90	278
6105	31992	106	136	308	112	105	260	97	101	249	105	124	280	101	113	265	105	117	274	104	113	263
6106	31993	104	115	385	104	107	308	96	89	283	103	112	286	100	100	285	102	106	316	101	101	289
6107	Swarna (Positive Check)	115	112	330	107	79	304	108	74	283	114	87	306	111	80	295	111	88	306	108	85	273
6108	31994	106	126	319	111	101	310	96	96	249	105	107	240	101	101	245	104	108	280	101	102	252
6109	31995	94	110	396	107	115	304	90	92	249	94	107	228	92	99	239	96	106	294	94	100	270
6110	31996	92	112	319	103	109	312	93	91	272	98	106	252	96	98	262	97	105	289	96	100	280
6111	31997	93	114	341	100	109	282	92	83	272	95	91	236	93	87	254	95	99	283	98	93	277
6112	31998	102	128	385	104	105	297	95	91	249	102	99	252	98	95	251	101	105	296	102	100	278
6113	31999	91	106	341	109	106	307	95	88	261	103	101	288	99	94	274	99	100	299	100	95	272
6114	Rasi (Positive Check)	79	84	341	95	82	264	93	82	249	91	82	203	92	82	226	90	82	264	91	81	251
6115	32000	100	117	330	115	103	385	93	81	261	97	98	213	95	89	237	101	100	297	105	101	281
6116	32001	101	133	341	116	106	301	107	93	215	109	101	280	108	97	248	108	108	284	105	103	268
6117	32002	100	114	341	132	97	330	97	89	306	101	95	257	99	92	281	107	99	308	102	95	281
6118	32003	105	124	297	111	109	348	110	93	306	112	97	264	111	95	285	110	106	304	107	104	277
6119	32004	105	104	396	103	96	268	92	71	272	104	79	250	98	75	261	101	88	296	99	84	277
6120	32005	113	118	341	121	111	383	111	83	249	115	93	281	113	88	265	115	101	313	110	96	285
6121	ISM (Susceptible Check)	104	108	363	112	95	275	101	70	261	101	83	294	101	76	277	104	89	298	106	85	269
6122	32006	104	112	363	104	96	247	91	82	249	99	83	248	95	82	249	99	93	277	99	91	257
6123	32007	102	115	352	114	123	312	100	94	261	111	96	218	105	95	239	107	107	286	104	102	270
6124	32008	98	128	396	117	105	292	92	92	227	102	103	225	97	97	226	102	107	285	101	104	269
6125	32009	98	116	385	103	104	293	94	92	249	98	94	263	96	93	256	98	101	298	99	97	277
6126	DRR Dhan 64 (Positive Observational Check)	96	108	363	103	112	315	88	87	261	99	105	258	93	96	259	96	103	299	96	99	279
6127	32010	94	120	297	107	104	326	93	90	238	99	111	237	96	101	238	98	106	275	99	103	263
6128	32011	107	105	297	117	108	273	95	82	249	109	82	263	102	82	256	107	94	271	104	89	259
6129	32012	98	128	330	119	126	287	96	97	238	100	116	279	98	106	259	103	117	283	100	108	264
6130	Varadhan (Positive Check)	91	118	341	105	124	293	90	102	261	96	99	269	93	100	265	95	111	291	98	103	271
Exp. Mean		**100**	**117**	**347**	**109**	**106**	**304**	**96**	**90**	**258**	**102**	**100**	**257**	**99**	**95**	**258**	**102**	**103**	**292**	**101**	**99**	**271**

COLOURED RICES PILOT TRIAL

Locations:	**23**	**Test Entries: 35**
Checks:	**Chakho Poireiton (Manipur Black Rice: National check, Jyothi (Matta Red Rice Check), Kauni (Black Rice check) Choharto and Uma (Red rice Check) and Local check**	**Table: 17c**

India is home to a diverse array of rice varieties, including several types of colored rice. These unique varieties of rice are gaining popularity due to their distinctive appearance and potential health benefits. Colored rices in India include black, red, and brown rice, which get their hues from natural pigments in the bran layer of the rice grain. For example, black rice is high in anthocyanins, which are antioxidants that may offer health benefits such as reducing inflammation and improving heart health. Similarly, red rice gets its color from anthocyanins and is also rich in iron, fiber, and other essential nutrients. Brown rice, which is less processed than white rice, is also considered a healthier option due to its higher fiber content and lower glycemic index. The coloured rices of India not only add diversity and flavour to the Indian cuisine but also offer a range of nutritional benefits.

In 2022, a pilot trial was initiated, followed by a regular trial in 2023. The regular trial comprised of 35 test entries, including five control checks: Chakho Poireiton (Black rice) from Manipur, Kauni (Black rice), Choharto and Uma (Red rice), Jyothi (Matta Red rice), along with a local control. All test entries were in their first year of testing. The trial was sent to twenty-three locations, and data from only thirteen locations, namely ICAR-NRRI (Cuttack), Jeypore, Pusa, Sabour, Chinsurah, Varanasi, Titabar, Raipur, Karjat, Navasari, Bapatla, Aduthurai and Pattambi, was received. However, data from three locations, Jeypore, Sabour and Pattambi were excluded from the analysis due to high/low CV and low experimental mean yield. The data related to yield, flowering, plant height, and panicles/m^2 are presented in table 17c.1,17c.2,17c.3 and 17c.4 The performance of the entries in various locations is discussed below.

Overall mean grain yield was ranged from 3254 kg/ha (IET 32018) to 5108 kg/ha (Local check) while days to 50% flowering ranged from 80 (IET 32018) to 113 days Kauni. Plant height ranged from 89 cm (IET's 32015, 32018 and 32026) to 150 cm (IET 32014) and panicles/m^2 ranged from 196 (IET 32028) to 290 (IET 32031).

Zone wise performance of the entries is discussed here under:

Eastern zone (III)

In the eastern zone, 29 entries were tested across four locations Cuttack (Odisha); Pusa (Bihar); Chinsurah (West Bengal) and Varanasi (Uttar Pradesh). However data from Jeypore and Sabour are not included due to low experimental mean yield. Zonal mean yield ranged from 2685 kg/ha (Choharto red rice check) to 5564 kg/ha (Local check). In this zone, none of the entries showed significant performance over best varietal check. ***Therefore, none of the varietal entries are promoted in Eastern zone to AVT-1-CR***

North Eastern zone (IV)

In the North Eastern zone, 29 entries were tested only in one location Titabar (Assam). zonal mean yield ranged from 2073 kg/ha (IET 32028) to 6545 kg/ha (IET 32025). Days to 50% flowering ranged from 85 days (IET 32018) to 119 days Kauni (Black rice check) and plant height from 88 cm (IET 32018) and Uma (Red rice check) to 152 cm (IET 31141). Panicles/m^2 ranged from 184 (IET 31145) to 294 (IET 32021). One entry IET 32025 showed significant yield advantage over best varietal check. ***Therefore, IET 32025 is promoted to AVT-1-CR in North Eastern zone.***

Central zone (V)

In the Central zone, 29 entries were tested in only one location Raipur (Chattisghar). Zonal mean yield ranged from 2210 kg/ha (IET 31150) to 5035 kg/ha (IET 32014). Days to 50% flowering ranged from 73 days (IET 32018) to 115 Days Kauni (IET 32017) and plant height from 67cm (IET 32015) to 153 cm (Local check). Panicles/m^2 ranged from 121 (IET 31145) to 238 (IET 32022). Among all the entries, IET 32014 showed significant yield advantage over best varietal check. ***Therefore, IET 32014 is promoted to AVT-1-CR in Central zone.***

Western zone (VI)

In the Western zone, 29 entries were tested in two locations Karjat (Maharastra) and Navsari (Gujarat). Zonal mean yield ranged from 3320 kg/ha (IET 32017) to 4964 kg/ha (Local check). However, none of the entries performed well over best varietal check. ***Therefore, none of the varietal entries are promoted in Western zone to AVT-1-CR***

Southern zone (VII)

In the Sourthern zone, 29 entries were tested in three locations viz., Bapatla (Andhra Pradesh); Aduturai (Tamil Nadu) and Pattambi (Kerala). However data from Pattambi is not included due F value non-significance. Zonal mean yield ranged from 2782 kg/ha (IET 32033) to 5229 kg/ha (IET 32023). However, none of the entries showed significant yield advantage over best varietal check. ***Therefore, none of the varietal entries are promoted in Southern zone to AVT-1-CR***

Promising entries in coloured rice trial during Kharif 2023

Zone	Promoted to AVT-1-CR
Eastern Zone (III)	None
Northern Eastern Zone (IV)	IET 32025
Central Zone (V)	IET 32014
Western Zone (VI)	None
Southern Zone (VII)	None

Entries promoted to AVT 1-CR:

Two entries viz., IET 32025 (NVSR 651) and IET 32014 (Improved Shri Karnal)

Trial No.17c.1 : Composition of entries in Initial Variety Trial – Coloured Rice (IVT-CR), Kharif, 2023.

Entry No.	IET No.	Designation	Cross Combination	GT
1st year of testing:				
6201	32013	NVSR 788	GNR-4 / GNR-3	SB
6202	31145	BPT 2841	Swarna / IRRGC 18195 // MTU 1081	MS
6203	31141	RP 6166-NPV 37-23	MTU 1010 / O.rufipogon	MS
6204	32014	Improved Shri Karnal	Sel. from Local Landrace	MS
6205	32015	BKR 525	BG 102 / BPT 5204	MB
6206	31150	BPT 3136	RP Bio 226*1 / IRGC 48493	LB
6207	32016	CSR 414-63	MTU 1001/ Kalarat	
6208	32017	CR 4327-5-2-1-1	Tapaswini / Kedargouri	SB
6209	32018	RP 6615-MK/RIL-FBMI-45-32-6	MTU1010/Karuppunel	LS
6210	32019	BPT 3148	RP Bio 226 / IRGC 23385 // Nidhi / MTU 1081	LB
6211	32020	KJT 23-MG-02	Selection from MG-02	LS
6212	31151	BPT 3344	Cult.01120305 / Cult.0910025-7	LB
6213	32021	Improved Khuddi	Sel. from Local Landrace	MS
6214	31139	BPT 3263	MTU 7029 / IRGC 18195 / MTU 1081	SB
6215	32022	AAU-TTB DHAN-41 (Labanya)	(Manikimadhuri joha / Bahadur) / Black Rice (AAU-ARRI,Titabar)	LS
6216	32023	BPT 3378	Cult.01120305 / Cult.0910025-7	SS
6217	32024	CSR-KR-41-4-171	MTU 1001 / Kalarata	
6218	32025	NVSR 651	NVSR 303-14 / IET19347	LB
6219	32026	CR 4450-65-15-3-5-2	Chakhao Amubi / Ratna	MB
6220	32027	RP 6615-MK/RIL-FBMI-45-25-6-1	MTU1010 / Karuppunel	LS
6221	32028	BPT 2858	RP Bio 226*1 / IRGC 48493	SS
6222	32029	CR 4450-48-1-1-10-26-1-21-7-19	Chakhao Amubi / Ratna	MB
6223	32030	BPT 3141	RP Bio 226 / IRGC 30983	LB
6224	32031	ADKKV 20001	Selection from Local Material	MS
6225	31142	BPT 3269	RP Bio 226 / IRGC 23385 // Nidhi / MTU 1081	LS
6226	32032	NVSR 757	NVSR 303-06 / GR-7	LS
6227	32033	RKM Sel-l	Sel. from RKM-1 Local Landrace	LS
6228	32034	RP 6615-MK/RIL-FBMI-45-31-6-1	MTU 1010 / Karuppunel	LS
6229	32035	NVSR 3661		
6230	**Choharto (Red Rice Check)**			
6231	**Jyothi (Matta Red Rice Check)**			
6232	**Kauni (Black Rice Check)**			
6233	**Uma (Red Rice Check)**			
6234	**Chakho Poireiton (Manipur Black Rice Check)**			

Table No. 17c.2 : Grain Yield (kg/ha) in Initial Variety Trial – Coloured Rice (IVT-CR), Kharif 2023

Entry No.	IET NO	Zone III EASTERN									
		ODISHA (1)		BIHAR (1)		WEST BENGAL (1)		UTTARPRADESH (1)		Zone III (4)	
		CUTTACK		PUSA		CHINSURAH		VARANASI		Mean	
6201	32013	3470		2604		5325		4740		4035	
6202	31145	4245		3646		4875		3346		4028	
6203	31141	3895		3854		3750		4859		4090	
6204	32014	4365		4063	9	5625	9	4989	10	4761	9
6205	32015	4525		3021		2375		4222		3536	
6206	31150	5585	7	2813		3925		3465		3947	
6207	32016	5975	3	4271	5	3875		6691	2	5203	4
6208	32017	4280		3125		5375		767		3387	
6209	32018	4330		2917		1575		3296		3030	
6210	32019	3725		2813		4625		3605		3692	
6211	32020	4145		4063	9	3375		5576	7	4290	
6212	31151	5740	6	4271	5	4875		4929		4954	7
6213	32021	5850	4	3229		6750	2	5765	6	5399	2
6214	31139	6400	2 *	3646		4250		4939		4809	8
6215	32022	4955	10	2813		6125	4	4431		4581	
6216	32023	4240		2500		6625	3	2619		3996	
6217	32024	5045	9	4375	2	4025		6452	3	4974	6
6218	32025	4110		4375	2	5000		7458	1 *	5236	3
6219	32026	5830	5	2500		6000	5	4023		4588	
6220	32027	4485		3021		2700		2868		3269	
6221	32028	4115		2604		4250		1543		3128	
6222	32029	3210		2917		5725	7	4700		4138	
6223	32030	4830		2292		5550	10	4929		4400	
6224	32031	3300								3300	
6225	31142	2830		2604		4700		5447	8	3895	
6226	32032	5225	8	4375	2	5875	6	4780		5064	5
6227	32033	3860		4271	5	4100		4640		4218	
6228	32034	3155		3542		2500		3226		3106	
6229	32035	6465	1 *	2500		4050		4292		4327	
6230	Choharto (Red Rice Check)	3175		2292				2589		2685	
6231	Jyothi (Matta Red Rice Check)	4585		2083		3625		5895	4	4047	
6232	Kauni (Black Rice Check)	3815		2500		5700	8	378		3098	
6233	Uma (Red Rice Check)	3715		4063	9	5375		5855	5	4752	10
6234	Chakho Poireiton (Manipur Black Rice Check)	4875		4167	7	5125		4600		4692	
6235	Local check	4695		3854		8500	1	5208	9	5564	1
Exp. Mean		**4487**		**3294**		**4731**		**4327**		**4178**	
F value		**3.58(p<0.0001)S**		**5.80(p<0.0001)S**		**10.95(p<0.0001)S**		**16.72(p<0.0001)S**		**17.43(p<0.0001)S**	
CD		**1427**		**880**		**1207**		**1094**		**513**	
CV%		**15.65**		**13.14**		**12.52**		**12.43**		**6.04**	
D/S		17-07-2023		21-07-2023		17-07-2023		19-07-2023			
D/P		08-08-2023		18-08-2023		08-08-2023		08-09-2023			
Local Check Name		Chakhao		Kala Namak		Dinesh		HUR-1309			

Table No.17c.2 (Contd) : Grain Yield (kg/ha) in Initial Variety Trial – Coloured Rice (IVT-CR), Kharif 2023

Entry No.	IET NO	ZONE IV NORTH ESTERN (1)		ZONE V CENTRAL (1)		ZONE VI WESTERN					
		ASSAM (1)		CHATTISGHAR (1)		MAHARASTRA (1)		GUJARAT (1)		Zone VI (2)	
		TITABAR		RAIPUR (1)		KARJAT		NAVSARI		Mean	
6201	32013	4084		3869		4213		4158		4186	
6202	31145	4113		2551		5370	1	3759		4565	5
6203	31141	4958	6	3721		4398	10	4903	6	4651	4
6204	32014	5767	2	5035	1*	4606	4	3551		4079	
6205	32015	4073		2784		3565		5165	3	4365	9
6206	31150	4088		2210		3611		4796	7	4204	
6207	32016	4947	7	4050	9	3843		4937	4	4390	7
6208	32017	4096		3127		2986		3654		3320	
6209	32018	3270		2767		3727		4620	8	4174	
6210	32019	4728		3194		3796		4483		4140	
6211	32020	4901	9	3745		3102		4437		3770	
6212	31151	4566		3838		3704		4004		3854	
6213	32021	4792		4846	2	4583	5	5266	2	4925	2
6214	31139	5158	3	3427		4259		4513		4386	8
6215	32022	4297		4289	6	3958		3674		3816	
6216	32023	4347		3414		3727		3406		3567	
6217	32024	5144	4	4133	7	4583	5	3967		4275	
6218	32025	6545	1*	4511	4	2870		4518	10	3694	
6219	32026	4376		3248		4282		4354		4318	10
6220	32027	3805		2941		4421	9	4098		4260	
6221	32028	2073		2554		3542		4362		3952	
6222	32029	4031		3219		4537	7	3775		4156	
6223	32030	4895	10	3243		2546		4130		3338	
6224	32031										
6225	31142	4922	8	3457		3935		5413	1	4674	3
6226	32032	4836		4500	5	3750		4586	9	4168	
6227	32033	4080		3111		3356		3956		3656	
6228	32034	4033		3013		3866		3334		3600	
6229	32035	4113		3968	10	3843		4000		3922	
6230	Choharto (Red Rice Check)					4514	8	3363		3939	
6231	Jyothi (Matta Red Rice Check)	4973	5	2724		4282		4322		4302	
6232	Kauni (Black Rice Check)	3125		3633				3669		3669	
6233	Uma (Red Rice Check)	4634		4090	8	4792	3	4011		4402	6
6234	Chakho Poireiton (Manipur Black Rice Check)	4246		3022		3843		3374		3609	
6235	Local check	4042		4577	3	5000	2	4928	5	4964	1
Exp. Mean		**4426**		**3540**		**3982**		**4220**		**4097**	
F value		**6.41(p<0.0001)S**		**21.19(p<0.0001)S**		**16.22(p<0.0001)S**		**3.47(p<0.0001)S**		**4.75(p<0.0001)S**	
CD		**911**		**437**		**438**		**895**		**547**	
CV%		**10.11**		**6.07**		**5.4**		**10.42**		**6.56**	
D/S		08-03-2023		27-07-2023		15-07-2023		13-07-2023			
D/P		28-08-2023		08-08-2023		08-10-2023		08-07-2023			
Local Check Name		Labanya		Unnat Shrikamal		RTN-7		GNR-9			

Table No. 17c.2 (Contd) :Grain Yield (kg/ha) in Initial Variety Trial – Coloured Rice (IVT-CR), Kharif 2023

Entry No.	IET NO	ZONE VII SOUTHERN						Overall mean (10)	
		ANDRAPRADESH (1)		TAMILNADU (1)		Zone VII (3)			
		BAPATLA		ADUTURAI		Mean			
6201	32013	4880	10	3405		4143		4075	
6202	31145	4255		3481		3868		3964	
6203	31141	2586		4772	3	3679		4170	
6204	32014	4628		5127	2	4878	3	4776	3
6205	32015	3694		4120	6	3907		3754	
6206	31150	4882	9	3291		4087		3867	
6207	32016	3066		3956	10	3511		4561	6
6208	32017	4895	8	3608		4252		3591	
6209	32018	2143		3892		3018		3254	
6210	32019	3886		3418		3652		3827	
6211	32020	5184	4	3354		4269	10	4188	
6212	31151	4223		3987	9	4105		4414	10
6213	32021	5273	3	3430		4352	8	4978	2
6214	31139	4898	7	3924		4411	6	4541	8
6215	32022	4109		3614		3862		4227	
6216	32023	5711	1	4747	4	5229	1	4134	
6217	32024	2836		3937		3387		4450	9
6218	32025	2733		3677		3205		4580	5
6219	32026	3617		4019	7	3818		4225	
6220	32027	3282		4715	5	3999		3634	
6221	32028	5069	6	2848		3959		3296	
6222	32029	4611		3563		4087		4029	
6223	32030	4546		4006	8	4276	9	4097	
6224	32031	4543				4543	4	3922	
6225	31142	4637		3513		4075		4146	
6226	32032	5095	5	3639		4367	7	4666	4
6227	32033	2083		3481		2782		3694	
6228	32034	2812		3386		3099		3287	
6229	32035	3146		3842		3494		4022	
6230	Choharto (Red Rice Check)	3665				3665		3266	
6231	Jyothi (Matta Red Rice Check)	2608		3532		3070		3863	
6232	Kauni (Black Rice Check)	4108		3582		3845		3390	
6233	Uma (Red Rice Check)	5408	2	3544		4476	5	4549	7
6234	Chakho Poireiton (Manipur Black Rice Check)	2720		3791		3256		3976	
6235	Local check	4133		6139	1	5136	2	5108	1
Exp. Mean		**3999**		**3859**		**3936**		**4072**	
F value		**6.47(p<0.0001)S**		**2.35(p<0.0087)S**		**3.93(p<0.0001)S**		**33.00(p<0.0001)S**	
CD		**1131**		**1169**		**827**		**238**	
CV%		**13.91**		**14.87**		**10.34**		**2.87**	
D/S		08-05-2023		31-08-2023					
D/P		26-08-2023		10-07-2023					
Local Check Name		BPT 2841		ADT 54					

Table No. 17c.2 (Contd) :Grain Yield (kg/ha) in Initial Variety Trial – Coloured Rice (IVT-CR), Kharif 2023

Entry No.	IET NO	Trials not considered					
		ODISHA		WEST BENGAL		KERALA (1)	
		@JYAPORE		@SABORE		@PATTAMBI	
6201	32013	1901		3411	5	6105	
6202	31145	2327	4	2469		5967	
6203	31141	1284		2366		6210	8
6204	32014	1900		2865		5819	
6205	32015	1295		1635		7024	2
6206	31150	2411	2	3016	9	5748	
6207	32016	973		3177	8	5829	
6208	32017	2262	5	2427		5514	
6209	32018	932		1260		5076	
6210	32019	991		2917		5886	
6211	32020	1916		4807	1 *	5814	
6212	31151	2010	9	2083		5790	
6213	32021	1191		1303		5390	
6214	31139	1320		2505		6181	9
6215	32022	1342		2318		5933	
6216	32023	2194	7	2164		5748	
6217	32024	1324		3609	4	5967	
6218	32025	2330	3	2896		5824	
6219	32026	919		2746		6157	10
6220	32027	974		1410		6857	4
6221	32028	1097		2802		5595	
6222	32029	2428	1	2057		6019	
6223	32030	1897		3257	7	6495	5
6224	32031	1295		1125		6038	
6225	31142	1960	10	2610		5814	
6226	32032	2226	6	3703	3	6962	3
6227	32033	1248		2365		6338	6
6228	32034	1505		2125		6019	
6229	32035	1568		1980		5714	
6230	Choharto (Red Rice Check)	1418		1005		5810	
6231	Jyothi (Matta Red Rice Check)	2065	8	3746	2	7234	1
6232	Kauni (Black Rice Check)	1389		1396		5924	
6233	Uma (Red Rice Check)	1681		3005	10	6233	7
6234	Chakho Poireiton (Manipur Black Rice Check)	1596		2744		5474	
6235	Local check	1209		3318	6	5971	
Exp. Mean		**1611**		**2532**		**6014**	
F value		**4.48(p<0.0001)S**		**17.30(p<0.0001)S**		**1.32(p<0.2125)NS**	
CD		**650**		**578**		**NS**	
CV%		**19.84**		**11.23**		**9.54**	
D/S		21-07-2023		24-07-2023		17-07-2023	
D/P		19-08-2023		25-08-2023		08-10-2023	
Local Check Name		Kalabati		Rajendra Suwasini		JYOTHI	

Table No.17c.3 : Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in Initial Variety Trial – Coloured Rice (IVT-CR), Kharif 2023

Entry No.	IET NO	Zone III EASTERN														
		ODISHA (1)			BIHAR (1)			WEST BENGAL (1)			UTTARPRADESH (1)			Zone III (4)		
		CUTTACK			PUSA			CHINSURAH			VARANASI			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
6201	32013	100	108	248	102	89	163	97	132	235	106	96	206	101	106	213
6202	31145	93	126	327	95	99	174	83	129	175	91	105	162	90	115	209
6203	31141	86	107	337	91	83	162	84	117	158	88	92	229	87	100	221
6204	32014	93	158	300	93	124	184	89	177	205	92	147	178	92	151	217
6205	32015	90	95	300	96	67	174	79	98	273	88	84	239	88	86	246
6206	31150	95	108	345	97	92	175	85	110	250	86	89	180	91	100	237
6207	32016	87	144	327	95	78	207	81	112	208	84	89	176	86	106	229
6208	32017	112	113	332	120	63	142	87	104	230	123	73	171	110	88	218
6209	32018	80	100	327	82	71	147	71	102	203	73	84	194	76	89	218
6210	32019	96	105	320	100	85	140	88	118	203	92	85	202	94	98	216
6211	32020	85	108	297	87	80	217	78	105	223	78	88	207	82	95	236
6212	31151	92	157	341	91	109	227	84	122	195	87	92	173	88	120	234
6213	32021	93	144	343	93	105	170	97	150	228	110	114	190	98	128	233
6214	31139	88	120	349	93	99	175	79	140	225	82	109	138	85	117	222
6215	32022	103	119	333	101	87	181	102	126	193	107	91	193	103	106	225
6216	32023	97	104	303	106	96	140	104	121	243	106	87	157	103	102	210
6217	32024	86	103	343	92	80	253	78	100	205	83	88	182	85	93	246
6218	32025	88	114	287	94	86	214	82	127	253	87	102	171	88	107	231
6219	32026	101	97	317	87	66	194	104	101	223	112	71	159	101	84	223
6220	32027	83	108	314	85	88	193	72	107	225	80	93	184	80	99	229
6221	32028	100	133	249	102	102	115	97	145	178	105	109	126	101	122	167
6222	32029	102	111	309	112	74	171	97	123	198	95	94	125	101	100	201
6223	32030	89	115	315	101	93	167	80	107	198	93	99	148	91	104	207
6224	32031	98	103	340										98	103	340
6225	31142	86	113	279	101	99	164	85	128	210	92	95	162	91	109	204
6226	32032	90	115	327	99	105	224	86	125	225	102	95	152	94	110	232
6227	32033	83	119	318	89	97	222	78	109	183	82	93	203	83	105	231
6228	32034	82	106	320	89	92	189	77	106	185	80	86	224	82	98	230
6229	32035	89	105	345	94	83	186	78	103	220	86	80	209	86	93	240
6230	Choharto (Red Rice Check)	71	91	287	73	61	137				71	88	173	72	80	199
6231	Jyothi (Matta Red Rice Check)	88	108	318	95	83	141	80	100	183	88	83	195	88	94	209
6232	Kauni (Black Rice Check)	87	117	325	127	124	128	120	178	218	121	122	129	114	135	200
6233	Uma (Red Rice Check)	92	104	307	102	64	169	93	119	180	111	81	173	99	92	207
6234	Chakho Poireiton (Manipur Black Rice Check)	88	144	309	98	135	225	90	163	208	111	147	163	97	147	226
6235	Local check	92	151	334	94	112	218	110	200	223	86	95	167	95	139	235
Mean		**91**		**316**	**96**	**90**	**179**	**88**	**124**	**211**	**93**	**95**	**177**	**92**	**106**	**224**

Table No. 17c.3 (Contd) : Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in Initial Variety Trial – Coloured Rice (IVT-CR), Kharif 2023

Entry No.	IET NO	ZONE IV NORTH ESTERN (1)			ZONE V CENTRAL (1)			ZONE VI WESTERN								
		ASSAM (1)			CHATTISGHAR (1)			MAHARASTRA (1)			GUJARAT (1)			Zone VI (2)		
		TITABAR			RAIPUR (1)			KARJAT			NAVSARI			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
6201	32013	99	100	235	91	97	216	92	142	155	88	147	272	90	145	214
6202	31145	98	105	184	90	99	121	88	134	196	110	146	231	99	140	213
6203	31141	88	93	290	83	97	182	92	130	180	85	117	260	89	124	220
6204	32014	85	152	271	87	145	204	91	190	154	88	170	262	89	180	208
6205	32015	90	92	248	81	67	172	83	110	142	78	104	231	81	107	186
6206	31150	100	101	229	96	98	186	89	127	150	88	124	282	88	125	216
6207	32016	86	89	243	84	91	184	86	125	155	79	106	267	82	115	211
6208	32017	107	91	250	115	76	176	102	118	163	139	158	198	120	138	180
6209	32018	82	88	254	73	84	160	84	121	137	72	112	239	78	116	188
6210	32019	99	94	248	92	85	187	86	136	121	89	109	290	88	122	205
6211	32020	85	101	267	81	84	199	82	123	143	82	101	275	82	112	209
6212	31151	94	99	280	91	105	169	87	131	143	83	125	259	85	128	201
6213	32021	86	102	294	90	123	212	93	171	152	95	154	257	94	163	204
6214	31139	88	120	249	84	106	210	88	148	164	83	135	240	85	141	202
6215	32022	105	111	277	101	98	238	93	136	150	99	114	282	96	125	216
6216	32023	100	108	255	107	95	177	93	128	121	90	108	262	91	118	191
6217	32024	85	91	258	81	86	180	85	119	144	79	99	249	82	109	196
6218	32025	92	96	253	83	103	196	83	133	120	86	125	267	85	129	193
6219	32026	97	92	234	90	84	173	96	123	168	100	102	236	98	112	202
6220	32027	114	101	258	78	94	199	78	129	180	78	106	280	78	117	230
6221	32028	106	120	222	97	123	192	92	152	170	97	139	224	95	146	197
6222	32029	107	97	254	106	95	169	95	118	190	85	115	288	90	116	239
6223	32030	96	104	240	91	102	168	86	129	146	87	122	257	86	125	202
6224	32031															
6225	31142	92	97	291	92	97	174	85	141	144	82	125	271	84	133	207
6226	32032	90	107	257	94	108	206	88	144	134	86	126	225	87	135	179
6227	32033	113	103	255	78	103	183	77	125	129	77	118	232	77	122	180
6228	32034	85	90	266	77	85	167	84	129	148	78	129	268	81	129	208
6229	32035	115	91	242	77	86	179	80	123	144	83	109	254	81	116	199
6230	Choharto (Red Rice Check)							78	117	142	54	123	277	66	120	209
6231	Jyothi (Matta Red Rice Check)	90	93	267	88	81	172	83	118	150	79	110	272	81	114	211
6232	Kauni (Black Rice Check)	119	139	246	106	142	170				135	158	209	135	158	209
6233	Uma (Red Rice Check)	99	88	262	92	93	168	93	115	151	92	120	259	92	117	205
6234	Chakho Poireiton (Manipur Black Rice Check)	113	132	256	85	133	212	88	173	133	90	164	281	89	169	207
6235	Local check	106	111	290	95	153	169	79	128	148	79	135	249	79	131	198
Mean		**97**	**103**	**255**	**89**	**101**	**184**	**87**	**133**	**151**	**88**	**125**	**256**	**88**	**129**	**204**

Table No. 17c.3 (Contd) : Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in Initial Variety Trial – Coloured Rice (IVT-CR), Kharif 2023

Entry No.	IET NO	ZONE VII SOUTHERN									OVERALL MEAN (10)		
		ANDRAPRADESH (1)			TAMILNADU (1)			Zone VII (2)					
		BAPATLA			ADUTURAI			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
6201	32013	78	118	288	103	104	238	90	111	263	95	113	225
6202	31145	83	118	200	111	92	297	97	105	249	94	115	207
6203	31141	77	97	205	104	92	298	91	95	252	88	102	230
6204	32014	77	132	268	104	105	363	90	119	316	90	150	239
6205	32015	75	87	169	103	89	258	89	88	214	86	89	220
6206	31150	79	93	218	108	82	251	93	88	234	92	102	226
6207	32016	80	74	195	108	73	265	94	74	230	87	98	222
6208	32017	101	100	266	108	82	250	105	91	258	111	98	218
6209	32018	75	56	175	112	74	265	93	65	220	80	89	210
6210	32019	88	116	232	112	94	272	100	105	252	94	103	221
6211	32020	75	83	237	114	73	281	94	78	259	85	95	234
6212	31151	78	111	224	108	101	248	93	106	236	89	115	226
6213	32021	82	130	257	107	92	267	94	111	262	94	129	237
6214	31139	76	106	201	114	95	274	95	101	237	87	118	222
6215	32022	102	121	208	108	113	277	105	117	242	102	112	233
6216	32023	88	126	235	111	101	304	100	114	269	100	107	219
6217	32024	82	78	167	114	77	215	98	78	191	86	92	219
6218	32025	83	100	133	116	92	302	99	96	217	89	108	219
6219	32026	93	92	216	108	60	271	101	76	244	99	89	219
6220	32027	82	46	189	107	75	263	95	61	226	85	95	228
6221	32028	90	130	242	107	113	244	99	122	243	99	127	196
6222	32029	87	110	237	106	71	248	96	91	242	99	101	219
6223	32030	82	107	198	115	97	286	98	102	242	92	107	212
6224	32031	98	175	241				98	175	241	98	139	290
6225	31142	78	115	205	108	99	248	93	107	226	90	111	215
6226	32032	88	119	209	106	111	259	97	115	234	93	115	222
6227	32033	77	107	238	106	84	266	91	96	252	86	106	223
6228	32034	74	81	176	103	70	281	88	76	228	83	97	222
6229	32035	75	98	173	109	67	250	92	83	211	88	95	220
6230	Choharto (Red Rice Check)	76	77	218				76	77	218	70	93	206
6231	Jyothi (Matta Red Rice Check)	84	110	172	104	82	250	94	96	211	88	97	212
6232	Kauni (Black Rice Check)	97	153	305	104	163	272	101	158	289	113	144	222
6233	Uma (Red Rice Check)	87	108	237	108	75	281	97	92	259	97	97	219
6234	Chakho Poireiton (Manipur Black Rice Check)	81	141	185	105	97	258	93		221	95	143	223
6235	Local check	81	121	205	115	132	335	98	74	270	94	134	234
Mean		**83**	**107**	**215**	**108**	**92**	**271**	**95**	**98**	**241**	**92**	**109**	223

Table No. 17c.3 (Contd) : Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in Initial Variety Trial – Coloured Rice (IVT-CR), Kharif 2023

Entry No.	IET NO	Trials not considered								
		ODISHA			WEST BENGAL			KERALA		
		@JYAPORE			@SABORE			@PATTAMBI		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
6201	32013	108	77	445	106	106	210	96	103	315
6202	31145	88	80	255	95	106	194	95	97	370
6203	31141	128	65	342	91	95	240	98	96	413
6204	32014	98	98	332	94	130	217	96	105	342
6205	32015	107	64	305	94	82	205	96	91	443
6206	31150	109	87	302	105	94	245	95	97	378
6207	32016	122	66	278	93	88	167	96	96	370
6208	32017	130	71	355	124	84	280	98	94	345
6209	32018	100	62	231	87	81	225	98	97	297
6210	32019	123	76	315	105	84	241	98	89	483
6211	32020	107	66	392	91	92	251	96	96	371
6212	31151	97	69	365	95	95	205	98	89	378
6213	32021	102	72	402	95	117	199	97	94	343
6214	31139	108	93	241	94	117	188	98	93	442
6215	32022	127	84	281	105	114	245	97	98	366
6216	32023	122	82	310	94	97	235	98	98	376
6217	32024	103	66	274	90	83	223	97	96	370
6218	32025	97	96	365	94	91	161	97	88	345
6219	32026	124	69	302	107	85	230	99	103	312
6220	32027	100	68	298	88	86	179	96	80	483
6221	32028	127	103	265	102	114	199	97	92	371
6222	32029	99	84	224	106	90	136	98	83	339
6223	32030	123	81	322	96	101	227	97	84	456
6224	32031	124	64	258	89	95	132	97	98	366
6225	31142	105	85	368	96	95	228	98	95	332
6226	32032	101	90	388	106	109	225	96	96	467
6227	32033	105	69	322	88	99	195	95	84	451
6228	32034	104	67	352	88	88	197	98	87	401
6229	32035	106	64	372	88	94	253	96	96	438
6230	Choharto (Red Rice Check)	120	68	372	72	144	232	96	93	443
6231	Jyothi (Matta Red Rice Check)	102	66	295	94	78	272	95	94	476
6232	Kauni (Black Rice Check)	120	97	235	120	151	253	96	95	401
6233	Uma (Red Rice Check)	103	68	355	105	83	225	98	89	434
6234	Chakho Poireiton (Manipur Black Rice Check)	101	95	425	88	142	196	98		339
6235	Local check	106	75	378	96	88	211	98		455
Mean		**110**	**77**	**323**	**96**	**100**	**215**	**97**		**392**

NEAR ISOGENIC LINES (NIL'S) IN ADVANCE VARIETY TRIAL

Near Isogenic lines (NIL's) were evaluated in various Advance Variety Trials (AVT) based on their duration. The NIL's along with their respective recurrent parents were evaluated for yield under regular yield trials in gazette notified and varietal adaptable states and for target traits viz., drought tolerance, submergence tolerance, coastal salinity tolerance, bacterial leaf blight and blast resistance, a separate trial across the hot spot locations across the country were conducted. The yield trial and target trials data were analysed as per the approved guidelines for testing of NILs during the breeder's group meeting held at53rdAnnual Rice Group Meetings(ARGM) on 13th April 2018(Draft Proceedings of 53rdARGM, 2018; Page 45) and 54thAnnual Rice Group Meetings(ARGM) on 29th May, 2019 (Draft Proceedings of 54th ARGM, 2019; Page 6, 42-43).

Assessment of NIL entries tested under AVT 2-IME trial

In the AVT2- IME trial, four NIL entries were included in the second year of testing and evaluated for yield performance in Gazette notified states and adapted areas of the respective recurrent parents. Two NIL entries(IETs 30697 and 30695) were in the background of ADT39 with introgression of *Sub1* QTL for submergence tolerance and two NIL entries(IETs 30282 and 29203) in the background ofNaveen,introgressed with *qBph4.3+ qBph4.4* for BPH resistance.

Notified states of recurrent parent used in the development of NILs

S. No.	Recurrent Parent	Notified states	Zones tested	No of RILs
1	Naveen	Odisha	III and IV	2
2	ADT39	Tamil Nadu	VII	2

NearIsogenicLines (NILs) in thegenetic backgroundofADT 39

Two entries in the background of ADT39 viz., IETs 30697 and 30695 introgressed with *Sub1* for submergence tolerance were evaluated in Zone VII.

IET	Designation	Cross combination	GT	Trait	Genes/QTL
30697	KR 19011	ADT39*4/Swarna	MS	Submergence tolerance	*SUB1*
30282	KR 190115	ADT39*4/Swarna	MS	Submergence tolerance	*SUB1*

Both the NILs (IETs 30695 and 30697) recorded on par yield with recurrent parent, ADT 39 in 2022 and 2023 under normal irrigated conditions in the Gazette notified state (Tamil Nadu) and also in the adapted areas of Zone VII.

Performance of the ADT 39 NIL entries during Kharif 2022 and 2023

Entry	2022		2023	
	Gazette notified states	Adapted areas	Gazette notified states	Adapted areas
	TN	VII	TN	VII
IET 30695	6407	5657	6236	5853

IET 30697	5190	5355	5312	5828
ADT 39 (RP)	5463	5562	5663	5211
CD	588	324	590	303
RP+CD	6051	5886	6253	5514
RP-CD	4875	5238	5073	4908

IET 30695 has short bold grains which is different from the medium slender grain type of RP in both the years of testing (2022 and 2023).

IET 30697 recorded on par yield performance over recurrent parent under normal irrigated conditions (refer table below) and its significant yield advantage over the RP under submergence stress (refer trait verification data from AVT-Submergence trial) and grain type similarity with the RP, **IET 30697 is found promising for the Gazette notified states and adapted areas of ADT 39.**

Near isogenic lines in the genetic background of Naveen

Two entries in the genetic background of Naveen viz., IETs 30282 and 29203 introgressed with *qBph4.3+ qBph4.4* for BPH resistance were evaluated in Zones III and IV.

IET's	Designation	Cross combination	GT	Trait	Genes/QTL
29203	CR4331-85-1-1-1	Naveen*3/CR3006-8-2	MS	BPH tolerance	*qBph4.3+ qBph4.4*
30282	CR4331-74-2-2-1	Naveen*3/CR3006-8-2	MS	BPH tolerance	*qBph4.3+ qBph4.4*

Performance of the Naveen NIL entries during Kharif 2022 and 2023

Entry	2022		2023		
	Gazette notified states	Adapted areas	Gazette notified states	Adapted areas	
	OD	III	OD	III	IV
IET 30282	4235	5705	5113	4641	5494
IET 29203	5106	5500	5105	4489	4776
Naveen (RP)	5167	6151	4809	4238	5388
CD	461	329	490	310	1025
RP+CD	5628	6480	5299	4548	6413
RP-CD	3706	5822	4319	3928	4293

Both the NIL entries (IETs 30282 and 29203) recorded on par yield performance with RP, Naveen in the Gazette notified state, Odisha and also in the adapted areas in both the years of testing (2022 and 2023). They showed enhanced resistance to BPH compared to the RP. Based on the grain quality data available from 2022, they were found similar to RP in grain type and other grain quality attributes. **Hence, IETs 30282 and 29203 are found promising for the Gazette notified states and adapted areas of recurrent parent Naveen.**

Performance of the Naveen NIL entries for BPH resistance

IET No.	Designation	PNT	LDN	IIRR	CBT	MND
		BPH	BPH	BPH	BPH	BPH
		GH	GH	GH	GH	GH
		DS	DS	DS	DS	DS
30282	CR 4331-74-2-2-1	5.0	3.7	3.2	5.0	5.0
29203	CR 4331-85-1-1-1	5.3	NG	4.1	4.0	5.0
Naveen (RP)		9.0	NG	7.5	8.6	9.0
29217 (R)	Pusa 2090-17-20	9.0	8.0	6.9	7.9	7.0

Assessment of NIL entries tested under AVT 1-IM trial

A total of 5 NILs were tested in AVT 1-IM trial along with their recurrent parents. Three NIL's are in the genetic background of Jaya, two NIL's in the genetic background of WGL 14 were nominated and tested in AVT 1-IM.

NearIsogenicLines (NILs) in thegenetic backgroundofJaya

A totalof threeNILswere evaluated in AVT 1-IM. Three NIL's viz., IET 32049, IET 32050 and IET 32051 are in first year of testing. IET32049 (RP 6743-RAF-0208-IJ-9), IET32050 (RP 6741-RAF-0607-IJ-2) and IET 32051(RP 6742-RAF-909-IJ-4) are the sister lines derivedfromthe cross of Jaya*2/Isogenic line of MTU 1010 possessing genes resistance to bacterial leaf blight, leaf blast and yield enhancing genes. All the three Near Isogenic lines viz., IET 32049, IET 32050 and IET 32051 had at par yield advantage compared to recurrent parent (Jaya) tested across the states in 29 locations.

IET32049 (RP 6743-RAF-0208-IJ-9) and IET32050 (RP 6741-RAF-0607-IJ-2) had at par yield performance compared to recurrent parent but showed on par disease reaction to bacterial leaf blight with a severity index of 5.2 and 5.1 and for blast with a severity index of 5.8 and 5.1 respectively, compared to recurrent parent 5.1 for blast and 5.0 for Bacterial leaf blight.***Hence, IET 32049 and IET 32050 aredropped.***

IET 32051 (RP 6742-RAF-909-IJ-4) showed at par to superior yield performance (5609 kg/ha) to recurrent parent (5562 kg/ha) and showed resistance reaction to bacterial leaf blight with a severity index of 4.8 and 4.9 for blast. ***Hence IET 32051 is promoted to second year of testing in AVT 2-IM.***

NearIsogenicLine (NIL) in thegenetic backgroundofWGL 14 (Warangal Samba)

A totalof two NILswere evaluated in AVT 1-IM. IET 32047 (RP 6747-19484-1-1) and IET 32048 (RP 6747-19483-1-1) are in first year of testing. IET 32047 possesses Bacterial leaf blight resistance and IET 32048 for both bacterial leaf blight and leaf blast resistance.

IET 32047 (RP 6747-19484-1-1) had at par yield performance compared to recurrent parent WGL 14. It showed resistance reaction to bacterial leaf blight with a severity index of 4.6 compared to recurrent parent 5.2. ***Hence, IET 32047 is promoted to second year of testing in AVT 2-IM.***

IET 32048 (RP 6747-19483-1-1)had at par yield performance compared to recurrent parent WGL 14. It showed susceptible disease reaction to blast with a severity index of 5.6; and had resistant reaction to BLB (3.69.***Hence, IET 32048 is dropped.***

Performance of the Jaya NIL entries during Kharif 2023

IET No	Recurrent Parent (RP) and traits	States	No. of locations	Normal condition (CD:395)			Severity Index (%) from hot spots				Remarks
				RP Yield	NIL Yield	Over RP	Blast		Bacterial leaf blight		
							RP	NIL	RP	NIL	
32049	Jaya (BB+Bl+Yield)	HA, UP, OD, Bl, JH, WB, AS TR, MH, GU, AP, TE, TN, KE, KA, PY	29	5562	5202	At Par	5.0	5.8	5.1	5.2	Dropped due to on par disease reaction to BLB and Blast
32050	Jaya (BB+Bl+Yield)		29	5562	5272	At Par	5.0	5.1	5.1	5.1	Dropped due to on par disease reaction to BLB and Blast
32051	Jaya (BB+Bl+Yield)		29	5562	5609	At Par	5.0	4.9	5.1	4.8	Promoted

RP: Recurrent Parent; * Plus CD value; # Minus CD value

Performance of the WGL 14 NIL entries during Kharif 2023

IET No	Recurrent Parent (RP) and traits	States	No. of locations	Normal condition (CD:693)			Severity Index (%) from hot spots				Remarks
				RP Yield	NIL Yield	Over RP	Blast		Bacterial leaf blight		
							RP	NIL	RP	NIL	
32047	WGL 14 (BB)	AP, KE	3	5399	5793	At Par	-	-	5.2	4.6	Promoted
32048	WGL 14 (BB+Bl)		3	5399	5729	At Par	6.3	5.6	5.2	3.9	Dropped due to susceptible reaction to blast disease

RP: Recurrent Parent; * Plus CD value; # Minus CD value

Assessment of NIL entries tested under AVT1-IMEtrial

In the AVT 1- IME trial, five NIL entries were evaluated for yield performance in Gazette notified states and adapted areas of the respective recurrent parents. four NIL entries(IETs 32039, 32040, 32041 and 32042) were in the background of MTU 1010 and one NIL entry(IET 32045) in the background ofKrishna Hamsa.

Performance of NIL entries in thegenetic backgroundofMTU 1010

Four NILs (IETs 32039, 32040, 32041 and 32042) were in the genetic background of MTU 1010. IETs 32039 and 32041 are NIL entries with trait introgression for both bacterial blight (BB) and blast; IET 32040 for BB and IET 32042 for blast resistance.

Yield performance of the MTU 1010 NIL entries under during2023

	Gazette notified states		Adapted areas	
Entry	**AP**	**TS**	**V**	**VII**
IET 32039	4953	5375	4928	5381
IET 32040	4448	4950	4660	5071
IET 32041	4589	5040	4898	5412
IET 32042	4753	5239	4249	5431
MTU1010 (RP)	4864	5327	5314	5499
CD	532	580	364	270
RP+CD	5396	5907	5678	5769
RP-CD	4332	4747	4950	5229

IET 32039 (RP 6529-RMS-77-98-77-23) derived from MTU1010*2/Improved Samba Mahsuri with*Xa21* and *Pi54* genes for bacterial blight and blast resistance respectively is in the first year of testing. It recorded on par yield performance with RP in Gazette notified states (AP and TS) and also in adapted areas of Z-VII. However, its Disease severity index (DSI) was higher than the RP. DSI of blast was recorded as 5.8 in IET 32039 while 4.7 in the RP and of BLB was recorded as 5.6 in IET 32039 while 5.3 in the RP. **Due to disease susceptibility of the IET 32039 over the RP, IET 32039 is dropped.**

IET 32040 (RP 6530-RMS-34-8-33-49) derived from MTU1010*2/Improved Samba Mahsuri with*Xa21* for bacterial blight resistance is in the first year of testing. It recorded on par yield performance with RP in the Gazette notified states, Andhra Pradesh and Telangana. However, its DSI was on par with the RP. DSI of BLB was recorded as 5.3 in IET 32040 while 5.3 in the RP. **Due to on par disease reaction of the IET 32040 compared to the RP, IET 32040 is dropped.**

IET 32041 (RP 6529-RMS-14-66-11-78) derived from MTU1010*2/Improved Samba Mahsuri with*Xa21* and *Pi54* genes for bacterial blight and blast resistance respectively is in the first year of testing. It recorded on par yield performance with RP in Gazette notified states (AP and TS) and also in adapted areas of Z-VII and Z-V. However, its DSI was higher than the RP. DSI of blast was recorded as 5.6 in IET 32041 while 4.7 in the RP and 2.6 in resistant check (Tetep) and of BLB was recorded as 5.2 in IET 32041which is on par to the RP while it was3.7 in resistant check (ISM). **Due to blast susceptibility of the IET 32041 over the RP and on par BLB reaction with RP, IET 32041 is dropped.**

IET 32042 (RP 6531-RMS-78-54-7-44) derived from MTU1010*2/Improved Samba Mahsuri with*Pi54* for blast resistance is in the first year of testing. It recorded on par yield

performance with RP in Gazette notified states (AP and TS) and also in adapted areas of Z-VII. However, its DSI was higher than the RP. DSI of blast was recorded as 5.7 in IET 32042 while 4.7 in the RP and 2.6 in resistant check (Tetep).**Due to disease susceptibility of the IET 32042 over the RP, IET 32042 is dropped.**

Performance of NIL in thegenetic backgroundofKrishna Hamsa

IET 32045 (RP 6744-19182-1-1) derived from the cross of Krishna Hamsa/IRBB60//Krishna Hamsa/Tetep///Krishna Hamsa/IR 96321-1447-561-B-1//Krishna Hamsa/IR81896-96-B-B-195////Krishna Hamsa/IR 74371-46-1-1-13//Krishna Hamsa/DSB2 with *Pi9+Pi1+Pi20+Pi38* for blast resistance is in the first year of testing. It recorded on par yield performance in all the states/zones in which it was evaluated. However, its DSI was on par to the RP. Further, DSI of IET 32045 for blast was 5.2 while of RP was 5.9 and of resistance check (Tetep) was 2.6. **Disease reactionis less than when compared to the RP, IET 32045 is promoted.**

Yield performance of the NIL entry IET 32045 during kharif 2023

Entry	BI	WB	III	TR	IV	AP	VII
IET 32045	4179	4745	4323	6068	5641	4476	4529
Krishna Hamsa (RP)	3781	4011	3819	4239	4415	4114	4542
CD	466	431	267	927	755	532	270
RP+CD	4247	4442	4086	5166	5170	4646	4812
RP-CD	3315	3580	3552	3312	3660	3582	4272

Assessment of NIL entries tested under AVT 2 & 1 Latetrial

In the AVT 2 &1 Late trial, 27 NIL entries were evaluated for yield performance in Gazette notified states and adapted areas of the respective recurrent parents. Ten NIL entriesin the genetic background of Improved Sama Mahsuri and nine entries in the background of Pusa 44, four each in Samba Mahsuri and in Swarna background.

Performance of NIL entries in thegenetic backgroundofImproved Samba Mahsuri

A total of ten NIL's are in the genetic background of Improved Samba Mahsuri. The NIL entries with target trait introgression for different traits: IET 32054 for Bacterial leaf blight and Gall Midge resistance; IET 32055 for Bacterial leaf blight, Salinity and low Phosphorous tolerance; IET 32056 for Bacterial leaf blight, Blast and Salinity tolerance; IET 32057 for Bacterial leaf blight and BPH tolerance; IET 32058 for Bacterial leaf blight and Submergence tolerance; IET 32059 for Bacterial leaf blight, Submergence and Drought tolerance; IET 32060 for Bacterial leaf blight, Low Phosphorous tolerance and BPH resistance; IET 32061 for Bacterial leaf blight, Blast and Submergence tolerance; IET 32062 for Bacterial leaf blight, Blast and BPH resistance; and IET 32063 for Bacterial leaf blight, Blast, BPH and Low Phosphorous tolerance.

All the ten NIL's showed on par to superior yield performance compared to Recurrent parent evaluates in 13 locations across zones II, V and VII.

IET 32057 recorded on par yield performance compared to recurrent parent but showed susceptible reaction to bacterial leaf blight and BPH tolerance, hence dropped. All other nine NIL's viz., IET 32054, 32055, 32056, 32058, 32059, 32060, 32061, 32062 and 32063 had on par to superior yield performance compared to recurrent parent, trait wise, all the NILs recorded resistance/tolerance reaction to target traits with acceptable quality traits. ***Hence***

nine NIL's namely IET's 32054, 32055, 32056, 32058, 32059, 32060, 32061, 32062 and 32063 promoted to second year of testing I n AVT 2 -Late trial.

Performance of NIL entries in thegenetic backgroundofSamba Mahsuri

A total of four NIL's are in the genetic background of Samba Mahsuri. All the four NIL entries viz., IET 32068, 32069, 32070 and 32071 with trait introgression for Blast resistance. IET 32070 and 32071 showed resistance reaction to blast but recorded inferior yield performance compared to recurrent parent, ***hence dropped.***

IET 32068 and IET 32069 showed on par yield performance compared to recurrent parent and had resistance reaction of SI index 4.5 and 4.6 compared to recurrent parent 5.3 for IET 32068 and IET 32069 respectively.***Hence, IET 32068 and 32069 promoted to second year of testing in AVT 2 Late trial.***

Performance of NIL entries in thegenetic backgroundofSwarna

A total of four NIL's are in the genetic background of Swarna. All the four NIL entries viz., IET 32064, 32065, 32066 and 32067 with trait introgression for Bacterial leaf blight and Blast resistance. IET 32066 and 32067 showed resistance reaction to bacterial leaf blight but recorded susceptible resistance reaction to blast compared to recurrent parent, ***hence dropped.***

IET 32064 and IET 32065 showed on par yield performance compared to recurrent parent and had resistance reaction of SI index 4.5 and 4.6 for bacterial leaf blight resistance and 3.2 and 4.2 for blast resistance compared to recurrent parent for IET 32064 and IET 32065 respectively.***Hence, IET 32064 and 32065 promoted to second year of testing in AVT 2 Late trial.***

Performance of NIL entries in thegenetic backgroundofPusa 44

A total of nine NIL's are in the genetic background of Pusa 44. The NIL entries with target trait introgression for different traits: IET's 30827, 32052, 32053 and 30830 for Bacterial leaf blight and Salinity tolerance; IET 30828 for Bacterial leaf blight and Blast resistance; IET 29546 and IET 29558 for Low Phosphorous tolerance and IET 30826 and IET 30829 for Herbicide tolerance.

Eight NIL's viz., IET's 30827, 30826, 30828, 29558, 30829and30830 are dropped or not promoted due to inferior yield or susceptible reaction to bacterial leaf blight, susceptible reaction to blast resistance and poor quality. Rest three NILs viz., IET's 29546, 32052 and 32053 recorded on par yield performance compared to recurrent parent. For trait introgressed IET 29456 showed superior yield performance under low P condition; IET 32052 and IET 32053 recorded resistance reaction to bacterial leaf blight and tolerant to salinity compared to recurrent parent. Hence, IET 32052 and 32053 is promoted to second year of testing in AVT 2- Late trial.

Performance of NIL's in the genetic background of Improved Samba Mahsuri during 2023

IET No	Recurrent Parent (RP) and traits	States	No. of locations	Normal condition (CD:614)			Severity Index (%) from hot spots								Remarks
				RP Yield	NIL Yield	% Over RP	Bacterial leaf blight		Blast		BPH#		GM (GMB4)		
							RP	NIL	RP	NIL	RP	NIL	RP	NIL	
32054	Improved Samba Mahsuri (BB+GM)	AP, TN, KA, PY, CH, OD, BI, WB	13	4795	4993	+4.1	4.4	4.7	-	-	-	-	75	0	Promoted
32055	Improved Samba Mahsuri (BB+Salinity+Low P)		13	4795	5030	+4.9	4.4	3.9	-	-	Low P		Salinity		Promoted
											4183	4442	3050	3263	
32056	Improved Samba Mahsuri (BB+BL+Salinity)		13	4795	5254	+9.6	4.4	4.5	5.6	5.1	Salinity				Promoted
											RP: 3050		NIL: 2725		
32057	Improved Samba Mahsuri (BB+BPH)		13	4795	5006	+4.4	4.4	5.5	-	-	8.6	6.9	-	-	Dropped due to susceptible reaction to BLB
32058	Improved Samba Mahsuri (BB+Sub)		13	4795	4895	+2.1	4.4	5.1	-	-	Submergence				Promoted
											RP: 2292		NIL: 2802*		
32059	Improved Samba Mahsuri (BB+Sub+Drt)		13	4795	4975	+3.8	4.4	4.5	-	-	Submergence$		Drought$		Promoted
											-	-	-	-	
32060	Improved Samba Mahsuri (BB+BPH+Low P)		13	4795	4908	+2.3	4.4	4.7	-	-	8.6	8.6	4183	4296	Promoted
32061	Improved Samba Mahsuri (BB+BL+Sub)		13	4795	4622	-3.6	4.4	4.3	5.6	5.0	Submergence				Promoted
											RP: 2292		NIL: 3859*		
32062	Improved Samba Mahsuri (BB+BL+BPH)		13	4795	5208	+8.6	4.4	5.5	5.6	5.1	8.6	5.3	-	-	Promoted
32063	Improved Samba Mahsuri (BB+ BL+ BPH + Low P)		13	4795	4864	+1.4	4.4	4.5	5.6	5.6	8.6	8.0	4183	4410	Promoted

Sufficient data of BPH reaction is not available; $ Data not available for submergence and drought.

Performance of NIL's in the genetic background of Samba Mahsuri during 2023

IET No	Recurrent Parent (RP) and traits	States	No. of locations	Normal condition			Severity Index (%) from hot spots		Remarks
				RP Yield	NIL Yield	% Over RP	Blast		
							RP	NIL	
32068	Samba Mahsuri(BL)	AP, TN, KA, PY, CH, OD, BI, WB	13	5029	5173	+2.9	5.3	4.5	Promoted
32069	Samba Mahsuri(BL)		13	5029	4784	-4.9	5.3	4.6	Promoted
32070	Samba Mahsuri(BL)		13	5029	4914	-2.3	5.3	4.9	Dropped due to on par disease reaction to Blast
32071	Samba Mahsuri(BL)		13	5029	4573	-9.1	5.3	4.3	Dropped due to inferior yield

Performance of NIL's in the genetic background of Swarna during 2023

IET No	Recurrent Parent (RP) and traits	States	No. of locations	Normal condition			Severity Index (%) from hot spots				Remarks
				RP Yield	NIL Yield	% Over RP	Bacterial leaf blight		Blast		
							RP	NIL	RP	NIL	
32064	Swarna (BB+BL)	AP, TN, KA, PY, CH, OD, BI, WB	13	5781	5690	-1.6	5.2	4.6	3.9	3.2	Promoted
32065	Swarna (BB+BL)		13	5781	5584	-3.4	5.2	4.5	3.9	4.2	Promoted
32066	Swarna (BB+BL)		13	5781	5670	-1.9	5.2	3.5	3.9	5.2	Dropped due to susceptible reaction to blast
32067	Swarna (BB+BL)		13	5781	5301	-8.3	5.2	4.0	3.9	5.4	Dropped due to susceptible reaction to blast

Performance of NIL's in the genetic background of Pusa 44 during 2023

IET No	Recurrent Parent (RP) and traits	States	No. of locations	Normal condition			Severity Index (%) from hot spots				Target traits						Remarks
				RP Yield	NIL Yield	% Over RP	Bacterial leaf blight		Blast		Low P		Herbicide tolerance		Salinity		
							RP	NIL	RP	NIL	RP	NIL	RP	NIL	RP	NIL	
30827	Pusa 44 (BB+Salinity)	AP, TN, KA, PY, OD, BI, WB, UP	13	5813	5495	-5.5	5.3	4.3	-	-	-	-	-	-	1778	3334	Dropped due to poor quality (low HRR and grain type difference)
30826	Pusa 44 (Herbicide)		13	5813	5089	-12.4	-	-	-	-	-	-	@	@	-	-	Dropped due to inferior yield
29546	Pusa 44 (Low P)		13	5813	5555	-4.4	-	-	-	-	4327	4934	-	-	-	-	Promoted
32052	Pusa 44 (BB+Salinity)		13	5813	5904	1.6	5.3	3.4	-	-	-	-	-	-	2504	4181	Promoted
30828	Pusa 44 (BB+BL)		13	5813	5598	-3.7	5.3	4.7	5.7	5.1	-	-	-	-	-	-	Dropped due to susceptible reaction to blast
29558	Pusa 44 (Low P)		13	5813	5343	-8.1	-	-	-	-	4327	4595	-	-	-	-	Dropped due to inferior yield
32053	Pusa 44 (BB+Salinity)		13	5813	5552	-4.5	5.3	3.6	-	-	-	-	-	-	2504	4130	Promoted
30829	Pusa 44 (Herbicide)		13	5813	5079	-12.6	-	-	-	-	-	-	@	@	-	-	Dropped due to inferior yield
30830	Pusa 44 (BB+Salinity)		13	5813	5211	-10.3	5.3	4.7	-	-	-	-	-	-	1778	3260	Dropped due to inferior yield

@ data not available for herbicide tolerance

Assessment of NIL entries tested under AVT 2 & 1-M(H) trial

One NIL entry (IET 30503) is tested in AVT 2 & 1-M(H) trial along with its recurrent parent. Target trait is blast resistance.

Blast disease of rice is a major threat in mid hills of Northern hill zone. Therefore, markerassisted introgression of blast resistant genes *Pi 54* and *Pi 9* into the recurrent parent K-343was taken up to improve the recurrent parent. DHMAS and RML-22 were selected as donorparents for the *Pi 54* and *Pi 9* blast resistant genes, respectively. Marker assisted backcrossbreeding strategy was employed to transfer the genes of interest and one NIL IET 30503 wasidentified as tolerant NIL. The yield performance ofthe NIL entry along with recurrentparentand bestcheck atdifferentaltitudesismentioned inthefollowingtable.

Grainyield(Kg/ha)of NIL entryIET30503atdifferentelevations:

NILEntry	LowNorthern	MediumNorthern	MediumSouthern	Highaltitude
IET 30503	**3590**	**4270**	4092	5147
K-343(Recurrentparent)	3188	3311	5042	6460
CD	242	626	221	622
Recurrentparent±CD	**3430**	**3937**	5263	7082
BestCheck	4081	5146	4917	7194

Based on Recurrent parent± CD, the NIL IET30503 is having significantly highergrainyield compared to recurrent parent at low northern and medium northern altitudes. But thesame NIL did not outperform the recurrent parent in grain yield.Therefore, the NIL IET30503 is found superior in yield when compared to recurrent parent K 343 at Lower NorthernandMedium northern altitudes for grainyield.

LeafBlastReaction of IET30503inNSNHilllocations

Locations	**ALM**	**CTK**	**IIRR**	**KJT**	**KHD**	**LNV**	**PNP**	**UMM**	**USG**	**Mean**
Screening	N	A	A	A	N/A	N	N	N	N	
LSI	5.3	6.7	4.2	3.1	4.4	7.8	3.2	3.2	3.9	
Ent.2407 (IET#30503)	8	7	3	1	5	7	1	2	6	**4.44**
Ent.2408 (RP)	5	7	2	1	6	7	2	2	5	**4.11**
Tetep(R)	5	5	1	1	0	3	3	1	2	**2.33**
HR-12(S)	6	9	9	3	8	7	8	5	7	**6.89**

N=Naturalmethod;A=Artificialinoculation;LSI=Locationseverityindex;R=Resistantcheck;S=Susceptiblecheck

The blast screening nursery data from 9 locations was compiled and presented in the table.The entry IET 30503 (NIL) has shown a moderate susceptibility score of 4.44 where as therecurrent parent has also recorded moderate susceptibility score of 4.11. Therefore the NILhasnotshownanyadvantageoverrecurrentparentforblastresistance.Infact,NILhasshown little inferior reaction to recurrentparent regarding blast resistance reaction. Theresistant check Tetep has shown resistant reaction of 2.33 and susceptible check HR 12 hasshownscoreof6.89indicatingtheproperwayofconductingthediseasescreening.***Therefore, it is concluded that the NIL (IET 30503) has shown moderately susceptiblereactionand hencediscontinued.***

Assessment of NIL entries tested under AVT 2 -AL & ISTVT trial

Two NILs viz., IET 30827 and IET 30828 weretested in AVT 2 -AL & ISTVT trial along with their recurrent parent (Pusa 44). Target trait is salinity tolerance for the both NIL's.

Performance of NILs of Pusa 44 under Alkalinity & Inland Salinity over the years of testing (2022-2023)

IET 30827 (CSR 389-16-22) developed through backcross breeding with pedigree of Pusa 44/FL 478*3//Pusa 44/IRBB 60*3, NIL entry in the genetic back ground of Pusa 44 entered AL & ISTVT trial in 2022 for trait verification under alkaline and Inland saline conditions and has completed two years of testing 2022 and 2023. Under sodic and inland saline micro-plots at Karnal, IET 30827 exhibited SES score of 6.0 (2022) and 4.0 (2023); 7.0 (2022) and 4.0 (2023) as compared to donor and tolerant parent- FL 478 which recorded SES score of 6.0 (2022) and 7.0 (2023); 6.0 (2022& 2023) under sodic and inland saline conditions respectively. Multi-location testing in 2022 across stress locations found promising on overall (NIL: 3022 kg/ha; RP: 2622 kg/ha) and Z-II (NIL:2555 kg/ha; RP:1566 kg/ha) with significant yield over recurrent parent (Pusa 44) during 2022 under alkaline conditions; promising on overall (NIL: 3629 kg/ha; RP:2075 kg/ha), Z-II (NIL: 2747 kg/ha; RP:1407 kg/ha) and Z-VII (NIL: 4510 kg/ha; RP: 2742 kg/ha) with Significant superiority over recurrent parent (Pusa 44). During 2023, IET 30827 found promising on overall (NIL 3705 kg/ha; RP: 2576 kg/ha), in Z-II (NIL: 3397 kg/ha; RP: 2170 kg/ha) and Z-III (NIL: 4260 kg/ha; RP:2020 kg/ha) under alkaline conditions; on overall (NIL: 4135 kg/ha; RP: 2434 kg/ha) and in Z-II (NIL: 4327 kg/ha; RP: 1407 kg/ha) under inland saline conditions. Quality wise, IET 30827 exhibited low HRR (2022-NIL: 40.5 %; RP: 58.2%), grain type differences (2022-NIL: LB; RP: MS) and high amylose content (2022-NIL: 26.04%; RP: 23.84%). State wise, IET 3087 exhibited promising for yield performance in Haryana consecutively for two years both under alkaline and inland saline conditions.

IET 30830 (CSR 389-16-6) developed through backcross breeding with pedigree of Pusa 44/FL 478*3//Pusa 44/IRBB 60*3, NIL entry in the genetic back ground of Pusa 44 entered AL & ISTVT trial in 2022 for trait verification under alkaline and Inland saline conditions and has completed two years of testing 2022 and 2023. Under sodic and inland saline micro-plots at Karnal, IET 30830 exhibited SES score of 6.0 (2022) and 3.0 (2023); 6.0 (2022) and 4.0 (2023) as compared to donor and tolerant parent- FL 478 which recorded SES score of 6.0 (2022) and 7.0 (2023); 6.0 (2022& 2023) under sodic and inland saline conditions respectively. Multi-location testing in 2022 across stress locations IET 30830 found promising on overall (NIL: 3020 kg/ha; RP: 2622 kg/ha) and Z-II (NIL:2592 kg/ha; RP:1566 kg/ha) with significant yield over recurrent parent (Pusa 44) during 2022 under alkaline conditions; promising on overall (NIL: 3449 kg/ha; RP:2075 kg/ha), Z-II (NIL: 2587 kg/ha; RP:1407 kg/ha) and Z-VII (NIL: 4310 kg/ha; RP: 2742 kg/ha) with significant superiority

over recurrent parent (Pusa 44). During 2023, IET 30830 found promising on overall (NIL 4253 kg/ha; RP: 2576 kg/ha), in Z-II (NIL: 3513 kg/ha; RP: 2170 kg/ha), Z-III (NIL: 4127 kg/ha; RP:2020 kg/ha) and Z-VII (NIL: 6598 kg/ha; RP: 4352 kg/ha) under alkaline conditions; on overall (NIL: 4164 kg/ha; RP: 2434 kg/ha), in Z-II (NIL: 4237 kg/ha; RP: 1407 kg/ha) and Z-VII (NIL:4020 kg/ha; RP: 3629 kg/ha)) under inland saline conditions. Quality wise, IET 30830 exhibited comparable HRR (2022-NIL: 52.5 %; RP: 58.2%), grain type differences (2022-NIL: LB; RP: MS) and high amylose content (2022-NIL: 28.98%; RP: 23.84%). State wise, IET 3087 exhibited promising for yield performance in Haryana consecutively for two years both under alkaline and in Haryana and Karnataka under inland saline conditions.

As the trait is verified for Saltol in comparison to Pusa 44, the detail discussion on yield performance is provided above in AVT 2 & 1 late for both the NILs IET 30827 and IET 30830.

Assessment of NIL entries tested under AVT 2 & IVT - CSTVT trial

Three NILs viz., IET's 32036, 32037 and 32038 weretested in AVT 2 -AL & ISTVT trial along with their recurrent parent (ADT 45). Target trait is coastal salinity tolerance for the both NIL's.

Performance of NILs of ADT 45 under coastal salinity for during Kharif 2023 in CSTVT

During 2023, three NILs namely IET's 32036, 32037 and 32038 in the genetic background of ADT 45 were nominated for trait verification and yield evaluation under saline and alkaline stress conditions. All these NILs were evaluated in stress locations in different zones. Among them, IET 32037 (KR 21001) developed through backcrossing of ADT 45 with FL 478 from the cross ADT 45*4/FL 478 with *Saltol* QTL recorded a mean grain yield of 3651 kg/ha and 91 days to 50% flowering on overall basis, with 3878 kg/ha grain yield and 96 days to flowering in Zone-III; with 4108 kg/ha grain yield and 78 days to 50% flowering in Zone-VII exhibited significant yield superiority over recurrent parent – ADT 45 on overall basis as well in zone-III and zone-VII.

IET 32036, another NIL culture in the genetic background of ADT 45 developed from the backcross method with the pedigree of ADT 45*4/FL 478//CSR 27 with*Saltol* QTL from FL 478 and reproductive stage salinity tolerance from CSR 27 parent. IET 32036 showed a mean grain yield of 3860 kg/ha and 92 days to 50% flowering on overall basis, with 4217 kg/ha grain yield and 97 days to flowering in Zone-III; with 4395 kg/ha grain yield and 84 days to 50% flowering in Zone-VII exhibited significant yield superiority over recurrent parent – ADT 45 on overall basis as well in zone-III and zone-VII.

IET 32038, another sister NIL of IET 32036 in the genetic background of ADT 45 developed from the backcross method with the pedigree of ADT 45*4/FL 478//CSR 27 with*Saltol* QTL from FL 478 and reproductive stage salinity tolerance from CSR 27 parent. IET 32038 showed a mean grain yield of 3915 kg/ha and 94 days to 50% flowering on overall basis, with 4209 kg/ha grain yield and 99 days to flowering in Zone-III; with 4230 kg/ha grain yield and 93 days to 50% flowering in Zone-VII exhibited significant yield superiority over recurrent parent – ADT 45 on overall basis as well in zone-III and zone-VII.

The yield data of the three NILs (IET's 32036, 32037 and 32038) in the Gazette notified states of the recurrent parent is available in the duration trial i.e., AVT1-ETP. Allthe NIL entries exhibited flowering duration comparable to that of recurrent parent- ADT 45 and

significant yield advantage over RP. **Hence merit promotion for further testing under AVT2 trial**.

Assessment of NIL entries tested under AVT 2 LPT (Low Phosphorus Tolerance) trial

A total of five NIL's were tested under low Phosphorus condition. There were two NILs Viz., IET 29558 and IET 29546 in the background of Pusa 44 and three NILs Viz., IETs 32063, 32060, 32055 in the genetic background of Improved Samba Mahsuri.

Performance of the NIL entries under AVT 2 LPT (Low Phosphorus Tolerance) trial

NIL entry	Grain yield (kg/ha)			
	Zone 3	Zone 6	Zone 7	Overall
	P 0 Level			
IET 32063 (RP - ISM)	2316	4292	4270	3715
IET 32060 (RP - ISM)	2956	3417	3909	3566
IET 32055(RP - ISM)	2597	3583	4065	3576
Improved Samba Mahsuri (ISM)	3398	4667	4332	4113
IET 29558 (RP - Pusa 44)	2956	3292	5052	4201
IET 29546 (RP - Pusa 44)	2097	4917	5319	4341
Pusa 44	2292	3333	4049	3445
CD	288	631	411	272
	P 50% Level			
IET 32063	3731	4699	4678	4410
IET 32060	3270	4167	4842	4296
IET 32055	3968	4269	4722	4442
Improved Samba Mahsuri	2665	5278	4668	4183
IET 29558 (RP - Pusa 44)	2667	4778	5513	4595
IET 29546 (RP - Pusa 44)	2827	5718	5792	4934
Pusa 44	3383	4333	4797	4327
CD	452	717	387	252

Performance of NIL's in thegenetic backgroundofImproved Samba Mahsuri

Among the two NILs of Improved Samba Mahsuri, IET 32055 found significantly high yielding than recurrent parent in Zone 3 and overall performance in P 50% application. Other two NILs IET 32063 and IET 32060 found significantly superior to recurrent parent in Zone 3 and Zone 6 under P 50% condition.

Performance of NIL's in thegenetic backgroundofPusa 44

Among the NIL of Pusa 44,IET 29558 found significantly superior to recurrent parent Pusa 44 in Zone3, Zone 7 and Overall mean under P 0 levels. It also performed better than Recurrent parent in Zone 6, Zone 7 and Over all mean under P 50%. Similarly, another NIL of Pusa 44, IET 29546 found significantly superior to recurrent parent in Zone 6, Zone 7 and Overall mean under P 0 levels. Similarly, the entry IET 29546 found superior to recurrent parent in Zone 6, Zone 7 and Over all mean under P 50%. ***Therefore, all the 3 NILs of Improved Samba Mahsuri (IETs 32063, 32060, 32055) and 2 NILs (IET 29558 and IET 29546) of Pusa 44 are promoted to AVT 2 LPT for second year of testing*.**

Disease reaction of the entries to blast disease during Kharif 2023

Entry Name	CBT	GDL	GNV	HZB	IIRR	JDP	JGL	KJT	LNV	MGD	MND	NLR	NVS	NWG	PNP	PTB	RCI	WBL	SI
	A	N	A	A	A	N	A	A	N	N	A	A	N	A	N	N	N	N	
	4.7	4.1	5.6	5.9	4.4	6.3	5.6	3.0	7.6	3.1	6.2	4.4	4.6	5.6	3.1	5.0	5.0	3.2	
30757	3	3	1	7	2	7	5	2	7	3	8	4	4	5	2	3	6	4	**4.2**
GangavatiSona (RP)	4	3	5	8	3	8	9	5	9	3	8	6	5	5	5	4	4	3	**5.4**
32047	5	4	6	7	6	9	5	4	9	3	9	5	5	8	5	8	4	4	**5.9**
32048	5	4	3	7	6	8	7	4	9	3	9	4	3	7	5	8	4	4	**5.6**
WGL 14 (RP)	-	-	9	7	5	8	7	4	9	3	9	6	5	8	4	9	4	4	**6.3**
32049	4	4	9	7	4	9	7	3	8	3	9	4	5	8	4	5	7	5	**5.8**
32050	4	3	5	8	2	9	5	2	7	3	9	4	4	5	6	5	6	4	**5.1**
32051	3	3	9	8	2	9	5	1	7	3	9	4	3	6	6	5	4	2	**4.9**
Jaya (RP)	3	3	7	7	3	9	5	1	7	3	9	4	5	7	5	6	3	3	**5.0**
30827	5	4	3	7	7	6	5	3	8	3	9	4	3	5	5	9	7	4	**5.4**
30826	6	5	2	5	6	8	7	4	9	3	9	5	5	6	5	9	7	3	**5.8**
29546 (R)	6	5	3	8	5	7	5	3	7	1	9	4	3	5	4	9	6	3	**5.2**
32052	6	5	5	7	6	9	7	6	9	1	9	4	5	6	1	9	5	4	**5.8**
30828	5	4	5	6	3	8	7	5	9	3	5	4	3	6	2	8	4	4	**5.1**
29558 (R)	6	5	9	7	5	6	3	5	8	3	9	4	5	5	3	8	5	4	**5.6**
28017	6	5	7	7	5	6	5	7	8	3	9	4	3	7	1	8	6	4	**5.6**
32053	5	5	3	7	6	7	7	5	8	3	9	4	5	6	2	9	5	4	**5.6**
30829	6	6	6	8	6	7	5	3	9	3	9	4	4	5	3	8	7	4	**5.7**
28018	5	4	6	7	6	7	7	4	9	3	9	5	5	6	3	8	4	4	**5.7**
30830	5	4	7	7	6	7	5	3	8	3	9	4	6	7	2	9	4	5	**5.6**
Pusa 44 (RP)	6	4	3	7	6	7	5	7	8	3	8	5	5	8	4	9	4	4	**5.7**
32054	3	3	4	8	3	7	5	5	9	3	9	4	3	7	5	3	6	4	**5.1**
32055	2	3	6	5	6	7	5	3	9	3	9	5	5	5	2	3	6	3	**4.8**
32056	2	2	7	7	7	6	5	3	9	3	9	4	4	8	1	4	8	2	**5.1**
32057	4	3	9	8	7	9	9	5	8	3	9	5	5	7	1	8	5	2	**5.9**
32058	5	2	9	6	4	9	5	6	9	3	7	5	3	6	5	5	7	4	**5.6**
32059	5	2	7	6	4	8	5	5	9	3	7	5	7	7	4	4	4	3	**5.3**
32060	3	3	7	6	6	8	5	4	9	3	9	4	5	5	2	6	4	3	**5.1**
32061	4	3	8	8	4	9	5	4	8	5	4	5	6	8	2	3	4	0	**5.0**
32062	4	3	7	7	4	7	7	5	8	5	4	6	7	5	2	4	5	2	**5.1**
32063	4	4	9	5	3	9	5	4	9	5	8	6	6	6	2	6	6	3	**5.6**
32064	-	-	-	6	-	-	-	-	-	-	-	-	3	-	-	0	5	2	**3.2**
32065	4	3	9	4	3	2	7	1	9	3	1	4	5	5	1	5	6	4	**4.2**
32066	4	3	9	8	3	9	5	5	9	3	8	4	2	-	1	5	6	5	**5.2**
32067	-	-	5	7	-	9	-	2	-	-	-	4	5	6	-	5	7	4	**5.4**
Swarna (RP)	-	-	-	7	-	-	-	-	-	-	-	-	3	4	1	5	5	2	**3.9**

32068	4	3	3	3	3	6	5	4	9	3	5	5	5	7	1	5	7	3	**4.5**
32069	5	3	7	3	3	3	5	4	9	3	4	4	3	5	2	8	7	4	**4.6**
32070	5	4	9	3	3	3	3	7	9	3	5	5	5	5	4	6	4	5	**4.9**
32071	5	4	3	4	3	2	5	7	8	3	4	5	4	5	2	5	5	4	**4.3**
Samba Mahsuri (RP)	4	3	3	5	6	7	5	7	8	3	9	5	6	5	5	5	6	3	**5.3**
32039	5	4	4	7	6	9	5	7	8	3	8	3	5	8	6	9	5	3	**5.8**
32040	5	4	4	9	5	9	5	8	6	3	9	4	6	6	5	9	5	3	**5.8**
32041	7	6	3	7	6	9	3	7	7	3	9	4	3	4	5	9	4	4	**5.6**
32042	6	4	2	8	6	9	5	7	7	3	9	4	5	7	6	8	4	3	**5.7**
32043	7	6	3	5	3	7	9	3	8	3	4	5	3	5	2	8	3	3	**4.8**
32044	7	6	2	4	3	7	7	4	9	3	4	4	4	8	4	2	6	4	**4.9**
MTU-1010 (RP)	6	5	7	7	3	7	5	5	9	3	4	4	3	5	3	2	4	3	**4.7**
32045	5	4	7	7	3	6	7	2	8	3	4	4	5	6	3	9	5	5	**5.2**
Krishna Hamsa (RP)	7	6	9	9	7	9	5	3	7	3	9	4	3	5	5	9	4	3	**5.9**
32046	6	5	9	7	5	7	9	2	8	3	8	4	6	5	2	8	5	3	**5.7**
Pusa 44 (RP)	6	5	9	7	6	7	7	2	9	3	9	4	4	7	5	9	4	4	**5.9**
32052	7	5	4	6	7	7	5	3	8	3	9	4	6	5	4	9	3	4	**5.5**
32055	4	4	2	5	7	7	5	2	9	3	9	5	4	8	4	6	5	2	**5.1**
32056	6	5	8	6	7	8	5	2	9	3	9	4	5	8	6	6	4	3	**5.8**
Improved Samba Mahsuri (RP)	5	4	3	7	7	7	3	2	8	3	9	5	6	7	5	8	6	5	**5.6**
HR 12	7	6	9	8	7	9	9	2	9	5	9	6	7	8	4	9	8	2	**6.9**
TN1	4	3	9	7	5	9	9	2	8	3	9	5	7	8	5	7	7	3	**6.1**
Tetep	3	3	2	3	1	3	3	2	3	1	3	4	3	4	2	3	1	3	**2.6**

RP: Recurrent Parent; RC: Resistant Check; SI: Severity Index

Disease reaction of the entries to Bacterial leaf blight disease during Kharif 2023

Entry Name	ADT	CHN	CHP	CHT	CTK	GNV	IIRR	JGL	KJT	LDN	MNC	MTU	NLR	NWG	PNT	PTN	SBR	TTB	VRN	SI
	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
	6.0	5.7	6.7	5.4	8.1	5.6	6.0	4.9	5.3	5.9	3.0	6.6	4.4	5.9	7.4	3.7	4.5	4.8	5.7	
30757	9	3	7	7	3	7	1	5	5	3	3	7	5	5	3	5	0	3	7	**4.6**
GangavatiSona (RP)	9	3	7	5	9	7	7	5	5	7	3	7	7	5	5	5	0	3	-	**5.5**
32047	5	5	9	5	3	3	1	7	5	7	1	7	5	7	3	1	5	3	-	**4.6**
32048	1	5	5	5	3	3	1	7	5	7	0	7	5	7	3	3	0	3	5	**3.9**
WGL 14 (RP)	7	5	9	3	9	3	3	7	5	7	0	7	5	5	7	3	-	3	5	**5.2**
32049	7	3	9	5	9	1	1	-	5	5	5	7	5	7	5	3	7	5	5	**5.2**
32050	7	5	7	5	1	9	1	5	5	7	0	7	7	5	3	5	5	5	7	**5.1**
32051	5	3	9	5	5	9	1	7	5	7	0	9	3	5	5	1	0	5	7	**4.8**
Jaya (RP)	7	3	3	7	9	3	7	5	5	7	3	9	3	5	5	7	3	3	3	**5.1**
30827	5	3	7	5	3	5	1	5	5	3	3	7	3	7	3	5	0	5	7	**4.3**
30826	7	9	5	7	9	3	7	3	7	7	3	7	7	7	5	3	0	5	5	**5.6**
29546 (R)	5	7	7	5	9	5	7	5	7	7	0	7	-	7	9	3	1	5	7	**5.7**
32052	3	3	5	5	3	3	1	-	-	3	0	5	3	7	1	3	0	5	7	**3.4**
30828	3	9	3	5	7	5	1	-	5	5	1	5	3	7	3	3	7	5	7	**4.7**
29558 (R)	5	7	5	5	9	7	7	5	5	7	0	5	5	5	9	7	0	5	7	**5.5**
28017	5	5	5	5	9	9	7	7	5	7	0	5	3	5	7	3	0	5	5	**5.1**
32053	7	3	3	7	1	5	1	3	5	3	0	7	3	5	3	1	1	5	5	**3.6**
30829	5	7	5	5	9	5	5	3	5	7	0	5	3	7	3	7	3	3	7	**4.9**
28018	3	7	5	5	9	3	7	5	5	7	0	7	3	7	5	5	1	3	7	**4.9**
30830	5	5	3	7	3	7	1	5	7	3	0	7	7	5	3	7	5	5	5	**4.7**
Pusa 44 (RP)	1	7	5	5	9	7	7	5	5	7	0	5	5	7	7	5	3	5	5	**5.3**
32054	7	7	5	5	9	1	1	7	5	3	5	5	5	5	1	3	3	5	7	**4.7**
32055	5	3	5	3	9	3	1	5	7	3	0	7	5	5	1	3	3	3	3	**3.9**
32056	5	9	3	5	9	7	1	-	5	3	0	5	3	5	3	5	3	5	5	**4.5**
32057	7	5	7	7	5	3	3	-	7	5	5	5	5	7	7	3	-	5	7	**5.5**
32058	-	5	7	-	9	5	1	7	5	5	0	5	5	7	3	7	5	5	5	**5.1**
32059	7	3	5	5	5	9	1	7	5	5	0	5	5	5	5	3	3	3	5	**4.5**
32060	7	5	5	7	9	3	1	7	5	3	0	5	7	5	5	1	-	3	7	**4.7**
32061	7	3	3	3	3	3	1	7	5	5	0	5	7	7	5	5	0	5	7	**4.3**
32062	5	7	7	3	9	7	1	5	5	3	5	5	5	7	7	9	3	5	7	**5.5**
32063	7	3	7	5	5	5	1	5	5	3	3	5	7	5	5	3	0	5	7	**4.5**
ISM (RP)	7	3	5	5	5	3	1	5	5	-	0	5	7	5	3	-	9	3	-	**4.4**
32064	5	3	5	7	3	-	-	-	-	7	0	5	5	-	-	5	7	3	-	**4.6**
32065	1	7	5	3	3	5	5	7	5	3	0	7	5	5	7	3	0	7	7	**4.5**
32066	1	3	-	5	3	5	1	5	-	3	3	5	-	-	5	-	0	3	7	**3.5**
32067	-	3	-	5	3	5	1	-	5	-	1	7	-	7	-	-	3	-	-	**4.0**
Swarna (RP)	-	3	7	5	9	-	9	-	5	-	-	-	-	7	-	1	1	-	-	**5.2**
32068	5	9	9	5	9	5	9	5	5	7	3	7	7	7	9	7	0	5	5	**6.2**
32069	7	9	9	5	9	3	9	5	7	7	5	7	5	7	9	7	9	5	7	**6.9**
32070	7	7	9	5	9	3	7	-	5	7	0	7	7	5	9	3	0	5	3	**5.4**

32071	9	9	9	5	9	5	9	5	5	7	7	7	5	7	9	5	9	5	5	**6.9**
Samba Mahsuri (RP)	5	7	7	5	9	9	-	5	-	7	5	5	7	7	9	3	7	5	7	**6.4**
32039	3	3	7	7	3	9	1	9	7	5	5	5	5	7	9	5	7	5	5	**5.6**
32040	3	9	5	5	7	9	1	-	5	3	5	7	7	7	5	3	3	7	5	**5.3**
32041	7	3	5	7	9	7	1	7	5	3	7	7	7	5	3	3	5	5	3	**5.2**
32042	5	3	7	5	9	5	1	7	7	5	7	7	5	7	5	3	9	7	7	**5.8**
32043	9	7	7	5	3	7	7	3	5	5	5	7	5	7	5	5	1	5	7	**5.5**
32044	5	3	7	5	9	7	7	3	-	3	5	7	5	7	7	5	7	5	7	**5.8**
MTU-1010 (RP)	5	3	5	7	9	7	7	3	5	3	5	7	5	5	5	3	5	5	7	**5.3**
32045	7	9	5	5	9	5	7	1	5	7	5	5	5	5	9	3	3	5	3	**5.4**
Krishna Hamsa (RP)	5	9	3	5	9	5	9	7	5	7	3	7	9	5	9	3	5	5	5	**6.1**
32046	7	9	3	5	9	9	9	-	5	7	0	5	5	7	9	5	0	5	7	**5.9**
Pusa 44 (RP)	3	5	5	7	9	9	9	3	7	7	0	5	5	7	9	5	0	3	5	**5.4**
32052	3	3	1	5	3	9	1	7	5	3	0	5	3	7	5	3	1	3	5	**3.8**
Pusa 44 (SC &RP)	3	7	1	5	9	3	9	7	5	7	0	7	3	5	9	3	1	3	7	**4.9**
32055	7	3	3	5	3	5	9	5	5	3	0	5	5	5	3	3	0	5	5	**4.2**
32056	7	3	5	5	9	3	1	5	5	3	0	7	5	5	3	5	0	5	3	**4.2**
ISM (RC)	5	3	3	5	5	5	1	3	5	3	5	5	5	5	1	3	0	3	5	**3.7**
HR 12	5	5	7	5	9	9	1	9	7	9	5	9	5	5	9	7	0	3	7	**6.1**
TN1	7	9	9	5	9	9	9	7	7	7	7	7	7	9	9	9	9	5	5	**7.6**
Tetep	5	7	3	7	9	3	9	5	5	7	0	5	3	5	9	-	9	3	5	**5.5**

RP: Recurrent Parent; RC: Resistant Check; SC Sensitive Check; ISM: Improved Samba Mahsuri; SI: Severity Index

Special trial on Genome Edited Lines- GEL TRIAL

Genome editing can be defined as addition, deletion, or replacement of nucleotides/bases in a genome in a highly precise manner. It includes a set of molecular biology tools that enable researchers to make targeted modifications in genome in a most precise and efficient manner to decipher the gene function or to improve the genome structure and associated phenotype. The genome editing tools such as CRISPR/Cas are precise biological mutagens which help creating targeted mutations in a most specific way. World-wide genome editing has been used for crop improvement by creation of improved alleles of genes associated with important agronomic traits. Most of the countries including USA, China, Japan, Bangladesh, Brazil, Australia, Russiaetc.have exempted genome edited plants from strict biosafety regulations. Among various applications of genome editing, its rightful usage in agriculture can bring revolutionary changes. It is a new addition to the tool box of plant breeders enabling them to make the breeding more precise, specific, and faster. Developing a crop variety through cross breeding approach takes 8-10 years while genome editing can deliver a new cultivar in 2-5 years. Moreover, genome editing does not require several rounds of back-crossing to recover the genome of parent genotype. Other issues associated with cross breeding approach such as linkage drag can be easily addressed through genome editing.

In a landmark decision, Ministry of Environment, Forest and Climate Change, Government of India exempted the SDN1 and SDN2 genome edited plants from rules 1989 through office memorandum (F.No. C-12013/3/2020-CS-III) dated 30th March 2022. The exemption has been given based on the Rule 20 of Rules,1989 that empowers ministry to exempt any genetically engineered organism. The Rule 20 says “The Ministry of Environment and Forests shall, wherever necessary, exempt an occupier handling a particular microorganism/genetically engineered organism from rule 7-11.” All the SDN-1 and SDN-2 plants are regulated by Institutional Biosafety Committee (IBSC) until the development of exogenous DNA free plants.

Under the ICAR-NASF funded initiative, the SDN-1 genome edited lines of Samba Mahsuri (BPT5204) and MTU1010 were developed at ICAR-IIRR and ICAR-IARI, respectively. The Samba Mahsuri lines were developed with a target trait of high grain yield while MTU1010 lines were developed with a target trait of drought and salt stress tolerance. More than 80 genome edited homozygous lines having different mutations in *OsCKX2*(cytokinin oxidase 2) gene were developed and evaluated at IIRR. One of the lines (BGIR7-26-3/Orsa/BPTS204/ICATOGEP0236/7 or KAMALA mutant) was selected with the help of associated plant breeders for obtaining the exemption from IBSC and approval from RCGM for environmental release. All the necessary data was generated and submitted to IBSC and RCGM to demonstrate the homozygosity and absence of any foreign nucleotides, as per the Standard Operating Procedures released by Department of Biotechnology, Government of India (SOPs for Regulatory Review of SDN -1 & SDN-2 Genome Edited Plants, 2022; DBT Office Memorandum dated 04 October 2022, F. No. PID-15011/1/2022-PPB-DBT). The similar exercise was done for the two genome edited lines of MTU1010(Orsa/MTU1010/ INDTODRT0236/20 and Orsa/MTU1010/ INDTODRT0236/8) developed at IARI. The MTU1010 lines have mutations/edits in *DST* (drought and salt tolerance) gene. After approval of IBSC and RCGM, these genome edited lines of Samba

Mahsuri and MTU1010 were entered in AICRPR Kharif 2023 under AVT1-MS and AVT1-IME trials, respectively for multi-locations testing.

Assessment of GEL entries tested under AVT 1-MS trial

One GEL entry (IET 32072) is tested in AVT 1-MS trial along with its recurrent parent (BPT 5204).

Genome Edited Lines (GELs) in the genetic background of BPT 5204 (Samba Mahsuri)

One GEL trial entry viz., IET 32072, a BPT 5204 (Samba Mahsuri) edited line derived from genome editing technique. It has high grain number, strong culm and early flowering compared to its recurrent parent (BPT 5204). The IET 32072 along with its recurrent parent (BPT 5204) was evaluated in twenty-one locations across three zones (III, V and VII). Data from only ten locations was considered for analysis. The IET 32072 is early in flowering duration (8 to 15 days) compared to BPT 5204. The mean days to 50 % flowering of IET 32072 is 96 days compared to recurrent parent 107 days. As flowering is the important trait of the genome edited entry (earliness), in addition to yield and number of grains per panicle, locations were selected based on the flowering.

Performance of Genome Edited Line entry (IET 32072) and its recurrent Parent (BPT 5204) during Kharif 2023

States	Locations	IET 32072	BPT 5204	CD	% Yield Advantage over Recurrent Parent
AP	2	5435	5260	540	3.3
TE	1	5638	5329	593	5.8
TN	2	4996	4854	776	2.9
KA	1	4787	4205	403	13.8
PY	1	5304	4044	1053	31.2
OD	1	5866	5433	464	8.0
UP	1	5518	4479	196	23.2
MP	1	8303	4180	409	98.6
Mean	**10**	**5307**	**4905**	**575**	**+17.5**

The mean grain yield of IET 32072 was ranged from 4787 kg/ha to 8303 kg/ha while its recurrent parent yield ranged from 4044 kg/ha to 5433 kg/ha. It exhibited superior yield performance in all the zones or states tested, with 3.3, 5.8, 2.9, 13.8, 31.2, 8, 23.2 and 98.6 % superiority in Andhra Pradesh, Telangana, Tamil Nadu, Karnataka, Puducherry, Odisha, Uttar Pradesh and Madhya Pradesh states respectively. Overall, IET 32072 recorded superior yield performance of +17.5 % over recurrent parent (BPT 5204) and had acceptable quality parameters viz., HRR of 57.1%, Intermediate amylose content (25%), ASV of 5, and GC of 22 which are comparable to recurrent parent. ***Hence, IET 32072 is promoted to second year of testing in AVT 2-MS.***

Assessment of GEL entries tested under AVT 1-IME trial

Two GEL entries viz., IET 32043 and IET 32044 are tested in AVT 1-IME trial along with its recurrent parent (MTU 1010).

Genome Edited Lines (GELs) in the genetic background of MTU 1010

Two GEL trial entries viz., IET 32043 and IET 32044, both are MTU 1010 edited lines derived from genome editing technique. The target trait was drought and salt tolerance for both the GEL entries. Since the sufficient quantity of seeds for the target trait evaluation viz., drought and salt tolerance are not available for both GEL entries, assessment of the target trait is not done in kharif 2023.

IET 32044 along with its recurrent parent (MTU 1010) evaluated in twenty-two locations across two zones (V and VII). The mean yield of IET 32044 mean yield is 4313 kg/ha and ranged from 3883 kg/ha to 5223 kg/ha. It exhibited inferior yield performance in both the zone or states tested, with -15.3, -26.3, -24.2, -13.1, -18.5, -19.7, 20.1, -21.5 and -20.7 % in Andhra Pradesh, Telangana, Tamil Nadu, Kerala, Karnataka, Puducherry, Madhya Pradesh, Chhattisgarh and Maharashtra states respectively. Overall, IET 32044 recorded inferior yield performance of -18 % over recurrent parent (MTU 1010). Based on inferior yield performance. ***IET 32044 is dropped.***

Performance of Genome Edited Line entries (IET 32043 and IET 32044) and its recurrent Parent (MTU 1010) during Kharif 2023

States	Locations	IET 32043	IET 32044	MTU 1010	CD	% Yield Advantage over Recurrent Parent	
						IET 32043	IET 32044
AP	2	4293	4122	4864	532	-11.7	-15.3
TE	3	5362	3924	5327	580	0.7	-26.3
TN	2	5194	5223	6889	693	-24.6	-24.2
KE	2	6813	4275	4917	785	38.6	-13.1
KA	4	5024	4375	5371	622	-6.5	-18.5
PY	1	5360	3883	4838	1134	10.8	-19.7
MP	2	3888	4261	3547	493	9.6	20.1
CH	4	5319	4502	5734	509	-7.2	-21.5
MH	2	3596	3983	5024	751	-28.4	-20.7
Overall	**22**	**5018**	**4313**	**5260**	**632**	**-4.6**	**-18.0**

IET 32043 along with its recurrent parent (MTU 1010) evaluated in twenty-two locations across two zones (V and VII). The mean yield of IET 32043 is 5018 kg/ha and ranged from 3888 kg/ha to 6813 kg/ha. It exhibited at par yield performance in the states tested, with -11.7, 0.7, -24.6, 38.6, -6.5, 10.8, 9.6, -7.2 and -28.4 % in Andhra Pradesh, Telangana, Tamil Nadu, Kerala, Karnataka, Puducherry, Madhya Pradesh, Chhattisgarh and Maharashtra states respectively. Overall, IET 32043 recorded at par yield performance of -4.6 % over recurrent parent (MTU 1010). Target trait evaluation will be done in Kharif 2024. Based on only at par yield performance, ***IET 32043 is promoted to second year of testing in AVT 2-IME.***

PROGRESS REPORT

KHARIF 2023

VARIETAL IMPROVEMENT

AICRIP

RAINFED TRIALS

ICAR-NRRI, Cuttack

SUMMARY

AICRIP- Rainfed breeding trials *kharif* 2023

RAINFED UPLAND

AVT-1-EDS and IVT-EDS trials were conducted with 23 and 46 test entries, respectively in upland direct seeded condition.

AVT 1- E DS:

Among 23 test entries 9 entries were in the 3rd year of testing and 14 were in the 2nd year of testing. Trials were conducted in 18 locations distributed in Zone III, V, VI and VII.

Promotion:

- **Promotion to AVT-2-EDS on overall basis:** IET 31170 and IET 31185
- **Promotion to AVT-2-EDS for Zone-III:** IET 31163
- **Entry to be repeated in AVT-1-EDS:** IET 31193
- **Entry to be repeated in AVT-2-EDS:** IET 30330

Promising entries:

- **IET 29036 is considered promising for Zone-III and Zone-V and IET 29052 is considered promising for Zone-III.**

IVT- E DS:

Among 46 entries tested along with 7 checks in 18 locations in 4 Zones (Zone III, V, VI, VII) the following entries are promoted to AVT-1-EDS

<u>On Zonal mean basis</u>

Moderate drought condition

- **Zone VI: IET 32077 is promoted to AVT-1-EDS**

Severe drought condition

- **Zone- V: IET 32085, 32087, 32100 are promoted to AVT-1-EDS**

RAINFED LOWLAND ECOSYSTEM

During *Kharif* 2023, rainfed lowland trials were evaluated under rainfed shallow lowland (RSL), semi deep water (SDW) and deep water (DW) ecologies. A total of 139 test entries were

evaluated along with suitable checks in five trials namely AVT1 -RSL **(28** test entries), IVT - RSL (55 test entries), IVT-RSL-DS (16 test entries), AVT 1-SDW (8 test entries), IVT-SDW (27 test entries), IVT-DW (5 test entries). Trait verification trial for submergence tolerance (AVT-1-NIL-Sub) was also conducted in 4 locations with 8 test entries.

Rainfed Shallow Lowland

AVT 1-RSL:

Out Of 28 test entries (13 inbred, 15 NIL entries) along with 8 recurrent parents and 4 checks were evaluated across 3 zones (III, IV, VII). One entry was in the 3rd year of testing, four entries, including 12 inbreds and 02 NILs were in 2ndyear of testing and 13 NIL entries were in 1st year of testing.

Promotion to AVT-2-RSL

- IET31204 and IET 31237 are promoted in Zone IV

NIL entries promotion to AVT-2 - RSL

- Submergence tolerant NILs: IET32121 and IET32122 are promoted to 2nd year of testing.
- Submergence tolerant and HT: IET 32123, IET32124 are promoted to 2nd year of testing
- HT entries: IET 32130 and IET 32131 promoted to 2nd year of testing.

Promising NIL entry:

- Submergence tolerant NIL: IET30409-R is found promising for Odisha

IVT-RSL:

In IVT-RSL, 55 test entries along with 4 checks were evaluated across 15 locations. The following entries are promoted to AVT-1-RSL.

Promoted on overall mean basis:

- **Nil**

Promoted entries based on zonal mean:

- Zone IV- IET 32146 and 32134
- Zone VII- IET 32175, 32176, 32150 and 32147

IVT-RSL-DS:

This pilot trial was constituted with 16 test entries and 3 checks in only 4 locations.

- IET 32223 is performed significantly better in Zone- III and overall basis over the checks.

Semi Deep and Deep Water ecology

AVT 1-SDW:

A total 8 test entries (including 2 NIL entries) along with 4 checks were tested over 10 locations in Zone III, IV and VII. All entries are in the 2nd year of testing.

The following entry is promoted to the AVT-2-SDW:

- **IET 31258 is promoted in Zone III**

Performance of NIL entries

- **IET 29031 and IET 29026 are repeated**

IVT-SDW:

In IVT-SDW, out of 27 test entries evaluated in 10 locations across three zones (Zones III, IV, VII), 3 entries are promoted to AVT-1-SDW.

- Overall mean basis: Nil
- Zone VII: IET 32198, IET 32196 and IET 2193.

IVT-DW:

In IVT-DW trial 5 test entries along with 3 checks were tested under the 1st year of testing in 4 locations

- **Promoted to AVT-1:** Nil

AVT-1-EDS

Locations: 18 **Test Entries: 23**

Normal rainfall locations: 10; Moderate drought locations: 04; Severe drought locations: 03

Checks:
National Checks: Shabhagidhan and Vandana **Sensitive check: IR 64**

Zonal Checks: Anjali (all zones), Govind (Northern), Narendra Dhan 97 (Eastern), Samaleshwari (Central), Varalu (Western) and Tulasi (Southern).
Hybrid check: US-314

Total 23 entries were tested in AVT1-EDS of *Kharif* 2023 which also include nine entries in third year of testing and rest 14 entries were in second year. The entries were tested in 18 locations, out of which data from one location (Jabalpur) was not considered for analysis due to low CV (4.09%). Among the remaining 17 locations, normal rainfall was recorded in 10 locations, whereas 04 locations were categorized as moderate drought affected areas (Cuttack, Parbhani, Vyara and Coimbatore) and 03 locations were categorized as severe drought affected areas (Hazaribagh, Rewa and Derol) .

General information on drought spell in different locations AVT 1- E DS *Kharif*, 2023

Sl. No	Location	Experimental Grain Yield (Kg/ha)	Dry Spell	Drought Situation
1.	**Jeypore**	4165.4	15 days during grain filling stages	Normal
2.	**Cuttack**	1932.69	02 drought spell, 1st drought spell observed at panicle initiation state, 2nd drought spell flowering to grain filling	Moderate drought
3.	**Bikramganj**	3151.17	04 (16-31 July, 18-31 August, 09-20 September, 18 October onwards)	Normal
4.	**Pusa**	3404.99	Two drought spells of 25 and 30 days 1st: 25 days after sowing 2nd: period between Tillering and Flowering stage	Normal
5.	**Sabour**	3618.33	3 dry spells (12 days: 1 -11 June; 15 days: 18 July - 26 Aug & 10 days: 10-19 Sept)	Normal
6.	**Hathwara**	4829.19	only initial drought after seed sowing	Normal
7.	**Hazaribag**	433.72	2 dry spells of 8 (26 Aug. to 2 Sept.) & 55 days (7 Oct. to 30 Nov.)	Severe Drought
8.	**Ranchi**	3101.68	4 dry spells observed from 9-17 Aug. 2023, 25 Aug. to 02 Sept. 2023 , 06-17 Oct. and 19 Oct. to 03 Nov. 2023	Normal
9.	**Jabalpur**	3924.1	3 dry spells (July- 7 days, Aug- 10 days, Sep- 8 days)	Normal
10.	**Jagadalpur**	6380.37	No drought spell	Normal
11.	**Raipur**	4082.11	2 dry spells 1st: 31 days (04 Oct 2023 to 03	Normal

			Nov 2023), and 2nd: 24 days (05 to 28 Nov 2023)	
12.	**Rewa**	519.13	4 dry spells, (21 July to 31 July 2023, 7 Aug to 17 Aug 2023 ,25 Aug to 5 Sep 2023,21 Sep to 31 Sep 2023)	Severe Drought
13.	**Parbhani**	2824.49	1 dry spell of 19 days (31 July to 18 August)	Moderate drought
14.	**Derol**	721.33	2 spells, (9 days and 23 days 02-08-2023 to 10-08-2023 and 15-08-2023 to 6-9-2023	Severe Drought
15.	**Vyara**	2682.5	Nil	Moderate drought
16.	**Kumta**	4601.2	4 dry spells (August: 5 Days, September; 7 Days, October: 15 days and November: 15 days	Normal
17.	**Mugad**	4397.6	5 dry spells (July: 5days, August: 10 days, September: 10 days, October: 20 days and November: 20 days	Normal
18.	**Coimbatore**	2961.37	-	Moderate drought

Performance of entries under moderate drought:

Among the 23 entries, only two genotypes (IET 31170 and IET 31185) showed significantly superior yield under moderate drought over the best check on overall basis. These two entries also showed significantly superior performance under moderate drought in Zone-III. Four other genotypes (IET 31203, 31163, 31192 and 31201) also showed significantly superior performance only in Zone-III.

Performance of entries under severe drought:

Among the 23 entries, only three genotypes (IET 29036, 31185 and 31193) showed significantly superior yield under severe drought over the best check on overall basis. Among those, only one entry (IET 29036) showed significantly superior performance under severe drought in Zone-III. In Zone-V also, only one genotype (IET 30330) showed significant superiority besides overall basis. Two genotypes (IET 29036 and 31193) showed significantly superior performance in Zone-VI.

Performance of entries showing significantly superior performance under drought situations in normal rainfall locations:

Total nine entries showed significantly superior performance at-least in one zone under either moderate or severe drought situations or both. The entry no. IET 31185 showed overall significantly superior performance both under moderate and severe drought conditions. This genotype also showed at-par performance under normal conditions in Zone-III, V and overall, as compared to BVC. **Hence, IET 31185 may be considered for promotion to AVT-2.** The entries IET 31163, 31192, 31201, 31170, 31203 showed significantly superior performance under moderate drought in Zone-III. Out of these, IET 31163 and IET 31170 showed at-par

performance compared to BVC in Zone-III, V, VII and overall basis, under normal rainfall. **Hence IET 31163 and IET 31170 are also considered for promotion to AVT-2 in Zone-III.** The entry IET 31193 showed significantly superior performance under severe drought compared to BVC on overall basis. It also performed significantly higher in Zone-III and at-par in other zones and overall, under normal rainfall. However, due lack of significant superiority of the entry under moderate drought condition, **IET 31193 may be considered for repeat testing**. All the entries showed acceptable grain quality parameters (HRR >55.0% and intermediate AC of 20-25%).

Three-year performance of entries in third year of testing:

The nine entries in third year of testing were compared for performance over three years. IET 30330 (tested in IVT from 2021) has not shown consistent performance in moderate drought over years in particular zone or overall basis. It has shown at-par performance in comparison to BVC under normal rainfall. The genotype has shown superior performance under severe drought over years and is considered for repeat testing. **The entry may be repeat tested in AVT-2 during *Kharif*, 2024. Besides, considering its performance under severe drought, it may be considered as suitable candidates for registration as drought tolerant germplasm.** IET 29036 (tested in IVT in 2020) showed superior and consistent performance in Zone-III and Zone-V, besides overall basis. Another entry IET 29052 (tested in IVT in 2020) showed superior and consistent performance in Zone-III only. All the entries showed acceptable grain quality parameters (HRR >55.0% and intermediate AC of 20-25%). **Hence IET 29036 is considered promising for Zone-III and Zone-V. IET 29052 is considered promising only for Zone-III.**

Promising entries: IET 29036 and IET 29052.

Promoted/Repeated entries:

- **Promotion to AVT-2-EDS on overall basis:** IET 31170 and IET 31185
- **Promotion to AVT-2-EDS for Zone-III:** IET 31163
- **Entry to be repeated in AVT1-EDS:** IET 31193
- **Entries to be repeated in AVT2-EDS:** IET 30330

Entries considered for promotion/ repeat based on performance under drought and normal rainfall which are in second year of testing

Entry No.	IET No.	Performance under moderate drought (Grain yield, Kg/ha)	Performance under severe drought (Grain yield, Kg/ha)	Performance of test entry under normal rainfall				Grain Quality	Remarks
				Zone-III	Zone-V	Zone-VII	Overall		
112	31163	Zone III (2913*), Zone VI (2666), Zone VII (2559) and Overall (2701)	Zone-III (267), Zone-V (814), Zone-VI (791), Overall (529)	4438	5877	4368	4712	HRR: 55.0% and AC: 24.1%, GC: 47	Promoted to AVT-2 (Zone-III)
116	31193	Zone III (1267), Zone VI (3226), Zone VII (4302) and Overall (3005)	Zone-III (174), Zone-V (1262), Zone-VI (3067*), Overall (1621)	4536*	4937	4676	4660	HRR: 64.0% and AC: 22.4%, GC: 56	Repeat (AVT-1)
125	31170	Zone III (2547*), Zone VI (2752), Zone VII (4636) and Overall (3172*)	Zone III (593), Zone V (0.00), Zone VI (875) and Overall (734.00)	3760	4657	3825	3953	HRR: 61.0% and AC: 23.4%, GC: 56	Promoted to AVT-2 (Overall)
127	31185	Zone III (3096), Zone VI (2913), Zone VII (3711) and Overall (3158)	Zone III (1333), Zone V (573), Zone VI (1289) and Overall (1311*)	3806	4989	3133$^{\$}$	3908	HRR: 60.0% and AC: 24.5%, GC: 54	Promoted to AVT-2 (Overall)
BVC yield		Zone III (LC: 2086), Zone VI (Sahbhagidhan: 3243), Zone VII (LC: 3548) and Overall (LC: 2757)	Zone III (Sahbhagidhan: 1193), Zone V (Sahbhagidhan: 1840), Zone VI (LC: 1462) and Overall (LC: 1144)	Vandana (NC): 4054	Vandana (NC): 5593	Sahbhagidhan (NC): 4839	Sahbhagidhan (NC): 4337		
CD value		Zone III (324.96), Zone VI (430.41), Zone VII (1098.83) and Overall (352.57)	Zone III (158.92), Zone V (296.76), Zone VI (268.94) and Overall (113.98)	468.06	951.79	1692.77	465.03		

Three-year performance of entries under third year of testing in AVT-1-EDS (*Kharif*, 2023)

IET NO	IVT1 (2020/2021)		2022			2023			Remarks
	MD/ Drought	Normal	MD	SD	Normal	MD	SD	Normal	
29036	Year 2020 (Drought) Zone-III (2490), Zone V (4399, 16%) and Overall (3126, 7%)	Year 2020 Zone III (4826*22%), Zone-V (3731), Zone-VI (2157), Zone-VII (3404) and Overall (4000, 10%)	Zone III (3204*), Zone VI (3333), Overall (3230*)	Zone III (872), Zone V (2713*), Overall (1792*)	Zone-III (5169), Zone-V (3754), Zone-VI (3862*) and Zone-VII (4530), Overall (4395)	Zone-III (2209), Zone-VI (2938), Zone-VII (1766$^{\$}$), Overall (2463)	Zone-III (1593*), Zone-V (1937), Zone-VI (1849*), Overall (1721*)	Zone-III (3838), Zone-V (5357), Zone-VI (4742), Overall (4322)	Promising (Zone-III and Zone-V)
30336	Zone III (2322, -17.36%)	Zone-III (3761), Zone-V (2654), Zone-VI (3827) and Zone-VII (7068), Overall (4557*)	Zone III (2843*), Zone VI (2778), Overall (2830)	Zone III (467), Zone V (634), Overall (610)	Zone-III (4988), Zone-V (4029), Zone-VI (3352) and Zone-VII (4651), Overall (4384)	Zone-III (2039), Zone-VI (2772), Zone-VII (3728), Overall (2828)	Zone-III (0.00), Zone-V (430), Zone-VI (849), Overall (425)	Zone-III (4046), Zone-V (5909), Zone-VI (4246), Overall (4459)	Discontinued (Not consistently superior in moderate drought)
29052	Year 2020 (Drought) Zone-III (3137*25%), Zone V (2433) and Overall (2785)	Year 2020 Zone-III (3674), Zone-V (3040), Zone-VI (2040), Zone-VII (3973.5, 10%) and Overall (3465)	Zone III (3445*), Zone VI (1289), Overall (3014*)	Zone III (515), Zone V (56), Overall (286)	Zone-III (4826), Zone-V (4334*), Zone-VI (3223) and Zone-VII (5929*), Overall (4772*)	Zone-III (2351), Zone-VI (2571), Zone-VII (2350), Overall (2461)	Zone-III (37.00), Zone-V (0.00), Zone-VI (0.00), Overall (19.00)	Zone-III (3781), Zone-V (6648*), Zone-VI (6335), Overall (4865*)	Promising (Zone-III)

29038	Year 2020 (Drought) Zone-III (2941*18%), Zone V (3194) and Overall (3025)	Year 2020 Zone-III (3798), Zone-V (3015), Zone-VI (2614), Zone-VII (2838) and Overall (3312)	Zone III (2027), Zone VI (2067), Overall (2035)	Zone III (587), Zone V (634*), Overall (610)	Zone-III (4057), Zone-V (2464), Zone-VI (1944) and Zone-VII (3243), Overall (3067)	Zone-III (1071), Zone-VI (2217), Zone-VII (2467), Overall (1993)	Zone-III (741), Zone-V (0.00), Zone-VI (809), Overall (775)	Zone-III (3855), Zone-V (3728), Zone-VI (5113), Overall (4081)	Discontinued (Not consistently superior for drought situation)
30330	Zone-III (2381)	Zone-III (3586), Zone-V (4846), Zone-VI (3467), Zone-VII (6900), Overall (4475, 9*)	Zone III (2360), Zone VI (3778*), Overall (2643)	Overall (610)	Zone-III (4657), Zone-V (3730), Zone-VI (3426) and Zone-VII (4888), Overall (4282)	Zone-III (1816), Zone-VI (2809), Zone-VII (3798), Overall (2808)	Zone-III (396), Zone-V (2142*), Zone-VI (1414), Overall (905)	Zone-III (4258), Zone-V (5306), Zone-VI (5101), Overall (4636)	Repeated (Superior in severe drought but not moderate drought)
30334	Zone-III (3036)	Zone-III (4001, 8*), Zone-V (5403), Zone-VI (2769), Zone-VII (6641), Overall (4779, 1*)	Zone III (2882*), Zone VI (2689), Overall (2843)	Zone III (873), Zone V (1003*), Overall (938)	Zone-III (4816), Zone-V (3922), Zone-VI (3739) and Zone-VII (4678), Overall (4368)	Zone-III (1579), Zone-VI (2432), Zone-VII (4399), Overall (2711)	Zone-III (267), Zone-V (0.00), Zone-VI (973), Overall (620)	Zone-III (3800), Zone-V (5320), Zone-VI (5357), Overall (4415)	Discontinued (Not consistently superior in moderate drought)
30332	Zone-III (2441, 9)	Zone-III (4181, 4*), Zone-V (3730), Zone-VI (3124),	Zone III (2830*), Zone VI (2000), Overall	Zone III (551), Zone V (95), Overall (323)	Zone-III (4024), Zone-V (4271*), Zone-VI	Zone-III (1911), Zone-VI (3387), Zone-VII	Zone-III (07.00), Zone-V (0.00), Zone-VI	Zone-III (3781), Zone-V (6651*), Zone-VI	Discontinued (Not consistently

		Zone-VII (6769), Overall (4705, 3*)	(2664)		(3277) and Zone-VII (5484), Overall (4690*)	(2825), Overall (2878)	(640), Overall (324)	(6266), Overall (4852*)	superior in moderate drought)
30351	Zone-III (2798, 4)	Zone-III (4355, 1*), Zone-V (4801), Zone-VI (3231), Zone-VII (6073), Overall (4749, 2*)	Zone III (2475), Zone VI (2733), Overall (2527)	Zone III (1855*), Zone V (1380*), Overall (1618*)	Zone-III (4453), Zone-V (4199*), Zone-VI (2599) and Zone-VII (4587), Overall (4154)	Zone-III (1267), Zone-VI (2581), Zone-VII (4173), Overall (2651)	Zone-III (541), Zone-V (1283), Zone-VI (658), Overall (600)	Zone-III (4014), Zone-V (5205), Zone-VI (5157), Overall (4480)	Discontinued (Not consistently superior in moderate drought)
30328	Zone-III (2679, 6)	Zone-III (1774,), Zone-V (1412), Zone-VI (2369), Zone-VII (5975), Overall (3007)	Zone III (2809*), Zone VI (3133), Overall (2874)	Zone III (567), Zone V (2587*), Overall (1577*)	Zone-III (5314), Zone-V (3293), Zone-VI (3528) and Zone-VII (5401), Overall (4506)	Zone-III (1829), Zone-VI (3119), Zone-VII (2627), Overall (2673)	Zone-III (152), Zone-V (0.00), Zone-VI (0.00), Overall (76.00)	Zone-III (4390), Zone-V (5615), Zone-VI (5411), Overall (4839*)	Discontinued (Not consistently superior in moderate drought)

Table No. 1.1: Composition of entries in Advance Variety Trial 1–Early Direct Seeded (AVT 1 - EDS), *Kharif* 2023

Entry No.	IET No.	Designation	Cross Combination	Grain Type
3rd year of testing:				
101	29036	RCPR 68-IR83929-B-B-291-2-1-1-2	IR78878-53-2-2-2 / CT6510-24-1-2	LB
102	30336	ORJ 1356	Sampada/IRGC 25966//RP Bio 226	LB
103		CR 2889-208-1	Apo/CR 143-2-2	MS
104		CRR 523-2-2-1-3	Kalinga III/Bhupen	LS
105	30330	RCPR 84-IR14L155	IR 81039-B-173-U 3-3/IR 81063-B-94-U 3-1	LS
106	30334	ORJ 1347	IR 10L128/IR 09N520	MB
107	30332	BRR 0163	Swarna/AD 09379	LS
108	30351	R 2341-142-1-122-1	Mahamaya X IRBL-5	LS
109	30328	CR 4059-1312-1-1-4	IET 22729 / PR 118	LB
110	**Shabhagidhan (NC)**			
2nd year of testing				
111	31164	BRR-0199-IRSAH-07	IR 04N114/IR 01N144//IR 72102-4-159-1-3-3-3 (NSIC RC 112)	LS
112	31163	CR 4392-RGA-40	C767-4-2-1-1 / IET27218 // N22	MS
113		CRR 667-19-2	Poornima/Salumpikit	LS
114	**Vandana (NC)**			
115	29045	TM 15021	ADT43/Senthuram	MS
116	31193	KAVERI7117	Hybrid (KR20SA050/KR20SR054)	LS
117		CR 4362-9-35-4-71	N 22*2/Way Raren/CRMAS 2620-1	LS
118	31177	IIABR-12/IIAB-271/IRRI 132	UPL RI 5/IR 12979-24-1	MB
119	**IR 64 (Sensitive check)**			
120	31165	CR 4389-RGA-176	CR Dhan 202 x SR-36-2-1 // Shatabdi	MS
121	**Govind (Northern), Narendradhan97 (Eastern), Samaleshwari (Central), Varalu (Western) and Tulasi (Southern)—ZC**			
122	31157	IIABR-11/IIAB-315/IR14T107	IR05F102/2*CSR 36	MS
123	31161	CR 4384-RGA-55	C745-3-1-1-1-1 x IET27218 / N22	MS
124	31201	RCRR-3	Single plant selection from UPR-2992-17-3-1	LB
125		CB 17561	CO 41/CB 08504	MS
126	**Anjali (ZC for all zone)**			
127	31185	CRR 514-6-1-1-1-12	Brown gora/ N22//CR143-2-2	LS
128	31203	CGR 5	Samba Mahsuri*2/*O. rufipogon*-VN90-1032-58(3)	MS
129	**US-314 (Hybrid check)**			
130	**Local Check**			

Table 1.2: Grain yield of genotypes tested in AVT 1- EDS *Kharif* 2023 in different zones under moderate drought situations

Entry No	IET NO	Zone III(1)		Zone VI				Zone VI(2)		Zone VII(1)		Overall (4)	
		OD(1)		MH(1)		GJ(1)				TN(1)			
		CTK		PBN		VYR		mean		CBT		mean	
101	29036	2209	10 #	3111	8.5	2764		2938		1766		2463	
102	30336	2039		2311		3232	2	2772		3728	7 #	2828	7
103	29052	2351	8 #	2489		2653		2571		2350		2461	
104	29038	1071		2222		2211		2217		2467		1993	
105	30330	1816		2711		2907	10	2809		3798	6 #	2808	9
106	30334	1579		2311		2553		2432		4399	2 #	2711	
107	30332	1911		3555	3 #	3219	3	3387	2	2825		2878	6
108	30351	1267		2355		2807		2581		4173	4 #	2651	
109	30328	1829		2889		3348	1	3119	6	2627		2673	
110	**Shabhagidhan (NC)**	1863		3378	6	3107	6	3243	3	2579		2732	
111	31164	2378	7 #	3400	5	2660		3030	8	2670		2777	10
112	31163	2913	3 *	2889		2443		2666		2559		2701	
113	31202	1714		2355		2530		2443		2868		2367	
114	**Vandana (NC)**	942		3111	8.5	2942	9	3027	9	3115		2528	
115	29045	1728		3022		2981	8	3002	10	2424		2539	
116	31193	1267		3355	7	3097	7	3226	5	4302	3 #	3005	4 #
117	31192	2724	4 *	2622		2812		2717		3714	8 #	2968	5 #
118	31177	1951		2622		2582		2602		1489		2161	
119	**IR 64 (Sensitive check)**	962		2422		1984		2203		2633		2000	
120	31165	2039		3778	1 #	2689		3234	4	3916	5 #	3106	3 #
121	**ZC**	1233		2800		2883		2842		2728		2411	

122	31157	2337	9 #	2578		2719		2649		2654		2572	
123	31161	1978		3644	2 #	3168	4	3406	1	2509		2825	8
124	31201	2507	6 *	2267		2041		2154		1181		1999	
125	31170	2547	5 *	2978		2526		2752		4636	1 #	3172	1 *
126	**Anjali (ZC for all zone)**	962		2267		1394		1831		2454		1769	
127	31185	3096	1 *	3422	4 #	2404		2913		3711	9 #	3158	2 *
128	31203	2927	2 *	1822		2359		2091		2501		2402	
129	**US-314 (Hybrid check)**	1755		2978		3136	5	3057	7	2516		2596	
130	**Local Check**	2086		3067	10	2325		2696		3548	10	2757	
Exp. Mean		**1932.69**		**2824.49**		**2682.5**		**2753.49**		**2961.37**		**2600.26**	
F Value		27.63(p<0.0001) S		10.44(p<0.0001) S		2.03(p<0.0112) S		6.83(p<0.0001) S		4.85(p<0.0001) S		8.16(p<0.0001) S	
CD		**324.96**		**433.74**		**853.72**		**430.41**		**1098.83**		**352.57**	
CV%		10.29		9.4		19.47		9.56		22.7		8.3	
D/S		21-06-2023		07-08-2023		28-06-2023				08.08.2023			
Local Check name		Vandana		Avishkar		PURNA				CO 53			

Table 1.3: Grain yield of genotypes tested in AVT 1- EDS *Kharif* 2023 in different zones under severe drought situations

Entry No	IET NO	Zone III(1)		Zone V(1)		Zone VI(1)		Overall (3)	
		JH(1)		MP(1)		GU(1)			
		HZB		REW		DRL		mean	
101	29036	1593	1 * #	1937	2	1849	2 * #	1721	1 #*
102	30336	0		430		849	#	425	
103	29052	37		0		0		19	
104	29038	741	6 #	0		809	#	775	10
105	30330	396	#	2142	1*	1414	4 #	905	7
106	30334	267	#	0		973	10 #	620	
107	30332	7		0		640		324	
108	30351	541	#	1283	5	658		600	
109	30328	152		0		0		76	
110	**Shabhagidhan (NC)**	1193	3	1840	3	1053	8	1123	5
111	31164	0		0		0		0	
112	31163	267	#	814	8	791		529	
113	31202	1111	4 #	1711	4	858	#	985	6
114	**Vandana (NC)**	237		0		1342	6	790	9
115	29045	0		0		0		0	
116	31193	174		1262	6	3067	1 * #	1621	2 #*
117	31192	0		0		0		0	
118	31177	689	7 #	946	7	0		345	
119	**IR 64 (Sensitive check)**	41		0		0		21	
120	31165	500	#	0		1014	9 #	757	
121	**ZC**	89		491		716		403	
122	31157	519	#	700	10	0		260	
123	31161	345	#	695		1409	5 #	877	8
124	31201	667	8 #	0		0		334	

125	31170	593	10 #	0		875	#	734	
126	**Anjali (ZC for all zone)**	645	9	0		0		323	
127	31185	1333	2 #	573		1289	7 #	1311	3 #*
128	31203	0		0		0		0	
129	**US-314 (Hybrid check)**	52		0		573		313	
130	**Local Check**	826	5	749	9	1462	3	1144	4
		1351.92		2136.76		1730.94		1257.98	
Exp. Mean		**433.72**		**519.13**		**721.33**		**577.53**	
F Value		73.37(p<0.0001)S		32.59(p<0.0001)S		93.88(p<0.0001)S		173.25(p<0.0001)S	
CD		**158.92**		**296.76**		**268.94**		**113.98**	
CV%		22.32		34.06		22.52		12.03	
D/S		26-07-2023		14-07-2023		04-07-2023			
Local Check Name		CR Dhan 40		Dhanteshwari		AAUDR 1			

Table 1.4: Grain yield of genotypes tested in AVT 1- EDS *Kharif* 2023 in different zones under normal rainfall

Entry No	IET NO	Zone III														Zone III (6)	
		OD (1)		WB (1)		BI						BI (3)		JH (1)			
		JYP		HTW		BKG		SBR		PSA		mean		RCI		mean	
101	29036	4216		5550	#	3254		3487		2871		3204		3648	9 #	3838	
102	30336	3938		6985	1 #	3061		4127	9 #	3056		3415		3110		4046	6
103	29052	3642		5725	10 #	0		5447	1 * #	3148		2865		4724	1 * #	3781	
104	29038	4770	8	5574		3411	9	1961		4815	2 *	3396		2601		3855	
105	30330	4785	7	6141	8 #	2984		3606		4445	3	3678	8	3588	10.5 #	4258	4 #
106	30334	4130		3159		3246		4007	10 #	3981	6.5	3745	7	4276	3 #	3800	
107	30332	3664		4561		3158		4733	2 #	4444	4	4112	2	2123		3781	
108	30351	5384	3	5688		3090		3183		3148		3140		3588	10.5 #	4014	8
109	30328	5663	2	6349	5 #	3330		3328		3722	9	3460		3947	5 #	4390	3 #
110	**Shabhagidhan (NC)**	4459	10	3285		4224	4 #	4177	8	3981	6.5	4127	1	4007	4	4022	7
111	31164	3908		4207		2559		4643	4 #	3241		3481		3827	6 #	3731	
112	31163	4282		6847	2 #	4928	2 * #	3888	#	3426		4081	3	3259	#	4438	2 #
113	31202	3764		5627		2598		2677		2778		2684		2661		3351	
114	**Vandana (NC)**	4840	4	6234	6	3315		3505		3889	8	3570		2542		4054	5 #
115	29045	3409		6179	7 #	2819		3929	#	3056		3268		2302		3616	
116	31193	6101	1 #	6555	4 #	2824		4695	3 #	2685		3401		4515	2 #	4563	1 * #

117	31192	1490		3967		2382		4586	5 #	3426		3465		1973		2971	
118	31177	3853		5764	9 #	2591		4302	7 #	3704	10	3532		3050		3877	10
119	**IR 64 (Sensitive check)**	4821	5	2444		2149		2345		2593		2362		2572		2821	
120	31165	4180		2950		3953	6 #	3396		2871		3407		3678	8 #	3505	
121	**ZC**	3467		6685	3	4075	5 #	3719		2963		3586	10	2960		3978	9
122	31157	4130		3179		2792		3194		4259	5	3415		3469	#	3504	
123	31161	4036		5488	#	3324		4413	6 #	3056		3598	9	2452		3795	
124	31201	3770		2304		3447	8	2315		2685		2816		2123		2774	
125	31170	4563	9	5386	#	3464	7	3283		3056		3268		2810		3760	
126	**Anjali (ZC for all zone)**	3286		4809		2947		2156		2778		2627		2302		3046	
127	31185	3869		3758		5123	1 * #	3512		2778		3804	5	3797	7 #	3806	
128	31203	3333		2274		1916		3061		2685		2554		2153		2570	
129	**US-314 (Hybrid check)**	4411		3081		3341	10	2964		5093	1 *	3799	6	2571		3577	
130	Local Check	4800	6	4120		4230	3 #	3910		3518		3886	4	2422		3833	
		6170.03		8030.49								4512.12		4673.46		4522.06	
Exp. Mean		**4165.4**		**4829.19**		**3151.17**		**3618.33**		**3404.99**		**3391.5**		**3101.68**			
F Value		3.23(p<0.0001)S		5.46(p<0.0001)S		23.69(p<0.0001)S		11.52(p<0.0001)S		10.19(p<0.0001)S		11.79(p<0.0001)S		10.88(p<0.0001)S			
CD		1330.03		1796.49		542.01		697.75		608.07		385.12		666.46			
CV%		19.54		22.76		10.52		11.8		10.93		6.95		13.15			
D/S		25.07.23		03-07-2023		09-07-2023		27-06-2023		05-07-2023				24.06.2023			
Local Check name		Mandakini		Sahbhagidhan		Sabour Harshit		Sabour Harshit Dhan		Rajendra Nilam				BVD-110			

Table 1.4 (Contd.): Grain yield of genotypes tested in AVT 1- EDS *Kharif* 2023 in different zones under normal rainfall

Entry No	IET NO	Zone V								Zone V(2)	
		CG				CG(2)		MP(0)			
		JDP		RPR		mean		JBP@		mean	
101	29036	7082	9	3631		5357		3598		5357	
102	30336	6859		4959	7 #	5909	5	3240		5909	5
103	29052	8182	1 *	5114	6 #	6648	2 *	3840		6648	2 *
104	29038	5610		1846		3728		3579		3728	
105	30330	6538		4073		5306		4327	2 *	5306	
106	30334	6073		4567	#	5320		4300	3.5	5320	
107	30332	7840	2	5462	3 #	6651	1 *	3334		6651	1 *
108	30351	6422		3988		5205		3706		5205	
109	30328	6087		5143	5 #	5615	9	4220	7	5615	9
110	**Shabhagidhan (NC)**	6003		3561		4782		3793		4782	
111	31164	7547	4	5722	1 #	6635	3 *	4167	8	6635	3 *
112	31163	7163	8	4590	#	5877	7	4290	5	5877	7
113	31202	4794		2489		3642		3820		3642	
114	**Vandana (NC)**	5487		5698	2	5593		4046		5593	
115	29045	6871	10	4885	8 #	5878	6	4113	10	5878	6
116	31193	6593		3280		4937		4033		4937	
117	31192	7255	6	4304		5780	8	4300	3.5	5780	8
118	31177	6377		4687	9 #	5532		4274	6	5532	
119	**IR 64 (Sensitive check)**	5931		3193		4562		3872		4562	
120	31165	5991		4451	#	5221		3511		5221	
121	ZC	6693		4497		5595	10	3425		5595	10
122	31157	5450		4599	10 #	5025		3642		5025	
123	31161	7500	5	5215	4 #	6358	4 #	3819		6358	4 #
124	31201	4943		3554		4249		4125	9	4249	
125	31170	5554		3760		4657		3885		4657	
126	**Anjali (ZC for all zone)**	3809		2148		2979		4044		2979	
127	31185	5984		3993		4989		4656	1 *	4989	
128	31203	7599	3	2656		5128		3775		5128	
129	**US-314 (Hybrid check)**	7216	7	2974		5095		4046		5095	
130	Local Check	5956		3421		4689		3944		4689	
Exp. Mean		**6380.37**		**4082.11**		**5231.24**		**3924.1**			

F Value	4.23(p<0.0001)S	5.96(p<0.0001)S	6.62(p<0.0001)S	12.79(p<0.0001)S
CD	1348.06	1195.99	951.79	262.02
CV%	12.93	17.93	11.13	4.09
D/S	26.06.23	04-07-2023		22.06.2023
Local Check name	Bastar Dhan 1	Indira Aerobic-1		JR 206

Table 1.4 (Contd.) :Grain yield of genotypes tested in AVT 1- EDS *Kharif* 2023 in different zones under normal rainfall

Entry No	IET NO	Zone VII				Zone VII (2)			Overall (10)	
		KA				KA (2)				
		KMT		MGD		mean			mean	
101	29036	5238		4246		4742	3146.23		4322	
102	30336	4116		4376		4246	3146.23		4459	10 #
103	29052	5850	7 #	6819	1 *	6335	3146.23	1 #	4865	1 *
104	29038	6662	4 #	3563		5113	3146.23	7	4081	
105	30330	5670	9 #	4531		5101	3146.23	8	4636	7 #
106	30334	6768	3 #	3945		5357	3146.23	5	4415	
107	30332	6804	2 #	5727	5	6266	3146.23	2 #	4852	2 *
108	30351	6978	1 #	3335		5157	3146.23	6	4480	9 #
109	30328	6280	5 #	4541		5411	3146.23	4	4839	3 *
110	**Shabhagidhan (NC)**	6084	6 #	3593		4839	3146.23		4337	
111	31164	5202		5951	4	5577	3146.23	3	4681	5 #
112	31163	3993		4743		4368	3146.23		4712	4 #
113	31202	3690		2880		3285	3146.23		3396	
114	**Vandana (NC)**	2633		3899		3266	3146.23		4204	
115	29045	2669		4993	6	3831	3146.23		4111	
116	31193	5304	10	4048		4676	3146.23		4660	6 #
117	31192	4077		6030	3	5054	3146.23	9	3949	
118	31177	4903		4697		4800	3146.23		4393	
119	**IR 64 (Sensitive check)**	5786	8 #	3988		4887	3146.23		3582	
120	31165	2646		4855	9	3751	3146.23		3897	
121	**ZC**	2832		4902	8	3867	3146.23		4279	
122	31157	3403		4181		3792	3146.23		3866	
123	31161	3683		6128	2	4906	3146.23	10	4530	8 #
124	31201	5269		2282		3776	3146.23		3269	

125	31170	4428		3222		3825	3146.23		3953	
126	**Anjali (ZC for all zone)**	3356		2681		3019	3146.23		3027	
127	31185	2727		3539		3133	3146.23		3908	
128	31203	3403		4961	7	4182	3146.23		3404	
129	**US-314 (Hybrid check)**	3683		4437		4060	3146.23		3977	
130	Local Check	3899		4833	10	4366	3146.23		4111	
						6531.77	3146.23		4802.03	
Exp. Mean		**4601.2**		**4397.6**		**4499.6**			**4173.17**	
F Value		6.20 (p<0.0001)S		2.73 (p<0.0001)S		2.09 (p<0.0001)S			8.79 (p<0.0001)S	
CD		1625.98		1810.25		1692.77			465.03	
CV%		17.28		25.19		23.22			6.84	
D/S		6.07.2023		04.07.23						
Local Check name		MGD 101		MGD-101						

Table 1.5: Days to 50% flowering of AVT 1-E DS *Kharif*-2023 (normal rainfall)

Entry No	IET NO	Zone III							Zone III (6)	Zone V				Zone V (2)	Zone VII		Zone VII(2)	Overall (10)
		OD(1)	WB(1)	BI			BI(3)	JH(1)		CG		CG(2)	MP(0)		KA		KA(2)	
		JYP	HTW	BKG	SBR	PSA	mean	RCI	mean	JDP	RPR	mean	JBP@	mean	KMT	MGD	mean	mean
101	29036	88	75	78	87	72	79	87	81	87	76	82	88	82	81	82	82	81
102	30336	96	79	78	91	79	83	90	86	88	90	89	91	89	79	87	83	86
103	29052	96	94	-	109	102	106	105	101	99	100	100	94	100	74	93	84	97
104	29038	79	63	72	77	65	71	77	72	74	65	70	88	70	81	88	85	74
105	30330	85	76	76	82	72	77	84	79	81	71	76	97	76	89	83	86	80
106	30334	84	78	76	85	71	77	83	80	79	76	78	94	78	83	82	83	80
107	30332	96	87	88	93	80	87	93	90	89	83	86	85	86	92	90	91	89
108	30351	79	73	73	85	71	76	83	77	79	73	76	93	76	87	80	84	78
109	30328	82	74	75	84	73	77	85	79	83	74	79	86	79	89	81	85	80
110	**Shabhagidhan (NC)**	87	72	72	82	70	75	79	77	79	71	75	84	75	97	78	88	79
111	31164	96	101	99	109	105	104	104	102	97	99	98	91	98	78	98	88	99
112	31163	84	79	75	85	76	79	88	81	87	72	80	101	80	80	89	85	82
113	31202	75	62	71	65	64	67	73	68	68	63	66	91	66	87	95	91	72
114	**Vandana (NC)**	87	74	74	84	73	77	85	80	81	77	79	101	79	82	86	84	80
115	29045	97	86	77	88	80	82	91	87	89	76	83	102	83	88	90	89	86
116	31193	79	67	78	73	68	73	77	74	76	66	71	95	71	88	79	84	75
117	31192	97	91	81	90	82	84	99	90	95	83	89	102	89	90	96	93	90
118	31177	89	69	77	81	74	77	88	80	86	78	82	102	82	74	86	80	80
119	**IR 64 (Sensitive check)**	85	73	76	73	72	74	86	78	83	73	78	100	78	79	81	80	78
120	31165	76	84	74	87	75	79	88	81	85	77	81	99	81	74	91	83	81
121	ZC	79	70	72	74	65	70	77	73	86	77	82	103	82	77	93	85	77
122	31157	86	70	74	82	71	76	82	78	84	73	79	98	79	83	80	82	79
123	31161	86	83	77	85	77	80	90	83	86	78	82	102	82	91	90	91	84
124	31201	79	69	70	78	66	71	77	73	78	68	73	104	73	90	78	84	75
125	31170	88	69	68	60	69	66	75	72	76	68	72	96	72	84	80	82	74
126	**Anjali (ZC for all zone)**	75	59	60	59	59	59	68	63	65	62	64	88	64	74	67	71	65
127	31185	80	68	69	81	70	73	77	74	75	71	73	87	73	77	79	78	75
128	31203	93	96	106	108	105	106	94	100	97	98	98	90	98	83	90	87	97
129	**US-314 (Hybrid check)**	79	72	74	81	70	75	81	76	79	70	75	90	75	91	82	87	78
130	Local Check	87	69	79	82	75	79	73	78	74	74	74	88	74	77	93	85	78
Exp. Mean		**86**	**76**	**77**	**83**	**75**	**79**	**85**	**80**	**83**	**76**	**79**	**94**	**79**	**83**	**86**	**85**	**81**

Table 1.6: Days to 50% Flowering of AVT 1-EDS under moderate drought *Kharif*-2023

Entry No	IET NO	Zone III (1)	Zone VI		Zone VI (2)	Zone VII(1)	Overall (4)
		OD(1)	MH(1)	GJ(1)		TN(1)	
		CTK	PBN	VYR	mean	CBT	mean
101	29036	78	91	77	84	87	83
102	30336	92	97	83	90	91	91
103	29052	96	82	96	89	95	92
104	29038	71	81	74	78	77	76
105	30330	74	91	78	85	83	82
106	30334	74	96	76	86	86	83
107	30332	87	97	80	89	100	91
108	30351	73	89	78	84	84	81
109	30328	76	90	77	84	88	83
110	**Shabhagidhan (NC)**	70	81	77	79	84	78
111	31164	83	86	80	83	97	87
112	31163	82	90	83	87	98	88
113	31202	74	78	68	73	82	76
114	**Vandana (NC)**	70	91	78	85	91	83
115	29045	85	96	84	90	95	90
116	31193	69	82	71	77	83	76
117	31192	92	86	79	83	100	89
118	31177	90	89	79	84	91	87
119	**IR 64 (Sensitive check)**	77	90	81	86	91	85
120	31165	83	89	79	84	98	87
121	ZC	75	88	80	84	97	85
122	31157	77	89	77	83	89	83
123	31161	82	89	82	86	97	88
124	31201	73	81	75	78	83	78
125	31170	71	83	71	77	83	77
126	**Anjali (ZC for all zone)**	71	97	66	82	77	78
127	31185	76	87	77	82	84	81
128	31203	84	97	79	88	87	87
129	**US-314 (Hybrid check)**	81	87	72	80	82	81
130	Local Check	73	87	67	77	84	78
Exp. Mean		**79**	**89**	**77**	**83**	**89**	**83**

Table 1.7: Days to 50% flowering of AVT 1-EDS under severe drought in *Kharif*-2023

Entry No	IET NO	Zone III(1)	Zone V(1)	Zone VI(1)	Overall (3)
		JH(1)	MP(1)	GU(1)	
		HZB	REW	DRL	mean
101	29036	84	94	82	87
102	30336	-	96	61	79
103	29052	89	-	-	89
104	29038	82	81	78	80
105	30330	86	85	85	85
106	30334	88	94	90	91
107	30332	104	96	93	98
108	30351	85	93	85	88
109	30328	87	96		92
110	**Shabhagidhan (NC)**	79	86	85	83
111	31164	-	-	-	
112	31163	88	95	90	91
113	31202	70	70	71	70
114	**Vandana (NC)**	88	93	83	88
115	29045	-	84	-	84
116	31193	84	77	76	79
117	31192	-	-	-	-
118	31177	84	95	-	90
119	**IR 64 (Sensitive check)**	91	94	-	93
120	31165	87	95	90	91
121	**ZC**	84	85	90	86
122	31157	86	93	-	90
123	31161	89	96	95	93
124	31201	82	82		82
125	31170	83	82	82	82
126	**Anjali (ZC for all zone)**	69	68	-	69
127	31185	83	85	78	82
128	31203	105	-	-	105
129	**US-314 (Hybrid check)**	87	94	86	89
130	Local Check	68	84	64	72
Exp. Mean		85	88	82	86

Table 1.8: Plant Height (cm) of AVT 1-E DS Normal *Kharif*-2023

Entry No	IET NO	Zone III							Zone III (6)	Zone V				Zone V (2)	Zone VII	Zone VII(2)	Overall (10)	
		OD(1)	WB(1)	BI			BI(3)	JH(1)		CG		CG(2)	MP(0)		KA	KA(2)		
		JYP	HTW	BKG	SBR	PSA	mean	RCI	mean	JDP	RPR	mean	JBP@	mean	KMT	MGD	mean	mean
101	29036	101	100	108	119	112	113	104	107	98	138	118	107	118	88	70	79	104
102	30336	84	94	99	112	107	106	93	98	85	110	97	102	97	105	57	81	95
103	29052	95	94	.	125	135	130	125	115	107	136	121	114	121	94	80	87	110
104	29038	102	99	113	472	100	228	102	165	101	135	118	106	118	100	89	95	141
105	30330	103	90	96	110	112	106	97	101	104	125	114	101	114	98	75	86	101
106	30334	89	82	106	111	102	106	87	96	95	119	107	103	107	99	68	84	96
107	30332	90	93	122	120	127	123	98	108	100	117	109	105	109	95	80	88	104
108	30351	95	84	107	106	109	107	95	99	86	117	101	110	101	102	60	81	96
109	30328	87	80	109	101	100	103	95	95	79	118	98	105	98	91	63	77	92
110	**Shabhagidhan (NC)**	93	82	112	100	98	103	90	96	73	132	102	104	102	95	78	87	95
111	31164	85	83	107	106	113	109	95	98	64	115	89	107	89	89	68	78	92
112	31163	85	83	101	94	98	98	85	91	69	111	90	109	90	91	58	74	87
113	31202	114	95	114	119	112	115	112	111	110	116	113	106	113	92	92	92	108
114	**Vandana (NC)**	82	79	90	88	91	89	75	84	76	105	91	98	91	66	56	61	81
115	29045	91	87	96	113	114	108	98	100	84	114	99	101	99	95	75	85	97
116	31193	84	82	90	91	78	86	91	86	76	103	89	101	89	102	59	81	86
117	31192	79	85	96	109	102	102	98	95	84	130	107	93	107	96	66	81	94
118	31177	98	94	106	110	103	106	102	102	103	119	111	105	111	93	71	82	100
119	**IR 64 (Sensitive check)**	81	79	100	89	100	96	81	88	70	95	82	93	82	96	54	75	84
120	31165	96	82	103	101	103	102	89	96	69	112	90	91	90	86	62	74	90
121	ZC	79	76	91	89	77	86	77	81	98	103	100	104	100	93	70	81	85

122	31157	90	80	100	103	95	99	89	93	70	114	92	94	92	90	67	78	90
123	31161	90	79	99	102	111	104	87	95	76	113	95	102	95	92	67	80	92
124	31201	86	71	84	89	80	84	73	80	75	113	94	107	94	79	61	70	81
125	31170	88	82	87	96	85	89	97	89	70	111	90	97	90	91	77	84	88
126	**Anjali (ZC for all zone)**	110	92	87	98	102	96	96	98	100	99	99	103	99	87	65	76	94
127	31185	107	89	111	117	118	115	103	107	93	123	108	97	108	93	79	86	103
128	31203	92	92	104	117	127	116	93	104	96	137	116	100	116	90	67	79	101
129	**US-314 (Hybrid check)**	85	82	131	105	102	113	90	99	76	118	97	104	97	92	70	81	95
130	Local Check	102	90	104	110	100	105	101	101	77	118	97	96	97	105	78	92	99
	Exp Mean	**92**	**86**	**102**	**117**	**104**	**108**	**94**	**99**	**85**	**117**	**101**	**102**	**101**	**93**	**69**	**81**	**96**

Table 1.9: Plant Height (cm) of AVT 1-E DS under moderate drought *Kharif*-2023

Entry No	IET NO	Zone III(1)	Zone VI		Zone VI (2)	Zone VII(1)	Overall (4)
		OD(1)	MH(1)	GJ(1)		TN(1)	
		CTK	PBN	VYR	mean	CBT	mean
101	29036	111	56	118	87	95	95
102	30336	103	48	111	80	86	87
103	29052	115	58	110	84	84	92
104	29038	105	69	120	95	89	96
105	30330	115	61	119	90	90	96
106	30334	105	52	108	80	80	86
107	30332	111	58	123	91	90	96
108	30351	95	57	107	82	80	85
109	30328	92	51	116	84	85	86
110	**Shabhagidhan (NC)**	97	60	114	87	85	89
111	31164	116	50	108	79	70	86
112	31163	100	60	113	87	86	90
113	31202	93	79	118	99	100	98
114	**Vandana (NC)**	91	50	108	79	77	82
115	29045	102	54	124	89	77	89
116	31193	97	45	104	74	73	80
117	31192	101	44	106	75	79	83
118	31177	103	60	114	87	90	92
119	**IR 64 (Sensitive check)**	88	42	107	74	73	77
120	31165	103	60	111	86	90	91
121	**ZC**	77	58	114	86	89	85
122	31157	98	50	113	81	82	86
123	31161	93	57	108	82	84	85
124	31201	100	47	113	80	77	84
125	31170	102	58	105	82	79	86
126	**Anjali (ZC for all zone)**	102	69	111	90	91	93
127	31185	110	70	118	94	97	99
128	31203	100	64	112	88	87	91
129	**US-314 (Hybrid check)**	98	49	115	82	76	85
130	Local Check	92	66	127	96	85	93
Exp Mean		**101**	**57**	**113**	**85**	**84**	**89**

Table 1.10: **Plant Height (cm) of AVT 1-E DS under severe drought *Kharif*-2023**

Entry No	IET NO	Zone III(1)	Zone V(1)	Zone VI(1)	Overall (3)
		JH(1)	MP(1)	GU(1)	
		HZB	REW	DRL	mean
101	29036	78	97	113	96
102	30336		75	79	77
103	29052	66	.	.	66
104	29038	75	85	93	84
105	30330	68	91	94	84
106	30334	65	74	78	72
107	30332	74	88	63	75
108	30351	67	82	84	78
109	30328	57	.	.	57
110	**Shabhagidhan (NC)**	70	78	103	84
111	31164		.	.	.
112	31163	59	69	72	67
113	31202	90	119	115	108
114	**Vandana (NC)**	54	.	75	65
115	29045		.	.	.
116	31193	58	62	83	68
117	31192		.	.	.
118	31177	82	85	.	84
119	**IR 64 (Sensitive check)**	56	.	.	56
120	31165	68	.	89	79
121	ZC	56	65	83	68
122	31157	52	56	.	54
123	31161	60	63	76	66
124	31201	62	.	.	62
125	31170	63	52	86	67
126	**Anjali (ZC for all zone)**	80	121	.	100
127	31185	79	81	111	90
128	31203	54	.	.	54
129	**US-314 (Hybrid check)**	49	.	85	67
130	Local Check	83	61	105	83
Exp Mean		**66**	**79**	**89**	**75**

Table 1.11: No of Panicles in sqm of AVT 1-EDS Normal *Kharif*-2023

Entry No	IET NO	Zone III							Zone III (6)	Zone V				Zone V (2)	Zone VII		Zone VII (2)	Overall (10)
		OD (1)	WB (0)	BI			BI (3)	JH (1)		CG		CG (2)	MP (0)		KA		KA (2)	
		JYP	HTW	BKG	SBR	PSA	mean	RCI	mean	JDP	RPR	mean	JBP@	mean	KMT	MGD	mean	mean
101	29036	279	-	319	239	276	278	183	259	330	233	282	195	282	252	199	226	257
102	30336	366	-	436	245	240	307	189	295	305	288	297	167	297	313	248	281	292
103	29052	340	-		319	249	284	224	283	296	231	264	165	264	283	267	275	276
104	29038	279	-	452	253	254	320	129	273	262	189	226	192	226	266	282	274	263
105	30330	389	-	411	243	227	294	175	289	308	230	269	145	269	329	196	263	279
106	30334	368	-	451	253	247	317	197	303	303	250	277	172	277	326	184	255	287
107	30332	351	-	394	358	244	332	147	299	333	228	281	210	281	368	215	292	293
108	30351	298	-	349	333	284	322	198	292	320	229	275	217	275	259	194	227	274
109	30328	358	-	414	309	272	332	182	307	296	308	302	186	302	326	168	247	293
110	**Shabhagidhan (NC)**	316	-	405	318	270	331	165	295	298	231	265	186	265	262	173	218	271
111	31164	341	-	470	279	255	335	214	312	323	230	277	164	277	383	196	290	299
112	31163	235	-	403	208	268	293	177	258	256	218	237	213	237	428	153	291	261
113	31202	364	-	380	360	223	321	158	297	299	182	241	196	241	268	196	232	270
114	**Vandana (NC)**	346	-	399	323	254	325	179	300	281	236	259	186	259	245	224	235	276
115	29045	397		354	304	259	306	193	301	325	223	274	187	274	275	241	258	286
116	31193	355		354	257	240	284	252	292	321	234	278	212	278	311	267	289	288
117	31192	358		396	219	272	296	193	288	304	219	262	195	262	290	236	263	276
118	31177	264		343	278	233	285	170	258	280	246	263	175	263	229	217	223	251
119	**IR 64 (Sensitive check)**	322		413	259	253	308	198	289	346	278	312	182	312	180	206	193	273
120	31165	315		423	285	242	317	192	291	302	221	262	186	262	173	256	215	268
121	**ZC**	317		441	304	247	331	219	306	289	227	258	185	258	371	255	313	297
122	31157	333		438	283	283	335	130	293	282	224	253	178	253	320	240	280	281
123	31161	318		481	331	266	359	158	311	327	249	288	196	288	189	197	193	280
124	31201	312		481	278	281	347	113	293	307	225	266	175	266	257	191	224	272

125	31170	349		434	221	240	298	198	288	310	229	270	206	270	279	174	227	270
126	**Anjali (ZC for all zone)**	298		466	248	245	320	131	278	250	167	209	192	209	273	180	227	251
127	31185	326		475	234	261	323	154	290	298	253	276	157	276	371	209	290	287
128	31203	287		413	214	247	291	143	261	316	176	246	163	246	320	201	261	257
129	**US-314 (Hybrid check)**	343		432	324	277	344	199	315	306	229	268	157	268	189	228	209	281
130	Local Check	357		399	331	273	334	172	306	265	168	217	146	217	320	174	247	273
Exp. Mean		**329**		**415**	**280**	**256**	**316**	**178**	**291**	**301**	**228**	**265**	**183**	**265**	**288**	**212**	**235**	**276**

Table 1.12: No. of panicles in sqm of AVT 1-EDS under moderate drought *Kharif*-2023

Entry No	IET NO	Zone III(1)	Zone VI		Zone VI (2)	Zone VII(1)	Overall (4)
		OD(1)	MH(1)	GJ(1)		TN(1)	
		CTK	PBN	VYR	mean	CBT	mean
101	29036	87	336	230	283	257	228
102	30336	112	172	250	211	290	206
103	29052	46	227	146	187	258	169
104	29038	82	223	139	181	300	186
105	30330	68	290	199	245	277	209
106	30334	86	257	215	236	265	206
107	30332	62	275	191	233	263	198
108	30351	79	305	228	267	265	219
109	30328	66	352	216	284	342	244
110	**Shabhagidhan (NC)**	74	380	173	277	272	225
111	31164	94	381	215	298	268	240
112	31163	89	361	186	274	267	226
113	31202	88	357	153	255	258	214
114	**Vandana (NC)**	76	385	191	288	300	238
115	29045	86	383	172	278	265	227
116	31193	71	387	236	312	307	250
117	31192	84	379	205	292	290	240
118	31177	90	310	203	257	220	206
119	**IR 64 (Sensitive check)**	95	250	170	210	292	202
120	31165	80	393	189	291	272	234
121	**ZC**	99	385	174	280	270	232
122	31157	92	243	181	212	317	208
123	31161	69	386	162	274	265	221
124	31201	103	246	196	221	242	197
125	31170	103	382	195	289	385	266
126	**Anjali (ZC for all zone)**	96	250	119	185	315	195
127	31185	102	392	180	286	292	242
128	31203	57	214	164	189	322	189
129	**US-314 (Hybrid check)**	95	349	172	261	303	230
130	Local Check	87	389	149	269	353	245
Exp. Mean		**84**	**321**	**187**	**254**	**286**	**220**

Table 1.13: No. of panicles in sqm of AVT 1-EDS under severe drought *Kharif*-2023

Entry No	IET NO	Zone III(1)	Zone V(1)	Zone VI(1)	Overall (3)
		JH(1)	MP(1)	GU(1)	
		HZB	REW	DRL	mean
101	29036	242	131	239	204
102	30336	-	113	204	159
103	29052	160	-	-	160
104	29038	218	-	180	199
105	30330	180	109	240	176
106	30334	156	-	216	186
107	30332	54	-	196	125
108	30351	145	122	243	170
109	30328	62	-	-	62
110	**Shabhagidhan (NC)**	235	118	209	187
111	31164		-	-	
112	31163	109	109	197	138
113	31202	223	122	151	165
114	**Vandana (NC)**	132	-	248	190
115	29045	-	-	-	-
116	31193	125	118	209	151
117	31192	-	-	-	-
118	31177	204	110	-	157
119	**IR 64 (Sensitive check)**	58	-	-	58
120	31165	183	-	199	191
121	**ZC**	105	104	199	136
122	31157	184	101	-	143
123	31161	142	107	191	147
124	31201	156	-	-	156
125	31170	176	-	207	192
126	**Anjali (ZC for all zone)**	164	-	-	164
127	31185	263	106	152	174
128	31203	-	-	-	-
129	**US-314 (Hybrid check)**	63	-	216	140
130	Local Check	155	109	228	164
Exp. Mean		**158**	**113**	**206**	**159**

Table 1.14: Grain Quality characteristics of entries in AVT 1-E DS, *Kharif* 2023

Entry No	IET No	Hull %	Mill %	HRR%	Moist %	Chalkiness	KL (mm)	KB (mm)	L/B	GT	ASV	WU ml/ 100g	VER	ER	KL AC/ mm	Amy %	GC (mm)
101	29036	74	68	62	12.5	VOC	5.73	1.54	3.72	SS	4	140	3.75	1.75	10	21.5	56
102	30336	84	69	63	12.4	VOC	4.77	1.52	3.14	SS	4	130	3.75	1.89	9	21.4	54
103	29052	72	65	63	12.3	VOC	5.42	1.54	3.52	SS	4	140	3.75	1.66	9	20.1	56
104	29038	81	67	61	12	OC	4.93	1.52	3.24	SS	3	150	3.75	1.83	9	23.5	57
105	30330	76	67	58	12.5	VOC	5.24	1.57	3.34	SS	4	160	3.75	1.72	9	25.2	42
106	30334	75	69	60	12.3	VOC	5.53	1.53	3.61	SS	3	120	3.75	1.99	11	20.8	55
107	30332	70	68	62	12.3	VOC	5.66	1.56	3.63	SS	4	150	3.75	1.41	8	21.4	54
108	30351	74	68	62	12.4	VOC	5.23	1.57	3.33	SS	4	110	3.75	1.91	10	23.5	54
109	30328	78	69	60	12.4	VOC	5.24	1.59	3.30	SS	4	150	3.75	1.72	9	23.5	48
110	**Shabhagidhan (NC)**	75	67	61	12.5	VOC	5.46	1.58	3.46	SS	4	140	3.75	1.65	9	24.5	55
111	31164	79	67	59	12.3	VOC	5.33	1.62	3.29	SS	3	140	3.75	1.50	8	24.5	49
112	31163	76	68	55	12.1	VOC	5.32	1.54	3.45	SS	4	170	3.75	1.69	9	24.1	47
113	31202	72	68	63	12.6	VOC	5.12	1.61	3.18	SS	3	100	3.75	1.76	9	24.3	54
114	**Vandana (NC)**	74	65	62	12.3	VOC	5.73	1.65	3.47	SS	4	120	4	1.40	8	23.1	58
115	29045	72	67	62	13.1	VOC	5.88	1.55	3.79	SS	5	150	3.75	1.53	9	24.5	58
116	31193	75	69	64	13.4	VOC	6.04	1.7	3.55	LS	4	90	3.75	1.66	10	22.4	56
117	31192	72	67	63	12.7	A	5.79	1.54	3.76	SS	3	150	3.75	1.90	11	23.4	54
118	31177	74	69	64	12.5	Ab	5.32	1.57	3.39	SS	4	170	4	1.88	10	24.1	46
119	**IR 64 (Sensitive check)**	74	68	64	12.9	VOC	5.74	1.75	3.28	SS	4	140	3.75	1.74	10	22.5	57
120	31165	72	68	63	12.6	VOC	5.89	1.52	3.88	SS	4	170	3.75	1.36	8	24.8	54
121	**ZC**	70	67	60	12.4	VOC	5.95	1.52	3.91	SS	5	150	3.75	1.68	10	24.5	57
122	31157	72	65	62	12.2	VOC	5.86	1.55	3.78	SS	5	115	3.75	1.71	10	22.5	57
123	31161	70	69	64	12.5	VOC	5.53	1.51	3.66	SS	3	160	3.75	1.63	9	24.7	48
124	31201	77	68	59	13.2	VOC	5.11	2.04	2.50	MS	3	150	3.75	1.76	9	23.4	48
125	31170	75	68	61	12.7	VOC	5.8	1.42	4.08	SS	5	95	3.75	1.90	11	23.4	56

126	**Anjali (ZC for all zone)**	70	69	60	12.6	VOC	5.91	1.77	3.34	SS	4	120	3.75	1.52	9	23.5	51
127	31185	72	65	60	12.5	A	5.35	1.74	3.07	SS	4	110	3.75	1.87	10	24.5	54
128	31203	78	68	62	13	VOC	5.82	2.13	2.73	MS	5	180	4	1.67	9.7	20.55	60
129	**US-314 (Hybrid check)**	74	68	58	13.1	VOC	5.92	1.51	3.92	SS	5	130	3.75	1.35	8	23.5	52
130	Local Check	75	68	61	12.4	VOC	5.53	1.85	2.99	MS	5	110	3.75	1.81	10	24.3	45

INITIALVARIETYTRIAL-EARLY DIRECTSEEDED (IVT-EDS)

Locations: 18 **TestEntries: 46**

Checks:Sahabhagidhan and Vandana – National, Govind (Northern-II), Narendra 97(Eastern-III&IV), Samaleshwari(Central-V),Varalu (Western-VI)and Tulasi (Southern-VII) & Anjali - Zonal, US 314 – Hybrid, IR64 (Sensitive) and Local check

In IVT-EDS trial, there were forty-six test entries with 7 checks. These checks were national checks ((Sahabhagidhan and Vandana), zonal checks {Govind (Northern-II), Narendra 97 (Eastern-III and IV), Samaleshwari (Central- V), Varalu (western-VI)and Tulasi (Southern-VII)—ZC)}, all zone check (Anjali), hybrid check (US 314), sensitive check(IR64) and local check. The trial was sent to 18 locations out of which Hatwara location trial was rejected by the monitoring team. In other 17 test locations the trial was evaluated under dry direct seeded conditions covering various rainfall situations like normal rainfall and moderate to severe drought conditions. Normal rainfall conditions prevailed in 12 locations viz. Jeypore (Odisha), Bikramganj, Sabour and Pusa(Bihar) and Ranchi (Jharkhand) in zone III; Raipur and Jagdalpur (Chattisgarh) and Jabalpur (M.P.) in zone V; Parbani (Maharashtra) in zone VI; Coimbator (T.N.), Kumta and Mugad (Karnataka) in zone VII out of which Pusa and Mugad data were not considered in final resultsas it showed non-significant F value. Three locations experienced moderate drought situations were Cuttack (Odisha) in zone III; Vyara and Derol (Gujarat) in zone VI. Similarly, in two locations severe drought situations were experienced;Hazaribag (Jharkhand) in zone III and Rewa (M.P.) in zone V. So in total
15 locations data were considered in final results interpretation. All these centres were classified to normal rainfall, moderate drought and severe drought locations based on standard criterias.

Grain yield, plant height, days to 50% flowering, number of panicles per m^2 of entries under different drought condition is presented in Tables 10.7 to 10.18. The information on drought and general performance at different location is given below.

General information on drought situation in different locations

Location	Drought situation	Average Expt. Yield (Kg/ha)	CV (%)	F value/ C.D.	Best check	Best check Yield (Kg/ha)	Drought Situation
Jeypore	Normal	3481.82	16.23	Significant	Shabhagidhan	5000.0	Grain filling
Bikramganj	Normal	3188.9	19.99	Significant	Vandana	6011.0	
Sabour	Normal	3080.12	10.48	Significant	Local check Sabour Harshit Dhan	3012.0	2 dry spells early vegetative and flowering
Pusa	Normal	3866.36	8.64	Non-significant	Local check Rajendra Nilam	4732.1	2 drought spells Early vegetative, Tillering to flowering
Ranchi	Normal	3139.1	12.57	Significant	Zonal check Narendra 97	3465.0	2 dry spells late vegetative, flowering and grain filling
Jagdalpur	Normal	5408.0	14.97	Significant	Shabhagidhan	5622	No
Raipur	Normal	3639.25	15.28	Significant	Shabhagidhan	3854	Flowering and grain filling to maturity
Jabalpur	Normal	4047.15	6.75	Significant	Vandana	4362.0	Early and late vegetative, Flowering
Parbani	Normal	3123.58	18.05	Significant	Vandana	4000.0	Vegetative
Coimbatore	Normal	3452.46	15.69	Significant	Hybrid check US -314	4234	No
Kumta	Normal	4352.52	8.43	Significant	Shabhagidhan	5502	4 dry spell 2 long dry spell at flowering and grain filling
Mugad	Normal	3314.45	15.07	Non-significant	Vandana	3657	
NRRI, Cuttack	Moderate	2317.08	10.11	Significant	Shabhagidhan	3764	Early vegetative, Tillering to flowering,
Location	**Drought situation**	**Average Expt.**	**CV**	F value/ C.D.	**Best check**	**Best check**	**Drought Situation**

		Yield (Kg/ha)	(%)			Yield (Kg/ha)	
Vyara	Moderate	1939.58	26.13	Significant	Shabhagidhan	2922	20 days dry spell of late entries at flowering
Derol	Moderate	1068.9	16.68	Significant	Vandana	2396	Early and late vegetative
Hazaribag	Severe	256.79	23.45	Significant	Anjali	1034	Vegetative Flowering to maturity
Rewa	Severe	594.27	25.56	Significant	Shabhagidhan	1043	4 dry spells early and late vegetative, flowering and grain filling
Hatwara	trial rejected						

Performance of entries under moderate drought situation

Moderate drought situation was prevailed at NRRI, Cuttack, Odisha in zone III and at Vyara and Derol in Gujarat in zone VI.

Zone III

In zone III, i.e. at NRRI, Cuttack the grain yield of entries ranged from 917kg/ha(IET32112) to 4306 kg/ha (IET 32105), 50% flowering duration from 67 days (IET 32085) to 107 days (IET 32093), plant height from 73.0cm (IET 32112) to 118.5(IET 32085), number of panicles/m2 ranged from 41.0 (IET 32098) to 132(IET 32096). The national check Sahbhagidhan was the best check with grain yield of 3764 kg/ha and 50% flowering duration of 88days. The only entry that outyielded the best check Sahbhagidhan was IET 32105 with grain yield of 4306 kg/ha and in normal condition it performed at par with the best check vandana. However, due to higher flowering duration both at zone III (97 days) and overall level (98 days) as compared to checks, this entry is discontinued.

Zone VI

The zone VI data reflected the average of two locations i.e.Derol and Vyara in Gujarat where moderate drought was experienced.

The experimental grain yield of the trial in zone VI was 1504.24 kg/ha with a CV of 17.74%. The grain yield of entries ranged from 0 kg/ha(IET32110) to 3031 kg/ha (IET 32077), 50% flowering duration from 49 days (IET 32107) to 103 days (IET 32098), plant height from 68.3 cm (IET 32092) to 126.9 (IET 32105), number of panicles/m2 ranged from 175 (IET 32075) to 340 (IET 32093).

The only entry that found superior than the best check Vandana was IET 32077 with grain yield of 3031 kg/ha and 50% flowering duration of 76 days. The national check Vandana was the best check with grain yield of 2473 kg/ha and 50% flowering duration of 74 days. It performed at par with the best check. **Hence, IET 32077 is promoted to second year of testing.**

The promising entry under moderate drought and normal condition compared to the BVC in Zones-III

	Moderate Drought		Normal Condition	
	Entry no.	**Yield (kg/ha)/FD/GT**	**Entry no.**	**Yield (kg/ha)/FD/GT**
1	IET 32105 CR 2889-109-115-15 Apo/CR 143-2-2	4306* 97 MS	IET 32105 CR 2889-109-115-15 Apo/CR 143-2-2	3349 102 MS
BVC	**Sahabhagidhan(NC)**	**3764 88**	**Vandana(NC)**	**3778 79**
		CD(5%):470.29		**CD(5%):389.45**

*Significant w.r.t. CD (at 5% level)

The promising entries under moderate drought condition compared to the BVC in Zones-VI

	Moderate Drought		Normal Condition	
	Entry no.	**Yield (kg/ha)/FD/GT**	**Entry no.**	**Yield (kg/ha)/FD/GT**
1	IET 32077 R-RF-213 Selection from IR 17L1454	3031* 76 MB	IET 32077 R-RF-213 Selection from IR 17L1454	4100 93 MB
BVC	**Sahabhagidhan(NC)**	**2344 73**	**Vandana (NC)**	**4000 97**
		CD(5%):535.68		**CD(5%):1131.39**

*Significant w.r.t. CD (at 5% level)

Performance of entries under severe drought situation

Two locations experienced severe drought conditions were Hazaribag (JH) and Rewa (M.P.). The severe drought stress was prevailed at vegetative, flowering and maturity stage of the crop at Hazaribag whereas Rewa experienced drought at early and late vegetative, flowering and grain filling stages.

On Overall basis including two severe drought locations, the trial mean yield was 425.23 kg/ha with a CV of 16.94%. The grain yield of entries ranged from 0 kg/ha(IET 32075, IET 32092, IET 32098, IET 32105, IET 32118) to 1711.0kg/ha (IET 32085), mean 50% flowering duration of entries ranged from 69 days (Anjali, all zone checks) to 104 days (IET 32115), plant height ranged from 47 cm (IET 32112) to 103.85 cm (IET 32085) and number of panicles per m^2 from29 (IET 32115) to 177 (IET 32083. Under this situation, National check Sahbhagidhan was the best varietal check with grain yield of 983kg/ha with 80 days to 50% flowering duration, 81cm plant height and 154 panicles /m^2.

Two entries outperformed the best varietal check Sahbhagidhan with CD at 5%. These entries are IET 32085 (grain yield of 1711kg/ha, 50% flowering duration of 73 days) and IET 32083(grain yield of 1391kg/ha, 50% flowering duration of 80 days). However, since the yield level is low at severe drought situation, the promotion of entries was considered if the entries performed superior/ at par with the best varietal check at normal situations. The BVC Sahbhagidhan with grain yield of 4133 and CD (0.05) of 302.59. The performance of both the entries (IET 32085 with grain

yield of 3770kg/ha) and (IET 32083 with grain yield of 3252 kg/ha) was not at par with BVC, hence, these two entries (IET 32085 and IET 32083) are discontinued.

Zone III

Only Hazaribag locations experienced severe drought. The mean grain yield of this locations was 256.79 kg/ha with a CV of 23.45%. As many as 15 entries did not show any grain yield. Only one entry **IET 32083**(1222kg/ha and flowering duration of 83 days.) showed yield advantage over the bestvarietal check Sahbhagidhan. The plant height was 90.17cm and panicles/m2 was 202 in IET 32083 while plant height was 70.0cm and panicles/m2 was 178 in Sahbhagidhan. However, since the yield issignificantly less compared to BVC (Vandana), in normal situation, **IET 32083** is discontinued.

Zone V

Only one location i.e. Rewa in M.P. experienced severe drought covering almost every stage of crop growth starting from early and late vegetative, flowering and grain filling. Sahbhagidhan Dhan was the best varietal check. Six entries performed significantly better than the best varietal check Sahbhagidhan. Among the six, three entries viz., **IETs 32085, 32087 and 32100 performed superiorto BVC and found at par with the normal, hence are promoted to 2nd year of testing,** while IETs 32080, 32083 and 32102 are dropped because the yield was significantly less than the best varietal check, Vandana in normal situation.

The promising entries under severe drought condition compared to the BVC in Zone-V

	Severe Drought		**Normal Condition**	
	Entry no.	**Yield (kg/ha)/FD/GT**	**Entry no.**	**Yield (kg/ha)/FD/GT**
1.	IET 32085 NVSR 2837 GR 7/GR 5	2265 72 LB	IET 32085 NVSR 2837 GR 7/GR 5	3927 80 LB
2.	IET 32087 ADVRH200057 Hybrid	1549 79 LS	IET 32087 ADVRH200057 Hybrid	4695 80 LS
3.	IET 32100 RCPR104-IR16L1499 IR09L303*2/BENONG 130	1520 86 LS	IET 32100 RCPR104-IR16L1499 IR09L303*2/BENONG 130	4709 78 LS
BVC	**Sahabhagidhan(NC)**	**1043 73**	**Vandana (NC)**	**4705 84**
CD(5%):307.73			**CD(5%):790.59**	

Promotionanddeletionofthe entriesinIVTEDStrials

Entrynoof Inbred/ Hybrid	Severe Drought	Moderate Drought	Normal	Remark
IET 32077		Superior	At-par/Superior	Promoted to AVT1-EDS,Zone VI
IET 32085	Superior		At-par/Superior	Promoted to AVT1-EDS,Zone V
IET 32087	Superior		At-par/Superior	Promoted to AVT1-EDS,Zone V
IET 32100	Superior		At-par/Superior	Promoted to AVT1-EDS,Zone V

Trial No.2.1: Composition of entries in Initial Variety Trial 1–Early Direct Seeded (IVT-E DS), *Kharif* 2023

Entry No.	IET No.	Designation	Cross combination	Grain type
201	32075	CR 2889-208-3-1	Apo/CR 143-2-2	MB
202	32076	RCPR 103-IR15F1886	IR06A150/IRRI 154//IR10F379	LS
203	32077	R-RF-213	Selection from IR 17L1454	MB
204	32078	CR 4488-19-9-4-5-1	Naveen/Surjamukhi	LS
205	32079	BRR 2015	Sita * Sugandha	LB
206	32080	CB 18801	Norungan / Swarna Sub1//Norungan	MS
207	32081	CR 3426-227-155-15	Apo/O. nivara	MS
208	32082	CRU-BCKV-13(14-N22/35-13-8-5-5)	N22/L35(A RIL from a cross Gobindabhog and Satabdi)	MB
209	32083	BKR-270	BG 102X Naveen	SB
210	32084	CR-4121-37-6-1	IR-73963-86-1-5-2-2/CR-2324-1	LB
211	32085	NVSR 2837	GR 7XGR 5	LB
212	**Shabhagidhan (NC)**			
213	32086	CR 4004-14228-2-1-4-1	BS-6444G x C460-3-2	MS
214	32087	ADVRH200057	***Hybrid***	LS
215	32088	RP 6420-C10-103	MTU 1010/Tualsi	LB
216	32089	CGR 19-CGIL-68-CGK 2-1-2131-68-1	BPT 5204*1/IR53236-218-3(TRP 38-5)	MS
217	32090	ORR 1818	Parijat X Subhadra	LS
218	32091	BRR-200-IRSAH-24	IR 84899-B-185-10-1-4-1/Vardhan	LS
219	32092	RAU 1415-12-7-6-4-3-6	Saket-4 X Sita	SB
220	32093	Rewa 19-2-8 (M4 19-20-8)	Mutant from GP Acc.no.593	MB
221	**Anjali (all zones)**			
222	32094	R-RF-212	Selection from IR 95817-5-1-1-2	LS
223	32095	CR 4472-1-1-2-2-1-1	Dular/satabdi	SB
224	32096	R 2307-73-1-38-1	Mahamaya X IR 2006-P-12-12-2-2	Mssg
225	32097	CR 4487-9-1-1-3-1	Lalat/Surjamukhi	LS
226	32098	RGL7036 (RGL 2034-9-1-1)	MTU 1210/MTU 1224/RP Bio 226	Mssg
227	**Vandana (NC)**			
228	32099	CR 4471-7-3-8-1-5	IR93312-30-101-20-13-66-6/IR94225-B-82-B	LS
229	32100	RCPR 104-IR16L1499	IR09L303*2/BENONG 130	LS
230	32101	CR 4474-2-2-6-1-1-1	Kasalath/CR Dhan 203	MS
231	32102	CB 17542	CO 41 / CO 51	MS
232	32103	MSAC-16-141	MTU 1010X DRR Dhan 44	LS
233	32104	CB HTR 22002	CO 51/Robin HTM	MS
234	32105	CR 2889-109-115-15	Apo/CR 143-2-2	MS
235	**Govind (Northern-II), Narendra 97 (Eastern-III and IV), Samaleshwari (Central- V), Varalu (western-VI)and Tulasi (Southern-VII)—ZC**			
236	32106	CR 4204-226-2	CR Dhan 307/O. rufipogon (AC 100444)//CR Dhan 307	MB
237	32107	ODR-1-2-21-1	Geetanjali /Zhu 11-26	LS
238	32108	BRR 2034	Sita * RAU 3036	MS
239	**IR 64 – Sensitive Check**			
240	32109	BRR 2180	Taraori Basmati Dwarf-2 * Sugandha-2	LS

241	32110	CR 4473-2-3-1-1-1-1	Kasalath/lalat	SB
242	32111	Rewa 3-5-2 (M4 3-53)	Mutant from acc.no.258	LS
243	32112	CR 4437-7-4-5	IR 64 SUB-1/MER-20	MS
244	32113	BRR-0193-IRSAH-12	Swarna/IR 84895-B-127-22-1-3-1	LS
245	32114	JR 15	JR 201 X NPT 24 X IR 64	LS
246	32115	NVSR 3332	GR 7XGR 5	LB
247	32116	R2272-515-2-287-1	R 1243-1224-578-1 X Danteshwari	LS
248	32117	MSAC-16-714-IR144574-40-2-1-1-B	IR 91648-B-89-B*2/IR144560	LS
249	32118	RP 6460-C3-345	166S-Swarana/O. nivara//148S-Swarna/O.nivara	MS
250	32119	MSAC-16-267	SwarnaX MTU 1010	MB
251	32120	CGR 29-IR144574-32-3-1-1-B	IR 91648-B-89-B*2/IR144560	`LS
252	**US-314 (Hybrid check)**			
253	**Local check**			

Table No. 2.2: Grain Yield (kg/ha) of IVT-E DS Severe Drought *Kharif*-2023

Entry No	IET NO	Zone III(1)		Zone V(1)		Overall (2)	
		JH(1)		MP			
		HZZB		REW		mean	
201	32075	0		0		0	
202	32076	134		0		67	
203	32077	239		595	#	417	#
204	32078	278	#	927	#	603	#
205	32079	28		461		245	
206	32080	283	#	1729	2 * #	1006	3 #
207	32081	0		521	#	261	
208	32082	139		0		70	
209	32083	1222	1 * #	1559	3 * #	1391	2 * #
210	32084	11		1090	9 #	551	#
211	32085	1156	2 #	2265	1*	1711	1 * #
212	**Shabhagidhan (NC)**	922	5.5 #	1043	10 #	983	5 #
213	32086	0		524	#	262	
214	32087	272		1549	4 * #	911	7 #
215	32088	33		0		17	
216	32089	56		765	#	411	#
217	32090	45		635	#	340	#
218	32091	0		240		120	
219	32092	0		0		0	
220	32093	206		508		357	#
221	Anjali (all zones)	1035	3 #	0		518	#
222	32094	667	9 #	1119	8 #	893	8 #
223	32095	745	8 #	724	#	735	#
224	32096	45		775	#	410	#
225	32097	245		720	#	483	#
226	32098	0		0		0	

227	**Vandana (NC)**	467		415		441	#
228	32099	217		569	#	393	#
229	32100	39		1520	6 * #	780	10 #
230	32101	556	10 #	455		506	#
231	32102	461	#	1521	5 * #	991	4 #
232	32103	0		233		117	
233	32104	800	7 #	685	#	743	#
234	32105	0		0		0	
235	**ZC**	523	#	992	#	758	#
236	32106	0		0		0	
237	32107	922	5.5 #	719	#	821	9 #
238	32108	0		868	#	434	#
239	**IR 64 – Sensitive Check**	239		992	#	616	#
240	32109	161		177		169	
241	32110	0		0		0	
242	32111	17		782	#	400	#
243	32112	11		0		6	
244	32113	0		1247	7 #	624	#
245	32114	0		0		0	
246	32115	11		0		6	
247	32116	28		578	#	303	
248	32117	150		574	#	362	#
249	32118	0		0		0	
250	32119	0		337		169	
251	32120	145		0		73	
252	**US-314 (Hybrid check)**	156		212		184	
253	Local check	956	4	876		916	6 #
Exp. Mean		**256.79**		**594.27**		**425.53**	
F Value		91.10 (p<0.0001) S		35.09 (p<0.0001) S		67.92 (p<0.0001) S	
CD		**122**		**307.73**		**145.31**	
CV%		23.45		25.56		16.94	
D/S		26-07-2023		14-07-2023			
Local Check name		CR Dhan 40		Hansraj			

Table No. 2.3: Days to 50% Flowering of IVT-E DS Severe Drought *Kharif*-2023

Entry No	IET NO	Zone III(1)	Zone V(1)	Overall (2)
		JH	MP(1)	
		HZB	REW	mean
201	32075			
202	32076	93		93
203	32077	87	86	87
204	32078	87	86	87
205	32079	104	86	95
206	32080	87	82	85
207	32081		82	82
208	32082	92		92
209	32083	83	76	80
210	32084	105	96	101
211	32085	74	72	73
212	**Shabhagidhan (NC)**	84	76	80
213	32086		78	78
214	32087	89	79	84
215	32088	92	85	89
216	32089	94	79	87
217	32090	103	75	89
218	32091		78	78
219	32092			
220	32093	104	96	100
221	Anjali (all zones)	69	69	69
222	32094	86	85	86
223	32095	90	96	93
224	32096	97	84	91
225	32097	92	91	92
226	32098			
227	**Vandana (NC)**	92	92	92
228	32099	92	93	93
229	32100	85	86	86
230	32101	91	94	93
231	32102	87	75	81
232	32103		77	77
233	32104	84	74	79
234	32105			
235	**ZC**	83	93	88
236	32106			
237	32107	69	73	71
238	32108		74	74
239	**IR 64 – Sensitive Check**	88	94	91
240	32109	92	83	88

241	32110			
242	32111	99	96	98
243	32112	103		103
244	32113		95	95
245	32114		94	94
246	32115	104		104
247	32116	99	94	97
248	32117	90	94	92
249	32118			
250	32119		95	95
251	32120	92		92
252	**US-314 (Hybrid check)**	90	95	93
253	Local check	69	85	77
Exp. Mean		**90**	**85**	**88**

Table No.2.4: Plant Height (cm) of IVT-E DS Severe Drought *Kharif*-2023

Entry No	IET NO	Zone III(1)	Zone V(1)	Overall (2)
		JH(1)	MP(1)	
		HZB	REW	mean
201	32075	.	.	.
202	32076	58.00	.	58.00
203	32077	59.67	63.00	61.33
204	32078	66.17	75.00	70.58
205	32079	58.50	72.00	65.25
206	32080	55.17	78.00	66.58
207	32081	.	98.00	98.00
208	32082	66.67	.	66.67
209	32083	90.17	100.00	95.08
210	32084	58.67	87.00	72.83
211	32085	97.70	110.00	103.85
212	**Shabhagidhan (NC)**	70.00	92.00	81.00
213	32086	.	94.00	94.00
214	32087	57.50	74.00	65.75
215	32088	62.33	73.00	67.67
216	32089	62.50	74.00	68.25
217	32090	44.83	75.00	59.92
218	32091	.	80.00	80.00
219	32092	.	.	.
220	32093	51.83	76.00	63.92
221	Anjali (all zones)	82.50	75.00	78.75
222	32094	61.50	83.00	72.25
223	32095	69.83	72.00	70.92
224	32096	49.50	76.00	62.75
225	32097	58.70	65.00	61.85
226	32098	.	.	.

227	**Vandana (NC)**	46.67	56.00	51.33
228	32099	69.83	62.00	65.92
229	32100	63.33	75.00	69.17
230	32101	66.53	70.00	68.27
231	32102	62.50	56.00	59.25
232	32103	.	70.00	70.00
233	32104	66.00	63.00	64.50
234	32105	.	.	.
235	**ZC**	51.83	76.00	63.92
236	32106	.	.	.
237	32107	65.50	62.00	63.75
238	32108	.	65.00	65.00
239	**IR 64 – Sensitive Check**	51.83	55.00	53.42
240	32109	57.33	86.00	71.67
241	32110	.	.	.
242	32111	54.53	83.00	68.77
243	32112	47.00	.	47.00
244	32113	.	85.00	85.00
245	32114	.	83.00	83.00
246	32115	57.33	.	57.33
247	32116	57.17	83.00	70.08
248	32117	61.83	66.00	63.92
249	32118	.	.	.
250	32119	.	83.00	83.00
251	32120	59.50	.	59.50
252	**US-314 (Hybrid check)**	55.60	75.00	65.30
253	Local check	75.67	83.00	79.33
Exp. Mean		**62**	**76**	**70**

Table No.2.5: No. of Panicles in sqm of IVT-E DS Severe Drought *Kharif*-2023

Entry No	**IET NO**	**Zone III(1)**	**Zone V(1)**	**Overall (2)**
		JH(1)	**MP(1)**	
		HZZB	**REW**	**mean**
201	32075			
202	32076	98		98
203	32077	123	105	114
204	32078	130	140	135
205	32079	30	102	66
206	32080	128	153	141
207	32081		111	111
208	32082	83		83
209	32083	202	151	177
210	32084	27	145	86
211	32085	199	143	171

212	**Shabhagidhan (NC)**	178	129	154
213	32086		102	102
214	32087	79	134	107
215	32088	47		47
216	32089	48	108	78
217	32090	110	111	111
218	32091		104	104
219	32092			
220	32093	90	106	98
221	Anjali (all zones)	153		153
222	32094	193	134	164
223	32095	185	134	160
224	32096	28	135	82
225	32097	145	138	142
226	32098			
227	**Vandana (NC)**	171	129	150
228	32099	128	127	128
229	32100	45	136	91
230	32101	186	104	145
231	32102	213	145	179
232	32103		106	106
233	32104	220	118	169
234	32105			
235	**ZC**	173	136	155
236	32106			
237	32107	148	123	136
238	32108		130	130
239	**IR 64 – Sensitive Check**	93	135	114
240	32109	123	104	114
241	32110			
242	32111	115	127	121
243	32112	43		43
244	32113		138	138
245	32114			
246	32115	29		29
247	32116	68	119	94
248	32117	122	126	124
249	32118			
250	32119		113	113
251	32120	90		90
252	**US-314 (Hybrid check)**	67	105	86
253	Local check	185	127	156
Exp. Mean		**118**	**124**	**117**

Table No.2.6: Grain Yield (kg/ha) of IVT-E DS Moderate Drought *Kharif*-2023

Entry No	IET NO	Zone III(1)		Zone VI				Zone VI(2)		Overall (3)	
		OD(1)		GJ				GJ(2)			
		CTK		VYR		DRL		mean		mean	
201	32075	3236	10.5 #	1304		0		652		1513	
202	32076	2959	#	2796	8	1396	#	2096		2384	10 #
203	32077	1431		2665	10	3396	1 * #	3031	1 * #	2497	6 #
204	32078	1653	#	2326		2105	10 #	2216		2028	#
205	32079	3459	6.5 #	2343		563		1453		2122	#
206	32080	1889	#	2113		1229	#	1671		1744	
207	32081	1945	#	1028		0		514		991	
208	32082	2097	#	1380		1073	#	1227		1517	
209	32083	1806	#	2400		927		1664		1711	
210	32084	2278	#	2517		1375	#	1946		2057	#
211	32085	2528	#	1947		1636	#	1792		2037	#
212	**Shabhagidhan (NC)**	3764	3.5	2922	4	1766		2344	10	2817	3
213	32086	2528	#	1232		1709	#	1471		1823	
214	32087	3889	2 #	3265	1	1438	#	2352	8 #	2864	2 #
215	32088	2014	#	1691		1032		1362		1579	
216	32089	2653	#	2323		709		1516		1895	
217	32090	1889	#	2502		573		1538		1655	
218	32091	1473		164		0		82		546	
219	32092	1861	#	519		0		260		793	
220	32093	2278	#	1804		0		902		1361	
221	Anjali (all zones)	2112		2293		0		1147		1468	
222	32094	2056	#	2978	3	2323	6 #	2651	3 #	2452	7 #
223	32095	1570		2472		1875	#	2174		1972	#
224	32096	3000	#	2993	2	1990	#	2492	5 #	2661	5 #
225	32097	1459		2026		521		1274		1335	
226	32098	2847	#	582		605		594		1345	
227	**Vandana (NC)**	3333	8	2550		2396	5	2473	6	2760	4
228	32099	1722	#	2334		2157	9 #	2246		2071	#
229	32100	1972	#	2569		2573	3 #	2571	4 #	2371	#
230	32101	2181	#	2491		2427	4 #	2459	7 #	2366	#
231	32102	2209	#	2808	7	1063	#	1936		2027	#
232	32103	3292	9 #	546		615		581		1484	
233	32104	1764		2236		782		1509		1594	
234	32105	4306	1 * #	930		0		465		1745	
235	**ZC**	3667	5	1495		730		1113		1964	

236	32106	3459	6.5 #	1530		792		1161		1927	
237	32107	2223	#	2602		0		1301		1608	
238	32108	1820	#	1567		0		784		1129	
239	**IR 64 (Sensitive Check)**	1403		1684		0		842		1029	
240	32109	2056	#	2178		2250	8 #	2214		2161	#
241	32110	2820	#	0		0		0		940	
242	32111	1736	#	967		490		729		1064	
243	32112	917		1102		584		843		868	
244	32113	3236	10.5	2915	5	1177	#	2046		2443	8 #
245	32114	1334		1463		781		1122		1193	
246	32115	2542	#	2426		2271	7 #	2349	9 #	2413	9 #
247	32116	3764	3.5	2741	9	3063	2 * #	2902	2 #	3189	1 #
248	32117	1195		1006		771		889		991	
249	32118	2125	#	1859		656		1258		1547	
250	32119	1445		1706		1657	#	1682		1603	
251	32120	2389	#	1523		0		762		1304	
252	**US-314 (Hybrid check)**	1153		2869	6	677		1773		1566	
253	Local check	2083		2131		508		1320		1574	
Exp. Mean		**2317.08**		**1939.58**		**1068.9**		**1504.24**		**1775.19**	
F Value		23.49 (p<0.0001) S		4.97 (p<0.0001) S		66.02 (p<0.0001) S		16.15 (p<0.0001) S		17.75 (p<0.0001) S	
CD		**470.29**		**1017.66**		**360.27**		**535.68**		**397.33**	
CV%		10.11		26.13		16.68		17.74		11.15	
D/S		21-06-2023		28-06-2023		04-07-2023					
Local Check name		**CR Dhan 211**		**PURNA**		**AAUDR 1**					

Table No. 2.7: Days to 50% Flowering of IVT-E DS Moderate Drought *Kharif*-2023

Entry No	IET NO	Zone III(1)	Zone VI		Zone VI(2)	Overall (3)
		OD(1)	GJ		GJ(2)	
		CTK	VYR	DRL	mean)	mean
201	32075	86	91		91	89
202	32076	93	79	91	85	88
203	32077	86	71	80	76	79
204	32078	75	70	81	76	75
205	32079	76	79	88	84	81
206	32080	80	63	73	68	72
207	32081	83	94		94	89
208	32082	103	98	96	97	99
209	32083	87	64	93	79	81
210	32084	87	79	99	89	88
211	32085	67	61	69	65	66
212	**Shabhagidhan (NC)**	88	68	78	73	78
213	32086	70	89	96	93	85
214	32087	85	71	76	74	77
215	32088	83	87	90	89	87
216	32089	82	76	87	82	82
217	32090	86	79	86	83	84
218	32091	83	95		95	89
219	32092	94	96		96	95
220	32093	107	91		91	99
221	Anjali (all zones)	73	54		54	64
222	32094	86	75	83	79	81
223	32095	88	75	97	86	87
224	32096	81	70	79	75	77
225	32097	83	73	83	78	80
226	32098	86	107	99	103	97
227	**Vandana (NC)**	70	68	80	74	73
228	32099	73	74	82	78	76
229	32100	81	71	81	76	78
230	32101	85	72	91	82	83
231	32102	85	64	73	69	74
232	32103	89	105	97	101	97
233	32104	84	63	69	66	72
234	32105	97	99		99	98
235	**ZC**	80	79	91	85	83
236	32106	105	95	93	94	98
237	32107	76	49		49	63
238	32108	97	82		82	90
239	**IR 64 (Sensitive Check)**	76	72		72	74
240	32109	94	70	78	74	81

241	32110	81				81
242	32111	93	85	92	89	90
243	32112	86	74	88	81	83
244	32113	93	81	89	85	88
245	32114	82	78	83	81	81
246	32115	90	78	79	79	82
247	32116	85	76	81	79	81
248	32117	83	78	82	80	81
249	32118	88	79	89	84	85
250	32119	84	79	87	83	83
251	32120	88	71		71	80
252	**US-314 (Hybrid check)**	82	70	84	77	79
253	Local check	85	57	62	60	68
Exp. Mean		**85**	**77**	**84**	**80**	**82**

Table No.2.8: Plant Height (cm) of IVT-E DS Moderate Drought *Kharif*-2023

Entry No	IET NO	Zone III(1)	Zone VI		Zone VI(2)	Overall (3)
		OD(1)	GJ		GJ(2)	
		CTK	VYR	DRL	mean	mean
201	32075	105.00	120.70	.	120.70	112.85
202	32076	104.50	101.40	88.40	94.90	98.10
203	32077	100.50	102.00	91.00	96.50	97.83
204	32078	108.50	101.00	93.40	97.20	100.97
205	32079	101.00	97.90	93.60	95.75	97.50
206	32080	93.50	75.60	82.60	79.10	83.90
207	32081	101.00	137.70	.	137.70	119.35
208	32082	110.00	110.10	83.60	96.85	101.23
209	32083	107.50	121.40	115.20	118.30	114.70
210	32084	104.50	116.20	82.20	99.20	100.97
211	32085	118.50	111.80	107.60	109.70	112.63
212	**Shabhagidhan (NC)**	107.50	96.00	105.00	100.50	102.83
213	32086	92.00	79.70	72.60	76.15	81.43
214	32087	93.00	90.80	84.40	87.60	89.40
215	32088	99.00	111.50	67.20	89.35	92.57
216	32089	98.50	110.70	91.20	100.95	100.13
217	32090	83.50	89.80	65.40	77.60	79.57
218	32091	98.00	87.30	.	87.30	92.65
219	32092	110.00	68.30	.	68.30	89.15
220	32093	117.50	108.30	.	108.30	112.90
221	Anjali (all zones)	101.50	88.60	.	88.60	95.05
222	32094	86.00	107.40	80.20	93.80	91.20
223	32095	92.00	118.10	105.60	111.85	105.23
224	32096	96.50	85.80	88.00	86.90	90.10
225	32097	90.50	86.80	83.00	84.90	86.77
226	32098	98.50	106.40	83.80	95.10	96.23

227	**Vandana (NC)**	96.50	84.60	74.60	79.60	85.23
228	32099	92.50	96.10	102.60	99.35	97.07
229	32100	106.50	102.20	101.80	102.00	103.50
230	32101	105.50	117.30	94.00	105.65	105.60
231	32102	89.50	83.20	97.80	90.50	90.17
232	32103	102.00	96.00	98.20	97.10	98.73
233	32104	91.50	87.80	92.00	89.90	90.43
234	32105	118.00	126.90	.	126.90	122.45
235	**ZC**	80.00	108.50	91.20	99.85	93.23
236	32106	87.50	111.70	92.00	101.85	97.07
237	32107	95.00	90.40	.	90.40	92.70
238	32108	103.50	115.70	.	115.70	109.60
239	**IR 64 (Sensitive Check)**	86.50	88.20	.	88.20	87.35
240	32109	102.50	103.20	85.80	94.50	97.17
241	32110	108.50	.	.	.	108.50
242	32111	101.00	105.10	93.80	99.45	99.97
243	32112	73.00	74.40	73.60	74.00	73.67
244	32113	102.50	113.60	96.40	105.00	104.17
245	32114	97.50	107.20	97.00	102.10	100.57
246	32115	108.00	99.50	85.00	92.25	97.50
247	32116	98.00	107.90	103.80	105.85	103.23
248	32117	98.00	81.70	93.60	87.65	91.10
249	32118	83.50	84.90	81.80	83.35	83.40
250	32119	108.00	128.30	119.60	123.95	118.63
251	32120	92.50	84.30	.	84.30	88.40
252	**US-314 (Hybrid check)**	89.00	92.30	83.40	87.85	88.23
253	Local check	87.00	105.00	122.20	113.60	104.73
Exp. Mean		**99**	**101**	**91**	**97**	**98**

Table No.2.9: No of Panicles in sqm of IVT-E DS Moderate Drought *Kharif*-2023

Entry No	IET NO	Zone III(1)	Zone VI		Zone VI(2)	Overall (3)
		OD(1)	GJ		GJ(2)	
		CTK	VYR	DRL	mean	mean
201	32075	50	175		175	113
202	32076	90	241	386	314	239
203	32077	82	310	304	307	232
204	32078	65	254	348	301	222
205	32079	89	233	262	248	195
206	32080	76	303	212	258	197
207	32081	75	211		211	143
208	32082	90	268	294	281	217
209	32083	68	233	156	195	152
210	32084	68	255	174	215	166
211	32085	68	267	202	235	179
212	**Shabhagidhan (NC)**	80	232	226	229	179

213	32086	94	211	326	269	210
214	32087	85	286	274	280	215
215	32088	97	332	246	289	225
216	32089	88	234	222	228	181
217	32090	76	156	228	192	153
218	32091	57	303		303	180
219	32092	77	246		246	162
220	32093	67	340		340	204
221	Anjali (all zones)	73	205		205	139
222	32094	95	305	236	271	212
223	32095	92	325	212	269	210
224	32096	132	272	330	301	245
225	32097	100	281	234	258	205
226	32098	41	199	204	202	148
227	**Vandana (NC)**	75	264	196	230	178
228	32099	74	231	220	226	175
229	32100	90	234	242	238	189
230	32101	88	292	240	266	207
231	32102	85	245	210	228	180
232	32103	51	214	232	223	166
233	32104	104	330	188	259	207
234	32105	71	240		240	156
235	**ZC**	100	290	198	244	196
236	32106	60	205	204	205	156
237	32107	75	193		193	134
238	32108	82	276		276	179
239	**IR 64 (Sensitive Check)**	81	273		273	177
240	32109	69	299	210	255	193
241	32110	50				50
242	32111	74	307	272	290	218
243	32112	81	327	236	282	215
244	32113	80	199	224	212	168
245	32114	79	171	228	200	159
246	32115	73	309	232	271	205
247	32116	74	275	242	259	197
248	32117	73	233	294	264	200
249	32118	87	276	248	262	204
250	32119	73	228	174	201	158
251	32120	85	278		278	182
252	**US-314 (Hybrid check)**	110	316	228	272	218
253	Local check	71	284	180	232	178
Exp. Mean		**79**	**259**	**239**	**250**	**184**

Table No. 2.10: Grain Yield (kg/ha) of IVT-E DS Normal *Kharif*-2023

Entry No	IET NO	Zone III												Zone III (5)		Zone V								Zone V (3)		Zone VI(1)		Zone VII								Zone VII (2)		Overall (11)	
		OD(1)		BI						BI(3)		JH(1)				CG				CG(2)		MP(1)				MH(1)		TN(1)		KA				KA(1)					
		JYP		BKJ		SBR		PSA		mean		RCI		mean		JDP		RPR		mean		JBP		mean		PBN		CBT		KMT		MGD@		mean		mean		mean	
201	32075	2078		2372		5005	4 * #	4108		3828	8	3402		3393		6979	1 #	3633		5306	10	4206		4939		3400		3700		3778		3391		3778		3739		3878	
202	32076	3524		3292		3491	#	4108		3630		3087		3500		5378		3698		4538		3324		4133		2800		3837		3605		3320		3605		3721		3649	
203	32077	4511	10	3382		3134		3750		3422		3591	10	3674		6739	4 #	3773		5256		3569		4694		4100	3	3027		4204		3708	10	4204		3616		3980	10
204	32078	3388		4009	6	3428	#	3572		3670		3276		3535		5254		4511	10.5	4883		3972		4579		3400		4487	1	3568		3673		3568		4028		3897	
205	32079	2944		2889		2287		3750		2975		3276		3029		5225		3793		4509		4525		4514		3700		2705		4877		3521		4877		3791		3634	
206	32080	5718	2 #	3669		2414		3750		3278		3150		3740	7	5157		1860		3509		3624		3547		3900	8.5	3597		5297	#	3302		5297	#	4447		3831	
207	32081	2428		0		3458	#	3750		2403		2520		2431		6719	5 #	3668		5194		4700	5 #	5029	6	3000		3079		3549		3558		3549		3314		3352	
208	32082	3364		0		4546	8 *	3929		2825		2709		2910		6573	#	3730		5152		4559	8	4954	9	4200	1.5	2749		4771		2841		4771		3760		3739	
209	32083	2156		3680		2061		4108		3283		1953		2792		4398		1434		2916		3076		2969		3700		3044		6160	2 #	3442		6160	2 #	4602	10	3252	
210	32084	2500		3426		2014		4465	3	3302		2583		2998		6644	8 #	5000	6	5822	4 #	4232		5292	2#	3700		3396		5923	4 #	4091	3	5923	4 #	4660	7	3989	9
211	32085	3799		3667		2176		3929		3257		3024		3319		4525		3609		4067		3646		3927		4000	4.5	4101	6	4995		3212		4995		4548		3770	
212	**Shabhagidhan (NC)**	5000	5	4676	4	2532		3750		3653		2835		3759	6	5622		3854		4738		4021		4499		3500		4175	4	5502	9	3024		5502	9	4839	3	4133	7
213	32086	2819		3113		3673	* #	4108		3631		1953		3133		4330		2717		3524		5405	2 * #	4151		3200		2588		4136		2837		4136		3362		3458	
214	32087	6433	1 * #	3530		4910	5 * #	4108		4183	2 #	3717	5.5	4540	1 * #	4717		4448		4583		4921	3 #	4695		2600		4331	2	5998	3 #	4045	4	5998	3	5165	1 #	4519	1 * #
215	32088	2645		2426		2528		4108		3021		3276		2997		4414		4494		4454		3602		4170		2700		3170		5170	#	3718	9	5170	#	4170		3503	
216	32089	3370		2950		2037		4465	3	3151		3465		3257		4965		4511	10.5	4738		3256		4244		3500		3386		3250		3458		3250		3318		3560	
217	32090	4176		4132	5	3269	#	3929		3777	10	3150		3731	8	5183		3166		4175		3591		3980		3600		3871	10	3265		3599		3265		3568		3757	
218	32091	3089		2453		4690	7 * #	4108		3750		3402		3548		6566	#	1689		4128		4167		4141		3950	6	2134		3245		3974	5	3245		2690		3590	
219	32092	4520	9	3774	8	4416	9 * #	3750		3980	5 #	3591	10	4010	3 #	6335		4696	9	5516	6	4297		5109	5 #	3800		3788		5789	6 #	4134	2	5789	6 #	4789	4	4432	2 #
220	32093	1232		3158		1955		4108		3074		2142		2519		4590		2675		3633		4557	10	3941		3500		3262		5801	5 #	3840	7	5801	5 #	4532		3362	
221	Anjali (all zones)	1404		3247		1931		4465	3	3214		3087		2827		4102		2423		3263		3714		3413		2700		3995	9	5094		2916		5094		4545		3287	
222	32094	5040	4	3012		2665		3750		3142		3276		3549		6065		4331		5198		4602	6 #	4999	8	3700		3712		5620	7 #	3009		5620	7 #	4666	6	4161	6
223	32095	4254		1747		3871	* #	3393		3004		3654	7.5	3384		6576	10	4084		5330	9	4397		5019	7	3900	8.5	3522		3207		3347		3207		3365		3873	

																	#																					
224	32096	4632	8	2822		3562	#	3572		3319		2772		3472		6468		5534	1 #	6001	2 #	3761		5254	3 #	3400		3433		6323	1 * #	2940		6323	1 * #	4878	2	4207	3 #
225	32097	4205		3674		2880		3750		3435		3024		3507		6573	#	4354		5464	7	3474		4800		3850		3820		5475	10 #	3033		5475	10 #	4648	8	4098	8
226	32098	2141		2514		4199	10 * #	3929		3547		2835		3124		4971		1923		3447		4558	9	3817		2800		2760		3207		3312		3207		2984		3258	
227	**Vandana (NC)**	4375		6011	1	2162		3571		3915	6	2772		3778	5	4528		5226	3	4877		4362		4705		4000	4.5	3286		3232		3658		3232		3259		3957	
228	32099	2319		4006	7	2834		4108		3649		2331		3120		4912		3195		4054		3839		3982		2100		1569		3315		3170		3315		2442		3139	
229	32100	4438		3697	10	2431		3929		3352		2646		3428		4847		4918	7	4883		4362		4709		4200	1.5	3714		3488		3672		3488		3601		3879	
230	32101	4018		3236		2426		3393		3018		3843	2.5	3383		6960	2 #	4251		5606	5 #	3081		4764		3400		3816		4563		3112		4563		4190		3908	
231	32102	5701	3 #	2999		2369		3929		3099		2772		3554		4336		2334		3335		3445		3372		2600		4026	8	3331		2989		3331		3679		3440	
232	32103	2147		2481		5101	2 * #	3929		3837	7	3591	10	3450		6511		4051		5281		3635		4732		2400		3347		3587		3235		3587		3467		3707	
233	32104	4199		2861		2412		3929		3067		3339		3348		4596		2456		3526		3970		3674		2300		3104		3422		2956		3422		3263		3326	
234	32105	1002		3125		5149	1 * #	3750		4008	4 #	3717	5.5	3349		6664	7 #	3101		4883		3602		4456		3200		3633		4327		3767	8	4327		3980		3752	
235	ZC	3815		5006	3	2285		3929		3740		3465		3700	9	6195		4400		5298		4232		4942	10	2800		3653		3679		4196	1	3679		3666		3951	
236	32106	4109		2793		4896	6 * #	3750		3813	9	2835		3677	10	6689	6 #	3477		5083		4582	7 #	4916		2400		3375		3778		3025		3778		3577		3880	
237	32107	1000		3756	9	1512		4108		3125		3465		2768		4395		2635		3515		4753	4 #	3928		2200		4050	7	4032		2714		4032		4041		3264	
238	32108	2861		5579	2 #	3857	* #	3929		4455	1 * #	2709		3787	4	6361		4484		5423	8	3262		4702		3000		3501		3225		2896		3225		3363		3888	
239	**IR 64 (Sensitive Check)**	4975	6	2835		2301		4108		3081		3150		3474		4743		3218		3981		3841		3934		2900		3306		3304		2945		3304		3305		3516	
240	32109	4218		2856		3204	#	4286	5.5	3449		3654	7.5	3644		5283		3712		4498		3906		4300		3900	8.5	3870		4197		3369		4197		4034		3917	
241	32110	1040		3125		2348		0		1824				1628		4099		0		2050		3877		2659		1000		3019		4749		3250		4749		3884		2326	
242	32111	1645		2980		2013		3750		2914		3150		2708		4444		3301		3873		4223		3989		2600		2986		3486		3136		3486		3236		3143	
243	32112	3315		3220		2404		3750		3125		3339		3206		5192		3656		4424		4232		4360		2200		3196		3599		2850		3599		3398		3464	
244	32113	3660		2499		3939	* #	4108		3515		3024		3446		6885	3 #	5198	4 #	6042	1 #	4049		5377	1 #	2000		3098		4357		3059		4357		3728		3892	
245	32114	4169		3551		3119		3750		3473		3465		3611		5277		3651		4464		4142		4357		2400		3215		4742		3027		4742		3979		3771	
246	32115	4964	7	3188		5061	3 * #	4108		4119	3 #	3465		4157	2 #	4675		5154	5 #	4915		4232		4687		2300		3628		5292	#	3951	6	5292	#	4460		4188	4 #
247	32116	3796		3453		3290	#	3750		3498		3843	2.5	3626		6579	9 #	5291	2 #	5935	3 #	3845		5238	4 #	2750		3813		5528	8 #	3091		5528	8 #	4671	5	4176	5 #
248	32117	4004		2325		2037		3572		2645		3780	4	3144		4339		3495		3917		5595	1 * #	4476		2600		4123	5	5136		2861		5136		4630	9	3728	

249	32118	3709		2302		2125		3929		2785		4473	1 * #	3308		4544		2217		3381		4362		3708		2600				4479		2916		4479		4479		3474	
250	32119	2094		3240		3213	#	4286	5.5	3580		3087		3184		5463		3745		4604		3329		4179		2700		3447		3997		3370		3997		3722		3509	
251	32120	3026		3109		2126		4108		3114		2520		2978		4603		3280		3942		3451		3778		3900	8.5	3075		4002		3058		4002		3539		3382	
252	**US-314 (Hybrid check)**	4457		3654		2501		3929		3361		3276		3563		4919		3921		4420		4019		4286		3300		4234	3	4263		3241		4263		4249		3861	
253	Local check	4121		3526		3012		4732	1	3757		2772		3633		3542		4905	8	4224		4529		4325		3200		3787		3778		2922		3778		3783		3809	
Exp. Mean		**3481.82**		**3188.9**		**3080.12**		**3866.36**		**3378.46**		**3139.1**		**3345.56**		**5408.2**		**3639.25**		**4524.11**		**4047.15**		**4364.98**		**3123.58**		**3452.46**		**4352.52**		**3314.45**		**4352.52**		**3912.17**		**3708.29**	
F Value		10.21 (p<0.0001) S		5.13 (p<0.0001) S		19.90 (p<0.0001) S		6.66 (p<0.0001) S		6.67 (p<0.0001) S		3.24 (p<0.0001) S		11.30 (p<0.0001) S		2.86 (p<0.0001) S		7.13 (p<0.0001) S		3.99 (p<0.0001) S		7.94 (p<0.0001) S		4.08 (p<0.0001) S		3.04 (p<0.0001) S		2.06 (p<0.0054) S		13.18 (p<0.0001) S		1.23 (p<0.2330) NS		13.18 (p<0.0001) S		6.88 (p<0.0001) S		11.78 (p<0.0001) S	
CD		**1133.89**		**1280.07**		**647.48**		**670.76**		**508.26**		**791.94**		**389.45**		**1625.07**		**1126.76**		**1161.3**		**547.9**		**790.59**		**1131.39**		**1087.3**		**736.16**		**1002.38**		**736.16**		**652.13**		**302.59**	
CV%		16.23		19.99		10.48		8.64		7.5		12.57		5.8		14.97		15.28		12.74		6.75		9		18.05		15.69		8.43		15.07		8.43		8.31		4.07	
D/S		25.07.23		09-07-2023		25-06-2023		05-07-2023				03.07.2023				01.07.23		05-07-2023				22.06.2023				07-07-2023		09.08.2023		08.07.2023		12.08.23							
Local Check name		Mandakini		Sabour Ardhjal		Sabour Harshit Dhan		Rajendra Nilam				BVD-110				Bastar Dhan 1		Indira Aerobic -1				JR 206				Avishkar		CO 53		MGD 101		MGD-101							

Table No.2.11: Days to 50% Flowering of IVT-E DS Normal *Kharif*-2023

Entry No	IET NO	Zone III						Zone III (5)	Zone V				Zone V (3)	Zone VI(1)	Zone VII				Zone VII (2)	Overall (11)
		OD(1)	BI			BI(3)	JH(1)		CG		CG(2)	MP(1)		MH(1)	TN(1)	KA		KA(1)		
		JYP	BKJ	SBR	PSA	mean	RCI	mean	JDP	RPR	mean	JBP	mean	PBN	CBT	KMT	MGD@	mean	mean	mean
201	32075	97	97	106	103	102	68	94	93	99	96	98	97	109	97	78	100	78	88	95
202	32076	86	78	98	78	85	89	86	82	82	82	97	87	98	89	89	87	89	89	88
203	32077	83	77	87	71	78	83	80	72	72	72	87	77	93	81	89	84	89	85	81
204	32078	80	71	87	72	77	46	71	74	72	73	96	81	91	83	84	86	84	84	78
205	32079	86	79	80	74	78	91	82	86	84	85	94	88	93	96	94	94	94	95	87
206	32080	78	68	77	71	72	78	74	70	68	69	92	77	85	80	86	81	86	83	78
207	32081	94		108	86	97	97	96	88	91	90	101	93	100	89	84	93	84	87	94
208	32082	97		105	102	104	107	103	90	101	96	86	92	100	98	87	95	87	93	97
209	32083	80	68	68	67	68	80	73	72	67	70	92	77	87	81	92	74	92	87	78
210	32084	87	79	85	74	79	95	84	88	83	86	91	87	95	95	91	91	91	93	88
211	32085	71	74	81	68	74	73	73	70	69	70	100	80	97	70	84	77	84	77	78
212	**Shabhagidhan (NC)**	82	73	83	69	75	80	77	71	72	72	83	75	86	82	90	74	90	86	79
213	32086	97	102	76	72	83	103	90	90	95	93	103	96	92	98	81	99	81	90	92
214	32087	78	74	80	68	74	82	76	72	68	70	101	80	85	75	83	81	83	79	79
215	32088	95	91	90	72	84	81	86	77	79	78	103	86	95	84	94	96	94	89	87
216	32089	83	71	85	74	77	85	80	77	74	76	91	81	99	86	90	86	90	88	83
217	32090	89	77	91	80	83	86	85	82	88	85	98	89	97	90	89	92	89	90	88
218	32091	96	107	118	117	114	112	110	91	114	103	102	102	108	94	88	91	88	91	104
219	32092	86	98	107	103	103	98	98	86	93	90	99	93	99	89	83	93	83	86	95
220	32093	89	86	97	88	90	96	91	86	76	81	101	88	95	90	91	95	91	91	90
221	Anjali (all zones)	80	63	62	59	61	69	67	70	73	72	98	80	64	73	87	72	87	80	73

222	32094	83	79	81	70	77	82	79	74	74	74	83	77	90	84	92	78	92	88	81
223	32095	83	76	86	75	79	87	81	77	76	77	84	79	98	82	79	92	79	81	82
224	32096	78	76	85	73	78	82	79	74	80	77	101	85	98	85	90	92	90	88	84
225	32097	83	75	83	79	79	87	81	76	75	76	96	82	96	83	86	87	86	85	84
226	32098	100	104	118	111	111	109	108	89	106	98	103	99	110	96	96	97	96	96	104
227	**Vandana (NC)**	90	73	76	71	73	83	79	73	77	75	101	84	97	88	77	90	77	83	82
228	32099	83	76	89	73	79	87	82	77	78	78	92	82	97	83	89	82	89	86	84
229	32100	78	79	85	73	79	84	80	72	75	74	87	78	91	78	86	82	86	82	81
230	32101	86	78	85	74	79	91	83	70	74	72	88	77	95	86	81	88	81	84	83
231	32102	84	73	81	69	74	82	78	70	67	69	101	79	82	81	88	82	88	85	80
232	32103	96	73	108	105	95	106	98	91	100	96	103	98	101	95	94	92	94	95	97
233	32104	82	69	77	67	71	77	74	71	66	69	101	79	83	81	92	80	92	87	79
234	32105	95	102	99	105	102	109	102	89	101	95	96	95	104	89	82	91	82	86	97
235	**ZC**	80	67	76	67	70	81	74	77	77	77	102	85	93	95	75	91	75	85	81
236	32106	96	94	99	105	99	108	100	90	96	93	100	95	101	89	78	91	78	84	96
237	32107	68	96	68	62	75	74	74	72	52	62	101	75	65	69	79	77	79	74	73
238	32108	97	81	96	87	88	96	91	82	73	78	87	81	101	95	84	92	84	90	89
239	**IR 64 (Sensitive Check)**	84	79	82	71	77	87	81	74	72	73	100	82	94	83	78	86	78	81	82
240	32109	83	75	79	74	76	81	78	71	77	74	99	82	93	89	82	86	82	86	82
241	32110	106	102	118		110		109	90	125	108	99	105	122	108	94	101	94	101	107
242	32111	79	93	99	81	91	95	89	87	82	85	102	90	98	89	86	86	86	88	90
243	32112	85	98	82	81	87	91	87	77	73	75	101	84	98	85	80	92	80	83	86
244	32113	91	81	97	79	86	90	88	84	83	84	100	89	101	95	88	89	88	92	90
245	32114	86	76	80	71	76	89	80	78	76	77	91	82	93	93	82	86	82	88	83
246	32115	86	80	93	80	84	83	84	76	79	78	102	86	97	82	98	88	98	90	87
247	32116	96	72	86	72	77	82	82	76	73	75	103	84	93	82	95	89	95	89	85
248	32117	83	80	85	72	79	85	81	76	74	75	103	84	92	81	87	85	87	84	83
249	32118	74	81	90	73	81	96	83	80	94	87	100	91	93		92	100	92	92	87

250	32119	91	77	85	74	79	90	83	82	76	79	98	85	96	88	102	92	102	95	87
251	32120	85	71	85	67	74	79	77	72	72	72	101	82	94	84	105	83	105	95	83
252	**US-314 (Hybrid check)**	80	74	85	67	75	83	78	72	71	72	97	80	87	78	100	85	100	89	81
253	Local check	84	77	85	75	79	73	79	75	72	74	91	79	89	84	78	80	78	81	80
Exp. Mean		**86**	**80**	**88**	**78**	**83**	**87**	**84**	**79**	**80**	**80**	**96**	**85**	**94**	**86**	**87**	**88**	**87**	**87**	**86**

Table No.2.12: Plant Height (cm) of IVT-E DS Normal *Kharif*-2023

Entry No	IET NO	Zone III						Zone III (5)	Zone V				Zone V (3)	Zone VI(1)	Zone VII				Zone VII (2)	Overall (11)
		OD (1)	BI			BI(3)	JH(1)		CG		CG(2)	MP(1)		MH(1)	TN(1)	KA		KA(1)		
		JYP	BKG	SBR	PSA	mean	RCI	mean	JDP	RPR	mean	JBP	mean	PBN	CBT	KMT	MGD@	mean	mean	mean
201	32075	77	105	120	103	109	94	100	102	99	100	80	94	54	79	86	74	86	82	91
202	32076	87	112	118	102	111	94	103	85	97	91	77	86	55	95	53	71	53	74	89
203	32077	87	101	104	88	98	92	94	100	99	100	61	87	70	90	78	69	78	84	88
204	32078	100	115	111	100	109	98	105	92	107	99	57	85	65	100	76	67	76	88	93
205	32079	89	108	106	100	105	88	98	74	91	83	73	79	47	91	83	72	83	87	86
206	32080	93	94	85	88	89	85	89	104	87	96	73	88	49	83	72	78	72	77	83
207	32081	94	.	126	125	125	92	109	111	118	115	81	103	61	103	69	73	69	86	98
208	32082	94	.	131	126	128	95	111	118	109	113	78	101	53	92	83	75	83	87	98
209	32083	125	107	100	121	109	102	111	123	99	111	66	96	82	112	90	74	90	101	102
210	32084	85	127	127	107	120	92	108	98	106	102	72	92	66	100	94	78	94	97	98
211	32085	103	101	101	120	107	94	104	72	105	89	55	77	75	109	89	68	89	99	93
212	**Shabhagidhan (NC)**	96	111	94	88	98	90	96	83	90	86	70	81	58	97	86	63	86	92	88
213	32086	73	85	93	100	93	70	84	71	87	79	74	77	45	67	77	63	77	72	77
214	32087	89	111	104	84	100	92	96	76	95	85	71	81	43	87	92	62	92	89	86
215	32088	89	97	124	103	108	96	102	101	95	98	73	90	53	93	96	82	96	94	93
216	32089	97	118	112	109	113	102	108	104	107	105	61	91	61	102	85	79	85	93	96
217	32090	90	85	92	90	89	86	89	89	92	90	51	77	43	84	75	67	75	79	80
218	32091	81	99	112	94	102	87	94	86	96	91	69	84	47	90	96	69	96	93	87
219	32092	99	106	134	150	130	105	119	83	112	97	65	86	69	99	71	83	71	85	99
220	32093	94	110	128	103	114	91	105	101	99	100	74	91	58	95	78	75	78	86	94
221	Anjali (all zones)	96	95	95	91	94	87	93	107	108	108	85	100	60	103	73	68	73	88	91
222	32094	89	117	114	107	113	97	105	106	83	95	74	88	47	92	94	70	94	93	93
223	32095	91	103	113	98	105	99	101	97	102	99	54	84	58	88	76	77	76	82	89
224	32096	82	90	104	96	97	91	93	84	97	91	61	81	40	85	84	61	84	85	83

225	32097	83	97	94	100	97	90	93	76	89	82	67	77	38	74	61	67	61	67	79
226	32098	88	103	119	110	111	95	103	100	98	99	62	87	46	98	78	85	78	88	91
227	**Vandana (NC)**	77	107	90	95	97	75	89	76	94	85	63	78	41	86	58	69	58	72	78
228	32099	86	102	103	100	102	94	97	97	88	93	54	80	55	89	69	75	69	79	85
229	32100	95	103	110	99	104	100	101	101	107	104	80	96	65	95	80	76	80	87	94
230	32101	91	113	109	107	110	98	104	100	97	99	71	89	69	103	88	78	88	96	95
231	32102	94	77	84	88	83	90	87	89	86	87	75	83	62	88	92	77	92	90	84
232	32103	85	103	119	107	110	88	100	97	95	96	77	90	58	90	72	78	72	81	90
233	32104	90	99	84	80	88	91	89	88	83	85	71	81	61	79	59	70	59	69	80
234	32105	90	114	130	128	124	91	111	109	116	112	74	100	65	101	80	82	80	90	100
235	**ZC**	73	97	81	82	87	69	80	93	83	88	54	77	50	93	76	80	76	84	77
236	32106	78	109	121	103	111	89	100	93	98	96	56	82	55	87	86	75	86	87	89
237	32107	92	111	99	83	97	86	94	84	95	90	76	85	52	90	79	75	79	84	86
238	32108	90	108	127	120	118	92	107	101	113	107	74	96	69	94	68	78	68	81	96
239	**IR 64 (Sensitive Check)**	82	90	90	109	96	76	89	76	81	79	69	76	47	68	73	64	73	70	78
240	32109	88	102	98	82	94	94	93	90	96	93	58	81	55	95	70	75	70	82	84
241	32110	66	89	123	.	106	.	93	93	85	89	77	85	50	90	51	84	51	70	80
242	32111	89	112	115	120	116	91	105	84	95	90	73	84	48	83	89	69	89	86	91
243	32112	71	92	91	81	88	97	86	71	72	72	59	67	35	80	80	67	80	80	75
244	32113	87	119	119	122	120	94	108	87	114	101	75	92	55	90	90	75	90	90	96
245	32114	91	114	110	106	110	90	102	91	101	96	63	85	54	88	83	81	83	86	90
246	32115	81	104	107	101	104	87	96	77	93	85	60	77	43	80	110	70	110	95	86
247	32116	77	108	106	101	105	52	89	89	104	96	69	87	49	89	102	79	102	96	86
248	32117	84	101	106	100	102	89	96	85	88	87	76	83	50	82	83	68	83	82	86
249	32118	100	74	87	94	85	83	88	79	80	79	67	75	42	.	84	69	84	84	79
250	32119	102	115	146	121	127	96	116	119	100	110	67	96	83	109	79	86	79	94	103
251	32120	90	93	83	98	91	85	90	74	81	78	56	71	47	99	87	68	87	93	81
252	**US-314 (Hybrid check)**	88	98	107	99	101	93	97	71	103	87	55	76	42	91	55	65	55	73	82
253	Local check	96	106	115	100	107	89	101	90	93	92	66	83	73	87	79	85	79	83	90
Exp. Mean		**89**	**103**	**108**	**102**	**105**	**90**	**98**	**91**	**96**	**94**	**68**	**85**	**55**	**91**	**80**	**73**	**80**	**85**	**88**

Table No.2.13: No of Panicles in sqm of IVT-E DS Normal *Kharif*-2023

Entry No	IET NO	Zone III						Zone III (5)	Zone V				Zone V (3)	Zone VI (1)	Zone VII				Zone VII (2)	Overall (11)
		OD(1)	BI			BI(3)	JH(1)		CG		CG(2)	MP(1)		MH(1)	TN(1)	KA		KA(1)		
		JYP	BKJ	SBR	PSA	mean	RCI	mean	JDP	RPR	mean	JBP	mean	PBN	CBT	KMT	MGD@	mean	mean	mean
201	32075	211	412	265	203	293	232	265	361	192	277	211	255	165	268	214	257	214	241	249
202	32076	251	447	210	198	285	196	260	273	251	262	199	241	250	273	344	196	344	309	263
203	32077	188	353	286	205	281	265	259	348	250	299	185	261	308	293	294	238	294	294	270
204	32078	225	392	299	190	294	256	272	323	260	292	209	264	379	360	291	235	291	326	289
205	32079	333	352	213	186	250	271	271	301	243	272	217	254	383	293	258	223	258	276	277
206	32080	276	425	313	204	314	270	298	330	178	254	115	208	387	315	282	203	282	299	281
207	32081	268		187	207	197	237	225	323	292	308	208	274	270	285	243	223	243	264	252
208	32082	382		330	206	268	231	287	333	267	300	157	252	365	263	320	232	320	292	285
209	32083	238	337	225	199	254	151	230	294	131	213	141	189	358	328	325	170	325	327	248
210	32084	232	305	183	197	228	184	220	374	294	334	150	273	298	258	353	243	353	306	257
211	32085	262	303	189	204	232	201	232	313	277	295	136	242	393	320	258	229	258	289	260
212	**Shabhagidhan (NC)**	222	400	262	216	293	236	267	356	197	277	191	248	288	325	317	207	317	321	274
213	32086	231	320	268	210	266	245	255	301	277	289	210	263	265	303	339	192	339	321	270
214	32087	272	384	243	206	278	246	270	257	260	259	190	236	258	308	336	214	336	322	269
215	32088	235	294	278	207	260	246	252	260	262	261	219	247	168	278	333	189	333	306	253
216	32089	245	454	255	241	317	213	282	277	281	279	165	241	275	288	272	243	272	280	270
217	32090	322	359	293	223	292	227	285	299	188	244	142	210	345	320	242	182	242	281	269
218	32091	201	199	244	200	214	223	213	384	237	311	188	270	305	278	250	273	250	264	246
219	32092	269	257	178	208	214	209	224	322	295	309	227	281	330	345	316	219	316	331	269
220	32093	188	301	237	200	246	175	220	288	261	275	210	253	298	270	379	231	379	325	255
221	Anjali (all zones)	248	405	267	201	291	168	258	343	253	298	204	267	210	320	300	191	300	310	265
222	32094	255	306	234	196	245	218	242	343	246	295	210	266	315	275	343	207	343	309	267
223	32095	241	344	244	192	260	276	259	358	270	314	225	284	350	285	404	227	404	345	290

224	32096	218	372	216	206	265	226	248	338	268	303	182	263	279	323	338	204	338	331	270
225	32097	317	367	238	204	270	293	284	319	259	289	204	261	210	305	331	275	331	318	277
226	32098	208	409	218	197	275	256	258	343	228	286	190	254	214	275	162	236	162	219	245
227	**Vandana (NC)**	287	437	288	203	309	146	272	353	279	316	174	269	330	278	184	216	184	231	269
228	32099	218	438	170	212	273	190	246	281	222	252	213	239	369	200	238	252	238	219	250
229	32100	255	376	262	202	280	232	265	254	253	254	204	237	392	300	217	215	217	259	268
230	32101	201	398	225	201	275	242	253	307	260	284	194	254	368	338	112	267	112	225	259
231	32102	272	431	218	205	285	139	253	357	288	323	171	272	313	385	196	210	196	291	270
232	32103	215	420	260	204	295	274	275	322	258	290	177	252	268	310	220	238	220	265	266
233	32104	245	295	235	197	242	206	236	310	293	302	200	268	278	265	172	189	172	219	245
234	32105	205	399	230	190	273	234	252	323	283	303	162	256	265	260	191	243	191	226	249
235	**ZC**	350	300	205	184	230	269	262	355	293	324	181	276	268	273	171	268	171	222	259
236	32106	359	435	270	203	303	166	287	324	209	267	180	238	173	275	214	208	214	245	255
237	32107	198	372	238	199	270	149	231	295	263	279	225	261	258	290	177	203	177	234	242
238	32108	228	376	288	182	282	199	255	302	273	288	161	245	310	280	220	168	220	250	256
239	**IR 64 (Sensitive Check)**	301	199	208	194	200	303	241	316	214	265	172	234	265	293	168	275	168	231	239
240	32109	251	362	281	191	278	244	266	285	267	276	219	257	275	348	268	213	268	308	272
241	32110	312	424	213		319		316	355		355	115	235	155	275	376	242	376	326	278
242	32111	243	400	216	215	277	272	269	316	252	284	169	246	265	288	196	226	196	242	257
243	32112	282	177	250	216	214	303	246	321	220	271	208	250	228	263	235	234	235	249	246
244	32113	312	355	211	220	262	192	258	333	272	303	194	266	300	288	253	226	253	271	266
245	32114	285	372	262	202	279	154	255	228	260	244	190	226	243	300	198	215	198	249	245
246	32115	265	374	271	196	280	260	273	258	277	268	180	238	269	285	239	196	239	262	261
247	32116	249	364	278	201	281	282	275	310	256	283	229	265	260	335	344	264	344	340	283
248	32117	185	414	196	203	271	224	244	310	269	290	228	269	205	375	293	237	293	334	264
249	32118	243	112	283	206	200	260	221	300	122	211	213	212	165		209	213	209	209	211
250	32119	252	395	259	230	295	256	278	379	270	325	172	274	220	290	306	253	306	298	275
251	32120	288	414	209	227	283	247	277	307	211	259	162	227	242	275	270	228	270	273	259
252	**US-314 (Hybrid check)**	218	399	288	215	301	238	272	334	282	308	218	278	190	338	274	251	274	306	272
253	Local check	318	330	267	222	273	263	280	338	288	313	204	277	388	385	227	197	227	306	294
Exp. Mean		**256**	**358**	**244**	**204**	**268**	**228**	**258**	**317**	**251**	**285**	**188**	**252**	**281**	**299**	**264**	**224**	**264**	**281**	**263**

ADVANCE VARIETY TRIAL 1 -RAINFED SHALLOW LOWLAND (AVT1-RSL)

Locations: **13** **Test Entries: 28**

Checks: **Swarna-*Sub1* (National), Zonal checks: Pooja (Eastern), Bahadur (North Eastern), Savitri (Southern); CR Dhan 801 (yield check) and Local Check**

Advanced Variety Trial-Rainfed Shallow Lowland (AVT1-RSL) was constituted with 39 test entries (13 inbred and 15 NIL entries, 08 recipient parents of corresponding NILs and 04 checks *viz.*, National check (Swarna-*Sub1*), Zonal check (Pooja for Eastern zone, Bahadur for North eastern zone and Savitri for Southern zone), yield check (CR Dhan 801) and a local check. Out of the 39 test entries, one was in the third year of testing *i.e.*, IET 30367. Four entries, including 12 inbreds and 02 NILs were in 2nd year of testing and 13 NIL entries were in first year of testing. The trial was sent to 15 locations and data were received from 13 locations. In Arundhatinagar and Malda trials are not conducted owing to lack of land. Data from two locations (Masodha and Karimganj) were not considered for analysis due to low CV.

Experimental mean yield ranged from 2429 Kg/ha at Ghaghraghat to 6333 Kg/ha at Bikramganj. CV % ranged from 1.57 (Karimganj) to 16.98 (Kumta). The data pertaining to yield, days to 50% flowering, plant height, no. of panicles/m^{2}and quality are presented in Tables 11.2 to 11.6.

On the basis of overall mean, only one entry IET 32127 showed better performance though not significantly superior over best varietal check (NC-Swarna *Sub1*).

Zone wise performance of entries during *Kharif*, 2023

Eastern zone (Zone III)

In Zone III, the trial was conducted at 07 locations namely Cuttack, Bhubaneswar (Odisha), Chinsurah (WB), Sabour, Bikramganj (Bihar), Ghaghraghat and Masodha (UP). However, owing to low CV (4.16%), data from Masodha not considered for analysis. The data from 06 locations were considered for analysis and their CV ranged between 4.16% (Masodha) and 11.7% (Sabour).

The mean yield of the entries ranged from 2934 kg/ha (IET 29069) to 5248 kg/ha (IET 31246), days to 50% flowering ranged from 91 days (IET29069) to 127 days (Gayatri-RP); plant height ranged from 86 cm (IET 32126) to 122 cm (IET 30423) and mean panicles/m^{2}varied from 228 (Sarala-RP) to 330 (IET 32130). Among all the entries, only one entry IET 31246 was shown better performance for yield though not significantly superior over best varietal check (NC-Swarna *Sub1*).

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North Eastern Zone (Zone IV)

In Zone IV, the trial was conducted at three locations namely Titabar, Karimganj and Lembucherra. The data from Karimganj was not considered due to <5% CV (1.57%). The mean yield of the entries ranged from 3827 kg/ha (IET 31244) to 6044 kg/ha (IET 31204), daysto 50% flowering ranged from 87 days (IET 32129) to 129 days (IET 31245); plant height

ranged from 84cm (Swarna-RP) to 129 cm (IET 30423) and mean panicles/m^2varied from 248 (IET 31204) to 338 (IET31242). Among all the entries, IET 31204 (6044 kg/ha), IET 31237 (6016kg/ha) recorded significantly superior yield over the best check i.e. local check (LVC) and promoted to AVT2-RSL. However, the flowering duration of the IET 31204 and IET 31237 considered taking into account the overall mean.

Southern zone (Zone VII)

In Zone VII, the trial was conducted at three locations Kumta, Sirsi and Ponnampet. Mean yield of the entries in Zone VII ranged from 2824 kg/ha (IET 29069) to 5475 kg/ha (IET 32130); days to 50% flowering ranged from 102 days (IET 32129, IET 32142 and IET 32146) to 122 days (Gayatri-RP); plant height ranged from 73cm (IET 32125) to 108cm (IET 31250) and mean panicles/m^2varied from 235 (IET 31204) to 353 (IET 32131). Among all the entries, 05 entries, IET 32130, IET 32131, IET 31250, IET 32127 and IET30410 are shown better performance for yield though not significantly superior over best varietal check (Local Check), hence, no entry promoted.

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Performance of entry in 3rd year of testing

One entry, IET 30367 (BRR 2010) was tested in the third year, does not record requisite yield superiority in Zonal and overall basis. **Hence, the entry is discontinued.**

Performance of entries in 2nd year of testing

Total twelve entries were tested across the zones in 2nd year where entries, IET 31204 (6044 kg/ha) and IET 31237 (6016kg/ha) recorded significant yield superiority over the best check i.e. local check (LVC) in Zone-IV. Grain quality parameters of both entries, IET 31204 (59.0 % HRR and 22.35 AC) and IET 31237 (60.5 % HRR and 23.02 AC) were also as per the standard requirements, hence, promoted for 3rd year testing (AVT 2- RSL).

Performance of NIL entries during *Kharif*, 2023

Two NILs for submergence tolerance (IET 30409 (R) and IET 30410 (R)) were repeated in 2nd year of testing and 13 other NILs (04-submergence, 02-drought, 04-herbicide and 03-bacterial blight resistance/tolerance were in 1st year of testing. For trait verification, NILs with submergence tolerance were tested in Advance variety trial 1- NIL (Submergence) (AVT 1-NIL-*Sub1*). The NILs with herbicide tolerance were tested in AVT 1 - NIL – HT trial whereas, Drought NILs were evaluated in AVT1-NIL-DRT. The NIL with BB resistance was tested in NSN1. As the recurrent parents of NILs, IET 30409-R and IET30410-R are released in Odisha only, yield data was compared for Bihar only. RP of NILs IET 32121, IET 32122, IET 32125, IET 32126 were released for the Bihar state only, yield data was compared for Bihar only. The recurrent parent of NILs, IET 32128 and IET 32129 is released for Andaman and Nicobar, so, yield data of Zone-VII is compared only. Whereas, other NILs, IET 32123, IET32124, IET32130, IET32131, IET30439 and IET29069 are released in several states, so, zonal and overall yield data is compared. However, for trait verification purpose, data from all the centres were considered.

Performance of NIL of Gayatri (IET 30409)

IET 30409 (R) (CR2531-72-6-19-3) was derived from the cross of Gayatri*3/IR49830-7. The NIL was developed for submergence tolerance in the background of recurrent parent Gayatri, a popular variety in Odisha. Under normal condition, the IET 30409 (R) yielded better in the across zones than the recurrent parent in 2023, however, similar to the recurrent parent over three years (statistically at par). The NIL performed significantly better than the recurrent parent in 2021 and 2023 for yield under submergence. In 2022, the entry IET30409 was repeated. Seedling survival percentage under submergence condition of IET 30409 was higher (2021, 80.05%; 2022, 82.59% and 2023, 74.71%) than its recurrent parent Gayatri (2021, 51.90%; 2022, 53.64 and 2023, 50.59%) in all three years. Besides, IET30409 (R) has moderate HRR (55%), moderate AC (22.57%) and soft GC (42mm). Hence, it is found promising for Odisha

Performance of NIL of Sarala, IET 30410 (R)

IET 30410(R) (CR 2532-9-21-35-3) was derived from the cross of Sarala*3/IR49830-7. The NIL was developed for submergence tolerance in the background of recurrent parent Sarala, which was released for Odisha. Under normal condition, the NIL yielded significantly superior yield in 2023 (across zone) which was also recorded statistically at par yield with the recurrent parent in 2021, but not in 2022. The NIL performed significantly better than the recurrent parent in 2021 for yield under submergence stress. However, in 2022 and 2023, though the NIL performed better than the recurrent parent, the difference of yield was not significant under submergence stress. Seedling survival percentage under submergence condition of IET 30410 was higher than its recurrent parent Sarala in 2021 (65.10), 2022 (65.27%) and 2023 (55.26%). Hence, it is dropped.

Performance of NIL of Sabour Shree (IET32121) during *Kharif*, 2023

IET32121 (BRR 0263) and IET32122 (BRR 0266) are derived from the cross of Sabour Shree x Swarna *sub1*. The NILs were developed for submergence tolerance in the background of recurrent parent Sabour Shree, which was released for Bihar. Under normal condition, the NIL IET 32122 yielded significant yield superiority in Bihar over the recurrent parent whereas, IET32121 recorded at par yield with RP in Bihar. Both NIL also recorded significant yield superiority than RP under submergence stress. Bothe has recorded high HRR% (62.5%AND 63.0%), moderate AC (19.57% and 20.77%) and soft GC (44mm and 57mm) thus found promising and promoted to 2nd year.

Performance of NIL of Rajendra Sweta (IET32125) during *Kharif*, 2023

IET32125 (BRR 0257) was derived from the cross of Rajendra Sweta x Swarna *sub1*. The NIL was developed for submergence tolerance in the background of recurrent parent Rajendra Sweta, which is released in Bihar. Under normal condition, the NIL yielded significant yield superiority with the recurrent parent in Bihar. However, no difference in yield under submergence stress was recorded between the NIL and the recurrent parent at any centre. Hence, it is dropped.

Performance of NIL of Rajendra Sweta (IET32126) during *Kharif*, 2023

IET32126 (BRR 0256) was derived from the cross of Rajendra Sweta x Swarna *sub1*. The NIL was developed for submergence tolerance in the background of recurrent parent Rajendra Sweta, which is released in Bihar. Under normal condition, the NIL yielded at par yield with the recurrent parent. no difference in yield under submergence stress was recorded between the NIL and the recurrent parent. Hence, it is dropped.

Performance of NIL of Swarna (IET30439) during *Kharif*, 2023

IET30439 (R-RF-156) was derived from the cross of Swarna*3/ IR 90019-17-159-B. The NIL was developed for drought tolerance in the background of recurrent parent Swarna, which is mega variety in the country. Under normal condition, the NIL yielded statistically inferior yield than the recurrent parent across the zones and also recorded drastic reduction in DFF. Though, under draught stress it has recorded significant yield superiority than RP, but due to drastic reduction in DFF (25-day reduction), hence, it may not be considered as NIL.

Performance of NIL of Swarna (IET29069) during *Kharif*, 2023

IET 29069 (R-RF-120) was derived from the cross of Swarna / IR 90019-17-159-B/Swarna/Swarna/Swarna. The NIL was developed for drought tolerance in the background of recurrent parent Swarna, which is mega variety in the country. Under normal condition, the NIL yielded statistically inferior yield than the recurrent parent across the zones and also recorded drastic reduction in DFF. Though, under draught stress it has recorded significant yield superiority than RP, but due to drastic reduction in DFF (22-day reduction), hence, it may not be considered as NIL.

Performance of NIL of Swarna *Sub1* (IET32123) during *Kharif*, 2023

IET32123 (CR 4430-1-3-2-1) was derived from the cross of Swarna Sub 1*4 / Robin. The NIL was developed for herbicide tolerance in the background of recurrent parent Swarna Sub1, which is mega variety in the country. Under normal condition, the NIL yielded at par with the recurrent parent. Under trait verification trial, IET32123 has recorded statically significant yield superiority than tolerant check (Robin) with complete mortality in RP, hence found promising.

Performance of NIL of Swarna *Sub1* (IET32124) during *Kharif*, 2023

IET32124 (CR 4430-13-19-1-1) was derived from the cross of Swarna Sub 1*4 / Robin. The NIL was developed for herbicide tolerance in the background of recurrent parent Swarna Sub1, which is mega variety in the country. Under normal condition, the NIL yielded at par with the recurrent parent. Under trait verification trial, IET32123 has recorded statically significant yield superiority than tolerant check (Robin) with complete mortality in RP, hence found promising.

Performance of NIL of Pooja (IET32130) during *Kharif*, 2023

IET32130 (CR 4431-117-3-2-1) was derived from the cross of Pooja*4 / Robin. The NIL was developed for herbicide tolerance in the background of recurrent parent Pooja, which is released for Odisha. Under normal condition, the NIL yielded at par with the recurrent parent. Under trait verification trial, IET32123 has recorded statically significant yield superiority than

tolerant check (Robin) with complete mortality in RP, hence found promising and promoted to 2nd year of testing

Performance of NIL of Pooja (IET32131) during *Kharif*, 2023

IET32131 (CR 4431-63-2-1-1) was derived from the cross of Pooja*4 / Robin. The NIL was developed for herbicide tolerance in the background of recurrent parent Pooja, which is released for Odisha. Under normal condition, the NIL yielded at par with the recurrent parent. Under trait verification trial, IET32123 has recorded statically significant yield superiority than tolerant check (Robin) with complete mortality in RP, hence found promising and promoted to 2nd year of testing.

Performance of NIL of CARI Dhan 5 (IET32127) during *Kharif*, 2023

IET32127 (ANR 46-3-95-647) was derived from the cross of CARI Dhan 5/IR BB 60. The NIL was developed for bacterial blight resistance in the background of recurrent parent CARI Dhan 5, which is released for Andaman and Nicobar Islands. Under normal condition, the NIL yielded significant yield superiority than the recurrent parent. However, no difference in bacterial blight disease response was recorded between the NIL and the recurrent parent at any centre, hence, dropped.

Performance of NIL of CARI Dhan 5 (IET32128) during *Kharif*, 2023

IET32128 (ANR131-2-175-1223) was derived from the cross of CARI Dhan 5/IR BB 60. The NIL was developed for bacterial blight resistance in the background of recurrent parent CARI Dhan 5, which is released for Andaman and Nicobar Islands. Under normal condition, the NIL yielded at par yield with the recurrent parent. However, no difference in bacterial blight disease response was recorded between the NIL and the recurrent parent at any centre, hence, dropped.

Performance of NIL of CARI Dhan 5 (IET32129) during *Kharif*, 2023

IET32129 (ANR131-2-190-659) was derived from the cross of CARI Dhan 5/IR BB 60. The NIL was developed for bacterial blight resistance in the background of recurrent parent CARI Dhan 5, which is released for Andaman and Nicobar Islands. Under normal condition, the NIL recorded significant yield superiority over the recurrent parent. However, no difference in bacterial blight disease response was recorded between the NIL and the recurrent parent at any centre, hence, dropped.

Promotion to AVT-2-RSL

- IET31204 and IET 31237 are promoted in Zone IV

NIL entries promotion to AVT-2 - RSL

- Submergence tolerant NILs: IET32121 and IET32122 are promoted to 2nd year of testing.
- Submergence tolerant and HT: IET 32123, IET32124 are promoted to 2nd year of testing
- HT entries: IET 32130 and IET 32131 promoted to 2nd year of testing.

Promising NIL entry:

- Submergence tolerant NIL: IET30409-R is found promising for Odisha

Performance of promising entries in AVT1-RSL, *Kharif* 2020, 2021, 2022 & 2023

S. No.	Designation/ Cross combination	IET No.	GT	Grain yield (kg/ha)																						Remark
				2021								2022								2023							
				Z-III (8)		Z-IV (1)		V-II(3)		Overall (11)		Z-III (11)		Z-IV (2)		V-II (2)		Overall (17)		Z-III (6)		Z-IV (2)		V-II (3)		Overall (11)		
				GY(kg/ha)/ FD/PH (cm)	% over BVC	GY(kg/ha)/ FD/PH (cm)	% over BVC	GY(kg/ha)/ FD/PH (cm)	% over BVC	GY(kg/ha)/ FD/PH (cm)	% over BVC	GY(kg/ha)/ FD/PH (cm)	% over BVC	GY(kg/ha)/ FD/PH (cm)	% over BVC	GY(kg/ha)/ FD/PH (cm)	% over BVC	GY(kg/ha)/ FD/PH (cm)	% over BVC	GY(kg/ha)/ FD/PH (cm)	% over BVC	GY(kg/ha)/ FD/PH (cm)	% over BVC	GY(kg/ha)/ FD/PH (cm)	% over BVC	GY(kg/ha)/ FD/PH (cm)	% over BVC	
3rd year of testing																										
301	BRR 2010	30367	MS			6705 114 109	13					5283 120 102	6.6							4986 120 106		4228 124 95		4390 113 93		4685 119 100		Discontinue
2nd year of testing																										
304	CR 4419-3-1-1-1-1	31204	MB													6542 82 108	74.9					6044 104 109	18.11					Promoted
309	BRR-0222-IR93339:39-B-6-5-B-B-B-47	31237	LS															5289 108 118	7.5			6016 104 111	17.56					Promoted
CR Dhan 801 (Yield check)				4231 110 99		4230 107 103		5589 110 86		4570 110 99		4956 112 99		5193 97 102		3741 112 85		4919 110 97		4624 111 101		4458 104 99		4795 110 85		4640 109 96		
Swarna *Sub1* (NC)				4191 113 96		5265 115 98		4322 118 77		4313 114 95		4774 117 94		4469 111 96		3756 114 86		4780 115 93		5099 118 92		4817 113 92		4829 129 74		4962 117 87		
Zonal Check				5596 113 100		5940 108 112		5066 114 89		5483 113 101		4362 122 99		4205 105 125		2847 119 95		4306 120 100		4490 120 103		4637 123 106		4765 119 83		4591 120 98		
Local check				4829 112 107		4680 116 116		5462 113 94		4975 113 107		4794 118 106		4549 97 123		3409 124 105		4602 116 109		4616 113 111		5117 112 111		5067 106 102		4830 112 109		
CD (0.05)				353.62		629.09		646.13		327.14		180.04		339.50		615.63		199.43		238.8		705.26		691.06		236.93		
BVC+ CD (0.05)				5,949.62		6,569.09		6,235.13		5,810.14		5,136.04		5,532.5		4,371.63		5,118.43		5338.8		5822.3		5758.06		5,198.93		

2nd year NILs

Performance of NILs for submergence tolerance (IET 30409-R and IET 30410-R)

Genotype	Yield Trials			Trait verification					
	Yield (kg/ha) under normal growing conditions in Odisha			Yield (kg/ha) under submergence stress			Seedling survival (%)		
	2021	2022	2023	2021 (CTC, MTU)	2022 (CTC, KRK)	2023 (BKG, KRK)	2021 (CTC, MTU)	2022 (CTC, KRK)	2023 (BKG, KRK)
Gayatri NIL (IET 30409-R)	3572	4428	3988	5617*	2758	4340* 124 107	80.05	82.59	74.71
Gayatri (RP)	3794	4172	3637	4483	2640	1472 103 101	51.90	53.64	50.59
Sarala NIL (IET30410-R)	3224	4025	3553	5209*	2713	3057 122 109	65.10	65.27	55.26
Sarala (RP)	3483	4610	3403	4528	2489	2542 122 101	58.90	54.3	39.74
Susceptible check (Swarna)				2525	1758.00	1801.0		35.07	31.76
CD	293.94	369.84	445.14	610.76	443.74	626.83			

1st year NILs

Performance of NILs of Sabour Shree under submergence stress

Genotype	Yield Trial (2023)	Trait verification (2023)	
	Yield (kg/ha) under normal growing conditions in Bihar	Yield (kg/ha) under submergence stress	Seedling survival (%)
	Bihar (2)	(BKG, KRK)	(BKG, KRK)
Sabour Shree NIL (IET 32121)	4601 98 121	4316*	85.96
Sabour Shree NIL (IET32122)	5621 121 120	3817*	82.93
Sabour Shree (RP)	4861 108 109	3155*	54.54
Rajendra Sweta NIL (IET 32125)	4501* 103 95	3547	76.145
Rajendra Sweta NIL (IET 32126)	4297 108 86	3282	80.075
Rajendra Sweta (RP)	3981 101 87	3290	63.23
Susceptible check (Swarna)		1801	31.76
CD	450.3	626.83	

Performance of NILs of Swarna normal and drought stress

Genotype	Yield Trial (2023)				Trait verification (2023)	Drought tolerance scores (0-9 scores)					
	Yield (kg/ha) under normal growing conditions				Yield (kg/ha) under drought stress						
	III	IV	VII	Overall	Overall (5)	BKJ	CBT	HZB	JYP	NRRI	Mean
Swarna NIL (IET 30439)	3515 85 100	4416 93 95	4467 109 95	3938 91 97	2515*	7	3	5	5	7	5.4
Swarna NIL (IET29069)	2934 80 111	4531 88 109	4589 103 88	3750 94 104	2847*	3	3	3	3	7	3.8
Swarna (RP)	4939 102 93	4057 123 84	4007 112 73	4524 116 86	1528	7	3	7	7	NF	6.0
Susceptible check (IR64)					1571	7	3	7	5	9	6.2
CD	238.8	705.26	691.06	236.9	626.83						

Performance of NILs of Swarna *Sub1* and Pooja under normal and herbicide treatment

Genotype	**Yield Trial (2023)**				**Trait verification (2023)**
	Yield (kg/ha) under normal growing conditions in Odisha				**Imazethapyr (kg/ha)**
	III	**IV**	**VII**	**Overall**	**Odisha**
Swarna Sub1 NIL (IET 32123)	5013 112 105	5282 107 92	3822 115 77	4710 112 94	5100
Swarna Sub1 NIL (IET32124)	3607 120 92	5161 109 85	4377 116 91	4099 117 90	4590
Swarna Sub1 (RP)	5099 118 92	4817 113 92	4829 117 74	4962 117 87	0.00
Pooja NIL (IET 32130)	4180 121 111	5232 114 106	5475* 116 93	4724 118 105	5100
Pooja NIL (IET 32131)	4212 120 105	4867 107 107	5427* 114 85	4586 116 101	4800
Pooja (RP)	4473 115 103	5825 98 107	4433 112 77	4708 111 96	0.00
Tolerant check (Robin)					2110
CD	238.8	705.26	691.06	236.93	

Performance of NILs of CARI Dhan 5

Genotype	Yield Trial (2023)				Trait verification (2023)						
	Yield (kg/ha) under normal growing conditions				BLB disease score						
	III	IV	VII	**Overall**	MSD	CHN	MTU	RPR	TTB	SBR	**SI**
CARI Dhan 5 NIL (IET 32127)	4753	5413	5221	5000*	5	3	7	7	7	3	5.33
CARI Dhan 5 NIL (IET 32128)	3989	3945	4538	4131	9	7	5	7	5	3	6.00
CARI Dhan 5 NIL (IET 32129)	4500*	5508*	4509	4685*	9	3	5	5	5	5	5.33
CARI Dhan 5 (RP)	**4242**	**4378**	**4087**	**4224**	**7**	**3**	**7**	**7**	**5**	**5**	**5.67**
CD	238.8	705.26	691.06	236.93							

Trial No.3.1: Composition of entries in Advance Variety Trial 1–Rainfed Shallow Lowland (AVT 1-RSL), *Kharif* 2023

Entry No.	IET No.	Designation	Cross combination	Grain Type
3rd year of testing				
301	30367	BRR 2010	RAU-724-48-23-Sel	MS
2nd year of testing				
302	31244	CR 3856-44-22-2-1-11-4-1-10	IR 73963-86-1-5-2-2/CR 2324-1	SB
303	30423	GB-4	Mutant of Sabita	LB
304	31204	CR 4419-3-1-1-1-1	CR 3504-10-1-1-1-1/CR 3541-1-2-5-4-1	MB
305	31207	TRC-H2TS-77-B-B-09-6	Hakuchuk2XTripura Sharat	LS
306	31245	CR 4207-15-2-1-1	Swarna-Sub1/Kedargouri//Swarna MAS	SB
307	31215	PAN-847 (Pujarini)	PAN-804/AN 3236	SB
308	31220	BRR 2228	BRR2028 * S Shree	MB
309	31237	BRR-0222-IR93339:39-B-6-5-B-B-B-47	IR 77289-14-1-2-10/SANHUANGZHAN NO 2//IR 45427-2B-2-2B-1-1/NSIC RC 158///IRRI 123/IR 4630-22-2-5-1-3//FEDEARROZ 50/IR 07F 287	LS
310	31242	CR 3967-51-2-1-1-1	IR 73895-33-1-3-2/Pratikshya	LS
311	31246	BRR 2141	IR 74355-CN3/ CN-6-78 (TTB-680-Sel.)	MS
312	31250	OR 2757-1	Upahar / CN 1231-11-7	MB
313	**CR Dhan 801 (Yield check)**			
314	31253	IR 85947-CR 1-TTB-1-1-1	IR 05F 102/ IR 7225-26-3-2-3// BR 11	MS
315	**Pooja (Eastern), Bahadur (North Eastern), Savitri (Southern)-- ZC**			
NIL entries				
2nd Year of testing:				
316	30409(R)	CR2531-72-6-19-3	Gayatri*3/IR49830-7	SB
317	**Gayatri (RP)**			
318	30410(R)	CR 2532-9-21-35-3	Sarala*3/IR49830-7	MS
319	**Sarala (RP)**			
1st Year of testing:				
320	32121	BRR 0263	Sabour Shree X Swarna sub-1	MS
321	**Sabour Shree (RP)**			
322	32122	BRR 0266	Sabour Shree X Swarna sub-1	MS
323	30439	R-RF-156	Swarna*3/ IR 90019-17-159-B	SB
324	**Swarna (RP)**			
325	29069	R-RF-120	Swarna / IR 90019-17-159-B/Swarna/Swarna/Swarna	SB
326	32123	CR 4430-1-3-2-1	Swarna Sub 1*4 / Robin	MS
327	32124	CR 4430-13-19-1-1	Swarna Sub 1*4 / Robin	MS
328	**Swarna *Sub1* (RP &NC)**			
329	32125	BRR 0257	Rajendrasweta X Swarna sub-1	MS
330	**Rajendra Sweta (RP)**			
331	32126	BRR 0256	Rajendrasweta X Swarna sub-1	MS

332	32127	ANR 46-3-95-647	CARI Dhan 5/IR BB 60	LB
333	**CARI Dhan 5(RP)**			
334	32128	ANR131-2-175-1223	CARI Dhan 5/IR BB 60	MS
335	32129	ANR131-2-190-659	CARI Dhan 5/IR BB 60	LB
336	32130	CR 4431-117-3-2-1	Pooja*4 / Robin	MS
337	**Pooja (RP)**			
338	32131	CR 4431-63-2-1-1	Pooja*4 / Robin	MS
339	**Local Check**			

Table No. 3.2: Grain Yield (kg/ha) of entries in AVT1-RSL *Kharif*, 2023

Entry No	IET No	Zone III																				Zone III(6)	
		OD				OD(2)		WB(1)		BI				BI(2)		UP				UP(1)			
		CTK		BBN		mean		CHN		SBR		BKG		mean		GGT		MSD @		mean		mean	
301	30367	4478	10	3915		4197	9	5721	6	4021		9386	2 *	6704	3*	2394		3478		2394		4986	4
302	31244	4743	5	3859		4301	8	5981	2	3380		5692		4536		1791		2837		1791		4241	
303	30423	4547	7	2702		3625		4634		3040		6167		4604		2175		5210		2175		3878	
304	31204	4119		3363		3741		5354		5156	3	7571	6	6364	4	2485		4018		2485		4675	10
305	31207	4357		3886		4122	10	5220		3632		6367		5000		3472	1*	4400		3472	1*	4489	
306	31245	4195		2688		3442		4874		--	-	-		-		2193		5338	9	2193		3488	
307	31215	5086	2	4254	9	4670	3	5371	10	4185		7673	5	5929	7	2522	10	4299		2522	10	4849	7
308	31220	4238		3538		3888		5434	9	4185		9342	3 *	6764	2*	2083		3620		2083		4803	8
309	31237	4233		4769	6	4501	6	5526	7	5252	2	5869		5561		2175		4381		2175		4637	
310	31242	4357		3439		3898		5175		4126		7173	8	5650		2504		5158		2504		4462	
311	31246	4129		3386		3758		5991	1	5647	1	9390	1 *	7519	1*	2942	5	5636	5	2942	5	5248	1
312	31250	4252		2229		3241		5967	3	3492		8337	4 *	5915	8	2230		4910		2230		4418	
313	**CR Dhan 801(Yield check)**	4081		3637		3859		5367		4261		7544	7	5903	9	2851	7	5349	8	2851	7	4624	
314	31253	5057	4	2133		3595		5121		3110		6500		4805		2997	3.5	4681		2997	3.5	4153	
315	**Zonal Check**	4124		5040	2	4582	5	4982		4112		6305		5209		2376		3677		2376		4490	
316	30409(R)	4662	6	3314		3988		4672		2559		6149		4354		2175		4476		2175		3922	
317	**Gayatri (RP)**	3933		3340		3637		4444		2295		3080		2688		2339		5352	7	2339		3239	
318	30410(R)	4148		2957		3553		4851		-		-		-		2175		3887		2175		3533	
319	**Sarala (RP)**	3924		2882		3403		4815		-		-		-		2339		2649		2339		3490	
320	32121	4233		3307		3770		5297		4044		5158		4601		2230		5698	2*	2230		4045	
321	**Sabour Shree (RP)**	4186		3962		4074		5355		3963		5759		4861		2284		5251		2284		4252	
322	32122	4081		6425	1*	5253	1*	5732	5	4411	10	6831		5621		2230		5630	6	2230		4952	5
323	30439	3781		3208		3495		5166		2949		3662		3306		2321		4353		2321		3515	
324	**Swarna (RP)**	5148	1	4921	5	5035	2*	5276		4446	9	6843		5645		2997	3.5	4463		2997	3.5	4939	6
325	29069			2278		2278		4613		2053		3240		2647		2485		4476		2485		2934	
326	32123	4300		3694		3997		5185		4857	8	7030	9	5944	6			4334				5013	3
327	32124	3119		3307		3213		4667		2772		5529		4151		2248		5838	1*	2248		3607	
328	**Swarna Sub 1 (RP &NC)**	4257		3373		3815		5783	4	5090	5	6991	10	6041	5			3792				5099	2
329	32125	5076	3	2993		4035		4952		3135		5867		4501		2284		2777		2284		4051	
330	**Rajendra Sweta (RP)**	3410		2695		3053		5204		2998		4963		3981		2065		5663	4*	2065		3556	
331	32126	4071		4107	10	4089		4780		3585		5008		4297		2138		5674	3*	2138		3948	
332	32127	4281		4980	4	4631	4	5524	8	5068	6	6524		5796	10	2138		5030		2138		4753	9
333	**CARI Dhan 5(RP)**	3190		4557	7	3874		5319		3815		6249		5032		2321		4291		2321		4242	
334	32128	3574		3596		3585		5251		3527		5721		4624		2266		4757		2266		3989	
335	32129	4162		4005		4084		5315		5066	7	6313		5690		2138		5254	10	2138		4500	
336	32130	4105		3593		3849		4598		4029		5957		4993		2796	8	3890		2796	8	4180	
337	**Pooja (RP)**	4538	8	3704		4121		4988		4304		6231		5268		3070	2	4847		3070	2	4473	
338	32131	3091		5010	3	4051		4596		3897		5790		4844		2888	6	4768		2888	6	4212	
339	**Local Check**	4533	9	4439	8	4486	7	5059		5120	4	5788		5454		2759	9	5087		2759	9	4616	
Exp. Mean		**4205.32**		**3679.03**		**3917.47**		**5183.58**		**3932.78**		**6333.34**		**5133.06**		**2429.13**		**4595.61**		**2429.13**		**4269.1**	
CD		746.17		399.48		445.14		700.47		749.24		556.73		450.28		231.27		310.76		231.27		238.8	
CV%		10.91		6.68		6.99		8.31		11.7		5.4		5.39		5.85		4.16		5.85		3.44	
D/S		**20.06.2023**		**27.06.23**				**04.07.23**		**04-07-2023**		**07-07-2023**				**18-07-2023**		**09.07.2023**					
D/P		**28.07.2023**		**28.07.23**				**10.08.23**		**02-08-2023**		**04-08-2023**						**12.08.2023**					
Local Check Name		**CR Dhan 404**		**Bhargavi**				**Sujala**		**Rajendra Mahsuri-1**		**Sabour Shree**				**Sambha Sub 1**		**Sambha *Sub1***					

Table No. 3.2: (contd.) Grain Yield (kg/ha) of entries in AVT1-RSL *Kharif*, 2023

Entry No	IET No	Zone IV								Zone IV(2)		Zone VII								Zone VII(3)		Overall(11)	
		AS				AS(1)		TP(1)				KA						KA(3)					
		TTB		KMJ @		mean		LMB		mean		PNP		SRS		KMT		mean		mean		mean	
301	30367	4620		4888		4620		3836		4228		4913	7	3950	10	4306		4390		4390		4685	
302	31244	4645		3878		4645		3009		3827		4624		2988		5920		4511		4511		4239	
303	30423	6710	4*	5824	9	6710	4 *	3862		5286	9	4948	6	2850		5087		4295		4295		4247	
304	31204	6938	2*	5044		6938	2 *	5149	4	**6044**	1*	3578		1275		3619		2824		2824		4419	
305	31207	4344		6030	4	4344				4344		4144		3363		5981		4496		4496		4477	
306	31245	4498		6149	2 *	4498		3452		3975		4236		3925		4343		4168		4168		3823	
307	31215	5245		5561		5245		4743		4994		4871		4144	8	5730		4915	7	4915	7	4893	5
308	31220	5399		5472		5399		4659		5029		4422		3263		5120		4268		4268		4698	
309	31237	7055	1 *	4709		7055	1*	4976	5	6016	2 *	4976	5	2281		7100	6	4786		4786		4928	4
310	31242	6885	3 *	5454		6885	3*	3600		5243		4437		2769		6451	9	4552		4552		4629	
311	31246	5929		4671		5929		4670		5300	8	4099		2719		5535		4118		4118		4949	3
312	31250	5369		5159		5369		4939	6.5	5154		4901	9	4881	5	6120		5301	3	5301	3	4792	8
313	**CR Dhan 801 (Y.check)**	5220		5577		5220		3696		4458		5219	3	3638		5527		4795	10	4795	10	4640	
314	31253	4064		5481		4064		3876		3970		3840		5913	2	3540		4431		4431		4196	
315	**Zonal Check**	5227		4830		5227		4046		4637		4892	10	4250	7	5152		4765		4765		4591	
316	30409(R)	4903		6202	1 *	4903		3880		4392		4123		2719		3690		3511		3511		3895	
317	**Gayatri (RP)**	4010		5339		4010		4231		4121		4156		2694		4683		3844		3844		3564	
318	30410(R)	4930		5769	10	4930		3852		4391		4882		3838		6779	7	5166	5	5166	5	4268	
319	**Sarala (RP)**	4848		5639		4848		3574		4211		5085	4	2550		5035		4223		4223		3895	
320	32121	6185	7	5835	8	6185	7	4872	8	5529	4	3945		3200		4421		3855		3855		4263	
321	**Sabour Shree (RP)**	5415		4799		5415		5297	2	5356	7	3083		2163		3805		3017		3017		4116	
322	32122	5358		6084	3	5358		3899		4629		5303	2	2025		7259	4	4862	8	4862	8	4869	6
323	30439	4955		3849		4955		3876		4416		3144		2088		8169	1 *	4467		4467		3938	
324	**Swarna (RP)**	4075		5967	5	4075		4039		4057		3253		1594		7173	5	4007		4007		4524	
325	29069	5177		4386		5177		3884		4531		3574		2744		7448	3	4589		4589		3750	
326	32123	5709		5017		5709		4854	9	5282	10	4014		2556		4896		3822		3822		4710	10
327	32124	5124		4693		5124		5197	3	5161		3668		3106		6356	10	4377		4377		4099	
328	**Swarna Sub 1 (RP-NC)**	5196		5958	6	5196		4437		4817		4490		3725		6273		4829	9	4829	9	4962	2
329	32125	5054		3359		5054		4356		4705		3150		2588		3971		3236		3236		3948	
330	**Rajendra Sweta (RP)**	4461		4033		4461		3869		4165		3360		3413		5590		4121		4121		3821	
331	32126	4952		3833		4952		4444		4698		3125		2969		7659	2	4584		4584		4258	
332	32127	6227	6	3975		6227	6	4599		5413	6	4557		4381	6	6724	8	5221	4	5221	4	5000	1
333	**CARI Dhan 5(RP)**	4920		5346		4920		3836		4378		4567		3594		4100		4087		4087		4224	
334	32128	4012		5078		4012		3877		3945		4219		3888		5508		4538		4538		4131	
335	32129	6180	8	3845		6180	8	4835	10	5508	5	4511		4131	9	4884		4509		4509		4685	
336	32130	6016	9	5696		6016	9	4448		5232		4764		5494	4	6168		5475	1	5475	1	4724	9
337	**Pooja (RP)**	6265	5	5740		6265	5	5385	1	5825	3*	4909	8	2919		5471		4433		4433		4708	
338	32131	5976	10	5846	7	5976	10	3758		4867		4873		5981	1			5427	2	5427	2	4586	
339	**Local Check**	5294		5460		5294		4939	6.5	5117		5619	1	5694	3	3887		5067	6	5067	6	4830	7
Exp. Mean		**5317.66**		**5140.3**		**5317.66**		**4282.93**		**4801.08**		**4319.79**		**3391.32**		**5512.62**		**4407.23**		**4211.61**		**4409.59**	
CD		1130.2		130.99		1130.2		680.35		705.26		552.92		301.49		1896.62		691.06		691.06		236.93	
CV%		13.07		1.57		13.07		9.76		9.03		7.87		5.47		16.98		10.09		10.09		3.33	
D/S		**15-07-2023**		**10.07.2023**				**12-07-2023**				**14-07-2023**		**30-06-2023**		**16.07.2023**							
D/P		**10-08-2023**		**11.08.2023**				**02-08-2023**				**24-08-2023**		**21-07-2023**		**25.08.2023**							
Local Check Name		**Ranjit *Sub1***		**Ranjit**				**Gomati**				**Tunga**		**ASHA**		**PSB-68**							

Table No. 3.3: Days to 50 % flowering of entries in AVT-1 RSL *Kharif*, 2023

Entry No	IET No	Zone III										ZoneIII (6)
		OD		OD(2)	WB(1)	BI		BI(2)	UP		UP(1)	
		CTK	BBN	mean	CHN	SBR	BKG	mean	GGT	MSD@	mean	mean
301	30367	129	126	128	117	117	116	117	117	109	117	120
302	31244	124	116	120	114	118	111	115	104	111	104	115
303	30423	122	129	126	118	127	118	123	111	119	111	121
304	31204	119	101	110	111	108	102	105	88	115	88	105
305	31207	120	117	119	113	122	107	115	116	109	116	116
306	31245	129	134	132	113				128	110	128	126
307	31215	129	113	121	118	143	111	127	117	124	117	122
308	31220	124	116	120	118	120	114	117	100	111	100	115
309	31237	123	103	113	115	111	105	108	88	116	88	108
310	31242	125	111	118	117	119	110	115	102	105	102	114
311	31246	125	108	117	116	133	110	122	99	123	99	115
312	31250	117	113	115	116	130	112	121	113	107	113	117
313	**CR Dhan 801 (Yield check)**	107	105	106	118	131	107	119	97	111	97	111
314	31253	122	120	121	117	128	116	122	115	116	115	120
315	**Zonal Check**	112	120	116	121	139	118	129	112	121	112	120
316	30409(R)	129	114	122	122	137	125	131	117	110	117	124
317	**Gayatri (RP)**	129	128	129	120	134	131	133	118	122	118	127
318	30410(R)	122	134	128	113	-	-	-	116	113	116	121
319	**Sarala (RP)**	129	132	131	109	-	-	-	116	114	116	122
320	32121	112	110	111	118	108	104	106	101	111	101	109
321	**Sabour Shree (RP)**	124	108	116	117	111	105	108	101	104	101	111
322	32122	114	107	111	115	108	108	108	103	111	103	109
323	30439	115	92	104	100	100	87	94	85	100	85	97
324	**Swarna (RP)**	124	113	119	120	120	112	116	102	122	102	115
325	29069		89	89	107	98	83	91	80	113	80	91
326	32123	111	112	112	116	112	109	111		122		112
327	32124	117	111	114	123	128	122	125	116	104	116	120
328	**Swarna Sub 1 (RP &NC)**	125	111	118	124	119	111	115		113		118
329	32125	117	102	110	111	104	105	105	96	120	96	106
330	**Rajendra Sweta (RP)**	107	103	105	111	102	103	103	97	110	97	104
331	32126	107	102	105	109	101	100	101	98	122	98	103
332	32127	111	94	103	111	101	88	95	86	124	86	99
333	**CARI Dhan 5(RP)**	113	114	114	115	144	109	127	113	123	113	118
334	32128	125	114	120	118	147	112	130	119	111	119	123
335	32129	117	95	106	111	98	90	94	78	105	78	98
336	32130	106	121	114	118	147	120	134	114	114	114	121
337	**Pooja (RP)**	119	120	120	118	98	122	110	114	117	114	115
338	32131	119	118	119	116	143	120	132	103	114	103	120
339	Local Check	114	116	115	117	119	106	113	104	114	104	113
Exp. Mean		**119**	**113**	**116**	**115**	**120**	**109**	**115**	**105**	**114**	**105**	**114**

Table No. 3.3 (Contd.): Days to 50 % Flowering of entries in AVT-1 RSL *Kharif*, 2023

Entry No	IET No	Zone IV				Zone IV(2)	Zone VII			Zone VII(3)	Overall(11)
		AS		AS(1)	TP(1)		KA			KA(3)	
		TTB	KMJ@	mean	LMB	mean	PNP	SRS	KMT	mean	mean
301	30367	124	121	124	123	124	118	110	110	113	119
302	31244	124	108	124	109	117	117	112	107	112	114
303	30423	115	107	115	100	108	105	113	104	107	115
304	31204	108	97	108	94	101	105	92	112	103	104
305	31207	127	107	127		127	124	116	102	114	116
306	31245	133	121	133	125	129	120	125	118	121	125
307	31215	128	122	128	107	118	106	105	101	104	116
308	31220	119	108	119	112	116	117	113	113	114	115
309	31237	108	99	108	80	94	106	103	102	104	104
310	31242	118	123	118	107	113	106	103	98	102	111
311	31246	118	111	118	106	112	104	101	101	102	111
312	31250	117	111	117	102	110	109	108	98	105	112
313	**CR Dhan 801 (Yield check)**	108	110	108	100	104	110	111	109	110	109
314	31253	126	109	126	120	123	121	119	104	115	119
315	**Zonal Check**	125	110	125	121	123	109	117	130	119	120
316	30409(R)	127	113	127	121	124	112	112	110	111	121
317	**Gayatri (RP)**	124	114	124	81	103	123	122	122	122	121
318	30410(R)	127	116	127	116	122	109	123	102	111	118
319	**Sarala (RP)**	126	121	126	118	122	108	123	103	111	118
320	32121	110	93	110	85	98	105	103	106	104	106
321	**Sabour Shree (RP)**	112	98	112	104	108	108	105	127	113	111
322	32122	113	100	113	129	121	108	105	124	112	112
323	30439	105	93	105	80	93	100	95	131	109	99
324	Swarna (RP)	125	117	125	120	123	115	116	107	112	116
325	29069	104	92	104	72	88	98	87	124	103	94
326	32123	118	101	118	96	107	112	109	123	115	112
327	32124	116	102	116	102	109	111	109	128	116	117
328	**Swarna Sub 1 (RP &NC)**	119	101	119	106	113	114	110	129	117	117
329	32125	106	91	106	99	103	101	104	104	103	105
330	**Rajendra Sweta (RP)**	106	101	106	95	101	102	105	120	109	105
331	32126	105	100	105	111	108	100	104	119	108	105
332	32127	106	99	106	96	101	100	95	119	105	101
333	**CARI Dhan 5(RP)**	124	123	124	79	102	110	110	111	110	113
334	32128	124	116	124	74	99	108	109	117	111	115
335	32129	105	98	105	69	87	101	95	110	102	97
336	32130	116	107	116	111	114	108	116	124	116	118
337	**Pooja (RP)**	114	106	114	81	98	107	116	114	112	111
338	32131	111	105	111	102	107	112	116		114	116
339	Local Check	124	110	124	99	112	106	117	106	110	112
Exp. Mean		**117**	**107**	**117**	**101**	**110**	**109**	**109**	**113**	**110**	**112**

Table No. 3.4. Plant Height of entries in AVT-1 RSL *Kharif*, 2023

Entry No	IET No	Zone III										ZoneIII(6)
		OD		OD(2)	WB(1)	BI		BI(2)	UP		UP(1)	
		CTK	BBN	mean	CHN	SBR	BKG	mean	GGT	MSD@	mean	mean
301	30367	91	120	105	125	103	100	101	97	115	97	106
302	31244	116	126	121	119	118	102	110	109	92	109	115
303	30423	122	133	128	124	125	120	122	106	87	106	122
304	31204	111	122	117	125	130	129	130	99	108	99	119
305	31207	110	108	109	107	113	109	111	102	97	102	108
306	31245	104	99	101	104				107	106	107	103
307	31215	97	98	98	102	95	96	96	76	88	76	94
308	31220	103	103	103	105	113	104	108	96	83	96	104
309	31237	102	115	108	114	120	124	122	96	91	96	112
310	31242	110	108	109	112	111	106	108	96	104	96	107
311	31246	98	95	97	110	103	105	104	87	118	87	100
312	31250	115	112	114	125	126	127	126	104	106	104	118
313	**CR Dhan 801 (Yield check)**	96	98	97	107	92	106	99	109	97	109	101
314	31253	99	130	115	119	113	106	109	97	109	97	111
315	**Zonal Check**	101	115	108	116	103	95	99	85	93	85	103
316	30409(R)	106	120	113	115	114	94	104	92	89	92	107
317	**Gayatri (RP)**	97	112	104	111	100	95	98	89	88	89	101
318	30410(R)	111	110	110	123				91	96	91	109
319	**Sarala (RP)**	103	110	107	107				85	96	85	101
320	32121	112	132	122	125	131	134	132	91	107	91	121
321	**Sabour Shree (RP)**	100	122	111	103	112	123	117	93	110	93	109
322	32122	120	128	124	112	125	134	129	100	89	100	120
323	30439	89	107	98	101	103	110	107	95	93	95	101
324	**Swarna (RP)**	91	103	97	103	88	87	87	86	85	86	93
325	29069	.	110	110	103	124	116	120	101	107	101	111
326	32123	119	100	110	122	91	94	92	.	78	.	105
327	32124	94	98	96	101	92	95	94	71	87	71	92
328	**Swarna Sub 1 (RP &NC)**	92	94	93	102	88	85	86	.	71	.	92
329	32125	84	92	88	99	102	102	102	89	101	89	95
330	**Rajendra Sweta (RP)**	68	90	79	103	91	93	92	76	75	76	87
331	32126	78	90	84	97	91	91	91	71	103	71	86
332	32127	89	100	94	105	115	126	121	91	92	91	104
333	**CARI Dhan 5(RP)**	114	120	117	122	122	115	119	98	92	98	115
334	32128	108	112	110	113	111	112	112	81	85	81	106
335	32129	96	118	107	80	121	117	119	101	79	101	105
336	32130	101	122	111	122	114	115	115	95	78	95	111
337	**Pooja (RP)**	101	110	106	115	104	97	100	89	96	89	103
338	32131	83	112	97	118	111	114	112	94	86	94	105
339	Local Check	115	125	120	101	113	111	112	100	81	100	111
Exp Mean		**101**	**111**	**106**	**111**	**117**	**108**	**109**	**93**	**94**	**93**	**105**

Table No. 3.4 (Contd.): Plant Height of entries in AVT-1 RSL *Kharif* 2023

Entry No	IET No	Zone IV				Zone IV(2)	Zone VII			Zone VII(3)	Overall(11)
		AS		AS(1)	TP(1)		KA			KA(3)	
		TTB	KMJ@	mean	LMB	mean	PNP	SRS	KMT	mean	mean
301	30367	92	114	92	99	95	78	105	94	93	100
302	31244	119	139	119	112	116	89	106	107	101	111
303	30423	131	149	131	127	129	94	121	104	106	119
304	31204	118	128	118	119	118	80	92	94	89	111
305	31207	96	126	96	.	96	74	92	106	91	102
306	31245	96	116	96	101	98	77	98	75	83	96
307	31215	98	113	98	90	94	75	90	84	83	91
308	31220	112	120	112	112	112	74	95	93	87	101
309	31237	108	130	108	101	105	91	107	116	105	109
310	31242	111	132	111	115	113	82	98	119	99	106
311	31246	110	116	110	106	108	73	92	122	96	100
312	31250	111	128	111	110	111	88	110	126	108	114
313	**CR Dhan 801 (Yield check)**	95	112	95	102	99	76	95	85	85	96
314	31253	108	128	108	94	101	80	107	94	94	104
315	**Zonal Check**	108	132	108	104	106	73	98	78	83	98
316	30409(R)	109	130	109	91	100	72	92	98	87	100
317	**Gayatri (RP)**	98	105	98	91	94	71	91	90	84	95
318	30410(R)	105	128	105	100	102	84	95	85	88	100
319	**Sarala (RP)**	105	114	105	100	102	81	96	101	93	99
320	32121	117	143	117	107	112	83	102	89	91	111
321	**Sabour Shree (RP)**	112	123	112	92	102	77	92	86	85	101
322	32122	116	146	116	111	114	88	100	101	96	112
323	30439	98	115	98	92	95	66	85	123	91	97
324	**Swarna (RP)**	90	107	90	78	84	70	75	74	73	86
325	29069	113	126	113	106	109	90	103	70	88	104
326	32123	97	105	97	88	92	62	79	91	77	94
327	32124	87	95	87	83	85	67	83	122	91	90
328	**Swarna Sub 1 (RP &NC)**	95	104	95	88	92	65	81	78	74	87
329	32125	87	102	87	115	101	55	83	82	73	90
330	**Rajendra Sweta (RP)**	94	99	94	79	86	60	82	89	77	84
331	32126	105	98	105	98	102	58	83	86	76	86
332	32127	103	119	103	95	99	76	101	95	91	100
333	**CARI Dhan 5(RP)**	119	129	119	115	117	88	117	89	98	111
334	32128	106	120	106	79	92	76	109	89	91	100
335	32129	103	123	103	77	90	80	109	104	98	101
336	32130	114	124	114	99	106	71	95	114	93	105
337	**Pooja (RP)**	104	112	104	109	107	68	84	80	77	96
338	32131	112	127	112	102	107	77	92	.	85	101
339	Local Check	115	117	115	110	112	91	109	105	102	109
Exp Mean		**106**	**120**	**106**	**100**	**103**	**76**	**96**	**96**	**89**	**100**

Table No. 3.5: No. of Panicles/m2 of entries in AVT-1 RSL *Kharif*, 2023

Entry No	IET No	Zone III										ZoneII I(6)
		OD		OD(2)	WB(1)	BI		BI(2)	UP		UP(1)	
		CTK	BBN	mean	CHN	SBR	BKG	mean	GGT	MSD@	mean	mean
301	30367	273	320	297	363	406	404	405	95	232	95	310
302	31244	235	295	265	231	267	401	334	85	185	85	252
303	30423	121	210	166	319	252	392	322	91	263	91	231
304	31204	289	251	270	374	263	393	328	98	223	98	278
305	31207	258	234	246	352	300	365	333	111	256	111	270
306	31245	221	205	213	517				91	273	91	259
307	31215	257	261	259	506	287	377	332	94	224	94	297
308	31220	173	236	205	374	307	378	343	90	217	90	260
309	31237	276	221	249	297	288	382	335	93	229	93	260
310	31242	259	224	242	308	272	385	329	94	267	94	257
311	31246	290	252	271	352	221	410	316	103	284	103	271
312	31250	226	261	244	308	314	352	333	94	252	94	259
313	**CR Dhan 801 (Yield check)**	258	218	238	473	302	374	338	104	260	104	288
314	31253	266	249	258	396	341	382	362	107	249	107	290
315	**Zonal Check**	255	263	259	407	335	373	354	98	195	98	289
316	30409(R)	225	253	239	528	332	372	352	92	236	92	300
317	**Gayatri (RP)**	167	281	224	506	208	371	290	96	266	96	272
318	30410(R)	205	294	250	429	-	-	-	93	234	93	255
319	**Sarala (RP)**	218	220	219	374	-	-	-	99	187	99	228
320	32121	257	254	256	341	260	367	314	93	255	93	262
321	**Sabour Shree (RP)**	257	229	243	451	262	364	313	92	283	92	276
322	32122	275	249	262	341	295	360	328	96	263	96	269
323	30439	279	262	271	308	233	363	298	105	223	105	258
324	**Swarna (RP)**	270	248	259	330	289	423	356	114	243	114	279
325	29069		178	178	440	185	387	286	94	256	94	257
326	32123	259	223	241	330	314	372	343		242		300
327	32124	257	268	263	462	344	384	364	88	285	88	301
328	**Swarna Sub 1 (RP &NC)**	263	236	250	352	323	390	357		194		313
329	32125	256	246	251	407	257	352	305	92	192	92	268
330	**Rajendra Sweta (RP)**	260	268	264	374	253	383	318	89	276	89	271
331	32126	264	248	256	396	250	323	287	93	272	93	262
332	32127	253	216	235	374	290	353	322	99	243	99	264
333	**CARI Dhan 5(RP)**	214	267	241	451	287	382	335	102	242	102	284
334	32128	276	271	274	330	292	387	340	91	254	91	275
335	32129	265	293	279	440	276	341	309	94	254	94	285
336	32130	271	268	270	594	303	439	371	104	240	104	330

337	Pooja (RP)	263	291	277	440	376	376	376	109	254	109	309
338	32131	269	321	295	484	274	388	331	105	261	105	307
339	Local Check	269	277	273	308	361	366	364	101	243	101	280
Exp. Mean		**249**	**253**	**250**	**394**	**289**	**378**	**334**	**97**	**244**	**97**	**276**

Table No. 3.5(Contd.): No. of Panicles/m2 of entries in AVT-1 RSL *Kharif*, 2023

Entry No	IET No	Zone IV				Zone IV(2)	Zone VII			Zone VII(3)	Overall(11)
		AS		AS(1)	TP(1)		KA			KA(3)	
		TTB	KMJ @	mean	LMB	mean	PNP	SRS	KMT	mean	mean
301	30367	271	252	271	283	277	232	358	333	308	303
302	31244	244	239	244	292	268	196	292	271	253	255
303	30423	241	288	241	317	279	201	330	192	241	242
304	31204	253	253	253	242	248	226	281	199	235	261
305	31207	257	287	257		257	232	391	271	298	277
306	31245	260	294	260	317	289	266	330	305	300	279
307	31215	247	265	247	317	282	241	368	279	296	294
308	31220	285	259	285	300	293	224	281	225	243	261
309	31237	258	248	258	292	275	203	375	178	252	260
310	31242	276	261	276	400	338	224	403	180	269	275
311	31246	252	248	252	400	326	224	462	217	301	289
312	31250	257	256	257	383	320	234	335	200	256	269
313	**CR Dhan 801 (Yield check)**	277	265	277	292	285	260	396	347	334	300
314	31253	239	258	239	317	278	239	347	262	283	286
315	**Zonal Check**	242	250	242	308	275	284	380	267	310	292
316	30409(R)	257	297	257	392	325	286	396	146	276	298
317	**Gayatri (RP)**	277	258	277	275	276	307	423	212	314	284
318	30410(R)	267	271	267	383	325	286	386	245	306	288
319	**Sarala (RP)**	281	270	281	317	299	262	406	275	314	272
320	32121	254	283	254	292	273	211	375	216	267	265
321	**Sabour Shree (RP)**	280	249	280	292	286	230	370	224	275	277
322	32122	245	295	245	292	269	243	403	160	269	269
323	30439	272	235	272	225	249	262	375	288	308	270
324	**Swarna (RP)**	257	283	257	317	287	303	396	295	331	295
325	29069	249	240	249	250	250	231	291	271	264	258
326	32123	262	247	262	375	319	301	423	217	314	308
327	32124	264	246	264	375	320	292	375	289	319	309
328	**Swarna Sub 1 (RP &NC)**	283	291	283	342	313	303	401	278	327	317
329	32125	250	242	250	283	267	324	375	282	327	284
330	**Rajendra Sweta (RP)**	261	232	261	358	310	301	324	249	291	284
331	32126	263	244	263	317	290	297	408	253	319	283

332	32127	264	243	264	400	332	226	330	219	258	275
333	**CARI Dhan 5(RP)**	237	260	237	300	269	234	390	236	287	282
334	32128	247	255	247	333	290	275	424	306	335	294
335	32129	244	236	244	300	272	213	385	282	293	285
336	32130	244	269	244	308	276	318	358	227	301	312
337	**Pooja (RP)**	234	269	234	300	267	273	413	200	295	298
338	32131	261	279	261	317	289	272	434		353	313
339	Local Check	235	253	235	375	305	186	375	232	264	280
Exp. Mean		**258**	**261**	**258**	**320**	**288**	**254**	**373**	**245**	**292**	**284**

Table No. 3.6 Grain Quality characteristics of entries in AVT 1-RSL, *Kharif*, 2023 done at NRRI, Cuttack

Entry No.	IET No	Hull %	Mill%	HRR%	Moist%	Chalkiness	KL(mm)	KB(mm)	L/B	GT	ASV	WU ml/100g	VER	ER	KLAC/mm	Amy %	GC (mm)
301	30367	76	66.5	57.5	12.1	VOC	5.31	2.11	2.52	MS	3	105	3.75	1.77	9.4	22.35	49
302	31244	77.5	67	60.5	12.9	VOC	5.5	2.11	2.61	MS	4	80	3.75	1.78	9.8	22.72	47
303	30423	75	65	55	12.7	VOC	6.13	2.05	2.99	LS	3	110	4	1.81	11.1	20.47	47
304	31204	76	66	59	12.3	VOC	5.25	2.05	2.56	MS	4	90	3.75	1.75	9.2	22.35	50
305	31207	76	65	57	12.3	VOC	6.17	2.01	3.07	LS	4	135	4	1.85	11.4	21.6	52
306	31245	75	65	53.5	12.1	VOC	5.57	2.1	2.65	MS	3	90	3.75	1.74	9.7	20.92	48
307	31215	77	67.5	61.5	13	VOC	5.19	2.13	2.44	SB	3	110	4	1.81	9.4	20.65	44
308	31220	76	65.5	58.5	12.8	VOC	4.95	2.15	2.30	SB	3	75	3.75	1.72	8.5	21.82	49
309	31237	76	66	60.5	13.1	VOC	6.11	2.11	2.90	LB	4	80	4	1.83	11.2	23.02	40
310	31242	75	65.5	58	12.3	VOC	5.8	2.05	2.83	MS	4	100	4	1.78	10.3	21.22	53
311	31246	77	67	59.5	12.2	VOC	5.23	2.14	2.44	SB	4	95	3.75	1.82	9.5	20.62	51
312	31250	76.5	65.5	51.5	12	VOC	6.12	2.03	3.01	LS	5	130	4	1.80	11	21.67	43
313	**CR Dhan 801 (YC)**	75	65	55	12.4	VOC	5.37	2.14	2.51	MS	3	110	3.75	1.79	9.6	22.2	51
314	31253	77.5	67.5	52	12.1	VOC	5.39	2.11	2.55	MS	5	130	3.75	1.78	9.6	20.32	45
315	**Zonal Check**	76.5	66	57	12.9	VOC	6.1	2.04	2.99	LB	4	90	4	1.90	11.6	20.1	46
316	30409(R)	75.5	66	55	13	VOC	5.07	2.06	2.46	SB	3	125	3.75	1.89	9.6	22.57	42
317	**Gayatri (RP)**	76	66.5	58	12.6	VOC	4.99	2.33	2.14	SB	4	105	3.75	1.72	8.6	21.75	53
318	30410(R)	77.5	67.5	61	12.3	VOC	5.75	2.04	2.82	MS	4	120	3.75	1.83	10.5	22.5	50
319	**Sarala (RP)**	77.5	67	65.5	12.4	VOC	5.71	2.04	2.80	MS	4	135	4	1.89	10.8	20.92	48
320	32121	77	67.5	62.5	13	Ab	5.4	2.1	2.57	MS	3	135	3.75	1.94	10.5	19.57	44
321	**Sabour Shree (RP)**	77.5	67	59.5	12.7	VOC	5.51	2.19	2.52	MS	4	105	4	1.92	10.6	19.42	50
322	32122	76.5	66	63	12.5	VOC	5.42	2.15	2.52	MS	4	150	3.75	1.90	10.3	20.77	57
323	30439	76.5	66.5	64.5	12.3	VOC	5.21	2.29	2.28	SB	5	120	3.75	1.80	9.4	21.22	50
324	**Swarna (RP)**	78	68	66	13	OC	5.28	2.14	2.47	SB	3	155	3.75	1.78	9.4	21.82	49
325	29069																

326	32123	76	66	54.5	12.5	VOC	5.81	2.31	2.52	MS	4	90	4	1.91	11.1	20.17	42
327	32124	77	67	64	12.6	VOC	5.28	2.14	2.47	SB	5	120	3.75	1.78	9.4	20.92	48
328	**Swarna Sub 1 (RP & NC)**	76.5	66.5	64.5	12.3	VOC	5.3	2.25	2.36	SB	3	120	3.75	1.91	10.1	20.4	43
329	32125	76	66.5	64.5	12.7	VOC	5.34	2.16	2.47	SB	3	105	3.75	1.76	9.4	21	40
330	**Rajendra Sweta (RP)**	77.5	67.5	64.5	12.2	VOC	5.09	1.65	3.08	SS	5	150	3.75	1.83	9.3	20.17	49
331	32126	78	68	65	12.4	VOC	5.19	1.63	3.18	SS	4	100	3.75	1.81	9.4	21.82	43
332	32127	76	66	63	12.8	VOC	5.19	2.24	2.32	SB	3	90	3.75	1.77	9.2	21.67	46
333	**CARI Dhan 5(RP)**	79	68.5	46	12.3	VOC	5.35	2.4	2.23	SB	4	130	4	1.98	10.6	20.02	55
334	32128	78	67.5	65	12.5	VOC	5.46	2.11	2.59	MS	3	95	3.75	1.85	10.1	22.42	41
335	32129	78	67.5	60.5	12.3	VOC	5.38	2.26	2.38	SB	3	150	4	1.88	10.1	21.22	48
336	32130	77	67	65	12.6	VOC	5.69	2.28	2.50	MS	3	100	4	2.02	11.5	20.47	50
337	**Pooja (RP)**	76.5	65.5	53.5	12.8	VOC	5.32	2.14	2.49	SB	3	130	3.75	1.99	10.6	21.3	47
338	32131	76.5	66	59.5	12.1	Ab	5.28	2.14	2.47	SB	3	135	3.75	1.89	10	20.77	53
339	Local Check	76.5	66	58.5	12.6	Ab	5.27	2.23	2.36	SB	3	135	4	2.01	10.6	20.47	51

HULL: Hulling (%); MILL: Milling (%); HRR: Head Rice Recovery (%); KL: Kernel Length(mm); KB: Kernel Breadth(mm); L/B: Length and breadth ratio; Grain Chalk: Grain Chalkiness; VOC: Very occasionally present; A: Absent ASV: Alkali Spreading Value; AC: Amylose Content(%); GC: Gel Consistency; LB: Long Bold; SB:Short Bold; LS: Long Slender; MS: Medium Slender; SS: Short Slender, WU: water uptake, KLAC: kernel length after cooking

INITIAL VARIETY TRIAL-RAINFED SHALLOW LOWLAND (IVT-RSL)

Locations: 15 **Test Entries: 55**

Checks: Swarna-*Sub1* (National), Zonal checks: Pooja (Eastern), Bahadur (North Eastern), Savitri (Southern) and Local Check

The trial was constituted by 55 test entries and four checks *viz.,* National (Swarna *Sub1*), Zonal (Pooja, Bahadur, Savitri), yield (CR Dhan 801) and local checks. The trial was sent to 15 locations; however, data was received from most of the locations except Arundhutinagar (flood damage). It was observed that direct seeded method of planting was followed at Ghaghraghat center. The CV% at different locations was within acceptable limits except for Ghaghraghat (2.96) and Karimganj (2.8), hence data of these locations were not included in the analysis. Thus data from 12 locations were considered for analysis. The data pertaining to yield, days to 50% flowering, plant height and number of panicles/m2 are presented in Tables 11.8 to 11.1. The experimental mean grain yield of the locations ranged from 3024 kg/ha (Ponnampet) to 9387 kg/ha (Bankura).

The **North Eastern region (Zone IV)** was represented by two locations (Titabar and Lembuchera) spread across two states *viz.* Assam and Tripura. The mean grain yield of the entries in Zone IV varied from 1265 kg/ha (IET 32176) to 7320 kg/ha (IET 32146), days to 50% flowering ranged from 71 days (IET 32157) to 147 days (IET 32176), plant height ranged from 79 cm (IET 32157) to 131 cm (IET 32143) and mean panicles/m2 varied from 207 (IET 32155) to 317 (IET 32175). Among the checks, Zonal check (Bahadur) recorded highest grain yield of 6276 kg/ha with 114 days to 50% flowering. Among the test entries, IET 32146 (7320 kg/ha) with 102 days to 50% flowering, IET 32134 (7264 kg/ha) with 95 days to 50% flowering recorded significant yield superiority over the best check (BVC + CD at 5%). Therefore, these two entries (IET 32146 and IET 32134) are promoted to AVT-1 under Zone IV.

The **Southern region (Zone VII)** was represented by three locations; Ponnampet, Srisirsi and Kumta, which are spread across Karnataka State. The mean grain yield of the entries in Zone VII varied from 2853 kg/ha (IET 32179) to 5843 kg/ha (IET 32175), days to 50% flowering ranged from 101 days (IET 32183) to 128 days (IET 32176), plant height ranged from 76 cm (IET 32156) to 118 cm (IET 32150) and mean panicles/m2 varied from 228 (IET 32150) to 333 (IET 32151). Among the checks, National check (Swarna Sub1) recorded highest grain yield of 4287 kg/ha with 119 days to 50% flowering. Among the test entries, IET 32175 (5843 kg/ha) with 120 days to 50% flowering, IET 32176 (5378 kg/ha) with 128 days to 50% flowering, IET 32150 (5271 kg/ha) with 108 days to 50% flowering and IET32147 (5154 kg/ha) with 119 days to 50% flowering recorded significant yield superiority over the best check (BVC + CD at 5%). Therefore, these three entries (IET 32175, IET 32176, IET 32150 and IET 32147) are promoted to AVT-1 under Zone VII.

No entry was found superior in Zone III and Overall basis.

Zonal performance of promising entries in IVT-RSL, 2023

Entry No.	IET No./Designation	Grain Yield (Kg/ha) FD		Remarks
		Zone IV	Zone VII	
415	**IET 32146** CN 2163-101-4-1-1	7320 102		**Promoted for Z-IV based on the mean FD: 118 over all basis.**
403	**IET 32134** NDR 2022-6-4	7264 95		**Promoted for Z-IV based on the mean FD: 108 overall basis.**
448	**IET 32175** OR 2437-16		5843 120	**Promoted for Z-VII**
449	**IET 32176** CIARI Dhan 10 (ANR 40)		5378 128	**Promoted for Z-VII**
419	**IET 32150** RP Bio 4919-NSR 67		5271 108	**Promoted for Z-VII**
416	**IET 32147** TTB 2010-27		5154 119	**Promoted for Z-VII**
Swarna*Sub1*(NC)		4359 118	4287 119	
Zonal check(ZC)		**6276** **114**	3775 117	
Local check (LC)		5686 111	**4097** **118**	
CD (at 5%)		**903**	**807**	

IET 32146 (CN 2163-101-4-1-1) derived from OLS 181 X Shatabdi possess long bold grain type and recorded grain yield of 7320 kg/ha (Zone-IV) with 102 days to 50% flowering. The entry recorded yield superiority over the best check in Zone IV. Hence, the test entry IET 32146 is promoted to AVT-1 for Z-IV based on the mean FD: 118 over all basis.

IET 32134 (NDR 2022-6-4) derived from NDR 8002 / NDR 9730018 possess long bold grain type and recorded grain yield of 7264 kg/ha (Zone-IV) with 95 days to 50% flowering. The entry recorded yield superiority over the best check in Zone IV. Hence, the test entry IET 32134 is promoted to AVT-1 based on the mean FD: 108 overall basis.

IET 32175 (OR 2437-16) derived from Indravati / MTU 0165 possess medium bold grain type and recorded grain yield of 5843 kg/ha (Zone-VII) with 120 days to 50% flowering. The entry recorded yield superiority over the best check in Zone VII. Hence, the test entry IET 32175 is promoted to AVT-1

IET 32176 (CIARI Dhan 10 (ANR 40) derived from HHZ 4-DT3-Y1-Y1 Selection from (GSR-RFLL) Nursery possess short bold grain type and recorded grain yield of 5378 kg/ha (Zone-VII) with 128 days to 50% flowering. The entry recorded yield superiority over the best check in Zone VII. Hence, the test entry IET 32176 is promoted to AVT-1

IET 32150 (RP Bio 4919-NSR 67) derived from KMR 3/*O. rufipogon* WR 120 possess long slender grain type and recorded grain yield of 5271 kg/ha (Zone-VII) with 108 days to 50%

flowering. The entry recorded yield superiority over the best check in Zone VII. Hence, the test entry IET 32150 is promoted to AVT-1

IET 32147 (TTB 2010-27) derived from IRGC 3764/Ranjit*4 possess medium slender grain type and recorded grain yield of 5154 kg/ha (Zone-VII) with 119 days to 50% flowering. The entry recorded yield superiority over the best check in Zone VII. Hence, the test entry IET 32147 is promoted to AVT-1

Considering yield advantage with respect to best check, the following entries are promoted to AVT- 1 RSL.

Promoted based on zonal mean basis:

- Zone IV- IETs 32146 and 32134
- Zone VII- IETs 32175, 32176, 32150 and 32147

Table 4.1: Composition of entries in Initial Variety Trial–Rainfed Shallow Lowland (IVT - RSL), *Kharif* 2023

Entry No.	IET No.	Designation	Cross combination	Grain Type
1st year of testing				
401	32132	RP 6460-C3-208	166S-Swarna/O. nivara//148S-Swarna/O.nivara	LS
402	32133	CR 2916-48-2-1-1	Tapaswini/IET 16952	MS
403	32134	NDR 2022-6-4	NDR 8002/NDR 9730018	LB
404	32135	CR 4314-1-1-1-1-2-1	CR 3755-1313-1-2-1-1/CR3561-5-1-1-1-1-1-3	MS
405	32136	CIARI Dhan 11 (ANR 47)	HHZ 21-SAL 13-Y1-Y1 Selection from (GSR-RFLL) Nursery	SB
406	32137	CR-3439-E-5-2-1-1-B-1-2	Naveen/CHETTIVIRIPPU (AC39394)	LS
407	32138	OR 2611-1	CRMS 32 A / Mahalaxmi	MS
408	32139	CR 4481-1-5-2-1-1	CR3783-3-2-1-1-1-1/CR4476-7-1-1-1-1-1	SB
409	32140	CR4480-2-1-1-1-1	CR4475-1-1-1-2-1-1/ CR 4476-7-1-1-1-1-1	LS
410	32141	RCPR 105- IR 96321-315-323-B-3-1-3	IR 91659:54-35//IR 81896-B-B-195/2*IR05F102	MS
411	32142	CN 2163-207-4-1-1	OLS 181/Shatabdi	MS
412	32143	CR 3993-514-17-18-1	CR 1009/*O.brachyantha*//CR 1009	MS
413	32144	TRC 23-34/TRC TNK 5830-B-B-9-3	Tripura Nirog x Khowai	LB
414	32145	CR 4199-2-B-1-2-B-2	Maudamani/CR Dhan 310	MS
415	32146	CN 2163-101-4-1-1	OLS 181XShatabdi	LB
416	32147	TTB 2010-27	IRGC 3764/Ranjit*4	MS
417	32148	CR 4484-21-4-2-1	Swarna / IR 121044-3-8-6	MS
418	32149	Pusa 2088-38-9-1-3	Pusa 3039-4-2/Pusa 1853-12-192	LS
419	32150	RP Bio 4919-NSR 67	KMR 3/O.rufipogon WR 120	LS
420	**Swarna Sub 1 (NC)**			
421	32151	CR4435-4-1-2-1-1-1	CR 3553 -9-2-1-1-1-1/CR 3510 -12-1-1-2-1-1	MB
422	32152	TRC-308	Gomati X Naveen	LS
423	32153	ORR 1816	(Swarna X CR 1018) X OR2763-7-1-2-1	MS
424	32154	CR 4493-1-1-1-1	Swarna sub1/ EC 491298	LB
425	32155	BRR-0148	RajendraMahsuri mutant	MS
426	32156	NDR 2022-1-2	NDR 9730015/SambhaMahsuri-Sub 1	MS
427	32157	RGL 7035 (MTU RM 428-1-1-1)	MTU1262/MTU 1075	Ms

Entry No.	IET No.	Designation	Cross combination	Grain Type
428	**CR Dhan 801 (check)**			
429	32158	CR 2667-9-6-4-3-2	Gayatri/AC 38599	MS
430	32159	RGL 7037 (RGL2034-56-4-1)	M0TU 1210/MTU1224./RP Bio 226	Ss
431	32160	CR-2845-S-B-B-4-1-1-4-2	Swarna Sub1/ SR 26B	MS
432	**Pooja (Eastern), Bahadur (North Eastern), Savitri (Southern)-- ZC**			
433	32161	CR 2916-30-1-1-1	Tapaswini/IET 16952	MS
434	32162	RCPR 106-IR 102796-14-77-2-1-2	IR 99622-306/IR 99620-228//IRRI 149	LS
435	32163	CR 4360-2-1-1-1-1	CR 3561-14-1-1-1-1-1/CR 3543-6-3-1-2-1-1	LB
436	32164	TRC 2023-8/ TRC TJTS 5421-B-B-3-10	Tripura Jala x Tripura Sarat	LS
437	32165	MTU 1408 (NIC 5-1-2B)	Swarna sub-1/MTU II1110-9-1-1-1/FL 478/AC39416A	MS
438	32166	CR 3993-113-58-13-1	CR 1009/*O.brachyantha*//CR 1009	SB
439	32167	CR4408-1-2-1-3-1	CR3516-10-1-1-1-1-1/CR3549-3-5-1-1-1	MS
440	32168	BRR-0150	Rajendra Mahsuri-1 / AD 09464	MS
441	32169	CR4433-4-1-1-2-1	CR 3564-1-1-3-1-1/CR3510-12-1-1--2-1-1	MS
442	32170	ORR 1817	IR 76561-AC-8-8 X Ranidhan	LS
443	31269(R)	CR 4436 -4-3-2-1-1-1	CR 3504-24-2-1-1-1-1/ CR 3549-1-2-1-2-1-1	MB
444	32171	CR-3466-L-1-5-2-1-B-1	IR64/FL478//IR-73931-40-1-2-3-2-22-1///Pratiksha	LS
445	32172	TTB 2010-65	IRGC 3764/Ranjit*4	MS
446	32173	TRC 2023-27/TRC GK 5726-B-B-3-23	Gomati X Khowai	LS
447	32174	CR 4485- 15-2-1-1	Naveen / Jasmine 85	LS
448	32175	OR 2437-16	Indravati / MTU 0165	MB
449	32176	CIARI Dhan 10 (ANR 40)	HHZ 4-DT3-Y1-Y1 Selection from (GSR-RFLL) Nursery	SB
450	32177	MSN-119	Tunga/CR-2711-76 (29-2-1-1-1-1-1-B)	MS
451	32178	BRR 2137	IR73907-753-2-3*Pratiksya	MS
452	32179	CR 4454-9-7-2-3-1	Ranidhan/CR Dhan 800//Swarna sub1	MS
453	32180	CR-4086-5-B-7-B-1-2	CR2814-1-S-1-6-3-2B-1/Binadhan 10	MB
454	32181	Pusa 2088-40-19-4-1	Pusa 3039-4-2/Pusa 1853-12-192	LS
455	32182	CR 4491-6-1-1-1-2-2	Swarna/MER 26 (CSSL Line of Oryzameridionalis)	SB
456	32183	LPR2201-IR15F1907	IR06N234/IRRI154//IR10F203	LS
457	32184	CR 4454-4-5-B-7-2-2	Ranidhan/CR Dhan 800//Swarna sub1	MS
458	32185	LPR2207-IR11T198	IRRI 149/IR 61920-3B-22-2-1 (NSIC RC 106)	LS
459	**Local Check**			

Table 4.2: Grain Yield (kg/ha) of entries in IVT-RSL, *Kharif* -2023

Entry No	IET No	Zone III															
		OD				OD(2)		WB(0)				BI				BI(2)	
		CTK		BBN		mean		CHN@		BNK@		SBR		BKG		mean	
401	32132	2329		4578		3454		5017		9258		2001		5082	7	3542	
402	32133	3023		4579		3801		6316	2	9728		5358		2793		4076	
403	32134	3505		4236		3871		6044	5	9667		4467		2864		3666	
404	32135	3694		3971		3833		4874		9137		4438		3924		4181	
405	32136	3227		6102		4665		5957	7	8561		5297		2454		3876	
406	32137	4011		4981		4496		4960		9531		2462		1847		2155	
407	32138	3937		4500		4219		5879		9258		3733		3159		3446	
408	32139	2944		8020	1 *	5482	2	5315		11061	3	4210		2847		3529	
409	32140	4230	7	4059		4145		4623		9833		5599	9	3683		4641	
410	32141	3996		5236		4616		4900		9182		4096		6126	2	5111	5
411	32142	3127		4853		3990		4959		9213		4338		2486		3412	
412	32143	3219		3765		3492		5216		9576		2890		2399		2645	
413	32144	2092		3971		3032		4612		8834		4786		2536		3661	
414	32145	3142		3716		3429		4926		8152		3443		2651		3047	
415	32146	3242		4922		4082		5495		10515	5	4630				4630	
416	32147	2147		6255	4.5	4201		5217		9394		4279		5104	6	4692	
417	32148	3074		6422	2	4748		4624		9622		6577	4	3913		5245	3
418	32149	3093		3794		3444		5060		8152		3763		3678		3721	
419	32150	2573		4883		3728		5201		8985		5707	8	3656		4682	
420	Swarna Sub 1 (NC)	2357		5177		3767		5128		9061		2105		4487		3296	
421	32151	3650		4902		4276		5269		8940		5444		2727		4086	
422	32152	3702		5000		4351		5094		8531		2072		3552		2812	
423	32153	3544		6049		4797	10	6333	1	9288		5774	7	3661		4718	
424	32154	2186		5412		3799		5301		8288		3213		4306		3760	

425	32155	5139	2	6108	10	5624	1 *	5010		11106	2	6744	3	2935		4840	
426	32156	1852		4118		2985		4755		8637		3517		3907		3712	
427	32157	3866		6187	8	5027	7	5900		8607		5139		4699		4919	10
428	CR Dhan 801 (check	4263	6	4922		4593		5043		9273		5160		4749	10	4955	9
429	32158	1737		4834		3286				9743		5228				5228	4
430	32159	3080		5216		4148		5735		9970	9.5	4229		5874	4	5052	7
431	32160	4509	4	4912		4711		5250		9516		4173		3317		3745	
432	Czonal Check	3790		6255	4.5	5023	8	4708		11303	1	5331		3372		4352	
433	32161	3274		5167		4221		5447		9516		5829	5	3312		4571	
434	32162	1779		3226		2503		5339		9258		1989		2846		2418	
435	32163	1796		4775		3286		5716		10652	4	2892		2459		2676	
436	32164	3103		4932		4018		5977	6	8728		4113		2935		3524	
437	32165	3116		4961		4039		5815		10243	7	4733		3399		4066	
438	32166	3276		5853		4565		5671		9500		7537	1	2640		5089	6
439	32167	3643		5500		4572		5810		9652		2935		2530		2733	
440	32168	3773		5814		4794		5712		10137	8	5789	6	3497		4643	
441	32169	5360	1 *	5216		5288	3	5310		9546		3978		3284		3631	
442	32170	4211	9	6235	6	5223	4	6161	4	8939		5490	10	3421		4456	
443	31269(R)	4176	10	6196	7	5186	5	5230		10394	6	4224		3530		3877	
444	32171	2256		3725		2991		4965		8606		2194		1929		2062	
445	32172	3157		5294		4226		5221		8652		3896		3951		3924	
446	32173	2411		4942		3677		5242		9970	9.5	2839		2826		2833	
447	32174	2047		4863		3455		5908	10	9364		5331		2508		3920	
448	32175	4298	5	4902		4600		4959		9546		4657		3000		3829	
449	32176	2965		3922		3444		4954		9015							
450	32177	4222	8	6128	9	5175	6	5187		8985		3876		4962	8	4419	
451	32178	2630		6353	3	4492		5876		9728		4861		4066		4464	
452	32179	2421		5118		3770		4825		9819		4183		5913	3	5048	8

453	32180	2530		5588		4059		5110		8546		3968		2847		3408	
454	32181	2444		4951		3698		4993		9455		4372		4869	9	4621	
455	32182	4905	3	3955		4430		6184	3	9546		4468		6634	1	5551	2
456	32183	3218		5265		4242		5946	9	9258		5012		3470		4241	
457	32184	2128		4951		3540		4929		9228		3922		3869		3896	
458	32185	2596		4196		3396		5950	8	8925		2744		3607		3176	
459	Local Check	3729		5961		4845	9	5666		8743		7084	2	5708	5	6396	1
Exp. Mean		**3215.77**		**5083.2**		**4149.49**		**5358.78**		**9387.36**		**4363.89**		**3621.22**		**4015.1**	
F Value		5.54(p<0.0001)S		17.29(p<0.0001)S		12.82(p<0.0001)S		1.51(p<0.0604)NS		1.07(p<0.3997)NS		17.40(p<0.0001)S		10.04(p<0.0001)S		13.08(p<0.0001)S	
CD		**1041.99**		**605.01**		**540.29**		**1077.82**		**1892.37**		**867.04**		**976.83**		**692.69**	
CV%		16.19		5.95		6.5		10.04		10.07		9.92		13.46		8.62	
D/S		21.06.2023		27.06.23				28.06.23		22.06.2023		6/21/2023		6/21/2023			
D/P		07.08.2023		28.07.23				08.08.23		29.08.2023		7/12/2023		7/21/2023			
Local Check name		SUMIT		Kalinga Dhan 1502				Sujala(IET 20235)		Sampriti		Rajendra Mahsuri-1		Sabour Shree			

Table 4.2(contd.): Grain Yield (kg/ha) of entries in IVT-RSL, *Kharif* -2023

Entry No	IET No	Zone III				Zone III (4)		Zone IV								Zone IV (2)	
		UP(0)						AS				AS(1)		TP(1)			
		GG@		MSD@		mean		TTB		KMJ@		mean		LMB		mean	
401	32132	4355	2	5738	5	3498		3392		4693		3392		3188		3290	
402	32133	3624		4309		3938		7458	1 *	4373		7458	1 *	4925		6192	10
403	32134	3856		4435		3768		6902	2 *	4455		6902	2 *	7625	3	7264	2 *
404	32135	4122	10.5	3571		4007		5503		5703	9	5503		4425		4964	
405	32136	3723		5332		4270		2973		5881	7	2973		4338		3656	
406	32137	4189	4			3325		4196		6178	3.5	4196		4450		4323	
407	32138	3757		4927		3832		5423		6000	5	5423		4775		5099	
408	32139	3391				4505		6275	9	5198		6275	9	4438		5357	
409	32140	3391		5572		4393		4347		4218		4347		4375		4361	
410	32141	3790		4688		4864	6	5692		4218		5692		4963		5328	
411	32142	3557		4788		3701		5928		4515		5928		4150		5039	
412	32143			4189		3068		4236		4633		4236		1838		3037	
413	32144	3524		5719	8	3346		5320		5049		5320		5738		5529	
414	32145	4156	6.5	4947		3238		4740		4633		4740		5263		5002	
415	32146	3989		4455		4265		5702		5049		5702		8938	1 *	7320	1 *
416	32147	4422	1			4446		3788		5584		3788		4225		4007	
417	32148	4122	10.5	3591		4997	3	5253		4574		5253		3938		4596	
418	32149	4289	3	4508		3582		4794		4901		4794		4413		4604	
419	32150	3856		5572		4205		6392	8	6660	1	6392	8	4413		5403	
420	**Swarna Sub 1 (NC)**	3491		4788		3532		5542		6571	2	5542		3175		4359	
421	32151	3790		5027		4181		6465	7	4574		6465	7	3988		5227	
422	32152	3757		4382		3582		4349		4990		4349		4575		4462	
423	32153	3391		5033		4757		5894		4693		5894		4113		5004	
424	32154	4089		5612	10	3779		6549	5	3964		6549	5	7238	6	6894	3
425	32155	3457		4754		5232	2	6571	4	4812		6571	4	6338		6455	6
426	32156	3424		5253		3349		3516		4396		3516		6188		4852	
427	32157	3457				4973	5			4990				4100		4100	
428	**CR Dhan 801 (check**	3391		4030		4774	10	5942		4396		5942		6438	10	6190	
429	32158	3391				3933				5525				5400		5400	
430	32159	3424		4289		4600		4113		4693		4113		7775	2	5944	
431	32160	3391		5313		4228		5863		5346		5863		4288		5076	
432	**Zonal Check**	4056		3384		4687		5077		5703	9	5077		7475	5	6276	8
433	32161	4156	6.5	4508		4396		6499	6	5346		6499	6	4338		5419	

434	32162	3790		4329		2460		3445		4936		3445		3513		3479	
435	32163	3457		4528		2981		6054		5643		6054		3375		4715	
436	32164	3989		5566		3771		4691		5109		4691		3925		4308	
437	32165	4156	6.5	3159		4052				5560				4063		4063	
438	32166	3358		5093		4827	8	6035		4990		6035		7100	7	6568	5
439	32167	3624		4076		3652		5452		4693		5452		3125		4289	
440	32168	4123	9	3025		4718		5000		5703	9	5000		6225		5613	
441	32169	4156	6.5	5725	6.5	4460		5197		4770		5197		4050		4624	
442	32170	3457		5918	2.5	4839	7	5711		4752		5711		7588	4	6650	4
443	31269(R)	3989				4532		6617	3	5287		6617	3	5975		6296	7
444	32171	3391		6177	1	2526		4182		4812		4182		3700		3941	
445	32172	3757		5632	9	4075		5158		5955	6	5158		3813		4486	
446	32173	3657				3255		5756		4931		5756		3850		4803	
447	32174	3657				3687		3938		4990		3938		3963		3951	
448	32175	3391		5785	4	4214		6132	10	5109		6132	10	6338		6235	9
449	32176			2700		3444		1265		5525		1265				1265	
450	32177	3324				4797	9	4471		4693		4471		4563		4517	
451	32178	3590		5326		4478		5365		4574		5365		4275		4820	
452	32179	3225		4754		4409		4935		5168		4935		6375		5655	
453	32180	3258		4455		3733		5229		4931		5229		5063		5146	
454	32181	3225		4262		4159		5423		6178	3.5	5423		6475	9	5949	
455	32182	3291		5918	2.5	4991	4	5702		4871		5702		5375		5539	
456	32183	3258		5725	6.5	4241		5376		5109		5376		5963		5670	
457	32184	3723		5053		3718		4398		5584		4398		4488		4443	
458	32185	3324				3286		4315		5608		4315		4250		4283	
459	**Local Check**	3524		5087		5621	1	4784		4990		4784		6588	8	5686	
Exp. Mean		**3692.19**		**4795.84**		**4070.41**		**5166.29**		**5101.07**		**5166.29**		**4997.41**		**5033.81**	
F Value		18.66(p<0.0001)S		26.83(p<0.0001)S		16.83(p<0.0001)S		11.81(p<0.0001)S		33.44(p<0.0001)S		11.81(p<0.0001)S		9.05(p<0.0001)S		11.56(p<0.0001)S	
CD		**218.69**		**447.4**		**456**		**912.18**		**285.92**		**912.18**		**1330.78**		**902.67**	
CV%		2.96		4.64		5.6		8.81		2.8		8.81		13.3		8.96	
D/S		6/28/2023		10.07.2023				7/15/2023		08.07.2023				7/12/2023			
D/P		Direct Seeded		15.08.2023				8/10/2023		11.08.2023				8/2/2023			
Local Check name		Sambha sub1		Sambha Mahsuri-Sub 1				Ranjit Sub 1		Ranjit				Gomati			

Table 4.2: (contd.): Grain Yield (kg/ha) of entries in IVT-RSL, *Kharif* -2023

Entry No	IET No	Zone VII						Zone VII(3)		Overall (9)	
		KA						KA(3)			
		PNP		SRS		KMT		mean		mean	
401	32132	2043		1955		4854		2951		3269	
402	32133	2876		4594	9	6556		4675		4685	
403	32134	3381		3082		6556		4340		4735	
404	32135	2810		3003		7229	8	4347		4333	
405	32136	2629		1417		6115		3387		3839	
406	32137	3829	8	2994		4990		3938		3751	
407	32138	2648		3829		7231	7	4569		4359	
408	32139	3476		4644	7	5891		4670		4749	
409	32140	3438		4083		6556		4692		4486	
410	32141	2348		2154		7031		3844		4627	
411	32142	2905		4253		6878		4679		4324	
412	32143	2014		3227		4535		3259		3125	
413	32144	1262		3779		6089		3710		3953	
414	32145	2953		4266		6958		4726	10	4126	
415	32146	1981		3635		4909		3508		4745	
416	32147	2758		6260	2 *	6444		5154	4 *	4584	
417	32148	2753		3681		2727		3054		4260	
418	32149	2367		4506		6289		4387		4077	
419	32150	4410	3	4995	6	6408		5271	3 *	4826	8
420	**Swarna Sub 1 (NC)**	3272		3728		5861		4287		3967	
421	32151	2248		2617		7256	5	4040		4366	
422	32152	3034		2749		6661		4148		3966	
423	32153	3743	10	3437		6499		4560		4746	
424	32154	2786		2525		7249	6	4187		4607	
425	32155	2590		4247		4217		3685		4988	4
426	32156	2100		2847		5952		3633		3777	
427	32157	2624		4255		7315	4	4731	9	4773	10
428	**CR Dhan 801 (check**	2929		2603		4890		3474		4655	
429	32158			3281		5968		4625		4408	
430	32159	2810		3449		4319		3526		4541	
431	32160	2934		3713		6668		4438		4486	
432	**Zonal Check**	3067		4352		3905		3775		4736	
433	32161	1791		3349		6562		3901		4458	
434	32162	2634		1553		7206	9	3798		3132	
435	32163	3005		2044		7505	3	4185		3767	

436	32164	2629		4213		8027	2 *	4956	7	4285	
437	32165	3219		2866		5568		3884		3991	
438	32166	3514		3714		5776		4335		5049	3
439	32167	3229		3886		5914		4343		4024	
440	32168	3991	6	3911		6248		4717		4916	5
441	32169	3729		4519	10	6915		5054	5	4694	
442	32170	4196	4	1605		4830		3544		4810	9
443	31269(R)	3524		3837		4503		3955		4731	
444	32171	3658		758		6990		3802		3266	
445	32172	2638		5698	3 *	3763		4033		4152	
446	32173	1981		2861		6163		3668		3737	
447	32174	3753	9	4168		5721		4547		4032	
448	32175	4562	2	7060	1 *	5907		5843	1 *	5206	1
449	32176	1905		5482	4 *	8746	1 *	5378	2 *	4048	
450	32177	4162	5	4635	8	5928		4908	8	4772	
451	32178	3105		3594		6244		4314		4499	
452	32179	2400		1716		4442		2853		4167	
453	32180	3291		3802		6275		4456		4288	
454	32181	2572		5232	5 *	7119	10	4974	6	4829	7
455	32182	2948		3749		6497		4398		4915	6
456	32183	3505		3390		6863		4586		4674	
457	32184	3438		3461		3540		3480		3799	
458	32185	3957	7	1886		3690		3178		3471	
459	**Local Check**	5048	1	1972		5271		4097		5127	2
Exp. Mean		**3023.9**		**3544.36**		**5986.76**		**4194.05**		**4333.88**	
F Value		5.18(p<0.0001)S		18.29(p<0.0001)S		3.52(p<0.0001)S		4.90(p<0.0001)S		12.62(p<0.0001)S	
CD		**925.13**		**797.29**		**1820.28**		**807.17**		**401.02**	
CV%		15.28		11.24		15.19		9.61		4.62	
D/S		7/14/2023		6/17/2023		19.07.2023					
D/P		8/27/2023		7/7/2023		27.08.2023					
Local Check name		Tunga		ASHA		PSB_68					

Table 4.3: Days to 50% flowering of entries in IVT-RSL, *Kharif* -2023

Entry No	IET No	Zone III										Zone III (4)
		OD		OD(2)	WB(0)		BI		BI(2)	UP(0)		
		CTK	BBN	mean	CHN@	BNK@	SBR	BKG	mean	GGT@	MSD@	mean
401	32132	112	111	112	111	120	107	100	104	107	98	108
402	32133	126	122	124	117	124	117	122	120	122	125	122
403	32134	118	112	115	115	125	113	115	114	110	111	115
404	32135	127	117	122	116	121	112	113	113	105	128	117
405	32136	107	100	104	108	127	93	100	97	95	113	100
406	32137	108	111	110	110	126	99	100	100	94		105
407	32138	148	126	137	121	124	146	141	144	123	125	140
408	32139	130	117	124	120	124	119	120	120	118	129	122
409	32140	117	113	115	115	126	114	115	115	104	113	115
410	32141	125	116	121	115	127	111	114	113	111	127	117
411	32142	127	119	123	119	125	148	140	144	126	113	134
412	32143	146	129	138	124	126	143	140	142		114	140
413	32144	119	113	116	113	128	111	144	128	108	117	122
414	32145	129	120	125	129	127	130	134	132	123	124	128
415	32146	128	121	125	122	126	151		151	128	110	133
416	32147	141	129	135	120	125	120	138	129	125		132
417	32148	142	122	132	122	128	145	128	137	120	125	134
418	32149	132	117	125	121	126	112	116	114	106	129	119
419	32150	126	118	122	115	126	114	113	114	101	116	118
420	**Swarna Sub 1 (NC)**	132	121	127	121	126	153	115	134	124	118	130
421	32151	118	112	115	109	128	111	104	108	107	106	111
422	32152	109	104	107	108	122	92	102	97	90	95	102
423	32153	129	114	122	118	126	119	115	117	123	113	119
424	32154	117	112	115	107	118	146	103	125	94	128	120
425	32155	126	118	122	120	119	148	125	137	119	127	129
426	32156	109	102	106	113	119	113	111	112	105	108	109
427	32157	119	128	124	126	116	128	141	135	136	129	129
428	**CR Dhan 801 (check**	122	117	120	114	124	112	114	113	106	108	116
429	32158	123	131	127		123	148		148	135		134
430	32159	140	130	135	123	123	160	135	148	138	113	141
431	32160	130	120	125	124	118	158	141	150	123	125	137
432	**Zonal Check**	128	123	126	123	125	163	146	155	136	113	140
433	32161	140	122	131	121	126	145	125	135	123	111	133
434	32162	108	100	104	110	120	96	104	100	90	127	102

435	32163	130	117	124	123	119	145	118	132	111	128	128
436	32164	130	120	125	118	124	121	116	119	113	98	122
437	32165	129	120	125	122	126	120	123	122	136	117	123
438	32166	114	105	110	119	125	111	109	110	105	125	110
439	32167	125	115	120	115	123	115	118	117	119	113	118
440	32168	126	113	120	119	127	119	123	121	117	120	120
441	32169	117	112	115	118	128	119	115	117	102	98	116
442	32170	124	116	120	116	127	117	114	116	104	114	118
443	31269(R)	128	115	122	118	119	111	115	113	113	127	117
444	32171	110	107	109	107	116	91	80	86	88	108	97
445	32172	146	110	128	121	119	130	100	115	133	98	122
446	32173	124	114	119	115	114	112	113	113	105	129	116
447	32174	140	116	128	124	118	123	127	125	139	129	127
448	32175	138	119	129	124	115	141	122	132	140	115	130
449	32176	140	131	136	94	115					128	136
450	32177	149	115	132	125	119	147	128	138	135	127	135
451	32178	121	113	117	116	121	112	115	114	105	108	115
452	32179	125	127	126	119	124	119	116	118	140	116	122
453	32180	121	110	116	116	120	99	102	101	93	121	108
454	32181	120	120	120	120	120	121	118	120	106	126	120
455	32182	117	114	116	118	127	112	111	112	109	101	114
456	32183	113	105	109	115	125	105	102	104	105	113	106
457	32184	120	117	119	122	123	113	132	123	106	122	121
458	32185	110	100	105	115	123	92	104	98	104	129	102
459	**Local Check**	130	124	127	115	122	127	116	122	119	117	124
Exp. Mean		**125**	**116**	**121**	**117**	**123**	**122**	**118**	**120**	**114**	**117**	**121**

Table 4.3: (contd.) Days to 50% flowering of entries in IVT-RSL, *Kharif* -2023

Entry No	IET No	Zone IV				Zone IV (2)	Zone VII			Zone VII(3)	Overall (9)
		AS		AS(1)	TP(1)		KA			KA(3)	
		TTB	KMJ@	mean	LMB	mean	PNP	SRS	KMT	mean	mean
401	32132	103	93	103	70	87	106	112	115	111	104
402	32133	127	111	127	87	107	121	118	108	116	116
403	32134	108	103	108	81	95	109	111	108	109	108
404	32135	108	106	108	104	106	120	123	114	119	115
405	32136	102	91	102	93	98	101	110	117	109	103
406	32137	105	100	105	94	100	107	100	114	107	104
407	32138	124	98	124	106	115	122	123	116	120	128
408	32139	113	113	113	104	109	110	112	108	110	115
409	32140	107	107	107	103	105	113	112	108	111	111
410	32141	110	109	110	100	105	110	112	118	113	113
411	32142	111	107	111	106	109	100	118	113	110	120
412	32143	132	99	132	117	125	134	130	115	126	132
413	32144	107	103	107	111	109	106	100	114	107	114
414	32145	118	113	118	103	111	103	118	104	108	118
415	32146	114	113	114	89	102	108	121	114	114	118
416	32147	128	103	128	96	112	123	122	111	119	123
417	32148	123	104	123	109	116	122	118	110	117	124
418	32149	113	110	113	102	108	110	111	115	112	114
419	32150	117	97	117	99	108	110	112	102	108	112
420	**Swarna Sub 1 (NC)**	126	98	126	109	118	118	129	109	119	124
421	32151	106	103	106	101	104	98	98	117	104	107
422	32152	101	89	101	95	98	99	98	121	106	102
423	32153	116	105	116	90	103	104	109	113	109	112
424	32154	109	129	109	96	103	106	109	118	111	113
425	32155	117	89	117	93	105	107	109	110	109	117
426	32156	105	101	105	101	103	105	111	115	110	108
427	32157		104		71	71	113	121	116	117	117
428	**CR Dhan 801 (check**	113	111	113	117	115	110	115	99	108	113
429	32158		103		112	112		136	110	123	127
430	32159	133	102	133	116	125	114	118	102	111	128
431	32160	109	111	109	105	107	105	117	115	112	122
432	**Zonal Check**	122	131	122	106	114	112	129	110	117	127
433	32161	117	106	117	116	117	110	121	116	116	124
434	32162	101	85	101	73	87	99	96	116	104	99

435	32163	113	124	113	95	104	103	105	113	107	115
436	32164	126	126	126	112	119	120	123	122	122	121
437	32165		119		114	114	121	129	126	125	123
438	32166	107	95	107	94	101	104	105	113	107	107
439	32167	113	107	113	112	113	115	116	105	112	115
440	32168	130	106	130	115	123	107	112	107	109	117
441	32169	107	98	107	96	102	106	112	115	111	111
442	32170	129	104	129	96	113	105	110	106	107	113
443	31269(R)	112	105	112	95	104	106	108	111	108	111
444	32171	101	87	101	92	97	105	98	104	102	99
445	32172	128	136	128	121	125	126	122	103	117	121
446	32173	119	122	119	119	119	115	100	115	110	115
447	32174	127	129	127	121	124	125	123	107	118	123
448	32175	123	136	123	118	121	127	123	109	120	124
449	32176	147	137	147		147	134	135	115	128	134
450	32177	133	133	133	120	127	120	122	110	117	127
451	32178	120	104	120	88	104	106	105	98	103	109
452	32179	129	112	129	103	116	118	112	108	113	117
453	32180	105	97	105	93	99	109	100	111	107	106
454	32181	118	127	118	87	103	111	112	111	111	113
455	32182	107	112	107	94	101	119	112	104	112	110
456	32183	102	105	102	86	94	103	102	99	101	102
457	32184	121	123	121	101	111	113	112	104	110	115
458	32185	104	96	104	109	107	101	96	111	103	103
459	**Local Check**	123	127	123	99	111	112	135	108	118	119
Exp. Mean		**116**	**109**	**116**	**101**	**108**	**111**	**114**	**111**	**111**	**115**

Table 4.4: Plant height (cm) of entries in IVT-RSL, *Kharif* -2023

Entry No	Entry No	Zone III										Zone III (4)
		OD		OD(2)	WB(0)		BI		BI(2)	UP(0)		
		CTK	BBN	mean	CHN@	BNK@	SBR	BKG	mean	GGT@	MSD@	mean
401	32132	100	96	98	101	83	109	123	116	92	89	107
402	32133	105	110	108	120	101	131	104	118	87	89	113
403	32134	112	100	106	122	108	129	126	127	104	85	117
404	32135	106	100	103	104	109	117	99	108	83	67	105
405	32136	92	95	94	101	82	104	110	107	91	75	100
406	32137	111	125	118	115	112	136	164	150	115	.	134
407	32138	115	112	114	107	103	145	108	127	114	77	120
408	32139	117	122	120	119	115	141	103	122	93	100	121
409	32140	108	115	112	122	124	141	140	140	97	82	126
410	32141	100	100	100	108	144	110	123	116	85	86	108
411	32142	118	123	121	139	115	160	122	141	127	124	131
412	32143	121	132	127	154	116	161	136	148	.	76	137
413	32144	104	115	110	106	113	131	116	124	99	76	117
414	32145	108	112	110	124	109	130	122	126	104	79	118
415	32146	103	82	93	95	73	99	.	99	80	78	95
416	32147	113	118	116	128	92	139	118	128	116	.	122
417	32148	102	90	96	105	83	113	107	110	101	90	103
418	32149	104	92	98	111	90	111	126	119	101	91	108
419	32150	131	131	131	112	140	166	155	161	115	110	146
420	**Swarna Sub 1 (NC)**	99	100	100	97	82	122	102	112	80	124	106
421	32151	113	115	114	124	106	139	135	137	92	87	125
422	32152	106	116	111	113	95	121	118	119	104	70	115
423	32153	115	115	115	113	108	125	133	129	102	90	122
424	32154	108	118	113	128	123	127	138	132	123	103	123
425	32155	102	105	104	112	104	120	112	116	97	82	110
426	32156	105	92	99	99	83	114	106	110	90	86	104
427	32157	104	112	108	112	92	124	99	112	113	69	110
428	**CR Dhan 801 (check**	90	95	93	108	89	120	128	124	95	75	108
429	32158	108	122	115	.	103	106	.	106	103	.	112
430	32159	104	100	102	104	114	117	99	108	91	72	105
431	32160	110	102	106	123	97	128	110	119	106	96	113
432	**Zonal Check**	105	112	109	76	72	122	89	106	88	73	107

433	32161	112	108	110	120	112	126	131	129	99	82	119
434	32162	113	100	107	74	102	122	123	122	118	73	114
435	32163	116	120	118	133	113	135	129	132	129	100	125
436	32164	118	122	120	124	108	150	131	140	119	84	130
437	32165	101	100	101	106	93	113	106	110	89	73	105
438	32166	115	122	119	113	109	124	124	124	83	88	121
439	32167	114	114	114	117	104	160	124	142	98	98	128
440	32168	104	110	107	109	98	119	122	121	99	71	114
441	32169	121	130	126	121	123	139	122	131	103	103	128
442	32170	115	132	124	126	116	135	141	138	112	86	131
443	31269(R)	112	125	119	119	111	130	132	131	102	120	125
444	32171	89	120	105	105	114	138	126	132	110	90	118
445	32172	100	110	105	110	107	131	119	125	106	89	115
446	32173	121	125	123	119	133	161	158	160	129	83	141
447	32174	102	117	110	115	84	123	111	117	86	74	113
448	32175	109	130	120	125	106	150	117	134	108	82	127
449	32176	103	98	101	101	83	.	.	.	.	92	101
450	32177	109	124	117	138	113	149	125	137	121	81	127
451	32178	111	105	108	125	104	142	107	124	114	98	116
452	32179	112	82	97	102	93	115	134	124	74	77	111
453	32180	121	128	125	122	133	156	158	157	131	78	141
454	32181	101	105	103	112	93	115	107	111	100	74	107
455	32182	105	110	108	107	102	124	123	124	101	83	116
456	32183	95	110	103	104	81	117	126	121	96	75	112
457	32184	112	132	122	122	123	159	124	142	117	92	132
458	32185	93	105	99	101	100	100	109	105	75	78	102
459	**Local Check**	113	112	113	121	109	120	111	116	83	86	114
Exp. Mean		**108**	**111**	**110**	**114**	**104**	**130**	**122**	**125**	**102**	**86**	**117**

Table 4.4: (Contd.): Plant height (cm) of entries in IVT-RSL, *Kharif* -2023

Entry No	Entry No	Zone IV				Zone IV (2)	Zone VII			Zone VII(3)	Overall (9)
		AS		AS(1)	TP(1)		KA			KA 3)	
		TTB	KMJ@	mean	LMB	mean	PNP	SRS	KMT	mean	mean
401	32132	102	113	102	67	84	65	89	103	86	95
402	32133	113	125	113	95	104	60	83	110	84	101
403	32134	119	130	119	122	121	91	94	110	98	111
404	32135	101	108	101	85	93	65	76	107	83	95
405	32136	96	100	96	86	91	74	82	94	83	93
406	32137	113	122	113	121	117	98	100	96	98	118
407	32138	116	123	116	92	104	82	103	118	101	110
408	32139	119	140	119	103	111	89	103	111	101	112
409	32140	122	136	122	99	110	81	97	110	96	112
410	32141	102	120	102	95	98	75	82	120	92	101
411	32142	126	145	126	113	120	96	124	108	109	121
412	32143	136	146	136	127	131	118	123	81	107	126
413	32144	123	120	123	103	113	76	91	130	99	110
414	32145	116	122	116	95	106	65	94	108	89	106
415	32146	94	96	94	112	103	61	80	109	83	92
416	32147	114	124	114	73	94	78	108	106	97	107
417	32148	97	111	97	99	98	63	84	86	77	93
418	32149	103	120	103	79	91	66	95	105	88	98
419	32150	122	106	122	83	102	120	138	97	118	127
420	**Swarna Sub 1 (NC)**	112	116	112	140	126	63	103	108	91	106
421	32151	116	141	116	82	99	78	102	95	91	108
422	32152	112	123	112	124	118	82	101	117	100	111
423	32153	114	121	114	110	112	79	92	102	91	110
424	32154	112	123	112	110	111	84	99	123	102	113
425	32155	105	108	105	114	110	71	85	107	88	102
426	32156	88	83	88	115	102	57	78	94	76	94
427	32157	.	115	.	79	79	72	103	114	96	101
428	**CR Dhan 801 (check**	102	113	102	117	110	72	83	113	89	102
429	32158	.	122	.	106	106	.	105	90	97	106
430	32159	103	108	103	96	99	70	93	90	84	97
431	32160	113	119	113	95	104	75	90	102	89	103

432	**Zonal Check**	112	124	112	103	108	69	89	84	81	98
433	32161	113	132	113	108	110	63	78	110	84	105
434	32162	110	119	110	87	99	81	85	106	91	103
435	32163	125	107	125	113	119	89	106	109	101	116
436	32164	122	130	122	124	123	93	102	110	102	119
437	32165	.	106	.	81	81	69	74	106	83	94
438	32166	118	134	118	97	107	76	87	100	88	107
439	32167	121	130	121	115	118	89	94	111	98	116
440	32168	105	136	105	94	99	77	92	102	90	103
441	32169	119	138	119	104	112	93	110	107	103	116
442	32170	119	134	119	114	117	90	113	98	100	117
443	31269(R)	113	126	113	99	106	70	94	107	90	109
444	32171	117	129	117	142	129	96	104	110	103	116
445	32172	113	115	113	99	106	72	109	105	95	106
446	32173	131	81	131	121	126	94	138	85	105	126
447	32174	96	109	96	84	90	71	96	122	96	102
448	32175	126	123	126	104	115	89	108	109	102	116
449	32176	96	108	96	.	96	60	96	109	88	94
450	32177	124	141	124	120	122	98	118	106	107	119
451	32178	120	130	120	110	115	86	122	92	100	110
452	32179	94	111	94	86	90	64	89	95	83	97
453	32180	130	147	130	106	118	102	134	105	114	127
454	32181	103	110	103	95	99	67	102	105	91	100
455	32182	107	63	107	105	106	77	104	122	101	109
456	32183	119	111	119	103	111	85	98	105	96	106
457	32184	121	83	121	120	121	86	108	106	100	119
458	32185	102	109	102	84	93	76	84	113	91	96
459	**Local Check**	114	126	114	102	108	100	94	110	101	108
Exp. Mean		**113**	**119**	**113**	**103**	**107**	**79**	**98**	**105**	**94**	**107**

Table 4.5: Panicle/m^2 of entries in IVT-RSL, *Kharif* -2023

Entry No	IET No	Zone III										Zone III (4)
		OD		OD(2)	WB(0)		BI		BI(2)	UP(0)		
		CTK	BBN	mean	CHN@	BNK@	SBR	BKG	mean	GGT@	MSD@	mean
401	32132	257	308	283	314	451	334	382	358	149	280	320
402	32133	291	222	257	330	286	259	366	313	135	273	285
403	32134	264	219	242	314	385	268	302	285	139	230	263
404	32135	256	312	284	347	417	341	377	359	150	232	322
405	32136	291	274	283	314	375	292	388	340	131	265	311
406	32137	287	261	274	347	368	263	425	344	116		309
407	32138	288	230	259	314	435	229	319	274	137	253	267
408	32139	297	211	254	314	451	321	354	338	134		296
409	32140	321	233	277	429	413	282	350	316	130	266	297
410	32141	248	280	264	297	237	253	335	294	138	240	279
411	32142	340	303	322	297	281	430	275	353	121	260	337
412	32143	317	261	289	347	462	245	275	260		242	275
413	32144	304	307	306	363	395	302	403	353	123	263	329
414	32145	350	271	311	429	369	367	355	361	141	266	336
415	32146	309	218	264	363	319	275		275	137	266	267
416	32147	297	294	296	314	418	280	373	327	154		311
417	32148	304	273	289	413	339	303	328	316	143	227	302
418	32149	274	220	247	347	451	291	342	317	141	258	282
419	32150	311	279	295	347	413	229	367	298	129	287	297
420	Swarna Sub 1 (NC)	301	329	315	380	308	290	342	316	125	260	316
421	32151	330	339	335	363	385	245	426	336	133	261	335
422	32152	310	307	309	363	322	293	396	345	133	258	327
423	32153	349	245	297	314	390	320	357	339	129	230	318
424	32154	251	254	253	363	467	238	282	260	139	253	256
425	32155	266	313	290	380	330	283	288	286	121	257	288
426	32156	331	286	309	446	424	301	319	310	116	278	309
427	32157	307	256	282	281	490	269	322	296	108		289
428	CR Dhan 801 (check	274	323	299	363	391	308	342	325	109	250	312
429	32158	284	258	271		435	285		285	119		276
430	32159	284	259	272	578	462	225	353	289	125	239	280
431	32160	267	198	233	446	356	290	348	319	116	283	276

432	Zonal Check	373	268	321	363	345	350	305	328	137	212	324
433	32161	363	228	296	330	380	265	278	272	138	230	284
434	32162	327	248	288	446	407	294	353	324	127	272	306
435	32163	346	280	313	347	423	333	278	306	119	254	309
436	32164	296	264	280	446	330	279	381	330	115	282	305
437	32165	286	300	293	380	473	336	292	314	136	239	304
438	32166	308	329	319	297	406	320	384	352	124	258	335
439	32167	281	271	276	330	226	255	308	282	127	249	279
440	32168	314	282	298	413	407	288	369	329	133	252	313
441	32169	330	256	293	347	369	265	394	330	140	292	311
442	32170	346	299	323	396	336	342	359	351	131	239	337
443	31269(R)	291	292	292	446	440	304	354	329	123		310
444	32171	332	275	304	413	451	238	320	279	124	291	291
445	32172	317	318	318	413	352	316	374	345	131	253	331
446	32173	286	250	268	330	373	264	399	332	127		300
447	32174	283	269	276	446	361	290	317	304	125		290
448	32175	334	303	319	363	333	339	425	382	94	288	350
449	32176	386	273	330	578	349					192	330
450	32177	263	309	286	380	462	278	320	299	122		293
451	32178	281	300	291	396	446	274	352	313	133	286	302
452	32179	320	325	323	314	457	318	387	353	120	253	338
453	32180	327	322	325	380	440	249	393	321	115	266	323
454	32181	304	266	285	347	435	379	342	361	120	237	323
455	32182	231	268	250	281	368	220	391	306	121	288	278
456	32183	344	229	287	363	336	329	356	343	123	284	315
457	32184	315	316	316	396	358	238	354	296	130	281	306
458	32185	268	279	274	495	270	290	429	360	121		317
459	Local Check	311	222	267	380	407	400	366	383	136	260	325
Exp. Mean		**303**	**274**	**289**	**373**	**386**	**292**	**351**	**320**	**128**	**258**	**305**

Table 4.5: (Contd.): Panicle/m^2 of entries in IVT-RSL, *Kharif* -2023

Entry No	IET No	Zone IV				Zone IV (2)	Zone VII			Zone VII(3)	Overall (9)
		AS		AS(1)	TP(1)		KA			KA(3)	
		TTB	KMJ@	mean	LMB	mean	PNP	SRS	KMT	mean	mean
401	32132	289	261	289	250	270	285	404	277	322	310
402	32133	222	219	222	250	236	285	226	260	257	265
403	32134	287	248	287	213	250	243	261	260	255	257
404	32135	261	284	261	225	243	275	220	263	253	281
405	32136	191	292	191	263	227	256	239	269	255	274
406	32137	242	307	242	225	234	263	296	249	269	279
407	32138	301	298	301	250	276	266	276	287	276	272
408	32139	309	289	309	213	261	282	378	219	293	287
409	32140	280	234	280	200	240	311	385	260	319	291
410	32141	236	235	236	250	243	269	220	253	247	260
411	32142	291	251	291	213	252	320	375	279	325	314
412	32143	272	258	272	213	243	250	286	229	255	261
413	32144	281	281	281	200	241	253	305	215	258	286
414	32145	258	258	258	263	261	278	292	255	275	299
415	32146	301	281	301	313	307	282	296	231	270	278
416	32147	284	282	284	188	236	285	380	223	296	289
417	32148	281	254	281	188	235	304	347	251	301	287
418	32149	304	272	304	200	252	268	409	262	313	286
419	32150	281	325	281	188	235	234	210	241	228	260
420	**Swarna Sub 1 (NC)**	305	310	305	238	272	265	334	235	278	293
421	32151	297	254	297	275	286	301	416	282	333	323
422	32152	306	278	306	200	253	266	365	295	309	304
423	32153	303	261	303	225	264	260	363	248	290	297
424	32154	293	198	293	150	222	224	314	202	247	245
425	32155	314	268	314	100	207	259	370	234	288	270
426	32156	267	245	267	213	240	358	368	250	325	299
427	32157		278		300	300	231	338	276	282	287
428	**CR Dhan 801 (check**	248	245	248	163	206	305	358	219	294	282
429	32158		288		275	275		324	253	289	280
430	32159	300	261	300	263	282	266	345	261	291	284
431	32160	277	279	277	288	283	285	332	263	293	283
432	**Zonal Check**	302	288	302	325	314	311	391	231	311	317

433	32161	305	279	305	250	278	256	330	273	286	283
434	32162	279	275	279	225	252	234	338	216	263	279
435	32163	312	295	312	263	288	247	442	213	301	302
436	32164	274	284	274	250	262	237	352	239	276	286
437	32165		291		300	300	310	249	238	266	289
438	32166	287	278	287	275	281	298	370	252	307	314
439	32167	284	261	284	213	249	244	269	308	274	270
440	32168	289	279	289	275	282	272	248	233	251	286
441	32169	239	265	239	200	220	202	271	230	234	265
442	32170	286	264	286	263	275	240	339	216	265	299
443	31269(R)	290	294	290	263	277	276	395	260	310	303
444	32171	259	267	259	313	286	237	284	271	264	281
445	32172	275	291	275	225	250	246	334	221	267	292
446	32173	264	274	264	163	214	279	327	265	290	277
447	32174	268	278	268	288	278	266	310	222	266	279
448	32175	296	284	296	338	317	278	325	230	278	319
449	32176	299	307	299		299	323	375	251	316	318
450	32177	299	261	299	275	287	269	380	230	293	291
451	32178	278	254	278	225	252	323	334	281	313	294
452	32179	290	287	290	263	277	256	355	248	286	307
453	32180	270	274	270	300	285	282	334	212	276	299
454	32181	297	302	297	225	261	324	403	231	319	308
455	32182	254	271	254	188	221	246	277	275	266	261
456	32183	318	284	318	313	316	291	296	192	260	296
457	32184	301	292	301	263	282	278	292	352	307	301
458	32185	227	293	227	300	264	291	292	236	273	290
459	**Local Check**	260	278	260	300	280	281	335	260	292	304
Exp. Mean		**280**	**273**	**280**	**242**	**262**	**273**	**326**	**249**	**283**	**288**

ADVANCE VARIETY TRIAL 1- SEMI DEEP WATER (AVT 1-SDW)

Locations:10 **Test Entries:12**

Checks: CR Dhan 506 (National), CR Dhan 510 (Eastern, North Eastern Zonal), MTU 1172 (Southern zonal), Varshadhan (RP Check) and Local Check

The trial was constituted with 12 entries including 08 test entries and four checks viz., CR Dhan 506 (National check), CR Dhan 510 (Eastern and North Eastern Zonal check), MTU 1172 (Southern Zonal Check), Varshadhan (Recurrent parent check) and Local Checks. All the test entries were in the second year of testing. The trial was sent to 10 locations and data was received from all the locations. However, data consideration of different locations is presented in Table.

Data consideration of different testing locations

SN	Centers	Data consideration
1	Kumta	Non-availability of water regime and adaptability parameters
2	Masodha	Failed to maintain the required water depth.
3	Cuttack	Lack of significant difference among the test entries
4	Chinsura	Lack of significant difference among the test entries
5	Canning	Low experimental mean yield (<2000Kg/ha)
6	Ghaghraghat	Rejected due to low CV (<5%).
7	Karimganj	Rejected due to low CV (<5%).
8	Bhubaneswar	Data considered for analysis
9	Titabar	Data considered for analysis
10	Maruteru	Data considered for analysis

Overall mean yield of entries varied from 3884 kg/ha (IET 31264) to 6209 kg/ha (Zonal Check). Mean days to 50% flowering ranged from 124 days (IET 29031) to 134 days (IET 31258); plant height ranged from 113 cm (IET 31279) to 149 cm (Varshadhan (RP)); mean panicles/m2 ranged from 264 (IET 29026) to 327 (IET 31270). The data pertaining to yield, days to 50% flowering, plant height, no. of panicles/m^2 and qualities are presented in Tables 5.2 to5.6.

In Zone III, only one entry (IET 31258) performed significantly superior than the best check (Zonal Check). In zone IV and zone VII, none of the entries showed significantly superior performance than the best checks.

Identification of superior genotypes in SDW trial:

IET 31258 (MTU-1387 (MTU 2244-39-20-4) derived from a cross between MTU 1064/Swarna sub-1//MTU 1064 possesses short bold grains with 120 cm plant height and 136 days to 50% flowering. On Overall yield basis, it did not show superior performance than the best check. However, it ranked 1st in zone III (6089 kg/ ha) with significantly superior performance than the best check (Zonal Check). It also ranked 1st in Odisha. The entry recorded HRR (58.0 %), intermediate ASV (4.0) and AC (24.1%) for grain quality parameters. The entry recorded better seedling survival, desirable phenotypic acceptability and low grain shattering. Hence, the entry is promoted to AVT-2-SDW in zone III for third year of testing.

Zonal Performance of promising entries in AVT 1-SDW *Kharif* 2023

Entry No	IET No/ Designation/ Cross	Zone III (1)	Remarks
		Mean GY(Kg/ha) DFF PH (cm)	
501	**IET 31258** MTU-1387 (MTU 2244-39-20-4) MTU 1064/Swarna sub-1//MTU 1064	6089* 136 120	Promoted for Zone III
CR Dhan 506 (NC)		2900 133 115	
Zonal Check		**4712** **136** **107**	
Local Check		4703 126 122	
CD		**460.79**	

Performance of NIL lines (IET 29031 and IET 29026):

The SDW trial included two near isogeneic lines (NILs) of Varshadhan viz., IET 29031 and IET 29026, in 2nd year of testing. The yield performance of these lines was compared with that of the recurrent parent, Varshadhan. In the year 2022 both the entries perform at per yield with recurrent parent, Varshadhan and in the second year 2023 both the entries showed significantly lower yield than the recurrent parent, Varshadhan in AVT-1-SDW trial. The submergence tolerance performance of these entries were also tested under Advanced Varietal Trial 1-NIL (Submergence) (AVT-1-NIL-SUB) during kharif 2023. The entries (IET 29031 and IET 29026) were found superior for submergence tolerance over the recurrent parent in terms of survival percentage. However, the grain yield of the NILs entries IETs 29031 and 29026 in 2023 compared to 2022 was reduced by 50% and more than 20% in RP, Varshadhan. Thue, both NILs evaluation may be repeated for next year to understand the consistency in the performance of the NILs.

Yield performance of NIL lines in AVT-1-SDW during *kharif* 2022 and 2023

IET No	Odisha (2022)	Odisha (2023)	Mean (kg/ ha)
29031	5020	2488	3754
29026	4972	2425	3699
Varshadhan (RP)	4364	3601	3983
CD	770.30	460.79	

Seedling Survival percentage of NIL entries in AVT-1 NIL- SUB over their recurrent parent under submergence stress condition, kharif, 2022 & *Kharif* 2023

2022

Recurrent Parent	NIL-IET no.	NIL-Seedling Survival (%)						RP- Seedling Survival (%)						
		CTK	BKG@	MSD@	MTU@	KRK	Mean	CTK	BKG@	MSD@	MTU@	KRK	Mean	% Over RP
Varshadhan	29031	83	70	81	89.4	89	86	55	90	89	77	56	55.5	54.95
	29026	79	80	79	85.6	93	86	55	90	89	77	56	55.5	54.95
	29032	77	80	93	78.3	92.7	84.85	55	90	89	77	56	55.5	52.88

2023

RecurrentParent	**NIL-IETno.**	**NIL-SeedlingSurvival(%)**						**RP-SeedlingSurvival(%)**							
		BKG	**KRK**	**MTU@**	**MSD@**	**SBR**	**Mean**	**BKG**	**KRK**	**MTU@**	**MSD@**	**SBR**	**Mean**	**% Over RP**	**% Over SC**
Varshadhan	29031	84	82.3	64.5	81	100	83.15	44	53.96	72.5	78	17	48.98	69.76	161.81
	29026	74	87.98	70.5	86	75	80.99	44	53.96	72.5	78	17	48.98	65.35	155.01
Swarna(Sensitive check)		28	35.52	55.23	-	30	31.76								

Entries Promoted

- **The entry IET 31258 is promoted to AVT-2 SDW for in Zone III.**
- **The NILs entries IET 29031 and IET 29026 to be repeated.**

Details of water regime (cm) at different centers in AVT-1- SDW, *Kharif* 2023

Location	Week	June	July	August	September	October	November
Bhubaneswar	1st			5	20	30	45
	2nd			5	25	35	45
	3rd			10	20	40	45
	4th		5	10	25	40	50
Canning	1st		30.6	40.6	52.3	50	30.2
	2nd		34.9	48.1	51.2	45.3	18.5
	3rd	10.5	37.4	45.5	53	40.1	16.4
	4th	25.2	42.5	51.2	46.2	35.2	
Chinsura	1st			10	40	60	30
	2nd			20	55	50	20
	3rd			30	60	35	15
	4th			30	60	30	
Ghaghraghat	1st			8	65	60	
	2nd			27	82	52	
	3rd			45	71	20	
	4th			56	61	8	
Karimganj	1st	52	40	42	15	18	12
	2nd	51	36	38	14	16	10
	3rd	50	30	34	13	13	9
	4th	50	28	32	10	12	9
Maruteru	1st				40	60	30
	2nd				40	50	30
	3rd				40	40	40
	4th			30	60	40	30
Masodha	1st			25	35	12	
	2nd			10	40	10	
	3rd			8	25	6	
	4th			12	10		
NRRI, Cuttack	1st			30	60	60	40
	2nd			40	60	60	35
	3rd		10	50	55	50	25
	4th		20	55	55	45	10
Titabar	1st			16	42	65	24
	2nd			22	55	53	22
	3rd			25	44	34	19
	4th			30	62	39	15
	5th			33	60	29	9

Adaptability Parameters of entries in AVT 1-SDW, *Kharif-2023*

Entry No.	IET No.	Kneeing Ability Score (1-5)							
		BBN	CNG	CHN	GGT	KMJ	MTU	NRRI	TTB
501	31258	3		1	3		5		
502	31259	3		3	3		3		
503	CR Dhan 506 (NC)	3		1	1		5		
504	31264	5		3	3		5		
505	31267	5		1	3		1		
506	Zonal Check	5		1	3		1		
507	31270	3		1	1		3		
508	31279	3		1	3		1		
509	29031	5		3	1		5		
510	29026	3		3	3		3		
511	Varshadhan (RP)	3		3	1		3		
512 (LC)	Local Check	5		1	3		3		

(Contd.) Adaptability Parameters of entries in AVT-1-SDW, *Kharif* 2023

Entry No.	IET No.	Grain Shattering Score (1-9)							
		BBN	CNG	CHN	GGT	KMJ	MTU	NRRI	TTB
501	31258	1		5	3	5	3	5	3
502	31259	3		5	3	5	5	5	1
503	CR Dhan 506 (NC)	3		5	3	3	5	5	3
504	31264	5		5	3	5	3	5	3
505	31267	3		5	3	3	5	5	1
506	Zonal Check	1		3	3	5	5	5	5
507	31270	5		3	3	3	5	5	3
508	31279	1		5	3	5	5	5	5
509	29031	5		5	3	3	5	5	3
510	29026	7		3	5	5	7	5	3
511	Varshadhan (RP)	7		5	5	3	3	5	
512(LC)	Local Check	3		5	3	3	5	5	1

(Contd.) Adaptability Parameters of entries in AVT-1-SDW, *Kharif* 2023

Entry No.	IET No.	Phenotypic Acceptability Score (1-9)							
		BBN	CNG	CHN	GGT	KMJ	MTU	NRRI	TTB
501	31258	1		3	3	3	3	3	5
502	31259	5		1	3	3	3	3	3
503	CR Dhan 506 (NC)	5		1	3	1	3	5	3
504	31264	5		1	3	3	3	3	3
505	31267	3		3	5 (very late)	1	3	5	3
506	Zonal Check	3		3	5 (very late)	3	1	5	7
507	31270	5		1	3	1	3	3	3
508	31279	1		1	1	3	1	7	3
509	29031	7		1	3	1	3	3	3
510	29026	7		1	5	3	7	3	3
511	Varshadhan (RP)	5		1	5	1	5	3	
512(LC)	Local Check	3		3	3	1	3	3	3

(Contd.) Adaptability Parameters of entries in AVT-1-SDW, *Kharif* 2023

Entry No.	IET No.	Seedling Survival (%)							
		BBN	CNG	CHN	GGT	KMJ	MTU	NRRI	TTB
501	31258	3	41.96	85	100	100	88.62	94	
502	31259	3	59.41	85	100	100	91.17	92	
503	CR Dhan 506 (NC)	5	97.65	80	97	100	92.32	85	
504	31264	5	49.41	85	100	100	92.37	90	
505	31267	5	19.80	90	99	100	88.47	87	
506	Zonal Check	5	40.39	85	95	100	85.18	86	
507	31270	7	45.10	80	95	100	90.74	90	
508	31279	1	31.57	90	100	100	90.33	75	
509	29031	7	100.00	85	99	100	89.00	91	
510	29026	7	100.00	80	95	100	90.51	92	
511	Varshadhan (RP)	5	100.00	80	95	100	88.25	91	
512(LC)	Local Check	3	100.00	95	100	100	89.94	89	

(Contd.) Adaptability Parameters of entries in AVT-1-SDW, *Kharif* 2023

Entry No.	IET No.	Elongation Ability (Score 1-9)							
		BBN	CNG	CHN	GGT	KMJ	MTU	NRRI	TTB
501	31258	3		3	3		3		
502	31259	3		3	3		3		
503	CR Dhan 506 (NC)	5		1	1		3		
504	31264	5		3	3		5		
505	31267	7		3	3		3		
506	Zonal Check	7		1	3		5		
507	31270	5		3	1		3		
508	31279	3		3	3		3		
509	29031	7		1	1		3		
510	29026	5		1	3		3		
511	Varshadhan (RP)	5		1	1		3		
512(LC)	Local Check	3		3	1		3		

Table No. 5.1: Composition of entries in Advance Variety Trial 1-Semi Deep Water (AVT 1-SDW), *Kharif* 2023

Entry No.	IET No.	Designation	Cross combination	Grain Type
2nd Year of testing:				
501	31258	MTU-1387 (MTU 2244-39-20-4)	MTU 1064/Swarna sub-1//MTU 1064	MS
502	31259	TTB 1272-6	Ranjit/Choilahi/IRGC 1797	MS
503	**CR Dhan 506 (NC)**			
504	31264	OR 2766-1	Savitri / CRLC899	MS
505	31267	MTU-1389 (MTU 2481-14-1-1-1)	Samba sub/MTU 1061// Swarna sub1	MS
506	**Zonal Check** [CR Dhan 510 (Eastern and North Eastern), MTU 1172 (Southern)]			
507	31270	TTB 1048-60-6	IRGC 25239/Ranjit	MS
508	31279	MTU-1388 (MTU 2527-22-1-1-1)	PLA1100/IR85956-23-1-5	LS
NIL entries (2nd year of testing)				
509	29031	CR 2538-42-17-32-3-2	Varshadhan*3/IR49830-7	LB
510	29026	CR 2538-42-17-32-3-3	Varshadhan*3/IR49830-7	LB
511	Varshadhan (RP)			LB
512	**Local Check**			

Table No. 5.2: Grain Yield (Kg/ha) of entries in AVT-1 SDW *Kharif* 2023

Entry No	IET NO	Zone III												Zone III (1)	
		OD				OD (1)		WB (0)				UP (0)			
		CTK@		BBN		mean		CHN@		CNG@		GGT@		mean	
501	31258	4459	1	6089	1*	6089	1*	6578	2	481	10	2605	1	6089	1*
502	31259	4314	2	3835	6	3835	6	6340	4	1454	6	2305	3	3835	6
503	**CR Dhan 506 (NC)**	3421		2900	10	2900	10	5123		2157	5	2250	4	2900	10
504	31264	3906	7	3520	9	3520	9	6285	5	774	8	2141	7	3520	9
505	31267	3768	9	4699	5	4699	5	5344	10	351		1923	9	4699	5
506	**Zonal Check**	3706	10	4712	3	4712	3	5687	7	713	9	1855	10	4712	3
507	31270	4235	3	3535	8	3535	8	6481	3	828	7	2128	8	3535	8
508	31279	3188		5144	2	5144	2	6698	1	416		2182	6	5144	2
509	29031	3978	5	2488		2488		5445	9	2305	3	2209	5	2488	
510	29026	4218	4	2425		2425		5684	8	2178	4	1827		2425	
511	**Varshadhan (RP)**	3934	6	3601	7	3601	7	6151	6	2931	2	1718		3601	7
512	Local Check	3823	8	4703	4	4703	4	5189		3125	1	2455	2	4703	4
Exp. Mean		**3912.42**		**3970.81**		**3970.81**		**5917.11**		**1476.08**		**2133.22**		**3970.81**	
F value		**1.05 (p<0.4406) NS**		**50.69 (p<0.0001) S**		**50.69 (p<0.0001) S**		**1.25 (p<0.3157) NS**		**18.88 (p<0.0001) S**		**31.02 (p<0.0001) S**		**50.69 (p<0.0001) S**	
CD		**1057.43**		**460.79**		**460.79**		**1492.25**		**685.8**		**138.9**		**460.79**	
CV%		15.96		6.85		6.85		14.89		27.44		3.85		6.85	
D/S		19.06.2023		26.06.23				26.06.23		28.06.2023		24-06-2023			
D/P		21.07.2023		04.08.23				05.08.23		01.08.2023		Direct seeded			
Local Check Name		CR DHAN-508		Upahar				Rajdeep (IET 17713)		Amal-mana		NDGR-201			

Table No. 5.2(contd.): Grain Yield (Kg/ha) of entries in AVT-1 SDW *Kharif* 2023

Entry No	IET NO	Zone IV				Zone IV (1)		Zone VII (1)		Overall (3)	
		AS				AS (1)		AP (1)			
		TTB		KMJ@		mean		MTU		mean	
501	31258	3524	10	4918	7	3524	10	7626	1	5746	3
502	31259	3947	8	4598	9	3947	8	6744	8	4842	
503	**CR Dhan 506 (NC)**	7537	1	5682	3	7537	1	7044	7	5827	2
504	31264	2982		4190		2982		5150		3884	
505	31267	3603	9	5062	6	3603	9	7326	5	5209	9
506	**Zonal Check**	6570	4	4469	10	6570	4	7344	4	6209	1
507	31270	3988	7	5798	2	3988	7	7587	2	5037	10
508	31279	3514		4214		3514		7418	3	5359	6
509	29031	6783	2	6036	1	6783	2	6527	10	5266	8
510	29026	6255	5	4902	8	6255	5	7175	6	5285	7
511	**Varshadhan (RP)**	6703	3	5465	4	6703	3	6543	9	5616	4
512	Local Check	5993	6	5100	5	5993	6	5587		5428	5
Exp. Mean		**5116.64**		**5036.06**		**5116.64**		**6839.33**		**5308.93**	
F Value		**43.76 (p<0.0001) S**		**623.58 (p<0.0001) S**		**43.76 (p<0.0001) S**		**5.03 (p<0.0006) S**		**11.40 (p<0.0001) S**	
CD		**731.26**		**71.9**		**731.26**		**1025.97**		**504.84**	
CV%		8.44		0.84		8.44		8.86		5.62	
D/S		05-07-2023		22.07.2023				18.07.2023			
D/P		02-08-2023		21.08.2023				28.08.2023			
Local Check Name		Dhansiri		Ranjit				MTU 1140			

Entry No.	IET No.	Zone III						Zone III (1)	Zone IV		Zone IV(1)	Zone VII(1)	Overall (3)
		OD		OD(1)	WB(0)		UP(0)		AS		AS(1)	AP(1)	
		CTK@	BBN	mean	CHN@	CNG@	GGT@	mean	TTB	KMJ@	mean	MTU	mean
501	31258	140	136	136	128	128	141	136	145	112	145	120	134
502	31259	129	123	123	116	121	124	123	143	114	143	121	129
503	**CR Dhan 506 (NC)**	135	133	133	135	128	139	133	131	110	131	121	128
504	31264	131	123	123	116	125	123	123	138	112	138	123	128
505	31267	141	137	137	129	127	142	137	144	114	144	113	131
506	**Zonal Check**	131	136	136	131	130	144	136	128	110	128	120	128
507	31270	130	123	123	118	118	124	123	129	111	129	123	125
508	31279	140	131	131	126	126	126	131	143	113	143	122	132
509	29031	140	127	127	131	132	127	127	130	109	130	115	124
510	29026	140	133	133	135	124	140	133	131	110	131	115	126
511	**Varshadhan (RP)**	138	133	133	133	130	141	133	133	109	133	117	128
512	Local Check	131	126	126	128	114	109	126	127	109	127	118	124
Exp. Mean		**136**	**130**	**130**	**127**	**125**	**132**	**130**	**135**	**111**	**135**	**119**	**128**

Table No.5.4: Plant Height of Entries in AVT 1-SDW *Kharif* -2023

Entry No	IET No.	Zone III						Zone III(1)	Zone IV		Zone IV(1)	Zone VII(1)	Overall (3)
		OD		OD(1)	WB(0)		UP(0)		AS		AS(1)	AP(1)	
		CTK@	BBN	mean	CHN@	CNG@	GGT@	mean	TTB	KMJ@	mean	MTU	mean
501	31258	120	120	120	119	97	107	120	94	100	94	131	115
502	31259	136	112	112	130	107	131	112	114	127	114	144	123
503	**CR Dhan 506 (NC)**	158	115	115	137	104	125	115	104	100	104	143	121
504	31264	127	110	110	136	99	116	110	123	105	123	133	122
505	31267	119	108	108	114	95	104	108	115	96	115	144	122
506	**Zonal Check**	132	107	107	114	92	121	107	116	100	116	128	117
507	31270	126	122	122	130	106	114	122	126	108	126	160	136
508	31279	125	110	110	117	93	120	110	101	105	101	129	113
509	29031	174	155	155	154	121	140	155	128	136	128	174	152
510	29026	173	145	145	161	111	147	145	144	136	144	143	144
511	**Varshadhan (RP)**	170	150	150	160	116	145	150	144	104	144	154	149
512	Local Check	144	122	122	106	146	118	122	130	104	130	134	129
Exp. Mean		**142**	**123**	**123**	**132**	**107**	**124**	**123**	**120**	**110**	**120**	**143**	**129**

Table No. 5.5: Number of Panicles/m2 of entries in AVT-1 SDW *Kharif* -2023

Entry No	IET No.	Zone III						Zone III(1)	Zone IV		Zone IV(1)	Zone VII(1)	Overall(3)
		OD		OD(1)	WB(0)		UP(0)		AS		AS(1)	AP(1)	
		CTK@	BBN	mean	CHN@	CNG@	GGT@	mean	TTB	KMJ@	mean	MTU	mean
501	31258	313	347	347	352	229	114	347	274	275	274	306	309
502	31259	335	320	320	242	308	104	320	277	271	277	279	292
503	**CR Dhan 506 (NC)**	251	218	218	253	355	98	218	276	288	276	339	278
504	31264	208	304	304	330	257	96	304	279	260	279	299	294
505	31267	227	237	237	440	191	89	237	254	278	254	306	266
506	**Zonal Check**	270	250	250	308	294	93	250	252	263	252	398	300
507	31270	260	403	403	319	294	95	403	268	294	268	309	327
508	31279	289	283	283	275	257	99	283	252	255	252	318	284
509	29031	284	280	280	374	369	101	280	265	299	265	260	268
510	29026	230	217	217	308	331	85	217	290	275	290	286	264
511	**Varshadhan (RP)**	239	293	293	308	359	83	293	277	283	277	283	284
512	Local Check	261	325	325	352	369	107	325	283	272	283	327	312
Exp. Mean		**264**	**290**	**290**	**322**	**301**	**97**	**290**	**271**	**276**	**271**	**309**	**290**

Table No. 5.6: Grain Quality characteristics of entries in AVT-1 SDW, *Kharif*- 2023 conducted at ICAR-NRRI, Cuttack

Entry No.	IET No	Hull %	Mill%	HRR%	Moist%	Chalkiness	KL (mm)	KB (mm)	L/B	GT	ASV	WU ml/100g	VER	ER	KLAC/ mm	Amy %	GC (mm)
501	31258	72	62	58	12.1	VOC	4.2	1.8	2.33	SB	4	120	3.75	2.38	10	24.1	48
502	31259	74	63	57	12.3	VOC	4.6	2.1	2.19	SB	5	130	3.75	1.96	9	23.1	47
503	**CR Dhan 506 (NC)**	71	61	57	12.4	VOC	4.7	2.1	2.24	SB	3	90	3.75	1.70	8	20	52
504	31264	70	64	56	12.5	VOC	4.8	1.8	2.67	MS	4	110	3.75	2.08	10	21.2	52
505	31267	73	63	59	12.6	VOC	4.5	2	2.25	SB	4	130	3.75	2.22	10	22.5	51
506	**Zonal Check**	71	62	55	12.4	VOC	5.1	1.9	2.68	MS	4	120	3.75	2.16	11	23.2	55
507	31270	72	60	56	12.3	VOC	5.2	1.9	2.74	MS	5	90	3.75	1.92	10	21.2	56
508	31279	70	61	58	12.5	VOC	4.8	1.8	2.67	MS	5	100	3.75	1.88	9	24.2	49
509	29031	69	65	57	12.7	VOC	4.8	2.1	2.29	SB	5	120	3.75	1.67	8	23.1	53
510	29026	64	62	54	12.3	VOC	5.1	2.1	2.43	SB	4	120	3.75	1.76	9	21.3	51
511	**Varshadhan (RP)**	67	62	55	12.8	VOC	5.1	1.8	2.83	MS	5	90	4	1.96	10	22.1	52
512	Local Check	71	63	58	12	VOC	4.5	2.1	2.14	SB	4	120	3.75	2.00	9	21.3	51

HULL: Hulling (%); MILL: Milling (%); HRR: Head Rice Recovery (%); KL: Kernel Length(mm); KB: Kernel Breadth(mm); L/B: Length and breadth ratio; Grain Chalk: Grain Chalkiness; VOC: Very occasionally present; A: Absent ASV: Alkali Spreading Value; AC: Amylose Content (%); GC: Gel Consistency; LB: Long Bold; SB:Short Bold; LS: Long Slender; MS: Medium Slender; SS: Short Slender.

INITIAL VARIET Y TRIAL-SEMI DEEP WATER (IVT-SDW)

Locations: 10 **Test Entries: 27**

Checks: **CR Dhan 506 –National check;**

CR Dhan 510(Eastern & North Eastern) and MTU 1172 (Southern) – Zonal check;

Mrunalini (BB), Amal-mana (CNG), Rajdeep (IET 17713) (CHN), NDGR - 201(GGT), Ranjit (KMJ), Karikagga (KMT), MTU 1140 (MTU), NDR9930111(MSD), CR Dhan 508 (CTC), Dhansir (TTB)-Local check

The IVT-SDW trial comprised of twenty-seven entries and three checks, CR Dhan 506 (National Check), CR Dhan 510 (Eastern and North Eastern-Zonal Check), MTU 1172 (Southern-Zonal Check) and local checks. The trial was conducted at ten locations under three different zones. The locations included Bhubaneswar, Canning, Chinsura, Ghagraghat, Masodha and Cuttack in Zone-III, Karimganj, and Titabar in Zone-IV, Kumta and Maruteru in Zone-VII.

Water table data during the crop growth period was not reported from Kumta while the prescribed water table was not maintained at Masodah. Hence, these two locations were not considered for analysis. Details of water depth (cm) maintained at different centers in IVT-SDW, kharif-2023, during the crop growth period is presented in following table. As per the guidelines, water level of 50 cm or more needs to be maintained for at least a month during the crop growth period for fulfilling the criteria of SDW trial.

Details of water regime (cm) at different centers in IVT-SDW, *Kharif*-2023:

Location	Week	June	July	August	September	October	November
Bhubaneswar	1st	-	-	5	20	30	45
	2nd	-	-	5	25	35	45
	3rd	-	-	10	20	40	45
	4th	-	5	10	25	40	50
Canning	1st	-	30.6	40.6	52.3	50	30.2
	2nd	-	34.9	48.1	51.2	45.3	18.5
	3rd	10.5	37.4	45.5	53	40.1	16.4
	4th	25.2	42.5	51.2	46.2	35.2	-
Chinsura	1st	-	-	30	40	60	30
	2nd	-	-	25	55	50	20
	3rd	-	-	35	60	35	15
	4th	-	10	30	60	30	-
Ghaghraghat	1st	-	-	8	65	60	-
	2nd	-	-	27	82	52	-
	3rd	-	-	45	71	20	-
	4th	-	-	56	61	8	-
Karimganj	1st	52	40	42	15	18	12
	2nd	51	36	38	14	16	10
	3rd	50	30	34	13	13	9
	4th	50	28	32	10	12	9
Maruteru	1st	-	-	-	40	60	30
	2nd	-	-	-	40	50	3
	3rd	-	-	-	40	40	40
	4th	-	-	30	60	40	30

Masodha	1st	-	-	25	35	12	-
	2nd	-	-	10	40	10	-
	3rd	-	-	8	25	6	-
	4th	-	-	12	10	-	-
Cuttack	1st	-	-	35	55	55	25
	2nd	-	-	40	60	50	20
	3rd	-	15	45	65	40	15
	4th	-	20	50	55	35	5
Titabar	1st	-	-	24	48	69	30
	2nd	-	-	32	65	62	20
	3rd	-	-	38	61	45	16
	4th	-	15	40	67	53	12
	5th	-	23	41	60	42	10

Data on yield, days to 50% flowering, plant height and no. of panicles/m^2 were received from all the ten test locations. Due to low CV value (<5%) data from Ghagraghat (4.05%) and Karimganj (4.43%), were not included for analysis. Overall, data from six out of ten trial locations were included for analysis and are presented in tables 6.2 to 6.5 Data for adaptability parameters includidng, seedling survival %, elongation ability score, kneeing ability score, grain shattering score and phenotypic acceptability score are presented as follows.

Adaptability Parameters of entries in IVT-SDW, *Kharif*-2023

Entry No.	IET No.	Seedling survival (%)						Elongation Ability (Score 1-9)					
		BBN	CNG	CHN	MTU	CTC	TTB	BBN	CNG	CHN	MTU	CTC	TTB
601	32186	7	15.3	15				7		3			
602	32187	5	66.9	85	92.17	75		7		3	5		
603	32188	5	82.7	85	92.17	69		5		3	7		
604	32189	5	49.2	80	89.72	77		5		5	3		
605	32190	3	98.4	85	88.4	80		5		1	5		
606	32191	5	53.9	90	86.7	76		3		3	7		
607	32192	5	100.0	85	85.38	66		3		1	7		
608	32193	7	90.2	80	90.61	65		3		1	7		
609	32194	7	83.1	90	79.11	92		3		3	3		
610	**CR Dhan 506 (NC)**	5	100.0	85	94.53	79		5		1	5		
611	32195	5	68.6	80	89.21	68		3		3	7		
612	32196	3	61.2	80	94.53	78		7		3	7		
613	32197	1	100.0	85	93.36	71		3		3	7		
614	32198	1	96.1	75	92.37	89		3		3	3		
615	32199	5	83.5	75	94.28	91		5		3	3		
616	32200	5	100.0	80	91.84	89		5		3	7		
617	32201	7	72.9	85	89.8	66		5		3	5		
618	**Zonal Check**	3	100.0	90	90.7	95		3		3	7		
619	32202	3	100.0	85	89.65	79		3		3	3		
620	32203	5	100.0	95	94.38	96		7		1	3		
621	32204	7	100.0	95		90		7		3			
622	32205	5	100.0	85	91.72	77		3		1	7		
623	32206	3	74.1	90	91	78		3		3	7		
624	32207	5	75.7	85	92.62	72		7		3	5		
625	32208	7	82.0	90	91.97	77		7		3	7		
626	32209	3	97.3	85	92.67	82		7		3	7		
627	32210	3	100.0	93	92.61	80		7		3	7		
628	32211	5	100.0	80	91.72	74		3		1	7		
629	32212	5	94.1	20				3		3			
630 (LC)	**Local check**	1	100.0	95	89.56	88		5		3			

(Contd.): Adaptability Parameters of entries in IVT-SDW, *Kharif*-2023

Entry No.	IET No.	Kneeing Ability Score (1-5)						Grain Shattering Score (1-9)						Phenotypic Acceptibility Score (1-9)					
		BBN	CNG	CHN	MTU	CTC	TTB	BBN	CNG	CHN	MTU	CTC	TTB	BBN	CNG	CHN	MTU	CTC	TTB
601	32186	5		1				5		5				7		7			
602	32187	5		1	3			7		5	5			5		3	5	7	
603	32188	5		1	3			5		5	5			5		5	5	7	
604	32189	5		3	3			5		5	3			7		5	5	7	
605	32190	3		3	3			3		5	3			1		1	3	7	
606	32191	5		3	3			3		3	3			5		5	5	7	
607	32192	5		3	5			3		5	5			5		3	7	7	
608	32193	5		3	3			5		5	3			5		1	3	7	
609	32194	5		3	5			7		3	5			7		1	5	3	
610	**CR Dhan 506 (NC)**	3		3	5			5		5	3			7		5	5	7	
611	32195	3		3	5			3		5	3			3		3	7	7	
612	32196	3		3	3			3		5	3			3		3	3	7	
613	32197	3		1	3			1		5	3			1		3	3	7	
614	32198	3		1	1			1		5	3			1		3	3	5	
615	32199	5		5	5			3		3	3			3		5	5	5	
616	32200	3		1	3			3		5	3			7		1	3	5	
617	32201	3		5	3			7		3	3			7		5	5	7	
618	**Zonal Check**	5		3	5			7		5	3			3		3	5	3	
619	32202	5		5	3			3		3	5			3		5	5	7	
620	32203	5		1	3			3		5	3			5		1	5	3	
621	32204	5		1				5		5				3		3		5	
622	32205	3		3	5			3		5	3			5		1	5	7	
623	32206	3		5	5			1		5	3			1		5	5	7	
624	32207	3		3	5			3		7	3			3		5	7	7	
625	32208	5		3	5			3		5	5			3		5	5	7	
626	32209	5		3	3			5		5	3			7		3	5	7	
627	32210	5		3	5			5		5	3			5		3	5	7	
628	32211	5		3	5			7		5	3			5		3	7	7	
629	32212	5		1				7		5				5		3			
630 (LC)	**Local check**	3		1				3		5	3			3		3	3	5	

Performance of test entries on overall basis:

The experimental mean for grain yield was recorded to be 4218.8kg/ha, while the mean grain yield of entries varied from 2159kg/ha (IET 32186) to 5357kg/ha (IET 32203). Plant height of the entries varied from 99cm (IET 32201) to 168cm (IET 32211) with the overall mean plant height of 130cm for the trial. Days to 50% flowering ranged from 95 days in case of IET 32186 to 139 days in case of IET 32204 with overall mean value of 120days. For no. of panicles/m^2, the values ranged from 278 panicles/m^2 (IET 32188) to 475 panicles/m^2 (IET 32212), with the overall mean of 312 panicles/m^2 for the trial. Zonal check was found to be the best performer among the varietal checks, with mean yield of 4955kg/ha, mean plant height of 125cm, 133 days to 50% flowering and 298 panicles/m^2 and hence, considered for comparison of test entries on overall performance basis. Four entries recorded higher yield than the best varietal check (Zonal check mean), however, the performance of none of the entries was found to be significantly superior to the best varietal check (BVC + CD). Therefore, on overall performance basis, none of the entries are promoted to 2nd year testing.

Performance of promising entries in IVT-SDW, *Kharif*-2023:

Sl. No.	Designation/Cross combination	IET No.	GT	ZoneVII(1)		Remarks
				GY(kg/ha)/ FD/PH (cm)	% over BVC	
1	**MTU 1424 (MTU 2433-1-3-1)**	32198	MS	7552 120 132	18.20	Promoted
2	**NDR 2022-10-4**	32196	MB	7549 114 155	18.16	Promoted
3	**CR 2667-4-1-2-2-1**	32193	MS	7492 115 156	17.26	Promoted
CR Dhan 506(NC)			-	5238 115 150	-	-
Zonal Check			-	6389 125 130	-	-
Local check			-	4953 115 118	-	-
CD(0.05)			-	970.36	-	-
BVC+CD(0.05)			-	7,359.36	-	-

Performance of test entries in Zone III:

Data was received from five different locations including Bhubaneswar and Cuttack in Odisha, Chinsura and Canning in West Bengal and Ghagraghat in Uttar Pradesh. Due to low CV (<5%), data from Ghagraghat was not considered for analysis. Mean yield for the zone was recorded as 3664.5kg/ha, mean value for days to 50% flowering was 120days, mean plant height value130cm and the mean value for panicles/m^2 was 320.Yield for the zone ranged from 2159kg/ha (IET 32186) to 5012kg/ha (IET 32203), days to 50% flowering ranged from 95 days (IET 32186) to 134 days(IET 32204), plant height ranged from99cm (IET 32201) to173cm (IET 32211) while panicle/m^2 ranged from 263 (IET 32188) to 475 (IET 32212). Among all the three checks, the zonal check CR Dhan 510, performed as the best varietal check with mean yield of 4534kg/ha, mean height of 126cm, days to 50% flowering as 132days and mean value for panicle/m^2 as 310. Three entries, IET 32197, IET 32198 and IET 32203 performed better than the best varietal check; however, the performance was not significantly superior to the best varietal check, for any of the test entries. Therefore, none of the entries are promoted for 2nd year testing in the zone.

Performance of test entries in Zone IV:

Data was received from two locations, Titabar and Karimganj in Assam. However, CV was lesser than 5% for Karimganj and therefore, the data was not considered for further analysis. Yield for the zone was recorded as 5200.06kg/ha, value for days to 50% flowering was 138days, plant height was 124cm and the value for panicles/m^2 was 254. Yield for the zone ranged from 3603kg/ha (IET 32188) to 6166kg/ha (IET 32194), days to 50% flowering ranged from 126 days (IET 32189) to 158days (IET 32204), plant height ranged from 90cm (IET 32201) to 161cm (IET 32211) while panicle/m^2 ranged from 221 (IET 32204) to 312(IET 3219).National check CR Dhan 506 performed as the best varietal check with mean yield of 5370kg/ha, mean height of 139cm, days to 50% flowering as 142days and mean value for panicle/m^2 as 243. Twelve entries performed better than the best varietal check, however, none of them could perform significantly superior to the best check variety (Performance <BVC+CD). Therefore, noneof the entries are promoted for 2nd year testing in the zone.

Performance of test entries in Zone VII:

Data was received from Kumta and Maruteru. Data from Kumta was not considered for analysis as water level data during crop growth period was not reported and analysis was done based on Maruteru data only. Yield for the zone was recorded as 5902.21kg/ha, value for days to 50% flowering was 111days, mean plant height was 141cm and the mean value for panicles/m^2 was 326. Yield for the zone ranged from 4475kg/ha (IET 32208) to 7552kg/ha (IET 32198), days to 50% flowering ranged from 91 days (IET 32189) to 127days (IET 32218), plant height ranged from 112cm (IET 32201) to 162cm (IET 32200) while panicle/m^2 ranged from 278 (IET 32200) to 389 (IET 32201). The zonal check MTU 1172 was the best varietal check, with mean yield of 6389kg/ha, mean plant height of 130cm, days to 50% flowering as 125days with mean value for panicle/m^2 as 310. However, days to 50% flowering data for local check (MTU 1140) and national check (CR Dhan 506) was considered for promotion of entries.Ten entries performed better than the best varietal check. Performance of three test entries, IET 32198, IET 32196 and IET 32193 was found to be significantly superior over the best varietal check (Performance > BVC+CD). **Therefore, the entries are promoted for 2nd year testing in the zone.**

Characteristic features of the test entries that performed significantly superior over the best varietal check and are promoted for 2nd year testing in the zone are as follows:

IET 32198 (MTU 1424 (MTU 2433-1-3-1)): The entry has been developed from the cross MTU 1061/MTU 1121 and has medium slender grain type. It recorded a plant height of 132cm with 120days to 50% flowering and 324panicles/m^2. The mean yield of the entry is 7552kg/ha and it ranked first in yield in Zone VII, performing significantly superior over the best varietal check (the zonal check MTU1172). The culture recorded 18.20% yield advantage over the best varietal check in the zone. Therefore, the entry is promoted to 2nd year testing under SDW in Zone VII. The entry was ranked second highest in yield in Zone III, however the performance was not significantly higher than the best varietal check CR Dhan 510 (zonal check for Zone III).

IET 32196 (NDR 2022-10-4): The entry has been derived from the cross NDR 8029/Sarjoo 52 and has medium bold grain type. It has recorded a plant height of 155cm with 114days to 50% flowering and 317panicles/m^2. The mean yield of the entry is 7549kg/ha and it ranked second in yield under Zone VII. The performance was significantly superior over the best varietal check (the zonal check MTU1172). The culture recorded 18.16% yield advantage over the best varietal check in the zone. Therefore, the entry is promoted to 2nd year testing under SDW in Zone VII.

IET 32193 (CR 2667-4-1-2-2-1): The entry was developed from the cross Gayatri/AC 38599 and has medium slender type grain. It recorded a plant height of 156cm with 115days to 50% flowering and 317panicles/m^2.The test entry recorded a mean yield of 7492kg/ha and is the third highest performer for yield in Zone VII. The performance was found to be significantly superior over the best varietal check (the zonal check MTU1172) and it recorded an yield advantage of 17.26% over the best varietal check in the zone. The entry is therefore, promoted to 2nd year testing under SDW in Zone VII.

In IVT-SDW, 27 test entries were evaluated, out of which three entries namely IET 32198, IET 32196 and IET 32193 achieved requisite yield superiority based on 5% CD value over the best check and has desirable plant type, hence, promoted to 2nd year of testing under Zone VII.

- Overall mean basis: Nil
- Promoted in zone III: Nil
- Promoted in zone IV: Nil
- Promoted in zone VII: **IETs 32198, 32196 and 32193**.

Table No.6.1: Composition of entries in Initial Variety Trial–Semi Deep Water (IVT-SDW) *Kharif* -2023:

Entry No.	IET No.	Designation	Cross combination	Grain Type
601	32186	RP Bio 4919-NSR 53-1	KMR 3/O.rufipogon WR 120	LS
602	32187	NDR 2022-10-6	NDR 40032/Swarna-Sub 1	MB
603	32188	MTU 1422 (MTU 2481-14-1-1-1)	Samba sub/MTU 1061	MS
604	32189	CRU-BCKV-15(15-Sw/Sa-17-8-5-5)	SwarnaXSashi	MB
605	32190	RGL 7038 (MTU RM428-53-1-1)	MTU 1262/MTU 1075	SS
606	32191	CR 3993-151-5-3	CR 1009/O.brachyantha//CR 1009	SB
607	32192	CN 2164-54-3-1-1	Shatabdi/KMR3	LB
608	32193	CR 2667-4-1-2-2-1	Gayatri/AC 38599	MS
609	32194	TTB 2013-33	IRGC 1972/Ranjit/C105-TTB L-23/Ranjit	SB
610	**CR Dhan 506 (NC)**			
611	32195	CR-2839-1-5-B-1-5-1-B-9-1-1-1-2	Swarna/ FL 496	LS
612	32196	NDR 2022-10-4	NDR 8029/Sarjoo 52	MB
613	32197	OR 2765	Prachi /CN 0139-9	MB
614	32198	MTU 1424 (MTU 2433-1-3-1)	MTU 1061/MTU 1121	MS
615	32199	CR 4378-2-1-1-6	Dandi/EC 491288	SB
616	32200	TTB 2010-56	IRGC 3764/Ranjit*4	LB
617	32201	RP Bio 4918-NPK 24	Swarna/O.nivara	MS
618	**CR Dhan 510 (Eastern & North Eastern) and MTU 1172 (Southern) (ZC)**			
619	32202	CR 4492-3-1-1-1	CR 3856-44-22-2-1-11-5/ Moti Gold	LB
620	32203	MALI-4	BR-23/Swarna sub-1	MS
621	32204	MTU 1423 (MTU 2527-22-1-1-1)	PLA 1100/IR85956-23-1-5	MS
622	32205	CN 2164-21-3-1-1	Shatabdi/KMR3	LB
623	32206	CR 2889-208-11-17	Apo/CR 143-2-2	MS
624	32207	NDR 2022-8-2	NDR 9930111/Sarjoo 52	MB
625	32208	CR 3993-133-15-8	CR 1009/*O.brachyantha*//CR 1009	SB
626	32209	CR-3478-M-11-B-1-2	MTU1010/KORGUT//IR64/FL478///IR-73931-40-1-2-3-2-22-1	MS
627	32210	OR 2606-1	CRMS 31 A / Manika	MS
628	32211	CSRC(D) 12-8-12-1	Pankaj/Najani	LS
629	32212	CR 2667-8-5-3-2-1	Gayatri/AC 38599	MS
630	**Local check: Mrunalini (BB), Amal-mana (CNG), Rajdeep (IET 17713) (CHN), NDGR -201(GGT), Ranjit (KMJ), Karikagga (KMT), MTU 1140 (MTU), NDR9930111(MSD), CR Dhan 508 (CTC), Dhansir (TTB)**			

Table 6.2: Grain Yield (kg/ha) of IVT-SDW *Kharif*-2023

Entry No.	IET No.	Zone III												Zone III(4)		Zone IV				Zone IV(1)		Zone VII(1)		Overall(6)	
		OD				OD(2)		WB				WB(2)		UP(0)				AS				AS(1)		AP(1)			
		CTK		BBN		mean		CHN		CNG		mean		GGT@		mean		TTB		KMJ@		mean		MTU		mean	
601	32186			2569		Chi		3711		197		1954		2593		2159				6463	8					2159	
602	32187	2452		4109		3281		6357	5	1591		3974		2970	8.5	3627		4882		5077		4882		5438		4138	
603	32188	2303		4372		3338		5929		3144		4537		2571		3937		3603		6160		3603		5383		4122	
604	32189	2626		1885		2256		4818		553		2686		2704		2471		6053	2	3980		6053	2	7333	4	3878	
605	32190	3120	9	5105	3	4113	4	5990		3454		4722	9	2505		4417	6	5440	10	6437	10	5440	10	6704	8	4969	4
606	32191	2477		3163		2820		4349		527		2438		2438		2629		5962	3	4120		5962	3	6406	10	3814	
607	32192	2151		3533		2842		4452		3698	8	4075		3169	3.5	3459		5723	5	3543		5723	5	4674		4039	
608	32193	1852		3020		2436		4148		3165		3657		3103	5.5	3046		5381		6527	6	5381		7492	3 *	4176	
609	32194	4005	3	2735		3370		6427	4	3044		4736	8	2571		4053	9	6166	1	5573		6166	1	5955		4722	6
610	**CR Dhan 506 (NC)**	2730		2759		2745		6183	9	3396		4790	6	3169	3.5	3767		5370		5639		5370		5238		4279	
611	32195	2212		4642	7	3427		6102		983		3543		2438		3485		5035		3758		5035		5329		4051	
612	32196	2885		4004		3445		6240	7	1521		3881		2505		3663		4879		5706		4879		7549	2 *	4513	8
613	32197	2204		6003	1 *	4104	5	6120	10	4133	4	5127	3	2460		4615	3	5764	4	6347		5764	4	6748	6	5162	3
614	32198	3673	5	5928	2 *	4801	1	5908		3643	10	4776	7	2749		4788	2	5139		6483	7	5139		7552	1 *	5307	2
615	32199	3765	4	4076		3921	7	5450		843		3147		3059	7	3534		4715		5600		4715		6813	5	4277	
616	32200	3455	7	2189		2822		6046		4164	3	5105	4	3302	1	3964	10	4992		3310		4992		6547	9	4566	7
617	32201	2206		2150		2178		4522		678		2600		2638		2389		4956		5720		4956		5433		3324	
618	**Zonal Check**	4138	2	4882	4	4510	2	6272	6	2843		4558	10	2483		4534	4	5203		5355		5203		6389		4955	5
619	32202	2845		4685	6	3765	10	4479		3674	9	4077		2483		3921		5601	6	6543	4	5601	6	5535		4470	
620	32203	4377	1	4090		4234	3	6744	1	4837	1	5791	1 *	2394		5012	1	5385		6529	5	5385		6710	7	5357	1
621	32204	3512	6	4615	8	4064	6	6684	2	3003		4844	5	2815	10	4454	5	4092		6650	1	4092				4381	
622	32205	2687		3174		2931		4385		4537	2	4461		3103	5.5	3696		4881		6440	9	4881		4739		4067	
623	32206	2866		4866	5	3866	9	4064		873		2469		2970	8.5	3167		5589	7	5962		5589	7	5370		3938	
624	32207	2348		4608	9	3478		4875		1376		3126		2527		3302		5322		4203		5322		5859		4065	
625	32208	2637		4310		3474		6226	8	1600		3913		2593		3693		5456	9	4197		5456	9	4475		4117	
626	32209	2956	10	2670		2813		5852		2308		4080		2638		3447		5485	8	3643		5485	8	5108		4063	
627	32210	2758		3683		3221		6543	3	4029	5	5286	2	3280	2	4253	7	5337		5812		5337		4705		4509	9
628	32211	2318		3131		2725		3823		3741	7	3782		2438		3253		4079		6609	3	4079		4923		3669	
629	32212			3441		3441		3996		1558		2777		2571		2998				5372						2998	
630	**Local check**	3374	8	4423	10	3899	8	5083		3927	6	4505		2505		4202	8	5112		6623	2	5112		4953		4479	10
Exp. Mean		**2890.36**		**3827.36**		**3362.68**		**5392.66**		**2568**		**3980.57**		**2724.84**		**3664.5**		**5200.06**		**5479.42**		**5200.06**		**5902.21**		**4218.8**	
F value		7.46(p<0.0001)S		28.76(p<0.0001)S		17.50(p<0.0001)S		7.63(p<0.0001)S		9.93(p<0.0001)S		7.97(p<0.0001)S		20.52(p<0.0001)S		13.40(p<0.0001)S		3.70(p<0.0001)S		61.66(p<0.0001)S		3.70(p<0.0001)S		8.05(p<0.0001)S		14.73(p<0.0001)S	
CD		**690.88**		**567.52**		**454.58**		**1007.51**		**1188.26**		**888.42**		**180.19**		**514.65**		**860.1**		**397**		**860.1**		**970.36**		**416.72**	
CV%		14.6		9.07		8.27		11.43		27.47		13.44		4.05		8.51		10.1		4.43		10.1		10.03		5.99	
D/S		19.06.2023		26.06.23				26.06.23		22.06.2023				25-06-2023				30-06-2023		30.06.2023				18.07.2023			
D/P		21.07.2023		04.08.23				29.07.23		27.07.2023				Direct Seeded				25-07-2023		30.07.2023				28.08.2023			
Local Check Name		CR DHAN 508		Mrunalini				Rajdeep		Amal-mana				NDGR-201				Dhansiri		Ranjit				MTU 1140			

Table 6.3: Days to 50% Flowering of IVT-SDW *Kharif*-2023

Entry No	IET NO	Zone III							Zone III(4)	Zone IV		Zone IV(1)	Zone VII(1)	Overall(6)
		OD		OD(2)	WB		WB(2)	UP(0)		AS		AS(1)	AP(1)	
		CTK	BBN	mean	CHN	CNG	mean	GGT@	mean	TTB	KMJ@	mean	MTU	mean
601	32186		90	90	90	106	98	87	95		121			95
602	32187	110	109	110	107	112	110	101	110	134	111	134	101	112
603	32188	136	130	133	130	139	135	141	134	155	127	155	127	136
604	32189	105	96	101	90	114	102	87	101	126	113	126	91	104
605	32190	126	126	126	120	120	120	127	123	155	120	155	122	128
606	32191	111	106	109	103	108	106	102	107	128	113	128	98	109
607	32192	126	125	126	128	125	127	126	126	130	115	130	105	123
608	32193	88	130	109	131	118	125	137	117	141	125	141	115	121
609	32194	126	125	126	110	115	113	119	119	145	122	145	124	124
610	**CR Dhan 506 (NC)**	135	131	133	119	128	124	138	128	142	131	142	115	128
611	32195	110	101	106	88	112	100	89	103	127	114	127	101	107
612	32196	109	111	110	106	113	110	101	110	139	115	139	114	115
613	32197	136	132	134	134	120	127	142	131	146	118	146	116	131
614	32198	127	124	126	117	117	117	123	121	147	112	147	120	125
615	32199	105	105	105	101	107	104	99	105	129	125	129	105	109
616	32200	127	131	129	116	119	118	122	123	146	126	146	121	127
617	32201	122	115	119	112	109	111	111	115	139	125	139	104	117
618	**Zonal Check**	133	134	134	136	126	131	142	132	141	120	141	125	133
619	32202	121	109	115	107	119	113	105	114	136	124	136	118	118
620	32203	133	127	130	126	133	130	138	130	137	133	137	107	127
621	32204	141	134	138	128	134	131	131	134	158	122	158		139
622	32205	127	123	125	127	123	125	128	125	135	128	135	105	123

623	32206	110	108	109	103	111	107	102	108	130	124	130	103	111
624	32207	121	104	113	102	120	111	100	112	132	119	132	107	114
625	32208	111	105	108	103	110	107	100	107	129	116	129	106	111
626	32209	110	111	111	103	112	108	99	109	130	113	130	107	112
627	32210	132	127	130	132	134	133	141	131	146	115	146	115	131
628	32211	128	123	126	125	119	122	125	124	130	123	130	108	122
629	32212		132	132	94	116	105	139	114		119			114
630	**Local check**	132	119	126	128	120	124	104	125	134	126	134	115	125
Exp. Mean		**121**	**118**	**119**	**115**	**119**	**117**	**117**	**118**	**138**	**121**	**138**	**111**	**120**

Table 6.4: Plant Height (cm) of IVT-SDW *Kharif*-2023

Entry No	IET NO	Zone III							Zone III(4)	Zone IV		Zone IV(1)	Zone VII(1)	Overall(6)
		OD		OD(2)	WB		WB(2)	UP(0)		AS		AS(1)	AP(1)	
		CTK	BBN	mean	CHN	CNG	mean	GGT@	mean	TTB	KMJ@	mean	MTU	mean
601	32186	.	130	130	125	74	99	123	110	.	141	.	.	110
602	32187	122	97	110	107	114	110	119	110	108	128	108	129	113
603	32188	126	100	113	112	111	112	102	112	108	116	108	118	113
604	32189	133	146	140	106	96	101	132	120	119	128	119	135	122
605	32190	124	102	113	143	130	137	123	125	114	126	114	138	125
606	32191	131	110	121	113	109	111	123	116	119	118	119	129	118
607	32192	153	148	151	171	171	171	145	161	147	167	147	152	157
608	32193	166	110	138	121	136	128	140	133	139	158	139	156	138
609	32194	141	103	122	143	130	137	127	129	122	138	122	156	133
610	**CR Dhan 506 (NC)**	159	110	135	147	136	142	131	138	139	162	139	150	140
611	32195	136	122	129	125	112	118	126	124	124	140	124	140	126
612	32196	120	117	119	114	118	116	130	117	116	141	116	155	123
613	32197	155	120	138	112	127	119	125	128	129	130	129	153	133
614	32198	123	110	117	115	120	118	102	117	105	133	105	132	118
615	32199	125	127	126	125	111	118	139	122	119	119	119	141	125
616	32200	141	125	133	123	131	127	127	130	121	135	121	162	134
617	32201	100	98	99	102	95	98	94	99	90	143	90	112	99
618	**Zonal Check**	128	120	124	135	121	128	109	126	118	103	118	130	125
619	32202	138	124	131	115	148	132	128	131	127	131	127	140	132
620	32203	138	115	127	147	136	142	120	134	134	147	134	148	136
621	32204	121	110	116	112	125	118	123	117	109	146	109	.	115
622	32205	155	142	149	177	170	174	143	161	149	119	149	154	158
623	32206	129	110	120	127	109	118	131	119	123	171	123	151	125
624	32207	135	124	130	111	113	112	128	121	124	133	124	146	126
625	32208	124	119	122	115	123	119	120	120	123	129	123	132	123
626	32209	139	132	136	151	124	138	131	137	124	126	124	140	135

627	32210	137	110	124	142	128	135	115	129	111	132	111	125	126
628	32211	182	149	166	194	168	181	156	173	161	129	161	156	168
629	32212	.	140	140	189	156	173	132	162	.	168	.	.	162
630	**Local check**	128	120	124	106	161	133	124	129	141	127	141	118	129
Exp. Mean		**136**	**120**	**128**	**131**	**127**	**129**	**126**	**128**	**124**	**136**	**124**	**141**	**130**

Table 6.5: No. of Panicles in sqm of IVT-SDW *Kharif*-2023

Entry No.	IET No.	Zone III							Zone III(4)	Zone IV		Zone IV(1)	Zone VII(1)	Overall(6)
		OD		OD(2)	WB		WB(2)	UP(0)		AS		AS(1)	AP(1)	
		CTK	BBN	mean	CHN	CNG	mean	GGT@	mean	TTB	KMJ@	mean	MTU	mean
601	32186		286	286	363	336	350	92	328		264			328
602	32187	260	339	300	352	299	326	125	313	262	266	262	304	303
603	32188	203	247	225	286	317	302	93	263	267	298	267	349	278
604	32189	320	312	316	275	317	296	109	306	247	308	247	306	296
605	32190	285	229	257	374	359	367	105	312	235	240	235	327	302
606	32191	306	301	304	352	317	335	110	319	258	259	258	322	309
607	32192	223	264	244	374	359	367	127	305	312	285	312	321	309
608	32193	299	260	280	407	327	367	125	323	224	276	224	317	306
609	32194	306	215	261	220	373	297	112	279	284	291	284	279	280
610	**CR Dhan 506 (NC)**	258	218	238	528	345	437	119	337	243	290	243	327	320
611	32195	318	316	317	308	322	315	99	316	245	286	245	368	313
612	32196	220	330	275	330	336	333	97	304	281	292	281	317	302
613	32197	285	229	257	407	355	381	105	319	269	289	269	361	318
614	32198	261	340	301	363	359	361	108	331	260	247	260	324	318
615	32199	206	336	271	286	322	304	119	288	234	285	234	291	279
616	32200	322	288	305	440	350	395	125	350	245	299	245	278	321
617	32201	190	322	256	550	313	432	97	344	236	232	236	389	333
618	**Zonal Check**	246	287	267	341	364	353	90	310	241	319	241	310	298
619	32202	212	270	241	385	383	384	103	313	266	330	266	346	310
620	32203	256	210	233	352	341	347	109	290	249	286	249	357	294
621	32204	252	314	283	308	317	313	117	298	221	266	221		282
622	32205	284	294	289	440	350	395	128	342	261	249	261	312	324
623	32206	297	320	309	275	285	280	117	294	254	250	254	312	291
624	32207	263	341	302	352	350	351	114	327	271	272	271	343	320
625	32208	319	324	322	308	280	294	120	308	247	262	247	332	302
626	32209	264	283	274	429	317	373	123	323	279	266	279	375	325
627	32210	298	309	304	396	369	383	89	343	228	261	228	317	320
628	32211	300	273	287	385	378	382	97	334	259	274	259	306	317
629	32212		257	257	693	476	585	90	475		263			475
630	**Local check**	258	236	247	385	373	379	115	313	238	290	238	321	302
Exp. Mean		**268**	**285**	**277**	**375**	**340**	**362**	**109**	**320**	**254**	**276**	**254**	**326**	**312**

INITIALVARIETYTRIAL–DEEPWATER(IVT-DW)

Locations : 4 **Test Entries: 5**

Checks : CR Dhan 500 (National check), CR Dhan 502 (Zonal check) and local check **Table:7.1**

Initial varietal trial for deep water condition (IVT-DW) was constituted with 5 test entries and 3 checks (Trial no. 7). All the 5 test entries were in first year of testing. The trial was sent to 4 locations for evaluation and the data was received from all 4 locations. However, data received from Kumta was rejected as there is mismatch between the number of entries sent and data received. In all the 3 locations, the recommended water level (>75cm for one month) was maintained. The Data of Ghagraghat trial was not considered because of low CV. Hence, the data from two locations only (Cuttack and Chinsurah) were considered for selection of promising entry. The information related to adaptability parameters such as seedling survival (%), submergence tolerance (%), elongation ability score, kneeing ability score, grain shattering score and phenotypic acceptability score were considered to assess the performances.

The data on yield, days to 50% flowering, plant height and number of panicles/m^2 of test entries in initial varietal trial for deep water conducted during kharif 2023 is provided in Tables 7.2-7.5

On overall basis, the experimental mean yield ranged from 3910 kg/ha (IET 32216) to 5136 kg/ha (IET 32214) and days to 50% floweringfrom114 days (IET32214) to 148days (ZC CR Dhan 502) among test entries. The plant height of test entries ranged from 112 cm (IET 32213) to 166cm (ZC, CR Dhan 502) and number of panicles/m^2 ranged from 226 (IET 32216) to 304(IE T32217).

The test entry IET 32217, performed significantly better than the best check in Odisha.But performance of all these entries on the overall basis in Zone III was not promising considering the best varietal check (BVC + CD).

Entries promoted to AVT-1

- Nil

Details of water regime (in cm) at different centre's in IVT -DW, *kharif*-2023

Location	Week	June	July	August	September	October	November
Chinsura	1st			10	40	100	10
	2nd			15	65	60	
	3rd			20	82	40	
	4th		10	30	90	25	
Ghaghraghat	1st			21	90	49	
	2nd			42	101	21	
	3rd			60	81	11	
	4th			76	52	4	
NRRI, Cuttack	1st			30	15	60	40
	2nd			40	50	55	40
	3rd			60	55	50	30
	4th		15	60	60	50	10

Adaptability Parameters of entries in IVT -DW, *Kharif*-2023

Entry No.	IET No.	Seedling Survival (%)		
		CHN	GGT	NRRI
701	32213	90	90	90
702	32214	92	92	85
703	**CR Dhan 500(NC)**	95	92	92
704	32215	97	96	89
705	32216	96	90	89
706	**CR Dhan 502 (ZC)**	97	90	95
707	32217	95	90	88
708(LC)	**Local Check**	96	95	91

Adaptability Parameters of entries in IVT -DW, *Kharif*-2023

Entry No.	IET No.	Elongation Ability (Score 1-9)		
		CHN	GGT	NRRI
701	32213	5	3	5
702	32214	5	3	5
703	**CR Dhan 500(NC)**	3	3	3
704	32215	5	3	5
705	32216	5	3	5
706	**CR Dhan 502 (ZC)**	7	5	3
707	32217	3	3	5
708(LC)	**Local Check**	5	1	5

Adaptability Parameters of entries in IVT -DW, *Kharif*-2023

Entry No.	IET No.	Kneeing Ability Score (1-5)		
		CHN	GGT	NRRI
701	32213	5	3	5
702	32214	3	3	5
703	**CR Dhan 500(NC)**	3	3	5
704	32215	3	3	5
705	32216	3	5	5
706	**CR Dhan 502 (ZC)**	3	5	5
707	32217	3	3	5
708(LC)	**Local Check**	3	3	5

Adaptability Parameters of entries in IVT -DW, *Kharif*-2023

Entry No.	IET No.	Grain Shattering Score (1-9)		
		CHN	GGT	NRRI
701	32213	3	3	5
702	32214	3	3	5
703	**CR Dhan 500(NC)**	3	3	5
704	32215	3	3	7
705	32216	3	3	5
706	**CR Dhan 502 (ZC)**	3		5
707	32217	3	3	5
708(LC)	**Local Check**	3	3	5

Adaptability Parameters of entries in IVT -DW, *Kharif*-2023

Entry No.	IET No.	Phenotypic Acceptability Score (1-9)		
		CHN	GGT	NRRI
701	32213	5	5	5
702	32214	5	3	5
703	**CR Dhan 500(NC)**	3	5	3
704	32215	5	3	5
705	32216	3	5	5
706	**CR Dhan 502 (ZC)**	5	9	5
707	32217	5	3	5
708(LC)	**Local Check**	5	3	5

Trial no. 7.1. Composition of entries in Initial Variety Trial-Deep Water (IVT-DW), *Kharif* 2023

Entry No.	IET No.	Designation	Cross combination	Grain Type
1st year of testing				
701	32213	NDR2022-12-8	NDR 30030/NDR 359	MB
702	32214	CR 3993-15-17-4	CR 1009/*O.brachyantha*//CR 1009	SB
703	**CR Dhan 500(NC)**			
704	32215	NDGR-713	IR 498307 X Gayatri-GHP-4	MS
705	32216	CR 3993-514-14-2	CR 1009/*O.brachyantha*//CR 1009	MS
706	**CR Dhan 502 (ZC)**			
707	32217	CR 3993-133-11-58-3-1	CR 1009/*O.brachyantha*//CR 1009	SB
708	**Local Check**			

TableNo.7.2. GrainYield (Kg/ha) of entries in IVT-DW, *Kharif*2023

Entry No.	IET No.	Zone III						Zone III (2)		Overall (2)	
		OD(1)		WB(1)		UP(0)					
		CTK		CHN		GGT@		mean		mean	
701	32213	4848	2	5365	3	3424	2 *	5107	2	5107	2
702	32214	4620	3	5651	1	2760	7	5136	1	5136	1
703	**CR Dhan 500(NC)**	4545	4	5511	2	2926	6	5028	4	5028	4
704	32215	3707	7	5086	4	3457	1 *	4397	5	4397	5
705	32216	3418	8	4401	6	3224	4	3910	8	3910	8
706	**CR Dhan 502 (ZC)**	3908	5	3922	8			3915	7	3915	7
707	32217	5054	1 *	5013	5	3324	3 *	5034	3	5034	3
708	Local Check	3774	6	4141	7	3125	5	3958	6	3958	6
Exp. Mean		**4234.13**		**4886.09**		**3177.11**		**4560.11**		**4560.11**	
F Value		17.57(p<0.0001)S		3.81(p<0.0080)S		29.95(p<0.0001)S		11.68(p<0.0001)S		11.68(p<0.0001)S	
CD		**424.15**		**983.2**		**140.69**		**493.68**		**493.68**	
CV%		6.81		13.68		2.98		7.36		7.36	
D/S		15-06-2023		26.06.2023		23-06-2023					
D/P		27-07-2023		01.08.2023		Direct seeded					
Local Check Name		CR Dhan 508		SABITA		NDGR 702 (Jal Bhawani)					

TableNo.7.3.Days to 50% flowering of entries in IVT-DW,*Kharif*2023

Entry No.	IET NO	Zone III			Zone III (2)	Overall (2)
		OD(1)	WB(1)	UP(0)		
		CTK	CHN	GGT@	mean	mean
701	32213	124	130	124	127	127
702	32214	116	111	98	114	114
703	CR Dhan 500(NC)	135	124	126	130	130
704	32215	129	123	101	126	126
705	32216	113	116	88	115	115
706	CR Dhan 502 (ZC)	164	132		148	148
707	32217	115	121	97	118	118
708	Local Check	144	125	110	135	135
Exp. Mean		130	123	106	126	126

TableNo.7.4:Plant height of entries in IVT-DW, *Kharif* 2023

Entry No.	IET NO	Zone III			Zone III (2)	Overall (2)
		OD(1)	WB(1)	UP(0)		
		CTK	CHN	GGT@	mean	mean
701	32213	118	106	125	112	112
702	32214	132	106	130	119	119
703	CR Dhan 500(NC)	161	146	151	154	154
704	32215	137	111	133	124	124
705	32216	150	139	148	145	145
706	CR Dhan 502 (ZC)	177	156	.	166	166
707	32217	127	109	128	118	118
708	Local Check	151	141	133	146	146
Exp. Mean		144	127	135	136	136

TableNo.7.5: No. of Panicles/m^{2}ofentriesinIVT-DW,*Kharif*2023

Entry No.	IET No.	Zone III			Zone III (2)	Overall (2)
		OD(1)	WB(1)	UP(0)		
		CTK	CHN	GGT@	mean	mean
701	32213	339	256	139	298	298
702	32214	310	223	132	267	267
703	CR Dhan 500(NC)	309	256	134	283	283
704	32215	261	297	137	279	279
705	32216	203	248	136	226	226
706	CR Dhan 502 (ZC)	304	215		260	260
707	32217	352	256	135	304	304
708	Local Check	277	215	134	246	246
Exp. Mean		294	245	135	270	270

INITIAL VARIETY TRIAL- DIRECT SEEDED RAINFED SHALLOW LOWLAND (IVT –RSL DS)

Locations: 04 **Entries: 19**
Checks: NC 1: Swarna sub-1
ZC: Pooja (Eastern), Bahadur (North Eastern), Savitri (Southern)and Local checks

The Initial Variety Pilot Trial- Direct seeded Rainfed Shallow Lowland (IVT –RSL-DSR)was constituted for the first time during 58th ARGM in 2023, with the objective of identifying entries suitable for direct seeded rice in lowlands in general and Rainfed Shallow lowland in particular. Direct Seeded Rice (DSR) solves several potential problems of modern agriculture. It reduces water use by avoiding the need for continuous flooding, and thereby conserving this valuable resource. Moreover, manual labour savings are also substantial since DS eradicates the labour-intensive transplanting of seedlings.

The trial consisted of nineteen entries including five checks (three different checks in three zones). Swarna Sub1was used as National check, whereas Pooja, Bahadur and Savitri were used as zonal checks in eastern, north eastern and Southern zones, respectively. Remaining sixteen entries were new nominations. The trial was sent to five locations: four in zone III and one in Zone IV. All the five locations conducted the trial. However, thedata were accepted from fourcentres, viz., Cuttack, Jeypore, Masoda and Titabar.The trial was not accepted by the monitoring team in Chinsura. The CV of the experiments ranged from 6.27 (Cuttack) to 15.34 (Jeypore). Experimental mean varied from 3183kg/ha at Jeypore to 3971 kg/ha at Titabar. Overall mean yield of the entries varied from 2137 kg/ha (IET 32232) to 4783 kg/ha (IET 32223), Days to 50% flowering varies from 94 days (IET 32228) to 113 days (Swarna sub 1(NC). Plant height varies from 85.47 cm (Swarna sub 1(NC) to 114.80 (IET 32220) and no of panicles varies from 258 (IET 32225) to 311 (IET 32221).

Performance of the entries in IVT –RSL-DSR, *Kharif* 2023 in Overall basis and Zone-III

IET No./Designation/ Cross combination	GY/ FD/ GT	Yield adv. (%) over NC/ZC/LC of Sig. Sup. entries	Superior to check	Increase over the best check	
				State	
			3 checks	Rank/Yield	% BC, HC
Overall					
IET 32223	**4783** **106** **LB**	37.52 49.33 14.89	LC	OD-1	14.89
Zone-III					
IET 32223	5259 112 LB	82.28 86.68 19.95	LC	OD-1	19.95

NC-National check, ZC- Zonal check, LC-Local check, HC-Hybrid check, GY: Grain yield (Kg/ha), FD: Days to 50% flowering, GT: Grain type

On overall basis as well as in Zone III only one entry qualified for promotion as per the table 8.1. IET 32223 derived from the cross of Lalat/IR 36 with 5259 kg/ha mean yield, 112 days to 50% flowering and long bold grains was found to be significantly superior with 82.28, 86.68 and 19.95% % yield advantage over the National, Zonal and local checks, respectively. It yielded 6070 kg/ha at Jeypore and ranked first in Odisha with 19.95% yield

advantage over the best check, i.e., local check. No other entry could record superior performance compared to best check.

In Zone IV none of the entries could perform superior statistically in comparison to best checks.

Overally, IET 32223 was the only entry found promising.

Table No.8.1: Composition of entries in Initial Variety Pilot Trial–Direct seeded Rainfed Shallow Lowland (IVT –RSL-DSR), *Kharif* 2023

Entry No.	IET No.	Designation	Cross combination	Grain Type
1st year of testing				
801	32218	CR 3564-4-2-1-1-2	Vijetha / N 22	MB
802	32219	Rewa 11-67		LS
803	32220	BD 31	BPT5204 X Doddiga	Med
804	32221	CR 4354-3-1-1-1-1	CR 3549-11-2-1-1-1/CR3511-3-4-1-1-1-1	MB
805	32222	NDR 2023-BARC-7	Mutant line of BARC	LS
806	**Swarna Sub 1 (NC)**			
807	32223	CR 3494-1-2-1-2-1-1-3	Lalat /IR 36	LB
808	32224	NDR 2023-2-4	NDR 8002/ NDR 9730018/ /NDR 9830144	LS
809	32225	CR 3993-514-2-L-2-18-2	CR 1009/O.brachyantha//CR 1009	MS
810	32226	AAU-TTB-Dhan-32	APMS 6B/Piolee	MS
811	32227	CR 4357-1-1-1-1-1-1	CR 3522-1-2-1-1-1-1-1-2/ CR 3497-7-1-3-2-2-1	MS
812	32228	JNPT 581-64	MTU 1010 X NPT 13-01 X IR 64	MS
813	**Pooja (Eastern), Bahadur (North Eastern), Savitri (Southern)-- ZC**			
814	32229	CR 3549-1-3-1-1-1-1	ADT 43/Annapurna	MB
815	32230	SRS 09 BA-14	BPT 5204/A-67	SB
816	32231	CR 4486-1-13-1-1	CR3494-2-1-1-1-1-1/ CR 3522-1-2-1-1-1	LB
817	32232	Rewa 3-3-1		LS
818	32233	CR 2906-253-56-L-11-3	IR 20/Dandi	MS
819	**Local Check**			

Table No.8.2 : Grain Yield (kg/ha) of IVT-RSL DS *Kharif*-2023

Entry No	IET No	Zone III								Zone III(2)		Zone IV			Overall (3)
		OD				OD(2)		UP(0)				AS(1)			
		CTK		JYP		mean		MSD@		mean		TTB			mean
801	32218	4367	5	4176	5	4272	5	3876	6	4272	5	3537		4027	6
802	32219	2508		1899		2204		3219		2204		3830		2746	
803	32220	3001		2612		2807		3604	9	2807		3467		3027	
804	32221	3182		3670	7	3426	8	4222	5	3426	8	4274	6	3709	8
805	32222	3449	9	1628		2539		3405		2539		2364		2480	
806	**Swarna Sub 1 (NC)**	3948	8	1821		2885		4229	4	2885		4666	3	3478	
807	32223	4448	2	6070	1 *	5259	1 *	4369	3	5259	1 *	3831		4783	1 *
808	32224	3293		1638		2466		2400		2466		4725	2	3219	
809	32225	3386		3101		3244		4382	2	3244				3244	
810	32226	4393	4	2379		3386	10	3817	7	3386	10	4043	9	3605	
811	32227	3409	10	3393	9	3401	9	4429	1	3401	9	4303	5	3702	9
812	32228	4566	1	4358	4	4462	3	3338		4462	3	4124	8	4349	2
813	**Zonal Check**	3336		2298		2817		2400		2817		3974	10	3203	
814	32229	3374		3993	6	3684	7	2347		3684	7	4607	4	3991	7
815	32230	4282	6	4878	2	4580	2	3305		4580	2	3051		4070	5
816	32231	3102		3628	8	3365		3591	10	3365		4199	7	3643	10
817	32232	3209		1064		2137		1736		2137				2137	
818	32233	4428	3	3140	10	3784	6	2474		3784	6	4789	1	4119	4
819	**Local Check**	4034	7	4734	3	4384	4	3784	8	4384	4	3722		4163	3
Exp. Mean		**3668.89**		**3183.26**		**3426.42**		**3416.92**		**3426.42**		**3970.94**			**3562.89**
F Value		14.02(p<0.0001)S		22.14(p<0.0001)S		11.25(p<0.0001)S		63.38(p<0.0001)S				9.20(p<0.0001)S			13.93(p<0.0001)S
CD		**483.53**		**808.67**		**860.83**		**301.22**		**860.83**		**599.92**			**563.62**
CV%		6.27		15.34		15.59		4.2		15.59		9.08			9.64
D/S		10.06.2023		22.07.23				15.07.2023				29.07.2023			
Local Check name		CR Dhan 412		Hasanta				IR 64-Sub 1				Numali			

Table No. 8.3 : Days to 50% Flowering of IVT-RSL DS *Kharif*-2023

Entry No	IET No	Zone III				ZoneIII(2)	Zone IV	Overall(3)
		OD		OD(2)	UP(0)		AS(1)	
		CTK	JYP	mean	MSD@	mean	TTB	mean
801	32218	114	117	116	102	116	105	112
802	32219	98	97	98	98	98	96	97
803	32220	111	112	112	90	112	99	107
804	32221	107	112	110	80	110	96	105
805	32222	89	107	98	78	98	97	98
806	**Swarna Sub 1 (NC)**	114	123	119	90	119	103	113
807	32223	106	117	112	82	112	95	106
808	32224	112	105	109	102	109	93	103
809	32225	129	136	133	82	133		133
810	32226	101	115	108	76	108	98	105
811	32227	102	122	112	82	112	101	108
812	32228	93	116	105	83	105	73	94
813	**Zonal Check**	105	114	110	94	110	105	108
814	32229	93	115	104	88	104	93	100
815	32230	114	116	115	79	115	95	108
816	32231	98	110	104	83	104	95	101
817	32232	104	104	104	91	104		104
818	32233	113	118	116	92	116	97	109
819	**Local Check**	126	122	124	86	124	104	117
Exp. Mean		**107**	**115**	**112**	**87**	**112**	**97**	**107**

Table No.8.4 : Plant Height(cm) of IVT-RSL DS *Kharif*-2023

Entry No.	IET No.	Zone III				Zone III(2)	Zone IV(1)	Overall(3)
		OD		OD(2)	UP(0)		AS(1)	
		CTK	JYP	mean	MSD@	mean	TTB	mean
801	32218	107.00	79.07	93.03	86.00	93.03	80.33	88.80
802	32219	111.00	81.93	96.47	79.00	96.47	83.83	92.26
803	32220	115.00	107.93	111.47	81.00	111.47	121.47	114.80
804	32221	109.00	85.73	97.37	84.00	97.37	83.07	92.60
805	32222	112.00	87.20	99.60	75.00	99.60	81.93	93.71
806	**Swarna Sub 1 (NC)**	117.00	64.40	90.70	81.00	90.70	75.00	85.47
807	32223	114.00	88.53	101.27	76.00	101.27	96.47	99.67
808	32224	105.00	92.13	98.57	87.00	98.57	129.13	108.76
809	32225	101.00	104.40	102.70	76.00	102.70		102.70
810	32226	109.00	76.13	92.57	81.00	92.57	86.13	90.42
811	32227	113.00	93.67	103.33	103.00	103.33	85.60	97.42
812	32228	110.00	95.93	102.97	82.00	102.97	99.00	101.64
813	**Zonal Check**	107.00	77.47	92.23	96.00	92.23	90.13	91.53
814	32229	103.00	78.27	90.63	99.00	90.63	89.60	90.29
815	32230	112.00	110.53	111.27	78.00	111.27	85.67	102.73
816	32231	109.00	78.40	93.70	81.00	93.70	101.87	96.42
817	32232	113.00	68.07	90.53	92.00	90.53		90.53
818	32233	110.00	94.13	102.07	84.00	102.07	96.87	100.33
819	**Local Check**	106.00	88.87	97.43	78.00	97.43	88.53	94.47
Exp. Mean		**110**	**87**	**98**	**84**	**98**	**93**	**97**

Table No.8.5 : No. of Panicles in sqm of IVT-RSL DS *Kharif*-2023

Entry No.	IET No.	Zone III				Zone III (2)	Zone IV(1)	Overall(3)
				OD(2)	UP(0)		AS(1)	
		CTK	JYP	mean	MSD@	mean	TTB	mean
801	32218	263	345	304	224	304	257	288
802	32219	268	262	265	204	265	292	274
803	32220	282	299	291	222	291	259	280
804	32221	265	400	333	237	333	268	311
805	32222	276	286	281	206	281	276	279
806	**Swarna Sub 1 (NC)**	250	354	302	235	302	276	293
807	32223	255	317	286	230	286	272	281
808	32224	273	250	262	199	262	293	272
809	32225	259	257	258	237	258		258
810	32226	257	346	302	228	302	255	286
811	32227	273	326	300	213	300	245	281
812	32228	265	295	280	212	280	257	272
813	**Zonal Check**	274	348	311	188	311	290	304
814	32229	273	429	351	202	351	279	327
815	32230	280	360	320	222	320	272	304
816	32231	270	230	250	239	250	282	261
817	32232	248	279	264	154	264		264
818	32233	255	355	305	204	305	272	294
819	**Local Check**	261	277	269	222	269	283	274
Exp. Mean		**266**	**317**	**291.26**	**214**	**291.26**	**272**	**284.37**

ADVANCE VARIETY TRIAL 1- NIL (SUBMERGENCE)

(AVT 1-NIL SUB)

Locations : 07 **Test Entries: 24**

Entries : NILs: 15; RPs: 08; Sensitive Check: 01

Checks/ Recurrent/ Donor Parents : Sarala, Gayatri, ADT 39, Varshadhan, Rajendra Sweta, Improved Samba Mahsuri, Sabour Shree, Swarna sub1 (RP); Swarna (Sensitive Check)

This trial includes 15 NILs along with their respective recurrent parents (8). The IETs 29031 and 29026 were sister lines from the cross Varshadhan*3/IR 49830-7 and were in the fourth year of testing as repeat entries. The NILs IET 30410 from the cross Sarala * 3 /IR 49830-7 and IET 30409 from the cross Gayatri*3/IR49830-7 were in third year of testing. The entries IETs 30697 and 30695 from the cross ADT 39*4/ Swarna Sub-1 were in second year of testing. The NILs derived from Rajendra Sweta (IETs 32125 and 32126), Improved Samba Mahsuri (IETs 32059, 32058 and 32061), Sabour Shree (IETs 32121 and 32122) and Swarna Sub 1 (IETs 32124 and 32123) were in the first year of testing. The data pertaining to yield, days to 50% flowering, plant height, panicles/m^2 are presented in Tables 63.2 to 63.5.

Yield performance of entries under normal condition:

The entries of AVT1-NIL-Submergence were tested for their yield performance under normal condition in the trials of their respective ecologies of the states for which the recurrent parents were gazette notified.

Trait verification:

The trial was sent to seven locations. The trial conducted at Cuttack was rejected by the monitoring team, whereas data from Kumta was not considered in the analysis as there is mismatch between the number of entries sent and data received. The data from Maruteru was not considered due to very high percentage of seedling survival of the sensitive check (Swarna), which indicates that submergence stress was not adequate. The data from Sabour and Masodha were not considered as CV% was not within the acceptable limits (5-30%). Hence, data from Bikramganj and Karaikal centers were considered for analysis.

Based on mean yield under submergence stress condition, the NIL IET 30409 performed significantly better than their recurrent parent Gayatri. All the two NILs of ADT 39 (IETs 30697 and 30695), Varshadhan (IETs 29031 and 29026) and Sabour Shree (IETs 32121 and 32122) were also found to be significantly superior to their respective recurrent parents, ADT 39, Varshadhan and Sabour Shree with respect to yield under submergence stress condition. The NIL derived from Improved Samba Mahsuri (IET 32061) was also found significantly superior to the recurrent parent for grain yield.

The NILs derived from Sarala (IET 30410), Rajendra Sweta (IETs 32125, 32126), Improved Samba Mahsuri (IET 32058) and Swarna sub 1 (IETs 32124 and 32123) performed at par with recurrent parent for yield under submergence. As IET 32124 and IET 32123 were Swarna sub1 NILs introgressed with herbicide tolerance gene, the purpose of testing these two

genotypes were to check the effect of Sub1 gene only. In this context, both these entries were found superior to Swarna and were at per with Swarna Sub 1.

The NIL derived from Improved Samba Mahsuri (IET 32059) did not germinated in any of the centres except Masodha.

With respect to mean seedling survival percentage under submergence stress, all the tested NILs derived from Sarala, Gayatri, ADT 39, Varshadhan, Rajendra Sweta, Improved Samba Mahsuri and Sabour Shree, performed better than their respective recurrent parents. The NILs derived from Swarna Sub 1 (IET 32124 and 32123) were found significantly superior than sensitive check (Swarna) for seedling survival percentage and at par with the recurrent parent, Swarna Sub 1 (resistant check).

Grain yield (Kg/ha) of NIL entries in AVT-1 NIL- SUB along with their recurrent parents under submergence stress condition, *kharif*, 2023

IET No.	BKG	SBR@	MSD@	MTU@	KRK	Mean
30410 (Sarala-NIL)	4531	-	5483	4012	1582	3057
Sarala (RP)	**3041**	**717**	**4596**	**-**	**2042**	**2542**
30409 (Gayatri -NIL)	4466	201	5344	5401	4213	4340*
Gayatri (RP)	**1264**	**-**	**5366**	**3627**	**1680**	**1472**
30697 (ADT 39 -NIL)	4338	2438	4174	5941	4573	4456*
30695 (ADT 39 -NIL)	5678	1752	4575	5208	4262	4970*
ADT 39 (RP)	**2604**	**176**	**5821**	**-**	**1930**	**2267**
29031 (Varshadhan -NIL)	4595	697	4967	5941	3942	4269*
29026 (Varshadhan -NIL)	4655	1075	5529	5517	3392	4024*
Varshadhan (RP)	**3135**	**104**	**4853**	**5737**	**1428**	**2282**
32125 (Rajendra Sweta -NIL)	3286	1282	4372	4321	3808	3547
32126 (Rajendra Sweta -NIL)	3021	1501	5278	5926	3542	3282
Rajendra Sweta (RP)	**3280**	**139**	**5257**	**4398**	**3300**	**3290**
32059 (Improved Samba Mahsuri -NIL)	-	-	5417	-	-	-
32058 (Improved Samba Mahsuri -NIL)	4354	1366	5813	4514	1250	2802
32061(Improved Samba Mahsuri -NIL)	4225	836	5540	4938	3492	3859*
Improved Samba Mahsuri (RP)	**3097**	**247**	**5819**	**-**	**1487**	**2292**
32121 (Sabour Shree -NIL)	4482	908	5322	3665	4150	4316*
32122 (Sabour Shree -NIL)	4508	870	5559	5841	3125	3817*
Sabour Shree (RP)	**4943**	**92**	**6080**	**3549**	**1367**	**3155**
32124 (Swarna sub-1 -NIL)	5175	1544	5955	3742	3942	4559
32123 (Swarna sub-1 -NIL)	5680	1533	4211	5131	3550	4615
Swarna sub-1 (RP)	**5736**	**1900**	**4894**	**5779**	**3850**	**4793**
Swarna (Sensitive check)	2519	64	-	3588	1082	1801
Exp. Mean	**3858.89**	**856.79**	**5227.16**	**4207.8**	**2912.46**	**3325**
CD	**1038.91**	**697.9**	**280.72**	**881.05**	**679.78**	**626.83**

*Significantly ($p<0.05$) superior over the recurrent parent

@Not considered for analysis due to high seedling survival under submergence stress or un acceptable CV%

Seedling Survival percentage of NIL entries in AVT-1 NIL- SUB over their recurrent parents under submergence stress condition, *kharif*, 2023

Recurrent Parent	NIL-IET No.	NIL-Seedling Survival (%)						RP-Seedling Survival (%)						% over recurrent parent	% over susceptible check
		BKG	KRK	MTU@	MSD@	SBR	Mean	BKG	KRK	MTU@	MSD@	SBR	Mean		
Sarala	30410	61	49.45	67.2	86	-	**55.23**	34	45.47	-	81	-	**39.74**	38.98	73.88
Gayatri	30409	72	77.41	65.2	85	-	**74.71**	52	49.18	55.6	89	-	**50.59**	47.67	135.22
ADT 39	30697	55	90.67	60.2	81	100	**72.84**	28	40.51	-	85	-	**34.26**	112.63	129.33
	30695	86	89.15	58.6	84	100	**87.58**	28	40.51	-	85	-		155.66	175.74
Varshadhan	29031	84	82.3	64.5	81	100	**83.15**	44	53.96	72.5	78	17	**48.98**	69.76	161.81
	29026	74	87.98	70.5	86	75	**80.99**	44	53.96	72.5	78	17		65.35	155.01
Rajendra Sweta	32125	68	84.29	58.2	77	90	**76.15**	42	84.46	54.3	82	20	**63.23**	20.43	139.75
	32126	78	82.15	75	91	70	**80.08**	42	84.46	54.3	82	20		26.64	152.13
Improved Samba Mahsuri	32059	-	-	-	81	-	**-**	52	45.72	-	89	50	**48.86**	-	-
	32058	82	49.01	60.33	84	85	**65.51**	52	45.72	-	89	50		34.07	106.25
	32061	85	88.6	65.23	86	60	**86.80**	52	45.72	-	89	50		77.65	173.30
Sabour Shree	32121	88	83.91	53.2	82	75	**85.96**	58	51.08	50	86	15	**54.54**	57.60	170.64
	32122	82	83.85	62.33	84	100	**82.93**	58	51.08	50	86	15		52.04	161.10
Swarna sub-1	32124	88	87.9	56.5	92	100	**87.95**	90	79.9	64.5	79	100	**84.95**	3.53	176.92*
	32123	82	84.58	60	79	100	**83.29**	90	79.9	64.5	79	100		-1.95	162.25**
Swarna (Sensitive check)		**28**	**35.52**	**55.23**	**-**	**30**	**31.76**	**28**	**35.52**	**55.23**	**-**	**30**	**31.76**		

* & ** The % superiority over recurrent parent and % superiority over susceptible check should be same in case of IET 32124 and IET 32123 as the recurrent parent should be considered as Swarna in these cases.

Overall performance of NILs those are in the second year of testing in AVT 1-NIL-Sub

IET No./ Designation/Cross combination of NIL	Grain Yield under submergence condition																							
	2020						2021						2022						2023					
	CTK		MTU		MEAN		CTK		MTU		MEAN		CTK		KRK		MEAN		BKG		KRK		MEAN	
	NIL	RP	NIL	RP	NIL	RP	NIL	RP	NIL	RP	NIL	RP	NIL	RP	NIL	RP	NIL	RP	NIL	RP	NIL	RP	NIL	RP
IET 30410(CR2532-9-21-35-3) Sarala*3/IR49830-7							3460	1789	6957	7267	5209*	4528	3121	2632	2306	2347	2713	2489	4531	3041	1582	2042	3057	2542
IET 30409(CR2531-72-6-19-3) Gayatri*3/IR49830-7							4233	1229	7000	7737	5617*	4483	2252	2892	3264	2389	2758	2640	4466	1264	4213	1680	4340*	1472
IET 30697 (KR 19011) ADT 39*4/Swarna sub-1													2402	3022	4097*	2403	3249*	2713	4338	2604	4573	1930	4456*	2267
IET 30695 (KR19015) ADT 39*3/Swarna sub-1													2438	3022	4264*	2403	3351*	2713	5678	2604	4262	1930	4970*	2267
IET 29031(CR 2538-42-17-32-3-2) Varshadhan*3/IR49830-7	3409	252	3198	3198	3304*	1725	4635	1137	8557	6807	6596*	3972	4049	2508	3139	2403	3594*	2455	4595	3135	3942	1428	4269*	2282
IET 29026(CR2538-42-17-32-3-3) Varshadhan*3/IR49830-7	3259	252	4427	3198	3843*	1725	3827	1137	8023	6807	5925*	3972	3192	2508	3819	2403	3506*	2455	4655	3135	3392	1428	4024*	2282
Exp.Mean	**1781.67**		**3462.6**		**2622.13**		**2804.02**		**6369.56**		**4586.79**		**2704.6**		**3136**		**2920.3**		**3858.89**		**2912.46**		**3325**	
CD	**429.96**		**481.62**		**322.41**		**1022.33**		**1027.31**		**610.76**		**754.83**		**504**		**443.74**		**1038.91**		**679.78**		**626.83**	

*Significantly ($p<0.05$) superior over the recurrent parent

Summary of two years performance of entries found promising in AVT-1 NIL-Submergence

The NIL derived from Sarala (IET 30410) performed significantly better for grain yield than the recurrent parent in 2021. The yield was higher than recurrent parent in 2022 and 2023, but not significant superior, thus at par with recurrent parent for yield. The seedling survival percentage under submergence was better than its recurrent parent in all the three years, 2021 (10.52%), 2022 (20.20%) and 2023 (38.99%).

The NIL derived from Gayatri (IET 30409) performed significantly better than the recurrent parent in 2021 and 2023. In 2022, it recorded better yield performance than recurrent parent, but not significant superior, thus at par with the recurrent parent for yield. It performed better than its recurrent parent Gayatri with regard to seedling survival percentage under submergence condition in 2021 (56.16%), 2022 (53.97%) and 2023 (47.67%).

The NILs derived from ADT 39 (IET 30697 and IET 30695) were in the second year of testing in 2023 and they performed significantly better than the recurrent parent with regard to yield and seedling survival under submergence stress over the years. IET 30697 (KR 19011) derived from the cross ADT 39*4/Swarna sub-1 performed significantly better than the recurrent parent ADT 39 in 2022 and 2023 with respect to yield under submergence stress. The seedling survival percentage under submergence condition was higher than its recurrent parent in 2022 (60.80%) and 2023 (112.63%). IET 30695 (KR19015) derived from the cross ADT 39*3/Swarna sub-1 performed significantly better than the recurrent parent ADT 39 in 2022 and 2023 with respect to yield under submergence stress. The seedling survival percentage under submergence condition was higher than its recurrent parent in 2022 (62.50%) and 2023 (155.66%).

IET 29031(CR 2538-42-17-32-3-2) and IET 29026 (CR 2538-42-17-32-3-3) derived from the cross Varshadhan*3/IR 49830-7 were in the fourth year of testing in 2023. All the two NILs derived from Varshadhan performed significantly better than the recurrent parent with regard to yield and seedling survival under submergence stress over the years.

IET 29031 performed significantly better than the recurrent parent Varshadhan in all the four years (2020, 2021, 2022 and 2023) with respect to yield under submergence stress. It also performed better than its recurrent parent Varshadhan with regard to seedling survival percentage under submergence condition in 2020 (6.14%), 2021 (56.14%), 2022 (54.95%) and 2023 (69.76%).

IET 29026 also performed significantly better than the recurrent parent Varshadhan in all the four years (2020, 2021, 2022 and 2023) with respect to yield under submergence stress. It also performed better than its recurrent parent Varshadhan with regard to seedling survival percentage under submergence condition in 2020(2.82%), 2021(53.43%), 2022 (54.95%) and 2023 (65.35%).

Thus the NILs derived from Sarala, Gayatri, ADT 39 and Varshdhan were found promising and submergence trait is verified.

Overall performance in seedling survival percentage of NILs those are in the second year of testing in AVT 1-NIL-Sub

IET No./ Designation/ Cross combination	Year	Seedling Survival (%) under submergence condition		
		RP survival	NIL survival	% over RP
IET 30410 (CR 2532-9-21-35-3) Sarala*3/IR49830-7	2023	BKG 34 KRK 45.47 Overall 39.74	BKG 61 KRK 49.45 Overall 55.23	BKG 79.41 KRK 8.75 Overall 38.98
	2022	CTK 58 KRK 50.61 Overall 54.3	CTK 72 KRK 58.54 Overall 65.27	CTK 39.62 KRK 67.98 Overall 53.97
	2021	CTK 30 MTU 87.8 Overall 58.9	CTK 45 MTU85.2 Overall 65.1	CTK 50.0 MTU-2.98 Overall 10.52
IET 30409 (CR2531-72-6-19-3) Gayatri*3/IR49830-7	2023	BKG 52 KRK 49.18 Overall 50.59	BKG 72 KRK 77.41 Overall 74.71	BKG 38.46 KRK 57.40 Overall 47.67
	2022	CTK 53 KRK 54.28 Overall 53.64	CTK 74 KRK9 1.18 Overall 82.59	CTK 39.62 KRK 67.98 Overall 53.97
	2021	CTK 33 MTU 70.8 Overall 51.9	CTK 92 MTU 68.1 Overall 80.05	CTK 178.78 MTU-3.81 Overall 56.16
IET 30697 (KR 19011) ADT 39*4/Swarna sub-1	2023	BKG 28 KRK 40.51 Overall 34.26	BKG 55 KRK 90.67 Overall 72.84	BKG 96.43 KRK 123.82 Overall 129.33
	2022	CTK 44 KRK 51.26 Overall 47.63	CTK 59 KRK 94.18 Overall 76.59	CTK 34.09 KRK 83.73 Overall 60.80
IET 30695 (KR19015) ADT 39*3/Swarna sub-1	2023	BKG 28 KRK 40.51 Overall 34.26	BKG 86 KRK 89.15 Overall 87.58	BKG 207.14 KRK 120.07 Overall 175.74
	2022	CTK 44 KRK 51.26 Overall 47.63	CTK 61 KRK 93.80 Overall 77.40	CTK 38.64 KRK 82.98 Overall 62.50
IET 29026 (CR 2538-42-17-32-3-3) Varshadhan*3/IR49830-7	2023	BKG 44 KRK 53.96 Overall 48.98	BKG 74 KRK 87.98 Overall 80.99	BKG 68.18 KRK 63.04 Overall 65.35
	2022	CTK 55 KRK56 Overall 55.5	CTK 83 KRK 89 Overall 86	CTK 50.9 KRK 58.93 Overall 54.95
	2021	CTK 30 MTU 87.9 Overall 58.95	CTK 95 MTU 85.9 Overall 90.45	CTK 216.66 MTU-2.27 Overall 53.43
	2020	CTK 5 MTU 97.8 Overall 51.4	CTK 60 MTU 45.7 Overall 52.85	CTK1100 MTU-53.27 Overall 2.82
IET 29031 (CR 2538-42-17-32-3-2) Varshadhan*3/IR49830-7	2023	BKG 44 KRK 53.96 Overall 48.98	BKG 84 KRK 82.30 Overall 83.15	BKG 90.90 KRK 53.96 Overall 65.35
	2022	CTK 55 KRK56 Overall 55.5	CTK 83 KRK 89 Overall 86	CTK 50.9 KRK 58.93 Overall 54.95
	2021	CTK 30 MTU 87.9 Overall 58.95	CTK 98 MTU 86.1 Overall 92.05	CTK 226.66 MTU- 2.04 Overall 56.14
	2020	CTK 5 MTU 97.8 Overall 51.4	CTK 62.22 MTU 46.9 Overall 54.56	CTK1144.4 MTU-52.04 Overall 6.14

Table No. 63.1: Composition of entries in Advance Variety Trial 1- Near Isogenic Lines - Submergence (AVT 1-NIL SUB), *kharif* , 2023.

Entry No.	IET No.	Designation	Cross combination	Grain Type
2nd Year of testing:				
6301	30410	CR 2532-9-21-35-3	Sarala*3/IR49830-7	MS
6302	**Sarala (RP)**			
6303	30409	CR2531-72-6-19-3	Gayatri*3/IR49830-7	SB
6304	**Gayatri(RP)**			
6305	30697	KR 19011	ADT 39*4/Swarna sub-1	MS
6306	**ADT 39(RP)**			
6307	30695	KR19015	ADT 39*3/Swarna sub-1	MS
6308	29031	CR 2538-42-17-32-3-3	Varshadhan*3/IR49830-7	LB
6309	**Varshadhan (RP)**			
6310	29026	CR 2538-42-17-32-3-2	Varshadhan*3/IR49830-7	LB
1st year of testing				
6311	32125	BRR 0257	Rajendrasweta X Swarna sub-1	MS
6312	**Rajendra Sweta (RP)**			
6313	32126	BRR 0256	Rajendrasweta X Swarna sub-1	MS
6314	32059	RP 6746-RMS 4-52-77-81	Improved Samba Mahsuri*2// /Swarna sub 1/APO	MS
6315	**Improved Samba Mahsuri (RP)**			
6316	32058	RP 6745-RMS 3-25-94-22	Improved Samba Mahsuri*2// /Swarna sub 1	MS
6317	32061	RP 6744-RMS -1-23-65-83	Improved Samba Mahsuri*2//Rpbiopatho-1/Swarna sub 1	MS
6318	32121	BRR 0263	Sabour Shree X Swarna sub-1	MS
6319	**Sabour Shree (RP)**			
6320	32122	BRR 0266	Sabour Shree X Swarna sub-1	MS
6321	32124	CR 4430-13-19-1-1	Swarna Sub 1*4 / Robin	MS
6322	**Swarna sub-1 (RP)**			
6323	32123	CR 4430-1-3-2-1	Swarna Sub 1*4 / Robin	MS
6324	**Swarna (Sensitive check)**			

Table No. 63.2: Grain Yield (Kg/ha) of entries in AVT-1 NIL SUB *Kharif* 2023

Entry No	IET No.	Zone III										Zone VII						Zone VII (1) Mean		Overall (2) Mean	
		BI				BI (1) Mean		UP (0)		Zone III (1) Mean		AP(0)		PUD(1)							
		BKG		SBR@				MSD@				MTU@		KRK							
6301	30410	4531	8 *			4531	8 *	5483		4531	8 *	4012		1582				1582		3057	*
6302	**Sarala (RP)**	3041		717		3041		4596		3041				2042	*			2042	*	2542	*
6303	30409	4466	*	201		4466	*	5344		4466	*	5401		4213	3 *			4213	3 *	4340	5 *
6304	**Gayatri (RP)**	1264				1264		5366		1264		3627		1680				1680		1472	
6305	30697	4338	*	2438		4338	*	4174		4338	*	5941		4573	1 *			4573	1 *	4456	4 *
6306	**ADT 39 (RP)**	2604		176		2604		5821		2604				1930	*			1930	*	2267	
6307	30695	5678	3 *	1752		5678	3 *	4575		5678	3 *	5208		4262	2 *			4262	2 *	4970	0 *
6308	29031	4595	7 *	697		4595	7 *	4967		4595	7 *	5941		3942	5.5 *			3942	5.5 *	4269	7 *
6309	Varshadhan	3135		104		3135		4853		3135		5737		1428				1428		2282	
6310	29026	4655	6 *	1075		4655	6 *	5529		4655	6 *	5517		3392	*			3392	*	4024	8 *
6311	32125	3286		1282		3286		4372		3286		4321		3808	8 *			3808	8 *	3547	*
6312	**Rajendra Sweta (RP)**	3280		139		3280		5257		3280		4398		3300	*			3300	*	3290	*
6313	32126	3021		1501		3021		5278		3021		5926		3542	10 *			3542	10 *	3282	*
6314	32059							5417													
6315	**Improved Samba Mahsuri (RP)**	3097		247		3097		5819		3097				1487				1487		2292	
6316	32058	4354	*	1366		4354	*	5813		4354	*	4514		1250				1250		2802	*
6317	32061	4225	*	836		4225	*	5540		4225	*	4938		3492	*			3492	*	3859	9 *
6318	32121	4482	10 *	908		4482	10 *	5322		4482	10 *	3665		4150	4 *			4150	4 *	4316	6 *
6319	**Sabour Shree (RP)**	4943	5 *	92		4943	5 *	6080		4943	5 *	3549		1367				1367		3155	*
6320	32122	4508	9 *	870		4508	9 *	5559		4508	9 *	5841		3125	*			3125	*	3817	10 *
6321	32124	5175	4 *	1544		5175	4 *	5955		5175	4 *	3742		3942	5.5 *			3942	5.5 *	4559	3 *
6322	**Swarna sub-1 (RP)**	5736	1 *	1900		5736	1 *	4894		5736	1 *	5779		3850	7 *			3850	7 *	4793	1 *
6323	32123	5680	2 *	1533		5680	2 *	4211		5680	2 *	5131		3550	9 *			3550	9 *	4615	2 *
6324	**Swarna (Sensitive check)**	2519		64		2519				2519		3588		1082				1082		1801	
Exp. Mean		**3858.89**		**856.79**		**3858.89**		**5227.16**		**3858.89**		**4207.8**		**2912.46**				**2912.46**		**3325**	
F Value		15.18 (p<0.0001) S		9.09 (p<0.0001) S		15.18 (p<0.0001) S		31.70 (p<0.0001) S		15.18 (p<0.0001) S		40.76 (p<0.0001) S		24.71 (p<0.0001) S				24.71 (p<0.0001) S		32.14 (p<0.0001) S	
CD		**1038.91**		**697.9**		**1038.91**		**280.72**		**1038.91**		**881.05**		**679.78**				**679.78**		**626.83**	
CV%		16.36		49.36		16.36		3.26		16.36		12.67		14.18				14.18		11.46	
D/S		02-07-2023		10-07-2023				09.07.2023				18.07.2023		09-12-2023							
D/P		03-08-2023		12-08-2023				11.08.2023				30.08.2023		26-10-2023							

Table No. 63.3: Days to 50% flowering of entries in AVT-1 NIL SUB *Kharif* 2023

Entry No.	IET No.	Zone III				ZoneIII(1)	Zone VII		ZoneVII(1)	Overall (2)
		BI		BI (1)	UP(0)		AP(0)	PUD(1)		
		BKG	SBR @	Mean	MSD @	Mean	MTU@	KRK	Mean	Mean
6301	30410	135		135	123	135	125	95	95	115
6302	**Sarala (RP)**	134	130	134	120	134		96	96	115
6303	30409	138	143	138	122	138	127	104	104	121
6304	**Gayatri(RP)**	139		139	122	139	113	105	105	122
6305	30697	130	122	130	126	130	126	99	99	115
6306	**ADT 39(RP)**	134	129	134	124	134		101	101	118
6307	30695	131	124	131	123	131	126	99	99	115
6308	29031	135	126	135	122	135	129	97	97	116
6309	Varshadhan	137	126	137	126	137	114	97	97	117
6310	29026	139	122	139	125	139	117	97	97	118
6311	32125	120	107	120	125	120	117	99	99	110
6312	**Rajendra Sweta (RP)**	121	121	121	122	121	121	97	97	109
6313	32126	114	122	114	115	114	114	100	100	107
6314	32059				116					
6315	**Improved Samba Mahsuri (RP)**	120	124	120	116	120		98	98	109
6316	32058	119	122	119	123	119	117	98	98	109
6317	32061	120	127	120	116	120	129	97	97	109
6318	32121	119	120	119	116	119	113	96	96	108
6319	**Sabour Shree (RP)**	118	125	118	101	118	121	98	98	108
6320	32122	121	123	121	112	121	119	99	99	110
6321	32124	134	127	134	116	134	122	94	94	114
6322	**Swarna sub-1 (RP)**	136	130	136	115	136	126	97	97	117
6323	32123	134	126	134	116	134	129	104	104	119
6324	**Swarna (Sensitive check)**	138	127	138		138	125	107	107	123
Exp. Mean		**129**	**124**	**129**	**119**	**129**	**122**	**99**	**99**	**114**

Table No. 63.4 : Plant height of entries in AVT-1 NIL SUB *Kharif* 2023

Entry No.	IET No.	Zone III				Zone III (1)	Zone VII		ZoneVII(1)	Overall (2)
		BI		BI (1)	UP(0)		AP(0)	PUD(1)		
		BKG	SBR@	Mean	MSD@	Mean	MTU@	KRK	Mean	Mean
6301	30410	90.66		90.66	85.00	90.66	120.50	104.33	104.33	97.50
6302	**Sarala (RP)**	90.83	62.00	90.83	89.00	90.83		109.00	109.00	99.92
6303	30409	89.66	63.00	89.66	86.00	89.66	127.00	116.17	116.17	102.91
6304	**Gayatri(RP)**	85.83		85.83	120.00	85.83	132.50	115.00	115.00	100.42
6305	30697	83.83	69.33	83.83	79.00	83.83	122.60	93.00	93.00	88.42
6306	**ADT 39(RP)**	84.16	68.00	84.16	82.00	84.16		99.33	99.33	91.75
6307	30695	77.16	59.00	77.16	71.00	77.16	127.60	97.67	97.67	87.41
6308	29031	113.50	108.33	113.50	109.00	113.50	130.00	123.33	123.33	118.42
6309	Varshadhan	104.83	95.33	104.83	86.00	104.83	114.00	129.33	129.33	117.08
6310	29026	117.83	108.67	117.83	78.00	117.83	116.50	110.67	110.67	114.25
6311	32125	63.00	57.67	63.00	72.00	63.00	118.50	49.67	49.67	56.33
6312	**Rajendra Sweta (RP)**	67.00	51.33	67.00	99.00	67.00	122.50	67.33	67.33	67.17
6313	32126	63.00	51.67	63.00	76.00	63.00	114.50	51.33	51.33	57.17
6314	32059				76.00					
6315	**Improved Samba Mahsuri (RP)**	76.33	68.00	76.33	70.00	76.33		79.33	79.33	77.83
6316	32058	72.50	67.00	72.50	75.00	72.50	116.50	90.67	90.67	81.58
6317	32061	77.83	63.00	77.83	102.00	77.83	128.67	94.33	94.33	86.08
6318	32121	104.66	94.33	104.66	82.00	104.66	120.65	109.00	109.00	106.83
6319	**Sabour Shree (RP)**	95.50	69.50	95.50	72.00	95.50	124.50	103.00	103.00	99.25
6320	32122	110.00	92.67	110.00	120.00	110.00	116.50	117.67	117.67	113.83
6321	32124	77.50	67.00	77.50	89.00	77.50	118.65	100.33	100.33	88.92
6322	**Swarna sub-1 (RP)**	84.50	63.33	84.50	68.00	84.50	116.20	92.33	92.33	88.42
6323	32123	76.16	64.33	76.16	72.00	76.16	122.45	93.67	93.67	84.91
6324	**Swarna (Sensitive check)**	76.00	55.00	76.00		76.00	120.54	108.00	108.00	92.00
Exp Mean		**86**	**71**	**86**	**85**	**86**	**122**	**98**	**98**	**92**

Table No. 63.5: No of Panicle/m^2 of entries in AVT-1 NIL SUB *Kharif* 2023

Entry No.	IET No.	Zone III			Zone III (1)	Zone VII		Zone VII (1)	Overall (2)
		BI		UP (0)		AP (0)	PUD(1)		
		BKG	BI (1)	MSD@	Mean	MTU@	KRK	Mean	Mean
6301	30410	386	386	254	386	244	252	252	319
6302	**Sarala (RP)**	374	374	243	374		214	214	294
6303	30409	299	299	254	299	284	382	382	341
6304	**Gayatri(RP)**	359	359	264	359	251	210	210	285
6305	30697	284	284	220	284	218	396	396	340
6306	**ADT 39(RP)**	223	223	261	223		195	195	209
6307	30695	369	369	252	369	228	377	377	373
6308	29031	297	297	252	297	259	413	413	355
6309	Varshadhan	295	295	225	295	270	212	212	254
6310	29026	276	276	232	276	220	362	362	319
6311	32125	276	276	230	276	207	349	349	313
6312	**Rajendra Sweta (RP)**	295	295	256	295	198	360	360	328
6313	32126	281	281	256	281	250	344	344	313
6314	32059			252					
6315	**Improved Samba Mahsuri (RP)**	329	329	275	329		228	228	279
6316	32058	309	309	265	309	205	257	257	283
6317	32061	279	279	255	279	244	347	347	313
6318	32121	309	309	242	309	230	341	341	325
6319	**Sabour Shree (RP)**	289	289	256	289	197	187	187	238
6320	32122	266	266	257	266	215	347	347	307
6321	32124	271	271	282	271	197	362	362	317
6322	**Swarna sub-1 (RP)**	289	289	224	289	252	390	390	340
6323	32123	264	264	227	264	237	355	355	310
6324	**Swarna (Sensitive check)**	279	279		279	232	220	220	250
Exp. Mean		**300**	**300**	**249**	**300**	**232**	**309**	**309**	**304**

ADVANCE VARIETY TRIAL 1-NEAR ISOGENIC LINES-DROUGHT (AVT1-NIL-DRT)

Locations: 09 **Test Entries: 04**

Checks: **IR64 –** Sensitive Check; **Sahbhagidhan –** Tolerant Check; **Vandana –** National Check; **MTU 1010:** HYV Check.

Recurrent Parents: IR64, Swarna and Improved Samba Mahsuri

Advance variety trial 1-NIL (drought) was conducted across nine locations (three zones: Zone III, V and VII) to evaluate the performance of 04 nominated drought tolerant near isogenic lines (NILs) in comparison to the three recurrent parents (RP), one sensitive check cum recurrent parent (IR 64), one tolerant check (Sahbhagidhan) along with one high yielding Check (MTU 1010) during *Kharif* season, 2023. Yield trials for the NIL entries along with its recurrent parents were conducted in the trials of respective ecologies for which those are notified. The details have been provided in Table no. 6.1.

Data of four centers (Ranchi, Raipur, Coimbatore and Mugad) were not considered due to high CV, high grain yield of sensitive check IR64, excessively high yield in genotypes and/or inconsistent scoring of tolerant and susceptible checks. Data from five centers (Cuttack, Jeypore, Bikramganj, Hazaribagh and Rewa) were considered for further analysis as criteria for selection of locations met in those cases. F-value was also significant at all five locations and hence the data were considered for pooled analysis. The criteria considered to accept or reject trial locations have been represented in following table.

Status of AVT-NIL-DRT trial in *Kharif* 2023

Sl. No.	Center Name	Condition of Drought Stress	Remarks
1	Cuttack, Odisha	Proper drought stress condition was recorded. The drought score and yield levels for all susceptible genotypes as well the tolerant check as per the standards required (details attached). Trial conducted in rain-out-shelter.	Data considered for analysis.
2	Jeypore, Odisha	Low yield recorded in sensitive check and susceptible recurrent parents. CV within acceptable range. Drought tolerance score of checks and RP as per standards.	Data considered for analysis.
3.	Bikramganj, Bihar	Low yield recorded in sensitive check and susceptible recurrent parents. CV within acceptable range. Drought tolerance score of checks within acceptable limit.	Data considered for analysis.
4.	Hazaribagh, Jharkhand	Low yield recorded in sensitive check and susceptible recurrent parents. CV within acceptable range. Drought tolerance score of checks and RP as per standards.	Data considered for analysis.

5.	Rewa, Madhya Pradesh	Low yield recorded in sensitive check and susceptible recurrent parents. CV within acceptable range. Drought tolerance score of checks and RP as per standards.	Data considered for analysis.
6.	Ranchi, Jharkhand	The mean yield of sensitive check higher than trial average and tolerant check.	Data not considered for analysis.
7.	Raipur, Chhattisgarh	CV (55.18%) is higher than acceptable limit	Data not considered for analysis.
8.	Coimbatore, Tamilnadu	The drought score of sensitive check, high yielding check, NIL entries and sensitive recurrent parents are '3'. Score of tolerant check is '5'.	Data not considered for analysis.
9.	Mugad, Karnataka	Yield is too high in many genotypes to consider drought stress. The drought score and other parameters not provided.	Data not considered for analysis.

Drought condition related parameters (early seedling vigour and uniformity) at different test locations

Entry No.	IET No	Early seedling vigour and uniformity (1-5)								
		BKJ	CBT	HZB	JYP	MDG	NRRI	RPR	RCI	REW
6401	Vandana (NC)	2	-	-	1	-	-	-	-	-
6402	31286	5	-	-	3	-	-	-	-	-
6403	IR 64 (RP &Sensitive Check)	5	-	-	5	-	-	-	-	-
6404	Swarna(RP)	4	-	-	7	-	-	-	-	-
6405	29069	1	-	-	3	-	-	-	-	-
6406	Sahbhagidhan (Resistant Check)	1	-	-	3	-	-	-	-	-
6407	30439	4	-	-	5	-	-	-	-	-
6408	Improved Samba Mahsuri (RP)	3	-	-	7	-	-	-	-	-
6409	32059	NG	-	-	NG	-	-	-	-	-
6410	MTU 1010 (check)	3	-	-	3	-	-	-	-	-

Drought condition related parameters (total maturity period) at different test locations

Entry No.	IET No	Total maturity period(days)								
		BKJ	CBT	HZB	JYP	MDG	NRRI	RPR	RCI	REW
6401	Vandana (NC)	119	-	117	125	-	130.00	123.67	-	-
6402	31286	118	-	118	117	-	111.00	116.33	-	-
6403	IR 64 (RP &Sensitive Check)	120	-	133	116	-	100.00	122.00	-	-
6404	Swarna(RP)	145	-	138	124	-	0.00	132.00	-	-
6405	29069	126	-	113	120	-	105.00	133.33	-	-
6406	Sahbhagidhan (Resistant Check)	115	-	109	116	-	94.00	120.00	-	-
6407	30439	120	-	112	123	-	108.00	127.00	-	-
6408	Improved Samba Mahsuri (RP)	138	-	121	128	-	118.00	137.33	-	-
6409	32059	NG	-	115	NG	-	NG	NG	-	-
6410	MTU 1010 (check)	120	-	115	124	-	99.00	121.50	-	-

Drought condition related parameters (drought tolerance scores) at different test locations

Entry No.	IET No	Drought tolerance scores (0-9 scores)								
		BKJ	CBT	HZB	JYP	MDG	NRRI	RPR	RCI	REW
6401	Vandana (NC)	3	3	1	3	-	5.00	-	-	-
6402	31286	5	3	5	3	-	9.00	-	-	-
6403	IR 64 (RP &Sensitive Check)	7	3	7	5	-	9.00	-	-	-
6404	Swarna(RP)	7	3	7	7	-	NF	-	-	-
6405	29069	3	3	3	3	-	7.00	-	-	-
6406	Sahbhagidhan (Resistant Check)	5	5	3	3	-	7.00	-	-	-
6407	30439	7	3	5	5	-	7.00	-	-	-
6408	Improved Samba Mahsuri (RP)	9	3	5	7	-	7.00	-	-	-
6409	32059	NG	3	3	NG	-	NG	-	-	-
6410	MTU 1010 (check)	5	3	5	7	-	9.00	-	-	-

Drought condition related parameters (leaf rolling scores) at different test locations

Entry No.	IET No	Leaf rolling scores								
		BKJ	**CBT**	**HZB**	**JYP**	**MDG**	**NRRI**	**RPR**	**RCI**	**REW**
6401	Vandana (NC)	3	3	-	3	-	0.00	9	-	5
6402	31286	5	3	-	5	-	5.00	7	-	3
6403	IR 64 (RP &Sensitive Check)	7	3	-	3	-	3.00	9	-	3
6404	Swarna(RP)	7	3	-	7	-	5.00	9	-	5
6405	29069	3	3	-	5	-	3.00	7	-	7
6406	Sahbhagidhan (Resistant Check)	3	3	-	5	-	3.00	7	-	7
6407	30439	7	3	-	3	-	3.00	7	-	7
6408	Improved Samba Mahsuri (RP)	7	3	-	7	-	3.00	7	-	5
6409	32059	NG	3	-	NG	-	NG	NG	-	5
6410	MTU 1010 (check)	3	3	-	5	-	5.00	7	-	7

Drought condition related parameters (leaf tip drying) at different test locations

Entry No.	IET No	Leaf tip drying								
		BKJ	**CBT**	**HZB**	**JYP**	**MDG**	**NRRI**	**RPR**	**RCI**	**REW**
6401	Vandana (NC)	5	3	-	3	-	-	3	-	7
6402	31286	5	3	-	3	-	-	1	-	3
6403	IR 64 (RP &Sensitive Check)	7	3	-	7	-	-	3	-	5
6404	Swarna(RP)	7	3	-	7	-	-	3	-	7
6405	29069	3	3	-	5	-	-	1	-	7
6406	Sahbhagidhan (Resistant Check)	3	5	-	5	-	-	1	-	5
6407	30439	5	3	-	5	-	-	0	-	3
6408	Improved Samba Mahsuri (RP)	9	3	-	7	-	-	0	-	7
6409	32059	NG	3	-	NG	-	-	NG	-	7
6410	MTU 1010 (check)	5	3	-	7	-	-	3	-	7

Drought condition related parameters (recovery after rains during drought) at different test locations

Entry No.	IET No	Recovery after rains during drought								
		BKJ	**CBT**	**HZB**	**JYP**	**MDG**	**NRRI**	**RPR**	**RCI**	**REW**
6401	Vandana (NC)	2	-	-	5	-	-	-	-	-
6402	31286	2	-	-	5	-	-	-	-	-
6403	IR 64 (RP &Sensitive Check)	4	-	-	7	-	-	-	-	-
6404	Swarna(RP)	5	-	-	7	-	-	-	-	-
6405	29069	1	-	-	3	-	-	-	-	-
6406	Sahbhagidhan (Resistant Check)	3	-	-	3	-	-	-	-	-
6407	30439	3	-	-	7	-	-	-	-	-
6408	Improved Samba Mahsuri (RP)	5	-	-	7	-	-	-	-	-
6409	32059	NG	-	-	NG	-	-	-	-	-
6410	MTU 1010 (check)	2	-	-	7	-	-	-	-	-

Trait verification of NIL entries:

Overall basis: Based on overall mean performance across all zones (Zone-III and Zone-V), the NIL entries of recurrent parents IR64 and Swarna showed superior performance. The mean grain yield of IET 31286 (2480 Kg/ha) was significantly superior to its recurrent parent IR64 (1571 Kg/ha). The mean grain yield of both IET 29069 (2847 Kg/ha) and IET 30439 (2515 Kg/ha) were superior compared with their recurrent parent Swarna (1528 Kg/ha). However, the flowering of both the entries were much earlier compared to its recurrent parent Swarna (DFF, Swarna: 109 days, IET 29069: 91 days and IET 30439: 88 days). The NIL entry of Improved Samba Mahsuri (IET 32059) showed at par performance as compared to its recurrent parent. At Zone-III, mean grain yield of all the entries were superior compared to their recurrent parent except IET 32059. Only single location data is available for IET 32059 in Zone-III (Hazaribagh) where its performance was at-par with its RP. The RP germinated at all locations. Hence, performance of IET 32059 can't be considered as superior. At Zone-V, the mean grain yield of IET 31286 was significantly superior to its recurrent parent IR64. Similarly, the mean grain yield of both IET 29069 and IET 30439 were superior compared with their recurrent parent Swarna.

Performance of entry in second year of testing:

Only one NIL entry (IET31286) with IR64 as recurrent parent was tested for second year. During both the years (2022 & 2023), the entry showed superior performance over the recurrent parent.

Table No.6.1: Composition of entries in Advance Variety Trial 1- Near Isogenic Lines-Drought (AVT 1-NIL DRT), *Kharif* 2023

Entry No.	IET No.	Designation	Cross combination	Grain Type
2nd Year of testing:				
6401	**Vandana (NC)**			
6402	31286	CRR744-74-41-B	IR64*3/IR 81896-B-B-195	LS
6403	**IR 64 (RP &Sensitive Check)**			
1st year of testing				
6404	**Swarna (RP)**			
6405	29069	R-RF-120	Swarna / IR 90019-17-159-B/Swarna/Swarna/Swarna	SB
6406	**Sahbhagidhan (Tolerant Check)**			
6407	30439	R-RF-156	Swarna*3/ IR 90019-17-159-B	SB
6408	**Improved Samba Mahsuri (RP)**			
6409	32059	RP 6746-RMS 4-52-77-81	Improved Samba Mahsuri*2// /Swarna sub 1/APO	MS
6410	**MTU 1010 (check)**			

Table No.6.2 Grain yield (Kg/ha) of entries vis-à-vis their recurrent parents under AVT-NIL-Drt trial during *Kharif* 2023

Entry No	IET No	Zone III														Zone III (4)	
		OD				OD (2)		BI (1)		JH				JH (1)			
		CKT		JYP		mean		BKG		RCI@		HZB		mean		mean	
6401	**Vandana (NC)**	3421	1	2482	1	2952	1	4779	2	1600	10	5219	1	5219	1	3975	2
6402	31286	217	7	2193	2	1205	6	4017	5	2862	5	3535	5	3535	5	2491*	7
6403	IR 64 (RP &Sensitive Check)	0		1911	7	956	7	3359	7	3662	3	1717	10	1717	10	1747	10
6404	**Swarna (RP)**	0		1607	8	804	9	3322	8	3502	4	2390	9	2390	9	1830	9
6405	29069	2264*	3	2022	4	2143	2	5241	1	2720	9	4040	2	4040	2	3392*	3
6406	**Sahbhagidhan (Tolerant Check)**	850	5	2044	3	1447	4	4642	3	2738	8	3905	4	3905	4	2860	4
6407	30439	2300*	2	1931	6	2116	3	3834	6	2773	6	3353	7	3353	7	2855*	5
6408	**Improved Samba Mahsuri (RP)**	468	6	1259	9	864	8	3254	9	2756	7	3501	6	3501	6	2121	8
6409	32059	NG		NG				NG		4622	1	4006#	3	4006	3	4006#&	1
6410	**MTU 1010 (check)**	885	4	1986	5	1436	5	4534	4	4178	2	3198	8	3198	8	2651	6
Exp. Mean		**1156.04**		**1937.11**		**1546.57**		**4109.19**		**3141.37**		**3486.63**		**3486.63**		**2792.66**	
F Value		159.23 (p<0.0001)S		10.18 (p<0.0001) S		95.35 (p<0.0001) S		4.04 (p<0.0085) S		12.48 (p<0.0001) S		23.95 (p<0.0001)S		23.95 (p<0.0001) S		45.23 (p<0.0067) S	
CD		**341.73**		**324.41**		**221.38**		**1080.25**		**728.14**		**579.2**		**579.2**		**355.15**	
CV%		16.62		9.68		8.27		15.19		13.51		9.68		9.68		7.41	
D/S		07.07.2023		25.07.23				02-07-2023		04.07.2023		22-07-2023					
D/P								03-08-2023		24.08.2023		09-08-2023					

@ Data not considered

* Significantly superior over respective RP; # At -par with respective RP, &Data is based on one location only

Table No.6.2 (Contd.): Grain yield (Kg/ha) of entries vis-à-vis their recurrent parents under AVT-NIL-Drt trial during *Kharif* 2023

Entry No	IET No	Zone V				Zone V(1)		Zone VII(0)				Overall	
		CG(0)		MP(1)				TN(0)		KA(0)			
		RPR@		REW		mean		CBT@		MGD@		Mean	
6401	**Vandana (NC)**	1675	1	780	7	780	7	1513	3	3872	8	3336	1
6402	31286	0		2439*	2	2439*	2	1704	1	3100	9	2480*	6
6403	**IR 64 (RP &Sensitive Check)**	0		870	6	870	6	1175	8	4699	5	1571	9
6404	**Swarna (RP)**	0		319	9	319	9	1371	5	5556	4	1528	10
6405	29069	1192	4	668*	8	668*	8	1322	6	6974	1 *	2847*	2
6406	**Sahbhagidhan (Resistant Check)**	283		2510	1	2510*	1	1588	2	4463	6	2790	3
6407	30439	1313	3	1159*	5	1159	5	1385	4	6097	3 *	2515*	5
6408	**Improved Samba Mahsuri (RP)**	1441	2	1192	4	1192	4	1240	7	4405	7	1935	8
6409	32059	0		213$	10	213	10	898	10	6545	2 *	2110#	7
6410	**MTU 1010 (check)**	0		2029	3	2029	3	1055	9	2991	10	2526	4
Exp. Mean		**590.4**		**1217.83**		**1217.83**		**1324.9**		**4870.33**		**2363.89**	
F Value		22.47 (p<0.0067) S		114.06 (p<0.0067) S		114.06 (p<0.0067) S		5.71 (p<0.0009) S		18.48 (p<0.0009) S		40.35 (p<0.0009) S	
CD		**613.43**		**231.98**		**231.98**		**304.12**		**957.78**		**270.13**	
CV%		55.18		11.1		11.1		13.38		11.46		6.66	
D/S		03.07.2023		10-07-2023				31.07.2023		18.08.23			
D/P		29.07.2023		16-08-2023						Drill Sown			

@ Data not considered

* Significantly superior over respective RP; # At -par with respective RP, $Significantly inferior over respective RP.

Two years (2022 & 2023) performance of NILs entries which are in second year of testing in AVT1-NIL- DRT

Year	Entry No.	IET No./Designation (Cross combination)	Yield (Kg/ha)	Difference with RP (Kg/ha)	DFF	Remarks
2022	6406	IET31286 (CRR744-74-41-B) (IR64*3/IR 81896-B-B-195)	1346*	408.00	86	Significant yield superiority over recurrent parent.
	6407	IR 64 (RP)	938		94	
CD Value (5%) (Kg/ha)			341.43			
2023	6402	IET31286 (CRR744-74-41-B) (IR64*3/IR 81896-B-B-195)	2480*	909.00	80	Significant yield superiority over recurrent parent.
	6403	IR 64 (RP)	1571		82	
CD Value (5%) (Kg/ha)			270.13			

Table No. 6.3 : Days to 50% Flowering of AVT 1-NIL DRT *Kharif*-2023

Entry No	IET No	Zone III							Zone III (4)	Zone V		Zone V (1)	Zone VII(0)		Overall (5)
		OD		OD(2)	BI(1)	JH		JH(1)		CG(0)	MP(1)		TN(0)	KA(0)	
		CKT	JYP	mean	BKG	RCI@	HZB	mean	mean	RPR@	REW	mean	CBT@	MGD@	mean
6401	**Vandana (NC)**	73	94	84	87	84	87	87	85	89	101	101	89	85	88
6402	31286	76	87	82	86	70	88	88	84	81	92	92	72	91	86
6403	**IR 64 (RP &Sensitive Check)**	65	87	76	90	74	103	103	86	87	123	123	77	79	94
6404	**Swarna(RP)**		94	94	119	115	108	108	107	97	111	111	91	86	108
6405	29069	70	90	80	96	74	83	83	85	88	115	115	73	73	91
6406	**Sahbhagidhan (Resistant Check)**	59	86	73	87	70	79	79	78	85	101	101	70	80	82
6407	30439	73	93	83	93	87	82	82	85	92	101	101	82	68	88
6408	**Improved Samba Mahsuri (RP)**	83	97	90	109	112	91	91	95	102	96	96	90	83	95
6409	32059					107	85	85	85		122	122	75	92	104
6410	**MTU 1010 (check)**	64	93	79	88	106	85	85	83	87	123	123	75	80	91
Exp. Mean		**70**	**91**	**82**	**95**	**90**	**89**	**89**	**87**	**89**	**109**	**109**	**80**	**82**	**93**

Table No.6.4 : Plant height (cm) of AVT 1-NIL DRT *Kharif*-2023

Entry No	IET NO	Zone III							Zone III (4)	Zone V		Zone V (1)	Zone VII(0)		Overall (5)
		OD		OD(2)	BI(1)	JH		JH(1)		CG(0)	MP(1)		TN(0)	KA(0)	
		CTK	JYP	mean	BKG	RCI@	HZB	mean	mean	RPR@	REW	mean	CBT@	MGD@	mean
6401	**Vandana (NC)**	85.60	68.53	77.07	95.22	50.00	86.89	50.00	84.06	93.87	91.00	92.43	110.33	73.59	85.45
6402	31286	82.77	69.60	76.18	94.66	56.00	88.00	56.00	83.76	63.13	83.00	73.07	94.47	63.45	83.61
6403	**IR 64 (RP &Sensitive Check)**	72.50	70.40	71.45	96.77	52.00	102.56	52.00	85.56	61.67	86.50	74.08	97.12	60.74	85.75
6404	**Swarna(RP)**	63.77	62.93	63.35	71.33	48.00	108.00	48.00	76.51	.	74.00	74.00	88.87	81.94	76.01
6405	29069	101.73	97.47	99.60	105.77	69.00	83.78	69.00	97.19	104.53	82.50	93.52	122.57	90.65	94.25
6406	**Sahbhagidhan (Resistant Check)**	88.13	94.53	91.33	86.55	57.00	79.00	57.00	87.05	76.93	85.00	80.97	123.47	63.89	86.64
6407	30439	68.37	66.67	67.52	92.11	60.00	82.33	60.00	77.37	90.27	72.00	81.13	93.60	84.24	76.30
6408	**Improved Samba Mahsuri (RP)**	74.60	63.53	69.07	84.11	56.00	90.89	56.00	78.28	89.67	71.50	80.58	79.13	76.52	76.93
6409	32059	.	.	.	.	57.00	85.33	57.00	85.33	.	67.00	67.00	107.97	95.62	76.17
6410	**MTU 1010 (check)**	81.47	82.67	82.07	88.66	63.00	84.89	63.00	84.42	65.27	85.00	75.13	121.03	70.54	84.54
Exp Mean		**80**	**75**	**78**	**91**	**57**	**89**	**57**	**84**	**81**	**80**	**79**	**104**	**76**	**83**

Table No.6.5 : No. of Panicles in sqm of AVT 1-NIL DRT *Kharif*-2023

Entry No	IET No	Zone III							Zone III (4)	Zone V		Zone V (1)	Zone VII(0)		Overall (5)
		OD		OD(2)	BI(1)	JH		JH(1)		CG(0)	MP(1)		TN(0)	KA(0)	
		CKT	JYP	mean	BKG	RCI@	HZB	mean	mean	RPR@	REW	mean	CBT@	MGD@	mean
6401	**Vandana (NC)**	241	317	279	347	68	351	351	314	262	165	165	277	238	284
6402	31286	192	310	251	313	121	286	286	275	109	221	221	265	277	264
6403	**IR 64 (RP &Sensitive Check)**	153	262	208	309	139	208	208	233	118	252	252	267	205	237
6404	**Swarna(RP)**		344	344	298	106	250	250	297		250	250	268	220	286
6405	29069	172	240	206	354	65	227	227	248	182	243	243	262	243	247
6406	**Sahbhagidhan (Resistant Check)**	241	183	212	353	55	241	241	255	173	293	293	277	186	262
6407	30439	281	279	280	356	100	246	246	291	188	243	243	270	245	281
6408	**Improved Samba Mahsuri (RP)**	97	228	163	366	139	267	267	240	229	244	244	265	221	240
6409	32059					124	257	257	257		177	177	203	290	217
6410	**MTU 1010 (check)**	197	226	212	285	116	212	212	230	65	229	229	308	185	230
Exp. Mean		**197**	**265**	**239**	**331**	**103**	**255**	**255**	**264**	**173**	**232**	**232**	**266**	**231**	**255**

AICRIP –

Basmati Varietal Improvement

Trials Report

Kharif 2023

INITIAL VARIETY TRIAL – BASMATI (IVT- BT)

Locations: 11 **Test Entries: 30**

Checks and Recurrent Parents: **Pusa Basmati 1 (YC)**
Pusa Basmati1121 (YC & QC)
Taraori Basmati (QC)
Pusa RH 10 (HC)
Local Check
Ranbir Basmati (RP)
Pusa Basmati 1509 (RP)

The entries nominated under IVT-BT (15 varietal entries and 1 hybrid entry), AVT1-BT (2 entries), AVT1-NIL (4 entries) and AVT2-NIL (1 entry) were evaluated in a combined trial of IVT-BT (Table 18.1). The trial constituted of 30 entries of which 15 varietal entries and 1 hybrid entry in IVT-BT; 2 entries in AVT1-BT; 4 entries in AVT1-NIL; 1 entry in AVT2-NIL; two recurrent parents namely, Ranbir Basmati, and Pusa Basmati 1509; five checks namely, Pusa Basmati 1 (Yield Check), Pusa Basmati 1121 (Yield and Quality Check), Taraori Basmati (Quality Check), Pusa RH10 (Hybrid Check) and a Local Check. Trial was conducted at 11 locations in the GI region earmarked for Basmati rice cultivation. However, data from only 6 locations namely, New Delhi, Rauni, Kaul, Karnal, Modipuram (BEDF) and Chatha was considered for further analysis as the data from Pant Nagar was not considered due to their low experimental mean and high CV; and data from Ludhiana, Gurdaspur, Kapurthala and Nagina was not considered due to low experimental mean.

Experimental mean of the locations ranged from 4593 kg/ha at Kaul to 6340 kg/ha at ICAR-IARI, New Delhi, while CV ranged from 5.5% at Karnal to 9.9 % at Chatha. The mean days to 50% flowering ranged from 91.4 days (Modipuram) to 101 days (Ludhiana). The mean plant height of the entries ranged from 101.6 cm (Karnal) to 119.5 cm (New Delhi), while mean panicles/ m^2 ranged from 238 (Pant Nagar) to 529 (New Delhi). Among the checks, hybrid check, Pusa RH 10 registered 6428 kg/ha yield with 2^{nd} rank based on overall mean. The data on yield, days to 50% flowering, plant height, number of panicles/m^2, quality and panel test are presented in tables 18.2, 18.3, 18.4, 18.5, 18.6 to 18.9 and 18.10 to 18.11 respectively. The details of the performance of the entries are elaborated below.

Performance of entries in IVT-BT

Out of 15 varietal test entries tested in IVT-BT, 13 entries showed yield performance significantly superior to the best varietal check. Two entries IET 31289 and IET 31295 were significantly inferior to the best varietal check. Therefore, these two entries do not qualify for promotion to next year of testing.

The entry, IET 31290 (PAU 8484-111-1-1(RYT4078) showed yield performance significantly superior over best varietal check Pusa Basmati 1121, it has HRR of 59.05%, kernel length of 7.93 mm, kernel length after cooking of 16.39 mm, elongation ratio of 1.96 with intermediate amylose content (22.95%). **Therefore, this entry is promoted to AVT1-BT**.

The entry, IET 31291 (UPR 4636-18-2-1-1) was significantly superior to best varietal check, Pusa Basmati 1121 for yield. It possessed intermediate amylose content (23.72%) and KLAC of 12.48 mm. However, elongation ratio was 1.68 which is lower than that of the required elongation ratio of 1.7. **As the difference between observed elongation ratio is marginally lower than that of the minimum elongation ratio standard of Basmati rice, it is given a benefit of doubt and promoted to second year of testing (AVT1-BT)**.

The entry, IET 30548 (SJR 123-2-1) exhibited significantly superior yield performance over best varietal check. It possessed kernel length after cooking of 12.55 mm with an elongation ratio of 1.69. However, it possessed higher amylose content of 25.49. Therefore, **this entry, IET 30548 do not qualify for promotion to next year of testing**.

The entries, IET 31292 (CSR301-16-BT-208) and IET 31294 (Pusa 3067-16-10-6) performed significantly superior for yield over best varietal check. IET31292 possessed high HRR (62.63%), KLAC of 1.74 mm and amylose content of 24.23%; IET 31294 possessed HRR (53.47%), KLAC of 17.5 mm and amylose content of 24.04%. Based on yield and quality parameters, **both these entries, IET 31292 and IET 31924 have been promoted to second year of testing (AVT1-BT)**.

IET 31293 is the only hybrid entry which yielded significantly superior to both the best varietal check Pusa Basmati 1121 and hybrid check Pusa RH 10. Further, this hybrid possessed kernel length after cooking of 15.13 mm with intermediate amylose content. **Based on yield and quality parameters, this hybrid has been promoted to AVT1-BT**.

The entry, IET 31296 yielded significantly superior to the best varietal check. However, this entry possessed **low kernel length after cooking (11.33mm), low elongation ratio (1.61) with high amylose content of 27.49**. Therefore, this entry is not promoted for second year of testing.

The entries, IET 31297 (Pusa 3076-12-1-2-9) and IET 31299 (PAU 7842-13-2-1 (RYT 4087)performed significantly superior for yield over best varietal check. IET 31297 possessed superior quality parameters such as KLAC (17.73 mm), ER (2.01) and intermediate amylose content (23.71). The entry, IET 31299 also possessed superior quality parameters such as KLAC (17.03 mm), ER (2.08) and intermediate amylose content (23.44%). Therefore, both the **entries (IET 31297, IET31299) have been promoted to second year of testing**.

The entries, IET 31298 (UPR 4635-15-1-1-1) and IET 31300 (CSR-YET 73) yielded significantly superior to the best varietal check Pusa Basmati 1121. Further, the entry IET 31298 possessed KLAC of 13.73 mm, ER of 1.81 with intermediate amylose content of 23.83%. Similarly, entry IET 31300 possessed KLAC of 13.24 mm, ER of 1.76 with intermediate amylose content (23.97%). Therefore, **both IET 31298 and IET 31300 have been promoted to second year of testing**.

The entries, IET 31301 (Pusa 3067-16-10-5) and IET 31303 (Pusa 3083-17-8-3-13-1-17) yielded significantly superior to the best varietal check. Further, both the entries had extra-long slender grains with intermediate amylose content. Therefore, both the entries, IET 31301 and **IET31303 have been promoted to second year of testing (AVT-2).**

The entry IET31302 (CSR 30116-ST-153) yielded significant to Pusa Basmati 1121 and possessed KLAC of 13.25 mm, ER of 1.77. However, at IARI it has been recorded as non-aromatic while, at BEDF, it has been recorded as mild scented. Therefore, as a benefit of doubt, **IET31302 has been promoted for second year of testing**.

Overall performance of entries promoted from IVT-BT *Kharif* 2023

Sl. No.	IET No/ Designation/ Cross Combination	GY	FD	Grain Type	Yield over best check (%)	Performance rank (%) increase over best check		
						State	Yield	% over BC
1	IET 31290, PAU 8484-111-1-1 (RYT4078), PB1509/PB5//PB1509*2	6091	93	ELS	46.0	DE PU HA UP JK	6799 6768 6275 6350 4080	14.91 18.05 68.08 41.11 32.25
2	IET 31291, UPR 4636-18-2-1-1, PSD17/UPR3375-8-1-1	5741	95	LS	37.6	DE PU HA UP JK	7210 6320 5195 5950 4575	21.85 10.25 39.15 32.22 48.30
3	IET 31292, CSR301-16-BT-208, PB1121/CSR26	5682	97	LS	36.2	DE PU	7661 5848	29.47 2.01

						HA UP JK	6168 5245 3000	65.22 16.56 -2.76
4	IET 31294, Pusa 3067-16-10-6, PB 1121// Pusa6A/Pusa 1705-86	4860	110	ELS	16.5	DE PU HA UP JK	6071 4479 3593 5450 5975	2.59 -21.88 -3.75 21.11 93.68
5	IET 31297, Pusa 3076-12-1-2-9, PB1509//Pusa1568/Pusa1609	5263	106	ELS	26.1	DE PU HA UP JK	6801 5158 4358 6400 4500	14.94 -10.03 16.74 42.22 45.87
6	IET 31299, PAU 7842-13-2-1 (RYT 4087), PB1718/Pusa 1601-105-46-1-1	5207	106	ELS	24.8	DE PU HA UP JK	6253 5357 4715 5950 4250	5.67 -6.55 26.29 32.22 37.76
7	IET 31298, UPR 4635-15-1-1-1, PSD17/UPR3951-1-3-1	5370	95	ELS	28.7	DE PU HA UP JK	6314 5591 5083 5300 4850	6.70 -2.47 36.16 17.78 57.21
8	IET 31300, CSR-YET 73, PB1/CSR46	5786	93	ELS	38.7	DE PU HA UP JK	6220 6145 6063 5400 4825	5.12 7.19 62.41 20.00 56.40
9	IET 31301, Pusa 3067-16-10-5, PB1121//Pusa6A/Pusa 1705-86	4653	109	ELS	11.5	DE PU HA UP JK	6074 4433 3680 5400 4650	2.64 -22.67 -1.43 20.00 50.73
10	IET31302, CSR 30116-ST-153, PB1121/CSR27	5862	94	LS	40.5	DE PU HA UP JK	7439 5120 5693 5100 6125	25.72 -10.68 52.50 13.33 98.54
11	IET 31303, Pusa 3083-17-8-3-13-1-17, Pusa 1851/PB1121// Pusa1568/Pusa 1790	4667	112	LS	11.9	DE PU HA UP JK	6083 5804 3183 6350 3400	2.80 1.24 -14.73 41.11 10.21

Sl. No.	**IET No/ Designation/ Cross Combination**	**GY**	**FD**	**Grain Type**	**Yield over best check (%)**	**Performance rank (%) increase over best check**		
						State	**Yield**	**% over BC**
1	IET 31293, Shaan, F301A/98R	7236	91	ELS	73.4	DE PU HA UP JK	8613 7665 6228 8050 6630	18.68 10.94 -3.06 16.67 42.58

Performance of entries in AVT1-BT

Two entries namely, IET 30533 and IET 30535 were tested in AVT1-BT. Both the entries were found significantly superior to the best varietal check, Pusa Basmati 1121. The entry, IET 30533 (HKR-17-422) possessed KL of 7.41 mm, KLAC of 13.33 mm, ER of 1.72 with intermediate amylose content. Based on yield and quality parameters, **IET30533 has been promoted to AVT2-BT**. The entry, IET 30535 (CSR BT-252-19) possessed KL of 7.26 mm, KLAC of 13.98 mm and ER of 1.86. However, this entry has been recorded MS at IARI, but it has been recorded to be non-scented at BEDF. As a benefit of doubt, this entry has been promoted to AVT2-BT.

IET No/ Designation/ Cross Combination	Trial	GY	FD	Grain Type	Yield over best check (%)	Performance rank (%) increase over best check		
						State	Yield	% over BC
IET 30533 (HKR17-422) HKR98-476/CSR30	IVT-BT	5310	92	LS	31.7	DE PU HA UP	5951 5177 6155 4740	35.9 55.8 74.6 3.7
	AVT1-BT	6277	91	ELS	50.46	DE PU HA UP JK	6513 7073 5900 6300 5975	10.0 23.0 58.0 40.0 94.0
IET 30535 (CSRBT-252-19) Pusa Sugandh 5/CSR10	IVT-BT	5547	102	LS	37.6	DE PU HA UP	6081 5038 6453 5091	38.9 51.6 83.1 11.4
	AVT1-BT	6108	101	LS	46.40	DE PU HA UP JK	8409 5920 5763 6850 3945	42.0 3.0 54.0 52.0 28.0

Performance of AVT1-NILs entries

Near Isogenic Lines for blast resistance

Two NIL entries in the genetic background of Ranbir Basmati namely, IET 31304 and IET 31305 derived from the cross Ranbir Basmati*3/PB1637 and possesses *Pi9* gene for blast resistance. These two NILs were evaluated for yield under regular Basmati trial. These NILs along with the recurrent (Ranbir Basmati) were also tested under AVT1-NILs (Patho) trial for verification of the target trait, blast resistance.

The entry, IET 31304 exhibited significant yield superiority over the recurrent parent at Chatha location of Jammu & Kashmir, which is a notified location for Ranbir Basmati. However, this entry flowered in 103 days at his location which is 18 days delayed as compared to its recurrent parent (85 days). This entry showed highly resistance reaction to blast with blast score of 1, while its recurrent parent Ranbir Basmati was recorded to possess highly susceptible reaction with blast score of 9 at IARI location. It possessed KL of 6.8 mm and ER of 1.77. However, KLAC for this entry was recorded to be 11.78 mm. Although, the KLAC is on par with its recurrent parent, Ranbir Basmati (11.65 mm), it is lower to the notified Basmati standards. **Overall, due to 18 days delay in flowering at Chatha location and poor KLAC, this entry is not promoted to AVT2-NIL**.

The entry, IET 31305 exhibited significant yield inferiority over the recurrent parent at Chatha location of Jammu & Kashmir, which is a notified location for Ranbir Basmati. Further the entry also showed 13 days delay in DFF at this location compared to the recurrent parent (85 days). Although, this entry exhibited highly resistant reaction to blast as compared to its recurrent parent Ranbir Basmati, based on poor yield and delayed flowering , **IET 31305 is not promoted to AVT2-NIL**.

Near Isogenic Lines for bacterial blight, blast and bakanae resistance

Two entries namely, IET 31306 and IET 31307 in the background of Pusa Basmati 1509 were evaluated for yield and grain quality in regular Basmati trial and for testing bacterial blight, blast and bakanae resistance, a separate trial under NSN was conducted in hot spot regions of the Basmati GI locations.

The entry IET 31306 (Pusa 3136-12-10-46-14) possessing genes *xa13, Xa21, Xa38, Pi9, Pib, qBK1.1* and *qBK1.2* exhibited on par yield performance with its recurrent parent, Pusa Basmati 1509. It possessed HRR of 43.09%, KL of 7.57, KLAC of 16.78 mm, ER of 2.05 with intermediate amylose content. Based on screening for bacterial blight and Ludhiana and Pant Nagar, it was found resistant to bacterial blight with average disease score of 4 as against to its recurrent parent Pusa Basmati 1509 which was susceptible with average score of 6. It was also resistant to blast disease with score of 1 as compared to susceptible reaction of 9 exhibited by its recurrent parent Pusa Basmati 1509. However, it displayed 50% disease incidence to bakanae which was similar to its recurrent parent when evaluated at IARI, New Delhi. Therefore, this entry (IET 31306) has been dropped.

The entry IET 31307 (Pusa 3136-49-2-105-19) possessing genes *xa13, Xa21, Xa38, Pi9, Pib, qBK1.1* and *qBK1.2* exhibited on par yield performance with its recurrent parent Pusa Basmati 1509. It possessed HRR of 47.78%, KL of 8.11 mm, KLAC of 16.88 mm, ER of 2.05 with intermediate amylose content. Based on screening for bacterial blight and Ludhiana and Pant Nagar, it was found resistant to bacterial blight with average disease score of as against to its recurrent parent, Pusa Basmati 1509 which was susceptible with average score of 6. It was also resistant to blast disease with score of 2 as compared to susceptible reaction of 9 exhibited by its recurrent parent, Pusa Basmati 1509. It displayed 33.4% superiority for resistance to bakanae as compared to its recurrent parent when evaluated at IARI, New Delhi. Therefore, **IET 31307 is promoted to AVT2-NIL**.

Performance of blast NILs during *Kharif* 2023

S. No.	IET No	Recurrent Parent (RP) and Gene	Overall			Notified location of RP (Jammu &Kashmir)					Remarks
			RP yield	NIL yield	CD (0.05)	RP yield	NIL yield	CD (0.05)	RP DFF (days)	NIL DFF (days)	
1	31304	Ranbir Basmati and *Pi9*	3312	4218#	290	4175	5850#	932	85	103	TRAIT VERIFIED (SI-1) Performance of the NIL on par with recurrent parent but delayed flowering by 18 days and quality not meeting the Basmati rice standards. **DROPPED**
2	31305	Ranbir Basmati and *Pi9*	3312	3414$	290	4175	3150	932	85	99	TRAIT VERIFIED (SI-2) Performance of the NIL significantly inferior to the recurrent parent. **DROPPED**

significantly superior to RP, $ on par with RP

Performance of the bacterial blight, blast and bakanae NIL entries during *Kharif* 2023

	Recurrent parent	**IET31306**	**IET31307**
	Pusa Basmati 1509	**Pusa 3136-49-2-105-19**	**Pusa 3136-49-2-105-19**
Genes	**-**	*xa13, Xa21, Xa38, Pi9, Pib, qBK1.1* and *qBK1.2*	*xa13, Xa21, Xa38, Pi9, Pib, qBK1.1* and *qBK1.2*
Overall Yield Performance (kg/ha)	5469	5702	5516
CD (0.05)	290		
Bacterial blight score	6	4	4
Blast score	9	1	2
% reduction of bakanae incidence as compared to recurrent parent	-	0	33.4%
Remarks		**Dropped**	**Promoted**

Performance of AVT2-NIL entries

One entry namely, IET 30553 (Pusa 3057-9-69-37-160-9-185-1) derived from the cross, Pusa Basmati 1509*4/ Pusa 1342 possessing genes *qBK1.1* and *qBK1.2* for *bakanae* resistance was evaluated in AVT2-NIL. It exhibited on par performance with its recurrent parent, Pusa Basmati 1509 during both AVT1-NIL and AVT2-NIL trials. For *bakanae* disease, it was found resistant with per cent disease reduction of 72.0% during Kharif 2022 and 45.5% during Kharif 2023 as compared to its recurrent parent, Pusa Basmati 1509 (RP). Quality wise it is similar to its recurrent parent. Based on two years of testing for yield, quality as well as bakanae disease resistance**, the entry IET 30553 has been found promising**.

Trial and Year	**IET No**	**Recurrent Parent (RP) and QTL**	**Overall**			**Trait verification – % reduction of *Bakanae disease incidence as compared to RP***		**Remarks**
			RP yield	**NIL yield**	**CD (0.05)**	**NIL (%)**	**Trait verified**	
AVT1-NIL 2022	30553	Pusa 3057-9-69-37-160-9-185-1 (*qBK1.1* and *qBK1.2*)	4378	4788	575	72.0%	Yes	**Resistant to bakanae,** yield performance on-par with RP. (9.4% yield superiority over RP)
AVT2-NIL 2023			5469	5954	295	45.5 %	Yes	**Resistant to bakanae,** yield and quality performance on-par with RP

Table 18.1: Composition of entries in IVT-BT, AVT1-BT, AVT1-NIL, AVT2-NIL during *Kharif* 2023

S. No.	Entry No.	IET	Designation	Cross combination	Grain
IVT-BT					
1	1801	31289	SJBR-121-05	Ranbir Basmati/ Pb. Basmati 4	LS
2	1802	31290	PAU 8484-111-1-1 (RYT4078)	PB1509/PB5//PB1509*2	ELS
3	1803	31291	UPR 4636-18-2-1-1	PSD17/UPR3375-8-1-1	LS
4	1804	30548	SJR 123-2-1 (Repeat Entry)	Ranbir Basmati / Pusa 2517-2-51-1/ Pusa 2511	LS
5	1805	31292	CSR301-16-BT-208	PB1121/CSR26	LS
6	1806	31293	Shaan	F301A/98R	ELS
7	1807	31294	Pusa 3067-16-10-6	PB 1121// Pusa6A/Pusa 1705-86	ELS
8	1808	**Pusa Basmati 1121 (Y&QC)**			ELS
9	1809	31295	SJBR-121-11	Ranbir Basmati/ Pb. Basmati 4	LS
10	1810	31296	CSR BT-252-146	CSR30/CSR36	LS
11	1811	31297	Pusa 3076-12-1-2-9	PB1509//Pusa1568/Pusa1609	ELS
12	1812	31298	UPR 4635-15-1-1-1	PSD17/UPR3951-1-3-1	ELS
13	1813	31299	PAU 7842-13-2-1 (RYT 4087)	PB1718/Pusa 1601-105-46-1-1	ELS
14	1814	31300	CSR-YET 73	PB1/CSR46	LS
15	1815	**Pusa Basmati 1 (YC)**			LS
16	1816	31301	Pusa 3067-16-10-5	PB1121//Pusa6A/Pusa 1705-86	ELS
17	1817	31302	CSR 301-16-ST-153	PB1121/CSR27	LS
18	1818	31303	Pusa 3083-17-8-3-13-1-17	Pusa 1851/PB1121//Pusa1568/Pusa 1790	ELS
AVT1-BT					
19	1819	30533	HKR-17-422	HKR98-476/CSR30	LS
20	1820	30535	CSR BT-252-19	PS5/CSR10	LS
AVT1-NIL					
21	1821	31304	BB-3	Ranbir Basmati*3/PB1637	LS
22	1822	31305	BB-4	Ranbir Basmati*3/PB1637	LS
23	1823	**Recurrent Parent**		Ranbir Basmati	LS
24	1824	Pusa RH-10 (Hybrid Check)			
25	1825	31306	Pusa 3136-12-10-46-14		LS
26	1826	31307	Pusa 3136-49-2-105-19		LS
27	1827	**Recurrent Parent**		Pusa Basmati 1509	LS
AVT2-NIL					
28	1828	30553	Pusa 3057-9-69-37-160-9-185-1	Pusa Basmati 1509*4/ Pusa 1342	ELS
29	1829	**Taraori Basmati (QC)**			ELS
30	1830	Local Check (any notified Basmati variety)			ELS

Table 18.2: Grain Yield of entries in IVT- BT, Kharif 2023

Entry No.	IET No.	ND (1)		UK	PUN					PUN (1)	
		IARI		@PANT	@LDH	RUN		@GDP	@KPT	Mean	
1801	31289	4625		471	2390	3605		3036	2376	3605	
1802	31290	6799	# 11	863	4430	6768	# 4	4573	4628	6768	# 4
1803	31291	7210	# 7	820	4485	6320		3889	4235	6320	
1804	30548	6790	# 12	935	3430	4736		4804	3802	4736	
1805	31292	7661	# 4	807	5375	5848		5046	3970	5848	
1806	31293	8613	#* 1	1370	5550	7665	# 1	5211	4366	7665	# 1
1807	31294	6071		418	3675	4479		3690	3632	4479	
1808	Pusa Basmati 1121 (Y & QC)	5917		778	3385	4151		3851	3564	4151	
1809	31295	5587		921	2695	3855		2882	2982	3855	
1810	31296	7775	# 3	1644	2735	5857		3913	2995	5857	
1811	31297	6801	# 10	423	1700	5158		3712	3285	5158	
1812	31298	6314		1248	3925	5591		3874	3966	5591	
1813	31299	6253		507	1675	5357		4642	4011	5357	
1814	31300	6220		976	4160	6145		3824	4354	6145	
1815	Pusa Basmati 1 (YC)	5426		720	3870	5733		2832	3802	5733	
1816	31301	6074		302	4655	4433		3755	4024	4433	
1817	31302	7439	# 5	1198	4495	5120		4028	3240	5120	
1818	31303	6083		340	2295	5804		3728	3994	5804	
1819	30533	6513		778	5620	7073	# 2	4393	4151	7073	# 2
1820	30535	8409	# 2	622	5585	5920		4477	5118	5920	
1821	31304	4843		1031	2945	3938		3013	2891	3938	
1822	31305	4332		983	3570	3399		3916	2949	3399	
1823	Ranbir Basmati (RP)	3988		565	1685	2889		2575	2080	2889	
1824	Pusa RH-10 (Hybrid Check)	7257	# 6	985	4395	6909	# 3	4074	3155	6909	# 3
1825	31306	6602		1182	3990	5830		4843	3757	5830	
1826	31307	5737		1273	4795	6264		4108	3604	6264	
1827	Pusa Basmati 1509 (RP)	6535		843	4290	6226		3870	3596	6226	
1828	30553	6938	# 9	989	4790	5939		4158	3672	5939	
1829	Taraori Basmati (QC)	4398		347	1550	4005		3167	2755	4005	
1830	Local Check	6986	# 8	1408	4480	6046		4804	4207	6046	
Exp. Mean		6340		858	3754	5369		3956	3638	5369	
CD (0.05)		734		681	433	666		410	702	666	
CV		5.7		38.8	5.6	6.1		5.1	9.4	6.1	
Sowing Date		19.06.2023			22.06.2023	21.06.2023		28.06.2023	10.06.2023		
Planting Date		16.07.2023			22.07.2023	21.07.2023		22.07.2023	11.07.2023		
Local Check		Pusa Basmati 1692			Punjab Basmati 7	Punjab Basmati 7		Punjab Basmati 7	Punjab Basmati 7		

superiority over best check, * superiority over hybrid check

Table 18.2 (contd…): Grain Yield of entries in IVT- BT during Kharif 2023

Entry No.	IET No.	HR				HR (2)		UP			UP (1)	
		KAR		KUL		Mean		MDP (BDF)		@NGN	Mean	
1801	31289	3810		3200		3505		3900		3400	3900	
1802	31290	6000	#8	6550	#1	6275	#2	6350	#6	3575	6350	#6
1803	31291	4540		5850	#6	5195	#13	5950	#11	4000	5950	#11
1804	30548	6527	#2	4700	#13	5613	#9	5200	#21	3100	5200	#21
1805	31292	6287	#4	6050	#5	6168	#4	5245	#20	4200	5245	#20
1806	31293	6257	#5	6200	#3	6228	#3	8050	#*1	4700	8050	#*1
1807	31294	3737		3450		3593		5450	#16	4345	5450	#16
1808	Pusa Basmati 1121 (Y & QC)	4217		3250		3733		4500		2200	4500	
1809	31295	3370		3800		3585		4850		3095	4850	
1810	31296	6230	#6	4600	#17	5415	#11	6250	#9	2940	6250	#9
1811	31297	4017		4700	#15	4358	#18	6400	#5	2100	6400	#5
1812	31298	5067	#15	5100	#11	5083	#16	5300	#19	2550	5300	#19
1813	31299	4530		4900	#12	4715	#17	5950	#12	3735	5950	#12
1814	31300	6377	#3	5750	#7	6063	#5	5400	#17	3990	5400	#17
1815	Pusa Basmati 1 (YC)	3560		2700		3130		3800		4300	3800	
1816	31301	3560		3800		3680		5400	#18	2250	5400	#18
1817	31302	5737	#13	5650	#8	5693	#8	5100		2900	5100	
1818	31303	3617		2750		3183		6350	#7	2050	6350	#7
1819	30533	5650	#14	6150	#4	5900	#6	6300	#8	2475	6300	#8
1820	30535	6027	#7	5500	#9	5763	#7	6850	#3	3350	6850	#3
1821	31304	3530		3950	#20	3740		3200		3025	3200	
1822	31305	3277		3500		3388		2825		3465	2825	
1823	Ranbir Basmati (RP)	3520		2250		2885		3050		3300	3050	
1824	Pusa RH-10 (Hybrid Check)	6650	#1	6200	#2	6425	#1	6900	#2	5150	6900	#2
1825	31306	5780	#12	4550	#19	5165	#15	5900	#13	4175	5900	#13
1826	31307	5820	#10	4550	#18	5185	#14	5750	#14	3600	5750	#14
1827	Pusa Basmati 1509 (RP)	5830	#9	4700	#14	5265	#12	5600	#15	4225	5600	#15
1828	30553	5800	#11	5250	#10	5525	#10	6600	#4	4995	6600	#4
1829	Taraori Basmati (QC)	3577		3550		3563		4600		2425	4600	
1830	Local Check	3317		4650	#16	3983		6200	#10	3950	6200	#10
Exp. Mean		4874		4593				5441		3452		
CD (0.05)		435		590		474		684		528		
CV		5.5		6.3		7.1		6.2		7.5		
Sowing Date		24.06.2023						25.06.2023		26.06.2023		
Planting Date		21.07.2023						25.07.2023		18.07.2023		
Local Check		CSR 30						PB1509		PB1847		

superiority over best check, * superiority over hybrid check

Table 18.2 (*contd...*): Grain Yield of entries in IVT-BT during *Kharif* 2023

Entry No.	IET No.	J&K		Overall (6)		DFF (days)	PH (cm)	Panicles/m2
		CHT		Mean				
1801	31289	4750	#13	3982		92	124.9	350
1802	31290	4080	#22	6091	#6	93	105.9	341
1803	31291	4575	#16	5741	#10	95	113.7	314
1804	30548	4250	#19	5367	#16	91	114.0	333
1805	31292	3000		5682	#12	97	122.4	316
1806	31293	6630	#*2	7236	#*1	91	114.3	334
1807	31294	5975	#4	4860	#20	110	97.9	339
1808	Pusa Basmati 1121 (Y & QC)	3000		4172		106	109.2	345
1809	31295	3125		4098		90	114.2	324
1810	31296	6875	#1	6264	#4	91	108.1	351
1811	31297	4500	#17	5263	#18	106	123.9	331
1812	31298	4850	#10	5370	#15	95	104.0	323
1813	31299	4250	#20	5207	#19	106	115.2	346
1814	31300	4825	#11	5786	#9	93	109.5	339
1815	Pusa Basmati 1 (YC)	3085		4051		105	105.0	310
1816	31301	4650	#14	4653	#22	109	96.3	334
1817	31302	6125	#3	5862	#8	94	119.5	304
1818	31303	3400		4667	#21	112	106.0	322
1819	30533	5975	#5	6277	#3	91	109.2	322
1820	30535	3945		6108	#5	101	103.0	306
1821	31304	5850	#6	4218		97	120.2	314
1822	31305	3150		3414		97	123.3	317
1823	Ranbir Basmati (RP)	4175	#21	3312		85	141.4	307
1824	Pusa RH-10 (Hybrid Check)	4650	#15	6428	#2	90	106.6	347
1825	31306	5550	#7	5702	#11	85	102.2	333
1826	31307	4975	#9	5516	#13	86	103.3	350
1827	Pusa Basmati 1509 (RP)	3925		5469	#14	88	100.0	315
1828	30553	5200	#8	5954	#7	89	99.8	338
1829	Taraori Basmati (QC)	4300	#18	4072		109	137.1	318
1830	Local Check	4800	#12	5333	#17	97	112.5	335
Exp. Mean		4615		5205				
CD (0.05)		932		290				
CV		9.88		6.9				
Sowing Date		21.06.2023						
Planting Date		14.07.2023						
Local Check		Jammu Basmati 129						

superiority over best check, * superiority over hybrid check

Table No. 18.3: Days to 50% flowering (DFF) of entries in IVT-BT during *Kharif* 2023

Entry No.	IET No.	IARI	PANT	LDH	RUN	GDP	KPT	KAR	KUL	MDP(BDF)	NGN	CHT	Overall Mean
1801	31289	89	92	102	93	92	95	84	89	89	94	93	92
1802	31290	96	93	102	93	97	93	88	90	85	94	92	93
1803	31291	94	93	95	103	100	100	92	87	93	92	93	95
1804	30548	90	89	94	92	91	96	92	86	86	95	93	91
1805	31292	98	96	103	93	100	103	99	92	94	97	95	97
1806	31293	89	88	96	92	95	97	91	86	88	92	93	91
1807	31294	108	115	109	111	114	109	113	107	103	106	111	110
1808	Pusa Basmati 1121 (Y & QC)	107	108	110	102	108	109	107	102	98	110	105	106
1809	31295	85	92	97	88	88	91	94	80	82	94	99	90
1810	31296	86	89	102	91	92	93	96	84	87	90	91	91
1811	31297	109	113	115	105	114	86	107	105	105	100	107	106
1812	31298	90	96	94	98	98	97	96	89	97	93	100	95
1813	31299	107	112	115	98	113	109	102	102	102	107	107	106
1814	31300	89	96	91	90	100	96	93	86	92	92	97	93
1815	Pusa Basmati 1 (YC)	103	110	108	105	110	108	99	103	99	104	104	105
1816	31301	108	116	114	106	114	109	107	104	104	115	109	109
1817	31302	92	97	99	92	94	97	94	90	89	95	93	94
1818	31303	114	117	116	112	117	101	113	111	107	113	111	112
1819	30533	90	91	98	92	91	95	94	88	89	91	88	91
1820	30535	103	96	102	103	105	99	99	99	95	100	107	101
1821	31304	94	94	104	95	101	100	93	93	93	96	103	97
1822	31305	93	96	104	94	102	100	96	95	93	100	99	97
1823	Ranbir Basmati (RP)	79	87	91	86	85	88	90	80	79	85	85	85
1824	Pusa RH-10 (Hybrid Check)	89	87	93	89	90	95	96	86	87	91	89	90
1825	31306	84	80	92	86	85	88	90	80	80	82	87	85
1826	31307	86	79	91	87	87	88	92	82	81	83	87	86
1827	Pusa Basmati 1509 (RP)	87	85	93	90	88	91	93	84	84	84	88	88
1828	30553	89	85	92	90	89	91	93	84	85	94	88	89
1829	Taraori Basmati (QC)	116	111	113	103	116	109	104	104	103	107	108	109
1830	Local Check	90	90	101	103	101	100	115	104	82	93	93	97
Exp Mean		95.1	96.1	101.0	96.0	99.1	97.6	97.4	92.2	91.4	96.2	96.8	
CD (0.05)		0.00	8.33	2.61	0.73	0.75	2.99	8.13	1.57	2.28	0.79	0.65	
CV		0.0	4.2	1.3	0.4	0.4	1.5	4.1	0.8	1.2	0.4	0.3	

Table 18.4: Plant height (cm) of entries in IVT-BT during *Kharif* 2023

Entry No.	IET No.	IARI	PANT	LDH	RUN	GDP	KPT	KAR	KUL	MDP(BDF)	NGN	CHT	Overall Mean
1801	31289	137.2	113.0	118.0	122.7	116.9	116.9	126.4	141.2	141.1	121.4	119.0	124.9
1802	31290	108.2	112.0	100.0	110.1	100.7	100.7	87.4	117.9	112.3	112.0	103.2	105.9
1803	31291	126.0	120.0	104.5	120.7	107.5	102.5	93.0	127.7	120.2	115.4	113.4	113.7
1804	30548	122.2	121.5	112.5	113.3	107.6	107.6	107.0	110.4	115.5	119.0	117.9	114.0
1805	31292	131.1	126.5	112.5	108.5	115.5	115.5	114.4	134.8	128.7	139.2	119.4	122.4
1806	31293	123.6	124.0	105.0	112.0	107.7	107.7	105.2	124.4	120.6	122.8	104.2	114.3
1807	31294	106.4	93.5	89.0	106.7	99.2	99.2	80.2	95.0	99.7	119.6	88.6	97.9
1808	Pusa Basmati 1121 (Y & QC)	123.6	112.0	109.0	113.2	106.4	106.4	96.8	116.5	123.2	102.0	92.0	109.2
1809	31295	114.3	123.0	105.5	105.2	116.5	116.5	99.6	126.1	120.1	121.4	107.6	114.2
1810	31296	112.0	109.5	102.0	114.6	105.3	105.3	92.2	111.2	109.2	129.2	98.5	108.1
1811	31297	122.1	133.5	122.5	123.8	110.8	110.8	112.0	132.9	140.7	129.1	124.5	123.9
1812	31298	115.0	105.0	99.0	104.4	98.3	98.3	97.2	116.1	108.9	106.8	94.9	104.0
1813	31299	124.9	115.0	110.0	116.1	107.6	107.6	102.0	125.1	120.7	122.6	115.2	115.2
1814	31300	113.6	106.0	108.0	115.8	102.9	102.9	100.0	114.1	112.5	119.0	109.7	109.5
1815	Pusa Basmati 1 (YC)	114.3	113.5	99.0	107.4	100.3	100.3	93.0	102.7	111.1	119.6	94.2	105.0
1816	31301	106.8	100.0	87.5	106.0	95.8	95.8	85.4	97.9	95.6	100.2	88.8	96.3
1817	31302	128.2	132.5	117.0	113.0	113.1	113.1	110.4	125.3	125.8	123.4	113.0	119.5
1818	31303	122.1	108.5	105.0	114.2	101.4	101.4	97.4	105.5	109.6	103.0	98.2	106.0
1819	30533	110.9	118.5	105.5	111.4	108.1	108.1	96.0	111.8	117.2	111.6	102.2	109.2
1820	30535	109.5	126.0	89.5	112.7	99.7	99.7	89.0	104.0	107.3	100.8	95.3	103.0
1821	31304	135.7	99.5	112.5	130.0	110.3	110.3	107.4	134.2	134.0	130.6	117.6	120.2
1822	31305	140.0	133.0	119.0	125.0	111.4	111.4	111.6	131.3	135.1	126.2	112.5	123.3
1823	Ranbir Basmati (RP)	159.7	153.5	131.5	126.5	138.5	148.2	138.4	139.3	153.6	129.4	137.1	141.4
1824	Pusa RH-10 (Hybrid Check)	112.2	115.0	103.0	107.3	107.6	107.6	98.8	113.9	114.9	108.8	83.0	106.6
1825	31306	101.4	101.0	99.5	105.9	101.5	101.5	87.6	105.5	113.6	103.0	103.7	102.2
1826	31307	104.9	103.5	100.5	109.2	98.1	98.1	85.2	106.1	111.2	105.2	113.9	103.3
1827	Pusa Basmati 1509 (RP)	101.6	101.0	98.0	101.0	103.2	103.2	90.8	103.2	104.8	100.8	92.0	100.0
1828	30553	101.3	102.5	93.0	115.1	97.2	97.2	91.4	102.8	97.9	102.4	97.4	99.8
1829	Taraori Basmati (QC)	149.5	141.0	130.5	140.4	131.3	131.3	131.2	142.7	152.0	126.4	131.8	137.1
1830	Local Check	107.2	119.0	110.0	115.0	103.8	103.8	121.8	117.6	106.6	119.0	113.8	112.5
Exp. Mean		119.5	116.1	106.6	114.2	107.5	107.6	101.6	117.9	118.8	116.3	106.8	

Table No. 18.5: Panicles/m^2 of entries in IVT-BT during *Kharif* 2022

Entry No.	IET No.	IARI	PANT	LDH	RUN	GDP	KPT	KAR	KUL	MDP(BDF)	NGN	CHT	Overall Mean
1801	31289	744.6	240	360	387	420	376	329	349	337	207	495	350
1802	31290	462.4	249	317	391	320	327	443	338	272	368	383	341
1803	31291	598.4	209	304	327	313	297	384	311	295	273	430	314
1804	30548	401.2	211	291	278	288	340	555	354	267	276	480	334
1805	31292	302.6	207	317	362	303	317	491	300	233	274	359	316
1806	31293	431.8	258	320	297	383	353	486	329	284	223	405	334
1807	31294	581.4	238	344	352	363	310	323	397	332	337	397	339
1808	Pusa Basmati 1121 (Y & QC)	635.8	249	373	346	395	419	347	393	277	306	342	345
1809	31295	618.8	232	327	312	338	389	296	321	355	298	369	324
1810	31296	561	286	337	294	370	370	475	298	289	292	499	351
1811	31297	435.2	276	317	344	358	347	342	306	290	211	524	331
1812	31298	459	220	330	331	325	389	384	290	269	250	440	323
1813	31299	506.6	214	340	340	350	389	374	338	332	342	438	346
1814	31300	513.4	241	340	325	300	389	523	358	262	271	378	339
1815	Pusa Basmati 1 (YC)	554.2	221	340	337	330	347	306	341	231	331	320	310
1816	31301	693.6	215	384	372	415	380	302	373	348	213	340	334
1817	31302	289	214	278	350	280	284	389	346	219	206	471	304
1818	31303	506.6	221	357	340	365	380	319	351	309	283	295	322
1819	30533	408	211	347	370	315	257	384	341	289	333	375	322
1820	30535	445.4	269	284	298	318	297	459	284	259	241	358	306
1821	31304	639.2	221	327	306	358	290	291	322	267	315	449	314
1822	31305	601.8	216	357	334	370	337	273	337	332	314	301	317
1823	Ranbir Basmati (RP)	697	255	350	250	358	347	286	327	318	224	361	307
1824	Pusa RH-10 (Hybrid Check)	418.2	214	340	334	325	366	571	353	285	319	365	347
1825	31306	513.4	262	320	295	310	347	405	291	360	309	433	333
1826	31307	523.6	219	337	336	393	343	422	351	332	311	454	350
1827	Pusa Basmati 1509 (RP)	550.8	282	317	316	268	343	427	332	343	242	282	315
1828	30553	598.4	286	347	375	323	370	405	358	338	219	361	338
1829	Taraori Basmati (QC)	646	262	327	320	365	323	318	293	304	293	372	318
1830	Local Check	527	245	383	332	430	366	284	346	292	308	364	335
Exp Mean		529	238	333	332	345	346	386	334	297	279	395	
CD (0.05)		131	18.5	NS	62.7	48.0	66.2	42.5	26.5	80.2	23.2	43.9	
CV		12.1	3.8	8.9	9.2	6.8	9.3	5.4	3.9	13.2	4.1	5.4	

Table 18.6. Summary of the grain quality characteristics of entries in Initial Varietal Trial - Basmati (IVT BT) conducted at ICAR-IARI, New Delhi and analyzed at IARI, New Delhi during Kharif 2023

Entry No	IET No	Hull %	Mill %	HRR	KL (mm)	KB (mm)	L/B	Grain type
1801	31289	81.59	74.11	45.15	6.56	1.55	4.23	**MS**
1802	31290	80.45	75.23	61.68	8.10	1.65	4.92	ELS
1803	31291	80.91	74.57	51.51	7.12	1.61	4.42	LS
1804	30548	81.59	76.56	63.23	7.03	1.65	4.27	LS
1805	31292	80.34	75.12	62.93	6.95	1.72	4.05	LS
1806	31293	81.82	75.68	54.55	7.93	1.66	4.78	ELS
1807	31294	80.00	74.13	50.13	7.83	1.65	4.76	ELS
1808	Pusa Basmati 1121 (Y & QC)	78.86	73.21	54.55	8.23	1.66	4.96	ELS
1809	31295	77.50	70.65	51.93	6.65	1.60	4.16	LS
1810	31296	79.55	72.25	46.80	6.75	1.63	4.14	LS
1811	31297	80.00	74.40	57.07	8.50	1.65	5.15	ELS
1812	31298	80.11	73.84	49.80	7.45	1.43	5.21	ELS
1813	31299	79.89	74.29	58.98	8.10	1.68	4.82	ELS
1814	31300	76.14	69.79	46.57	7.35	1.58	4.65	ELS
1815	Pusa Basmati 1 (YC)	77.95	72.50	53.27	7.43	1.63	4.56	ELS
1816	31301	80.11	74.77	55.28	7.68	1.66	4.63	ELS
1817	31302	80.82	75.43	59.54	7.05	1.80	3.92	LS
1818	31303	80.11	75.04	60.35	7.32	1.60	4.59	LS
1819	30533	80.68	75.98	61.86	7.60	1.60	4.76	ELS
1820	30535	81.48	76.45	63.01	7.18	1.75	4.10	LS
1821	31304	82.39	77.58	59.04	6.60	1.55	4.27	LS
1822	31305	82.95	77.42	51.85	6.53	1.58	4.13	LS
1823	Ranbir Basmati (RP)	80.68	70.60	39.00	6.40	1.65	3.89	LS
1824	Pusa RH-10 (Hybrid Check)	83.30	78.44	61.92	7.28	1.68	4.33	LS
1825	31306	78.86	71.63	34.44	8.05	1.63	4.94	ELS
1826	31307	79.32	73.77	44.02	8.15	1.66	4.91	ELS
1827	Pusa Basmati 1509 (RP)	79.09	73.03	41.79	7.98	1.66	4.81	ELS
1828	30553	80.23	75.15	55.89	8.28	1.66	4.99	ELS
1829	Taraori Basmati (QC)	81.59	76.70	64.86	6.93	1.63	4.25	LS
1830	Local Check (PB1692)	79.66	75.15	55.50	8.52	1.66	5.13	ELS

Table 18.6. (Contd…) Summary of the grain quality characteristics of entries in Initial Varietal Trial - Basmati (IVT BT) conducted at ICAR-IARI, New Delhi and analyzed at IARI, New Delhi during Kharif 2023

Entry No	IET No	Grain Chalk	VER	WU (ml)	KLAC	ER	ASV	AC %	GC	Aroma
1801	31289	P	5.83	325.00	10.83	1.65	5	25.39	27.50	MS
1802	31290	A	4.75	105.00	14.53	1.79	7	22.07	24.50	MS
1803	31291	OC	6.33	67.50	11.36	1.60	7	24.19	25.50	MS
1804	30548	OC	4.86	190.00	10.85	1.54	7	27.95	35.50	MS
1805	31292	VOC	4.86	157.50	11.33	1.63	7	24.63	36.50	MS
1806	31293	VOC	4.57	102.50	12.95	1.63	7	24.59	25.00	MS
1807	31294	OC	4.50	117.50	16.50	2.11	7	24.27	28.50	MS
1808	Pusa Basmati 1121 (Y & QC)	VOC	5.43	157.50	17.45	2.12	7	25.43	23.50	MS
1809	31295	P	5.71	310.00	11.80	1.77	5	25.19	25.50	MS
1810	31296	VOC	5.73	102.50	9.50	1.41	7	29.67	26.50	NS
1811	31297	VOC	5.43	142.50	16.60	1.95	7	23.27	37.50	MS
1812	31298	P	5.43	157.50	13.05	1.75	7	23.67	40.00	MS
1813	31299	P	5.14	152.50	16.40	2.03	7	24.99	39.50	SS
1814	31300	P	4.50	142.50	11.68	1.59	7	22.99	32.00	MS
1815	Pusa Basmati 1 (YC)	OC	4.75	150.00	14.32	1.93	7	24.81	27.50	MS
1816	31301	OC	6.33	112.50	17.05	2.22	7	23.71	31.50	SS
1817	31302	P	4.50	150.00	11.60	1.65	7	24.31	25.50	NS
1818	31303	OC	5.43	142.50	15.95	2.18	7	24.91	26.00	MS
1819	30533	OC	5.67	122.50	12.65	1.66	7	24.63	33.50	MS
1820	30535	OC	6.00	307.50	12.20	1.70	5	24.75	42.00	MS
1821	31304	OC	6.33	127.50	11.65	1.77	7	23.19	33.50	MS
1822	31305	OC	6.33	125.00	11.08	1.70	7	21.99	30.00	MS
1823	Ranbir Basmati (RP)	P	5.71	257.50	11.20	1.75	5	20.07	31.50	MS
1824	Pusa RH-10 (Hybrid Check)	OC	4.95	72.50	12.18	1.67	7	22.75	44.50	MS
1825	31306	P	5.43	140.00	16.15	2.01	6	22.71	25.50	MS
1826	31307	P	5.14	122.50	15.67	1.92	6	21.51	27.00	MS
1827	Pusa Basmati 1509 (RP)	OC	4.86	112.50	15.85	1.99	7	23.59	31.00	MS
1828	30553	VOC	6.00	117.50	16.63	2.01	7	24.59	24.50	MS
1829	Taraori Basmati (QC)	A	5.67	217.50	12.90	1.86	7	24.83	26.00	SS
1830	Local Check (PB1692)	OC	6.00	92.50	16.70	1.96	7	25.07	25.00	MS

Table 18.7. Summary of the grain quality characteristics of entries in Initial Varietal Trial - Basmati (IVT BT) conducted at ICAR-IARI, New Delhi and analyzed at BEDF, Modipuram during Kharif 2023

Entry No.	IET No	Hull %	Mill %	HRR	KL (mm)	KB (mm)	L/B	Grain type	Grain Chalk
1801	31289	78.07	69.10	51.67	6.71	1.72	3.90	LS	VOC
1802	31290	77.00	74.53	57.96	8.56	1.96	4.37	ELS	VOC
1803	31291	78.10	71.83	49.80	7.71	1.76	4.38	LS	OC
1804	30548	80.25	75.28	62.20	7.74	1.95	3.97	LS	VOC
1805	31292	78.80	77.07	63.47	7.60	2.04	3.73	LS	VOC
1806	31293	80.53	78.08	56.48	8.49	1.93	4.40	ELS	VOC
1807	31294	78.05	74.15	50.78	8.42	2.01	4.19	ELS	OC
1808	Pusa Basmati 1121 (Y & QC)	76.77	74.81	54.56	8.85	2.00	4.43	ELS	VOC
1809	31295	75.26	67.99	51.07	6.95	1.86	3.74	LS	VOC
1810	31296	80.90	76.30	56.54	7.27	1.92	3.79	LS	VOC
1811	31297	78.15	74.73	55.47	9.14	2.00	4.57	ELS	VOC
1812	31298	77.39	72.46	50.05	7.72	1.69	4.57	ELS	VOC
1813	31299	77.46	73.81	53.97	8.30	2.03	4.09	ELS	VOC
1814	31300	72.94	65.12	46.19	7.68	1.79	4.29	ELS	VOC
1815	Pusa Basmati 1 (YC)	75.92	69.38	48.51	7.59	1.78	4.26	ELS	VOC
1816	31301	78.38	75.11	49.72	8.20	1.96	4.18	ELS	OC
1817	31302	78.48	77.18	60.48	7.86	2.11	3.73	ELS	OC
1818	31303	77.30	71.90	49.04	8.11	1.78	4.56	ELS	VOC
1819	30533	78.16	75.75	60.51	7.88	1.87	4.21	ELS	VOC
1820	30535	79.68	78.60	64.04	7.78	2.11	3.69	LS	VOC
1821	31304	80.86	78.32	50.76	6.74	1.70	3.96	LS	VOC
1822	31305	80.45	79.72	52.46	6.85	1.68	4.08	LS	VOC
1823	Ranbir Basmati (RP)	77.52	70.27	45.01	6.51	1.72	3.78	LS	VOC
1824	Pusa RH-10 (Hybrid Check)	80.96	74.17	61.84	7.31	1.87	3.91	LS	VOC
1825	31306	75.96	67.75	40.83	8.30	1.86	4.46	ELS	OC
1826	31307	75.52	68.29	48.06	8.33	1.89	4.41	ELS	VOC
1827	Pusa Basmati 1509 (RP)	76.68	70.43	44.17	8.30	1.90	4.37	ELS	VOC
1828	30553	77.82	74.55	49.76	8.57	1.95	4.39	ELS	VOC
1829	Taraori Basmati (QC)	79.01	77.08	61.05	7.47	1.86	4.02	LS	A
1830	Local Check (PB1692)	77.69	74.79	56.76	8.55	1.97	4.34	ELS	VOC

Table 18.7 (*contd...*): Summary of the grain quality characteristics of entries in Initial Varietal Trial - Basmati (IVT BT) conducted at ICAR-IARI, New Delhi and analyzed at BEDF, Modipuram during Kharif 2023

Entry No.	IET No	VER	WU (ml)	KLAC	ER	ASV	AC %	GC	Aroma
1801	31289	4.69	145	10.55	1.57	2.91	24.62	77.5	SS
1802	31290	5.57	390	18.25	2.13	6.83	24.58	25	MS
1803	31291	5.02	425	13.6	1.76	7	23.93	57	NS
1804	30548	5.36	325	14.25	1.84	7	22.96	30	MS
1805	31292	4.69	340	14	1.84	6.91	24.01	25	MS
1806	31293	5.5	375	17.3	2.04	6.58	21.9	27.5	SS
1807	31294	5.57	370	18.5	2.2	7	22.8	25	MS
1808	Pusa Basmati 1121 (Y & QC)	5.09	365	19.8	2.24	7	22.23	57.5	MS
1809	31295	5	130	13.15	1.89	2.67	24.58	57.5	MS
1810	31296	5.16	375	13.15	1.81	7	27.74	57.5	MS
1811	31297	5.5	370	18.85	2.06	7	24.9	45	MS
1812	31298	5.5	405	14.4	1.87	7	26.83	56	MS
1813	31299	5.36	325	17.65	2.13	7	23.94	55	SS
1814	31300	5.57	370	14.8	1.93	6.41	24.94	52.5	MS
1815	Pusa Basmati 1 (YC)	5.43	385	15.4	2.03	7	23.54	60	MS
1816	31301	5.57	395	17.7	2.16	6.91	24.78	50	MS
1817	31302	5.36	355	14.9	1.9	6.91	23.74	32.5	MS
1818	31303	5.43	380	16.6	2.05	7	24.38	60	MS
1819	30533	5.29	340	14	1.78	7	24.18	41	MS
1820	30535	5.02	80	15.75	2.02	2.91	24.94	59	NS
1821	31304	5.16	330	11.9	1.77	7	22.88	59	MS
1822	31305	5.43	335	12.3	1.8	7	21.88	51	SS
1823	Ranbir Basmati (RP)	4.75	210	12.1	1.86	4.25	20.4	57.5	MS
1824	Pusa RH-10 (Hybrid Check)	5.36	385	13.3	1.82	6.5	20.4	27.5	SS
1825	31306	5.57	385	17.4	2.1	6.25	21	46	SS
1826	31307	4.82	345	18.1	2.17	6.33	20.24	52.5	MS
1827	Pusa Basmati 1509 (RP)	5.64	350	17.7	2.13	6.41	22.24	47.5	NS
1828	30553	5.43	345	18.75	2.19	7	23.96	27.5	SS
1829	Taraori Basmati (QC)	4.82	290	15	2.01	4.91	20.8	31	SS
1830	Local Check (PB1692)	5.16	375	18.5	2.16	7	20.36	57.5	MS

Table 18.8: Summary of the grain quality characteristics of entries in Initial Varietal Trial - Basmati (IVT BT) conducted at ICAR-IARI, New Delhi and analyzed at ICAR-NRRI, Cuttack during Kharif 2023.

Entry No.	IET No	Hull %	Mill %	HRR %	Chalk	KL (mm)	KB (mm)	L/B	Grain Type
1801	31289	75.00	66.00	53.00	A	8.17	1.35	6.06	LS
1802	31290	76.00	68.50	57.50	A	7.14	1.45	4.93	LS
1803	31291	75.50	61.00	51.00	A	6.61	1.29	5.12	LS
1804	30548	77.50	66.00	55.00	A	6.37	1.25	5.10	LS
1805	31292	76.50	66.00	61.50	A	6.05	1.29	4.69	LS
1806	31293	75.00	63.00	56.50	A	6.91	1.16	5.95	LS
1807	31294	76.00	68.50	59.50	A	6.80	1.22	5.59	LS
1808	Pusa Basmati 1121 (Y & QC)	74.50	65.50	53.50	A	7.73	1.14	6.78	LS
1809	31295	77.50	61.50	53.00	A	8.52	1.21	7.07	LS
1810	31296	79.50	69.50	59.00	A	6.36	1.11	5.76	LS
1811	31297	76.50	63.00	55.00	A	6.61	1.22	5.44	LS
1812	31298	79.50	65.00	58.50	A	6.68	1.22	5.48	LS
1813	31299	78.00	68.50	54.50	A	6.83	1.38	4.95	LS
1814	31300	76.00	67.00	58.50	A	6.69	1.24	5.41	LS
1815	Pusa Basmati 1 (YC)	77.50	66.50	51.00	A	7.25	1.20	6.06	LS
1816	31301	78.50	69.00	56.00	A	6.53	1.21	5.42	LS
1817	31302	74.00	63.00	54.00	A	6.26	1.08	5.83	LS
1818	31303	74.50	65.00	55.50	A	7.43	1.14	6.52	LS
1819	30533	76.50	65.50	51.50	A	6.74	1.38	4.88	LS
1820	30535	79.00	67.50	52.50	A	6.82	1.65	4.13	LS
1821	31304	75.50	66.00	58.50	A	7.29	1.19	6.12	LS
1822	31305	75.00	61.00	54.50	A	7.39	1.12	6.60	LS
1823	Ranbir Basmati (RP)	78.00	64.50	53.50	A	5.52	1.12	4.95	LS
1824	Pusa RH-10 (Hybrid Check)	77.00	68.50	56.50	A	5.83	1.13	5.18	LS
1825	31306	77.00	64.00	54.00	A	6.35	1.14	5.60	LS
1826	31307	78.00	65.50	55.50	A	7.84	1.14	6.91	LS
1827	Pusa Basmati 1509 (RP)	78.00	63.50	51.00	A	7.70	1.14	6.76	LS
1828	30553	75.00	64.50	55.50	A	7.86	1.16	6.77	LS
1829	Taraori Basmati (QC)	74.00	65.50	57.00	A	7.87	1.26	6.24	LS
1830	Local Check (PB1692)	76.00	64.00	58.00	A	7.77	1.30	5.97	LS

Table 18.8 (*contd...*): Summary of the grain quality characteristics of entries in Initial Varietal Trial - Basmati (IVT BT) conducted at ICAR-IARI, New Delhi and analyzed at ICAR-NRRI, Cuttack during Kharif 2023.

Entry No.	IET No	ASV	WU (ml)	VER	ER@	KLAC (mm)@	AC %	GC (mm)
1801	31289	5.00	155.00	4.00	1.22	10.00	22.80	41.00
1802	31290	5.00	125.00	4.00	1.40	10.00	22.20	43.50
1803	31291	6.00	145.00	3.75	1.44	9.50	23.05	47.00
1804	30548	4.00	125.00	3.75	1.49	9.50	25.55	40.00
1805	31292	6.00	145.00	4.00	1.82	11.00	24.05	42.50
1806	31293	6.00	115.00	3.75	1.45	10.00	23.85	46.00
1807	31294	3.50	110.00	3.75	1.40	9.50	25.05	43.50
1808	Pusa Basmati 1121 (Y & QC)	4.50	185.00	4.00	1.29	10.00	23.95	45.00
1809	31295	5.00	145.00	4.00	1.29	11.00	22.40	46.50
1810	31296	6.00	135.00	3.75	1.49	9.50	25.05	43.50
1811	31297	4.00	107.50	3.75	1.44	9.50	22.95	43.00
1812	31298	4.00	92.50	3.75	1.35	9.00	21.00	51.50
1813	31299	3.00	80.00	4.00	1.46	10.00	21.40	47.50
1814	31300	3.00	115.00	4.00	1.50	10.00	23.50	47.50
1815	Pusa Basmati 1 (YC)	6.00	125.00	4.00	1.52	11.00	22.00	48.50
1816	31301	4.00	85.00	4.00	1.53	10.00	21.90	49.50
1817	31302	6.00	180.00	4.00	1.60	10.00	21.50	48.00
1818	31303	6.00	145.00	4.00	1.62	12.00	22.28	45.00
1819	30533	5.00	140.00	4.00	1.48	10.00	20.30	46.50
1820	30535	5.00	90.00	4.00	1.47	10.00	21.90	45.00
1821	31304	7.00	167.50	4.00	1.37	10.00	21.76	48.00
1822	31305	6.00	160.00	4.00	1.49	11.00	20.98	45.50
1823	Ranbir Basmati (RP)	7.00	110.00	3.75	1.63	9.00	20.98	47.50
1824	Pusa RH-10 (Hybrid Check)	6.00	102.50	3.75	1.54	9.00	21.91	47.50
1825	31306	3.50	137.50	3.75	1.42	9.00	21.11	46.00
1826	31307	6.00	117.50	4.00	1.40	11.00	20.90	47.00
1827	Pusa Basmati 1509 (RP)	7.00	137.50	4.00	1.43	11.00	22.11	47.50
1828	30553	6.00	127.50	4.00	1.53	12.00	19.83	42.00
1829	Taraori Basmati (QC)	6.00	95.00	4.00	1.40	11.00	21.94	44.50
1830	Local Check (PB1692)	5.00	145.00	4.00	1.48	11.50	25.10	47.50

@ data not considered

Table 18.9: Panel Test Scores of entries in Initial Varietal Trial - Basmati (IVT BT) conducted at ICAR-IARI, New Delhi during *Kharif* 2023

Entry No	IET No	Appearance	Cohesiveness	Tenderness on touching	Tenderness on Chewing	Taste	Aroma	Elongation	Overall Acceptability	Mean	Ranking
1801	31289	4.2	4.4	4.2	4.2	3.2	2.3	1.8	1.8	3.3	XI
1802	31290	4.4	4.2	3.8	3.8	3.0	2.7	2.4	2.2	3.3	XI
1803	31291	4.8	4.6	4.6	4.6	3.4	2.7	3.0	2.6	3.8	VII
1804	30548	3.8	4.2	3.8	3.6	2.8	3.5	1.8	1.4	3.1	XII
1805	31292	4.4	3.6	3.8	4.2	3.2	3.3	2.8	2.0	3.4	X
1806	31293	4.8	3.8	4.4	4.6	3.4	3.5	3.2	2.8	3.8	VII
1807	31294	4.0	4.6	4.4	4.5	4.0	3.8	4.2	3.4	4.1	V
1808	Pusa Basmati 1121 (Y & QC)	4.0	4.8	4.4	4.3	4.0	3.8	4.4	3.2	4.1	V
1809	31295	4.0	4.6	4.0	4.0	2.8	3.5	2.4	1.8	3.4	X
1810	31296	4.8	4.8	2.8	2.8	2.3	2.8	1.8	1.2	2.9	XIII
1811	31297	4.4	4.8	4.2	4.3	4.0	3.8	5.0	4.2	4.3	III
1812	31298	4.8	4.4	4.6	4.5	2.8	3.3	2.8	2.8	3.7	VIII
1813	31299	4.4	5.0	5.0	5.0	4.7	3.8	4.6	4.4	4.6	I
1814	31300	3.6	4.6	4.6	4.5	2.7	3.0	2.2	2.0	3.4	X
1815	Pusa Basmati 1 (YC)	4.2	5.0	4.6	4.5	3.0	3.3	4.0	3.6	4.0	VI
1816	31301	4.2	4.4	5.0	4.8	3.3	3.3	4.0	3.2	4.0	VI
1817	31302	4.4	4.0	4.2	3.8	2.0	2.0	1.8	1.0	2.9	XIII
1818	31303	4.0	4.6	4.2	4.3	3.7	3.5	4.2	3.4	4.0	VI
1819	30533	4.3	4.0	4.3	4.7	4.0	3.3	3.7	3.3	4.0	VI
1820	30535	5.0	4.7	3.7	3.3	3.0	2.0	2.7	2.3	3.3	XI
1821	31304	4.0	4.3	4.0	4.7	3.0	3.0	2.3	1.7	3.4	X
1822	31305	4.0	4.7	4.3	5.0	3.3	3.0	2.7	2.0	3.6	IX
1823	Ranbir Basmati (RP)	4.0	3.0	4.7	4.3	2.7	3.0	2.0	1.3	3.1	XII
1824	Pusa RH-10 (Hybrid Check)	4.7	3.3	4.3	4.0	3.0	3.3	2.0	1.7	3.3	XI
1825	31306	4.8	4.5	4.8	5.0	4.0	3.7	4.5	4.0	4.4	II
1826	31307	4.5	4.5	4.8	5.0	4.3	3.7	4.5	4.3	4.4	II
1827	Pusa Basmati 1509 (RP)	4.3	4.8	4.8	4.8	4.0	3.7	4.8	4.0	4.4	II
1828	30553	4.8	4.8	4.5	4.5	3.5	3.7	4.0	4.3	4.2	IV
1829	Taraori Basmati (QC)	4.3	4.8	3.8	3.8	3.5	3.7	4.8	3.3	4.0	VI
1830	Local Check (PB1692)	4.8	4.5	4.0	4.0	3.8	3.7	4.8	4.0	4.2	IV

Table 18.10: Panel Test Scores of entries in Initial Varietal Trial - Basmati (IVT BT) conducted at BEDF, Modipuram during *Kharif* 2023

Entry No.	IET No.	Appearance	Cohesiveness	Tenderness on touching	Tenderness on chewing	Taste	Aroma	Elongation	Overall acceptability	Total	Mean	Rank
1801	31289	4.3	3.5	4.1	4.1	3.4	1.9	2.4	2.8	26.3	3.3	26
1802	31290	4.7	4.4	4.4	4.3	3.4	3.7	3.4	4.2	32.2	4.0	1
1803	31291	4.3	3.9	4.1	4.1	3.4	3.0	2.9	3.3	28.9	3.6	8
1804	30548	4.1	4.1	4.2	4.2	3.1	1.9	2.7	3.4	27.5	3.4	21
1805	31292	4.3	4.0	4.0	4.2	3.3	3.0	2.9	2.9	28.5	3.6	12
1806	31293	4.0	4.0	4.1	4.0	3.4	3.1	2.8	3.5	28.8	3.6	10
1807	31294	4.0	3.8	4.0	4.0	3.1	3.2	2.7	3.1	27.7	3.5	18
1808	Pusa Basmati 1121 (Y & QC)	4.0	4.1	4.1	4.2	2.9	3.4	3.0	3.3	28.9	3.6	9
1809	31295	4.1	4.1	4.0	4.1	3.4	2.1	3.0	3.1	27.8	3.5	17
1810	31296	4.0	4.0	4.0	4.0	3.4	2.7	2.8	3.0	27.6	3.5	19
1811	31297	4.1	4.1	4.0	4.1	2.7	2.5	2.8	3.4	27.6	3.4	20
1812	31298	4.2	4.3	4.3	4.0	2.8	2.8	3.4	3.7	29.4	3.7	7
1813	31299	4.5	4.2	4.2	4.1	3.2	3.1	3.6	4.2	31.0	3.9	3
1814	31300	4.0	3.6	3.8	3.9	3.4	1.9	2.9	2.8	26.1	3.3	27
1815	Pusa Basmati 1 (YC)	3.9	3.6	3.7	4.0	3.0	1.7	2.5	2.7	25.0	3.1	29
1816	31301	4.1	4.0	4.1	3.7	3.0	2.1	3.1	3.9	27.9	3.5	14
1817	31302	4.3	3.9	4.0	4.1	3.0	2.6	2.8	3.4	28.0	3.5	13
1818	31303	3.8	3.8	3.9	3.8	3.0	2.1	2.2	2.8	25.2	3.2	28
1819	30533	4.1	3.4	3.8	3.9	2.7	1.7	2.6	2.9	24.9	3.1	30
1820	30535	4.4	4.1	4.3	4.2	2.6	3.5	2.7	3.0	28.6	3.6	11
1821	31304	4.1	4.1	4.0	4.1	3.0	2.4	3.1	3.1	27.9	3.5	15
1822	31305	4.5	4.2	4.3	4.4	2.4	2.8	3.6	4.3	30.4	3.8	6
1823	Ranbir Basmati (RP)	4.1	3.9	4.0	4.1	3.3	1.9	2.9	3.1	27.1	3.4	23
1824	Pusa RH-10 (Hybrid Check)	4.2	4.1	4.1	4.0	2.5	2.1	3.0	2.9	26.8	3.3	25
1825	31306	4.1	3.8	4.0	4.0	3.0	3.1	3.0	3.0	27.9	3.5	16
1826	31307	3.9	4.0	4.0	4.1	2.7	1.7	3.1	4.0	27.4	3.4	22
1827	Pusa Basmati 1509 (RP)	4.6	4.6	4.2	4.0	2.6	3.4	3.3	4.3	30.8	3.8	5
1828	30553	3.9	3.9	4.0	4.1	3.4	2.0	2.7	3.1	27.0	3.4	24
1829	Taraori Basmati (QC)	4.5	4.2	4.3	4.3	2.7	3.6	3.5	4.2	31.2	3.9	2
1830	Local Check (PB1692)	4.4	4.2	4.2	4.1	3.8	2.8	3.4	4.3	31.0	3.9	4

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76	Karnal / Rohtak / Jind / Panipat / Anjanteli / Kurukshetra	Voluntary	Dr. LOKESHKUMAR B M, Scientist (Plant Breeding), Division of Crop Improvement, ICAR-Central Soil Salinity Research Institute (CSSRI), Kachwa Road, Karnal-132001, Haryana, 9738234049 (M), lokeshbm8050@gmail.com
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79	Khudwani / Bandipore/ Larnoo / Pombay/ Wadura	Funded	Dr. N.R. Sofi, Associate Director of Research, PBG AICRIP, Rice, Mountain Research Centre for Field Crops (SKUAST-K), Khudwani, Anantang – 192 102, Kashmir, J&K (F) 01931-238246, 09419040582 (M) najeeb_sofi@rediffmail.com adrkhudwani@gmail.com
80	Khudwani	Funded	Dr. Gazala H.Khan, Junior Scientist, GPB, Mountain Research Centre for Field Crops, Khudwani, Anantnag-192102, Kashmir, J&K.
81	Kota	Funded	Dr. Manoj Kumar, Asst. Professor & Rice Breeder, Dept. Of Plant Breeding & Genetics, Agricultural Research Station, Agriculture University, Ummedganj farm, PB. No. 7, G.P.O. Nayapura, Kaithoon Road, Kota-324001, Rajasthan, 0744-2844369 (O), 8005919994 (M) manoj.vishnoi108@gmail.com
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156	Rajendranagar	Funded	Dr. P. Raghu Rami Reddy, Principal Scientist (Rice) & Head, Rice Research Centre, Agricultural Research Institute, PJTSAU, Rajendranagar, Hyderabad – 500 030, Telangana, 040-24015817 (O), psrice2009@gmail.com
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158	Rajendranagar	Funded	Dr. Y. Chandra Mohan, Senior Scientist (Plant Breeding), Rice Research Centre, ARI, PJTSAU, Rajendranagar, Hyderabad-500030, Telangana,09908577040(M), 08724-277283(F),drycmohan@yahoo.co.in
159	Rajouri	Voluntary	Dr. Vikas Sharma, Sr. Scientist / Associate Professor (Agronomy), Regional Agricultural Research Station, SKUAST- Jammu, Tandwal, Rajouri – 185131, Jammu & Kashmir, 9419135427 / 7006361502 (M), rarsrajouri@gmail.com vsagron@gmail.com
160	Ranchi	Funded	Dr.Nutun Verma, Junior Scientist cum Assistant Professor, Dept. of Plant Breeding & Genetics, Birsa Agricultural University, Kanke, Ranchi, Jharkhand- 834006, 06151-2450625 (O),
161	Ranchi	Funded	Dr. Ekhlaque Ahmad, Rice Breeder, Department of Genetics & Plant Breeding , Birsa Agricultural University, Kanke, Ranchi (Jharkhand)-834006; 07763842010/09431169721 (M) ekhlaque.bau@gmail.com ekhlaque@bauranchi.org
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164	Rudrur	Voluntary	Miss. Ramya Rathod, Scientist (Plant Breeding), Regional Sugarcane and Rice Research Station, Rudrur-503188, Nizamabad district, Telangana State, 08179525139 (M), ramyarathod.5@gmail.com
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166	Sabour	Voluntary	Dr. Swetha Sinha, Asst. Professor-cum-Jr. Scientist, Dept. of Molecular Biology and Genetic Engineering, BAU, Sabour, Bhagalpur, Bihar, 9546858384 (M), bablysweta@gmail.com
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172	Sindewahi	Voluntary	Dr. M.R. Wandhare, Assistant Professor of Agriculture Botany, Agricultural Research Station (Dr.PDKV), Sindewahi- 441 222, District Chandrapur, Maharashtra, 09604323973 (M), madanwandhare@rediffmail.com adrsyezarspkv@rediffmail.com madanwandhare@pdkv.ac.in
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	Dr Veeresh Gowda, Email: veeresh.rpgowda@bayer.com
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WEATHER DATA – KHARIF 2023

ADUTHURAI						
Latitude :	11° N		Longitude:	79.3°E	Elevation(m) :	19.47 MSL
Soil type:	Clay		Soil pH :	7.2	Soil texture :	Clay Loam
	June	**July**	**Aug**	**Sept**	**Oct**	**Total / Range**
No. of Rainy days	3	2	6	6	3	20
Total Rainfall (mm)	79.8	14.8	120.9	31.4	17.2	264.1
Avg. Max. Temp. (°C)	36.4	35.6	36.5	34.8	34.2	34.2-36.5
Avg. Mini. Temp. (°C)	25.6	25.6	27.1	24.6	24.6	24.6-27.1
Avg. Sunshine hours	5.5	3.8	5.8	7.5	4.2	5.36
Avg. wind velocity (kmph)	3.8	8.1	6.2	6.5	3.7	5.66

ALMORA							
Latitude :	29°.36'N		Longitude:	79°.40'E		Elevation(m) :	1250
Soil type:	Clay loam		Soil pH :	6.5		Soil texture :	clay
	May	**June**	**July**	**Aug**	**Sep**	**Oct**	**Total / Range**
No. of Rainy days	8	8	20	14	9	2	61
Total Rainfall (mm)	41.0	47.5	219.65	111.95	165.5	22.2	607.8
Avg. Max. Temp. (°C)	28.6	32.1	29.4	29.7	30.0	28.6	28.6-32.1
Avg. Mini. Temp. (°C)	12.3	17.2	20.6	20.4	19.0	10.4	10.4-20.6
Avg. Sunshine hours	8.17	5.55	2.98	3.87	5.57	7.80	5.656

ANNAMALAINAGAR							
Latitude :	11°.24' N		Longitude:	79°.41' N		Elevation(m) :	5.79 msl
Soil type:	Clay		Soil pH :	8.42Ec: 2.62dS/m		Soil texture	Clay loam
	July	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Total / Range**
No. of Rainy days	3	8	5	6	21	10	53
Total Rainfall (mm)	28.1	118.3	65.0	77.0	542.6	130.1	961.1
Avg. Max. Temp. (°C)	34.4	36.3	35.6	34.2	30.2	30.1	30.1-36.3
Avg. Mini. Temp. (°C)	23.5	22.6	22.5	22.6	20.1	19.9	19.9-23.5
* Avg. Sunshine hours	4.3	6.7	5.6	5.4	5.3	3.1	5.06
*Avg. wind velocity	5.1	4.2	4.8	3.1	2.7	3.9	3.98

BANKURA							
Latitude :	23.24185		Longitude:	87.05715		Elevation (m):	84 MSL
Soil type:	Red & Lateritic		Soil pH :	4.5 – 6.0		Soil texture	Sandy Loam
	Month 1	**Month 2**	**Month 3**	**Month 4**	**Month 5**	**Month 6**	**Total / Range**
No. of rainy days	9	11	7	6	3	4	40
Total rainfall (mm)	7.42	23.1	18.7	54.2	1.02	77.98	182.42
Avg. Max Temp. (°C)	35.29	33.87	35.06	34.76	30.02	25.8	25.8-35.29
Avg. Min.Temp. (°C)	27.70	28.06	26.58	26.65	17.7	13.4	13.4-28.06
* Avg. Sunshine hours	13.24	12.54	12.18	11.36	11.3	10.45	11.84
* Avg. wind velocity	1.5	1.1	1.0	0.5	0.8	0.9	0.98

BAPATLA						
Latitude :	15° 54'		Longitude:	80 ° 28'	Elevation(m) :	+ 5.49msl
Soil type:	Black soils		Soil pH :	7.2	Soil texture :	Clay
	Month 1	**Month 2**	**Month 3**	**Month 4**	**Month 5**	**Total / Range**
No. of Rainy days	10	11	3	7	2	33
Total Rainfall (mm)	211.1	273.8	29.3	100.1	286.8	901.1
Avg. Max. Temp. (°C)	36.3	34.7	34.2	30.7	29.8	29.8-36.3
Avg. Mini. Temp. (°C)	25.6	25.2	23.8	22.4	19.8	19.8-25.6

BAJAURA								
Latitude:	-		Longitude:	-		Elevation (m):		-
Soil type:	-		Soil pH:	-		Soil texture:		-
	Apr	**May**	**June**	**July**	**Aug**	**Sep**	**Oct**	**Total / Range**
No. of Rainy days	13	14	12	18	9	3	4	73
Total Rainfall (mm)	131.6	103.8	79.5	330.9	120.0	26.5	17.8	810.1
Avg. Max. Temp. (^{0}C)	24.6	27.5	30.0	29.7	31.4	31.6	27.6	24.6-31.6
Avg. Mini. Temp. (^{0}C)	7.1	10.2	16.2	19.5	20.2	17.1	7.6	7.1-20.2
RH (%) M	87.0	81.0	85.0	87.0	87.0	82.0	86.0	
RH (%) E	45.0	48.0	50.0	59.0	57.0	45.0	32.0	
Total Evaporation (mm)	69.3	76.9	100.7	100.2	114.6	105.1	80.0	

BHUBANESWAR								
Latitude :	20.15 N		Longitude:		85.20 E		Elevation(m) :	25.9
Soil type:	acidic		Soil pH :		5.9		Soil texture :	Sandy Loam
	June	**July**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Total / Range**
No. of Rainy days	8	18	11	17	4	2	1	61
Total Rainfall (mm)	186.00	275.00	339.00	353.00	41.00	10.00	23.00	1227
Avg. Max Temp. (°C)	45	37	36	36	35	34	31	31-45
Avg. Min.Temp. (°C)	20	25	24	23	20	18	12	12-25

BILASPUR							
Latitude:	-		Longitude:	-		Elevation (m):	-
Soil type:	-		Soil pH :	-		Soil texture	-
	JUNE	**JULY**	**AUG**	**SEP**	**Oct**	**Nov**	**Total / Range**
No. of rainy days	9	21	15	20	1.0	2	68
Total rainfall (mm)	214.4	240.8	257.7	728	1.0	6.2	1448.1
Avg. Max Temp. (°C)	38.9	32.9	31.7	32.2	31.4	30.4	30.4-38.9
Avg. Min.Temp. (°C)	25.8	24.5	23.4	22.9	18.2	15.0	15.0-25.8
* Avg. Sunshine hours	5.9	4.5	3.4	4.1	8.3	6.07	5.37
* Avg. wind velocity	1.8	0.4	0.2	0.2	0.02	-	0.52

BRAHMAVAR							
Latitude	13^0 25 N		Longitude:	75^0 45E		Elevation (m):	10 MSL
Soil type:	Laterite		Soil pH :	5.5		Soil texture	Light textured
	Jun	**July**	**Aug**	**Sep**	**Oct**	**Nov**	**Total / Range**
No. of rainy days	20	31	17	23	5	6	102
Total rainfall (mm)	551.8	1849.7	222.9	514.7	99.5	134.2	3372.8
Avg. Max Temp. (°C)	32.0	28.5	30.8	30.4	32.5	33.1	28.5-33.1
Avg. Min.Temp. (°C)	23.0	21.4	21.6	21.5	22.7	22.3	21.4-23
* Avg. Sunshine hours	2.2	0.8	5.9	3.3	5.8	6.1	4.02
* Avg. wind velocity	3.1	3.4	2.7	2.9	2.3	1.9	2.72

CANNING							
Latitude :	22.30489° N		Longitude:	88.6656° E		Elevation (m) :	6 m
Soil type:	Saline		Soil pH :	7.0-8.0		Soil texture	Heavy texture
	July	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Total / Range**
No. of Rainy days	19	19	17	6	1	0	62
Total Rainfall (mm)	278.4	470.8	295.2	140.4	4.6	1.6	1191
Avg. Max. Temp. (^{0}C)	33.1	32.8	32.7	33.0	31.0	26.1	26.1-33.1
Avg. Mini. Temp. (^{0}C)	27.2	26.8	26.2	25.0	19.6	15.3	15.3-27.2
Avg. Sunshine hours	5.3	3.2	3.5	5.7	6.5	5.8	5.00
Avg. wind velocity	7.8	6.2	5.0	3.3	2.1	2.4	4.47

CHATHA							
Latitude:	32^0 40'N		Longitude:	74^0 48'E		Elevation (m) :	293
Soil type:	-		Soil pH :	-		Soil texture:	Clay loam
	June	**July**	**Aug**	**Sept**	**Oct**	**Nov**	**Total / Range**
No. of Rainy days	06	10	12	8	4	3	43
Total Rainfall (mm)	182.06	388.8	356.2	114.6	100.0	66.8	1208.46
Avg. Max. Temp. (^{0}C)	36.20	33.6	34.8	33.9	30.3	26.2	26.2-36.2
Avg. Mini. Temp. (^{0}C)	24.2	25.5	25.2	23.1	16.3	10.9	10.9-25.5
Avg. Sunshine hours	6.3	4.8	6.3	6.4	7.6	6.0	6.23

CHINSURAH							
Latitude :	22°52´ N		Longitude	88°24´ E		Elevation:	8.62 m MSL
Soil type:	Clay Loam		Soil pH :	7.3		Soil texture:	Gangetic Alluvial
	June	**July**	**Aug**	**Sep**	**Oct**	**Nov**	**Total/Range**
No. of Rainy days	12	20	21	20	8	1	82
Total Rainfall (mm)	168.4	148.4	249.3	157.3	153.4	3.4	880.2
Avg. Max. Temp. ('0C)	36.7	34.8	33.0	33.6	31.5	29.8	29.8-36.7
Avg. Mini. Temp. ('0C)	26.4	27.1	26.1	27.1	23.6	18.0	18.0-27.1

CHIPLIMA							
Latitude :	$20^0$21'N		Longitude:	$80^0$55'E		Elevation (m) :	178.8 m MSL
Soil type:	Mixed Red, Black &Lateritic		Soil pH :	-		Soil texture:	-
	July	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Total / Range**
No. of Rainy days	20	17	14	3	-	3	57
Total Rainfall (mm)	331.8	347.4	242	86.6	-	37.2	1045
Avg. Max. Temp. (^{0}C)	32.8	30.9	31.2	31.5	29.6	25.8	25.8-32.8
Avg. Mini. Temp. (^{0}C)	25.8	25.4	25.2	21.8	18.2	13.4	13.4-25.8

COIMBATORE						
Latitude:	11˚N		Longitude:	77˚E	Elevation (m):	426.72
Soil type:	Clay		Soil pH:	7.8	Soil texture:	Heavy
	Aug	**Sep**	**Oct**	**Nov**	**Dec**	**Total / Range**
No. of Rainy days	1	2	4	13	-	20
Total Rainfall (mm)	6.6	11.8	34.5	391.7	-	444.6
Avg. Max. Temp. (^{0}C)	31.5	32.5	32.9	30.0	30.4	30-32.9
Avg. Mini. Temp. (^{0}C)	23.4	23.8	23.6	22.9	23.3	22.9-23.8
* Solar radiation (CAL/CM^2)	315.1	314.0	322.5	313.0	343.7	321.66
Avg. Sunshine hours	4.7	5.0	6.1	5.4	6.8	5.60
Avg. wind velocity	12.0	8.0	4.4	4.4	3.9	6.54

DABHOI							
Latitude:	22^0 08'		Longitude:	73^0 26'		Elevation (m):	43.128
Soil type:	Medium Black		Soil pH:	7.9		Soil texture:	Med. Black to loamy sand
	June	**July**	**Aug**	**Sep**	**Oct**	**Nov**	**Total / Range**
No. of Rainy days	05.00	18.00	02.00	11.00	00.00	02.00	38
Total Rainfall (mm)	117.80	424.60	15.00	219.40	00.00	49.00	825.8
Avg. Max. Temp. (^{0}C)	37.21	33.16	32.79	32.46	35.18	34.39	32.46-37.21
Avg. Mini. Temp. (^{0}C)	28.37	25.46	26.66	26.71	24.76	18.29	18.29-28.37
Avg. Sunshine hours	05.76	01.93	02.80	04.46	09.48	08.26	5.45
Avg. wind velocity	11.08	09.28	11.10	05.38	01.59	02.37	6.80

DEROL							
Latitude:	-		Longitude:	-		Elevation (m):	-
Soil type:	-		Soil pH:	-		Soil texture:	-
	June	**July**	**Aug**	**Sep**	**Oct**	**Nov**	**Total / Range**
No. of Rainy days	9	15	5	9	0	1	39
Total Rainfall (mm)	197.0	419.0	31.0	369.0	0.0	25.0	1041
Avg. Max. Temp. (^{0}C)	35.3	32.3	31.8	32.5	34.4	32.7	31.8-35.3
Avg. Mini. Temp. (^{0}C)	27.3	26.2	25.6	25.4	20.8	17.7	17.7-27.3
Avg. Sunshine hours	6.0	2.7	3.1	4.7	8.2	7.7	5.40

DHANGAIN							
Latitude:	-		Longitude:			Elevation (m):	-
Soil type:	**Clay**		Soil pH :	**7.2-7.5**		Soil texture	**Clay and fine**
	June	**July**	**Aug**	**Sep**	**Oct**	**Nov**	**Total / Range**
No. of rainy days	05	09	08	10	06	0	38
Total rainfall (mm)	85.8	178.0	123.6	158.8	213.6	0	759.8
Avg. Max Temp. (°C)	43.2	35.5	34.2	33.2	31.6	29.3	29.3-43.2
Avg. Min.Temp. (°C)	32.5	28.7	25.3	24.9	20.8	17.9	17.9-32.5

GANGAVATHI							
Latitude:	15'15'40''		Longitude:	76'31'40''		Elevation (m):	-
Soil type:	Medium black		Soil pH:	6.5 to 7.5		Soil texture:	-
	July	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Total / Range**
No. of Rainy days	11	2	6	0	2	0	21
Total Rainfall (mm)	104.5	13.0	52.2	0	38.50	0	208.2
Avg. Max. Temp. (^{0}C)	30.78	32.93	31.29	32.15	30.15	29.77	29.77-32.93
Avg. Mini. Temp. (^{0}C)	24.01	23.86	23.77	21.93	21.54	18.23	18.23-24.01

GANGTOK							
Latitude:	88^{0}36'9.793''E		Longitude:	27^{0}19'11.339''N		Elevation (m):	1348m AMSL
Soil type:	Alluvium		Soil pH:	5.6		Soil texture:	Sandy loam
	Apr	**May**	**June**	**July**	**Aug**	**Sep**	**Total / Range**
No. of Rainy days	6	17	19	4	27	14	87
Total Rainfall (mm)	125.9	313.5	464.9	147.3	495.9	251.4	1798.9
Avg. Max. Temp. (^{0}C)	25.49	26.88	27.29	28.11	26.99	29.05	25.49-29.05
Avg. Mini. Temp. (^{0}C)	13.03	15.02	19.23	20.33	20.59	19.73	13.03-20.59

HAZARIBAG							
Latitude:	23^o 95'91'' N		Longitude:	85^o 37'20'' E		Elevation (m):	614
Soil type:	Sandy-loam		Soil pH:	5.7		Soil texture:	35% clay, 53% silt, 15% sand
	June	**July**	**Aug**	**Sep**	**Oct**	**Nov**	**Total / Range**
No. of Rainy days	9.0	19.0	25.0	25.0	7.0	0.0	85
Total Rainfall (mm)	125.5	192.2	225.4	285.6	243.2	0.0	1071.9
Avg. Max. Temp. (^{0}C)	35.8	30.9	28.9	30.1	28.5	26.8	26.8-35.8
Avg. Mini. Temp. (^{0}C)	20.2	19.5	18.9	18.6	13.7	8.8	8.8-20.2
Avg. Sunshine hours	6.9	4.6	2.6	4.2	7.6	7.1	5.50
Avg. wind velocity	3.8	3.3	4.2	2.4	1.2	0.9	2.63

JABALPUR							
Latitude:	23.9° N		Longitude:	79.58° E		Elevation (m):	411.78 m above MSL
Soil type:	Medium black		Soil pH:	7.5		Soil texture:	clayey
	June	**July**	**Aug**	**Sep**	**Oct**	**Nov**	**Total / Range**
No. of Rainy days	6	13	14	11	0	3	47
Total Rainfall (mm)	298.4	259.6	502.9	236.9	0.6	19.5	1317.9
Avg. Max. Temp. (^{0}C)	37.7	32.4	30.2	31.6	31.8	29.3	29.3-37.7
Avg. Mini. Temp. (^{0}C)	25.9	25.5	23.9	24.2	17.8	13.4	13.4-25.9
Avg. Sunshine hours	7.6	4.5	3.2	5.1	8	5.7	5.68
Avg. wind velocity	6	4.7	6	3.7	2.2	1.4	4.00

JAGDALPUR							
Latitude:	19.05 ^{0}N		Longitude:	82.02^{0}E		Elevation (m):	552
Soil type:	Alfisol		Soil pH:	6.5		Soil texture:	Sandy loam
	June	**July**	**Aug**	**Sep**	**Oct**	**Nov**	**Total / Range**
No. of Rainy days	9	16	16	14	1	1	57
Total Rainfall (mm)	232.9	398.3	213.3	232.3	6.2	15.8	1098.8
Avg. Max. Temp. (^{0}C)	35.7	29.5	29.9	29.4	31.7	30.4	29.4-35.7
Avg. Mini. Temp. (^{0}C)	22.7	22.6	22.1	22.1	17.9	16.1	16.1-22.7
Avg. Sunshine hours	5.2	2.8	2.5	3.0	7.6	5.8	4.48
Avg. wind velocity	3.4	4.2	3.4	2.6	1.5	1.5	2.77

JEYPORE								
Latitude:	18.6N		Longitude:	82.44E		Elevation (m):		553
Soil type:	acidic		Soil pH:	6.6		Soil texture:		Sandy Loam
	June	**July**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Total / Range**
No. of Rainy days	10	24	25	25	4	4	3	95
Total Rainfall (mm)	153.20	370.00	325.00	606.00	90.00	19.00	42.00	1605.2
Avg. Max. Temp. (^{0}C)	41	37	34	34	34	33	32	32-41
Avg. Mini. Temp. (^{0}C)	20	21	22	21	16	15	9	9-22

KAMPASAGAR							
Latitude:	16.8536		Longitude:	79.4569		Elevation (m):	152 meters
Soil type:	Loamy		Soil pH:	**7.0**		Soil texture:	
	June	**July**	**Aug**	**Sep**	**Oct**	**Nov**	**Total / Range**
No. of Rainy days	6	10	9	9	0	5	39
Total Rainfall (mm)	42	99.8	55.2	162.6	3.1	28	390.7
Avg. Max. Temp. (^{0}C)	39.3	32.9	34	33.2	33.8	31.2	31.2-39.3
Avg. Mini. Temp. (^{0}C)	28.1	26.9	36.5	25.5	22.6	22.2	22.2-36.5
Avg. Sunshine hours	132	72	95	109	133	311	142.00
Avg. wind velocity	2.8	3	2.2	1.7	1.1	1.4	2.03

KARJAT							
Latitude:	18^0 55' N		Longitude:	73^0 18' N		Elevation (m):	51 m
Soil type:	Medium Black		Soil pH:	6.2		Soil texture:	Clay Loam
	June	**July**	**Aug**	**Sep**	**Oct**	**Nov**	**Total / Range**
No. of Rainy days	10	31	25	22	2	2	92
Total Rainfall (mm)	462.8	2238.1	392.9	612.6	83	41.8	3831.2
Avg. Max. Temp. (^{0}C)	35.16	27.4	30.29	30.15	34.35	34.2	27.4-35.16
Avg. Mini. Temp. (^{0}C)	26.07	24.4	24.63	24.16	23.02	19.92	19.92-26.07
Avg. Sunshine hours	00	0.5	2.67	4.76	6.08	5.88	3.32
Avg. wind velocity	6.85	4.1	2.87	1.7	0.72	0.56	2.80

KAUL							
Latitude:	29^0 51' 29.5"N		Longitude:	76^0 39' 24.3" E		Elevation (m):	230.7
Soil type:	Clay Loam		Soil pH:	8.04		Soil texture:	Clay
	Month 1	**Month 2**	**Month 3**	**Month 4**	**Month 5**	**Month 6**	**Total / Range**
No. of Rainy days	8	13	3	3	2	1	30
Total Rainfall (mm)	166.9	388.5	20.0	52.9	30.6	11.3	670.2
Avg. Max. Temp. (^{0}C)	36.1	27.0	34.3	34.3	32.2	27.8	27-36.1
Avg. Mini. Temp. (^{0}C)	24.6	20.5	26.2	23.9	16.8	11.9	11.9-26.2
Pan evaporation (mm)	6.5	-	2.3	2.4	2.4	1.5	
Avg. Sunshine hours	6.8	2.7	6.5	7.4	7.8	4.8	6.00
Avg. wind velocity	5.7	3.9	2.8	1.9	1.7	0.9	2.82

KHUDWANI								
Latitude:	34^0 N		Longitude:	73^{0}E		Elevation (m):		1560 m amsl
Soil type:	Clayey loam		Soil pH:	Neutral		Soil texture:		Silty clay loam
	Apr	**May**	**June**	**July)**	**Aug**	**Sep**	**Oct**	**Total / Range**
No. of Rainy days	9	8	4	8	1	1	2	33
Total Rainfall (mm)	146.4	85.7	62.4	187.1	9.2	27.6	44.4	562.8
Avg. Max. Temp. (^{0}C)	19.8	22.4	29.1	28.5	31.4	30.0	22.6	19.8-31.4
Avg. Mini. Temp. (^{0}C)	7.3	10.2	15.9	18.5	18.5	15.1	7.2	7.2-18.5

KURUMBAPET								
Latitude:	Between 11^{0}45' and 12^{0}15' N		Longitude:	Between 79^{0}35' and 80^{0}00' E		Elevation (m):		26 msl
Soil type:	Clay loam		Soil pH:	6.5		Soil texture:		Clay loam
	July	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Jan**	**Total / Range**
Total Rainfall (mm)	68	86.5	34.5	37	374	49	140	789
Avg. Max. Temp. (^{0}C)	35.8	37	35.2	33.3	31.9	30.4	30.1	30.1-37
Avg. Mini. Temp. (^{0}C)	28.3	25.8	25	24.6	23.9	21.9	21.2	21.2-28.3
Relative Humidity (%)	76.13	75.09	77.51	79.5	81	82	80.5	

LEMBUCHERRA							
Latitude:	23.330		Longitude:	73.770		Elevation (m):	12.80
Soil type:	Sandy loam		Soil pH:	5.5		Soil texture:	-
	Month 1	**Month 2**	**Month 3**	**Month 4**	**Month 5**	**Month 6**	**Total / Range**
No. of Rainy days	19	19	16	9	2	2	67
Total Rainfall (mm)	241.7	407.6	152.8	136.3	113.9	52	1104.3
Avg. Max. Temp. (^{0}C)	34	32	34	32	30	27	27-34
Avg. Mini. Temp. (^{0}C)	23.4	23.3	23.8	20.9	16	13	13-23.8
Avg. Sunshine hours	5.12	2.33	5.22	5.57	7.03	5.39	5.11
Avg. wind velocity	1.11	0.87	0.27	0.25	0.06	0.00	0.43

LUCKNOW							
Latitude:	27.47		Longitude:	80.21		Elevation (m):	126
Soil type:	Alkali		Soil pH:	~9.6, 0.89 dSm^{-1}		Soil texture:	Loam (sandy to clayey)
	June	**July**	**Aug**	**Sep**	**Oct**	**Nov**	**Total / Range**
No. of Rainy days	4	12	12	6	1	2	37
Total Rainfall (mm)	51	315	306	288	7	7	974
Avg. Max. Temp. (^{0}C)	39	35	34	34	34	29	29-39
Avg. Mini. Temp. (^{0}C)	28	28	27	26	20	14	14-28
Avg. Sunshine hours	8	5	4	6	8	5	6.00
Avg. wind velocity	7	2	4	2	2	1	3.00

LUDHIANA								
Latitude:	30° 54'N		Longitude:	75° 48'E		Elevation (m):		247 MSL
Soil type:	Loamy Sand		Soil pH:	7.7		Soil texture:		-
	May	**June**	**July**	**Aug**	**Sep**	**Oct**	**Nov**	**Total / Range**
No. of Rainy days	9	6	13	6	7	4	2	47
Total Rainfall (mm)	48.40	94.00	212.4	77.60	55.00	34.00	28.60	550
Avg. Max. Temp. (^{0}C)	35.59	36.83	33.09	34.63	33.21	30.77	26.25	26.25-36.83
Avg. Mini. Temp. (^{0}C)	21.27	26.34	27.34	27.41	25.04	17.81	13.14	13.14-27.41
Avg. Sunshine hours	8.60	8.17	4.59	6.78	7.30	8.75	5.47	7.09
Avg. wind velocity	5.16	5.35	4.64	3.34	2.28	2.18	1.55	3.50

MALAN						
Latitude :	32^0 1' N		Longitude:	76^0 20' E	Elevation(m) :	950 M
Soil type:	Alfisol		Soil pH :	5.6-5.8	Soil texture :	Silty Clay Loam
	June	**July**	**Aug.**	**Sep.**	**Oct.**	**Total / Range**
No. of Rainy days	3	16	13	6	4	42
Total Rainfall (mm)	30.8	174.58	133.2	83.40	14.80	43.7
Avg. Max. Temp. (^{0}C)	33.66	30.92	30.15	29.90	30.01	29.90-33.66
Avg. Mini. Temp. (^{0}C)	16.42	16.32	17.00	16.95	16.36	16.32-17.00

MANDYA								
Latitude :	12.45-13.57 N			Longitude:	76.48 - 78.24 E		Elevation(m) :	695 M
Soil type:	Sandy loam			Soil pH :	6.5 – 7.1		Soil texture	Sandy loam
	July	**Aug**	**Sep**	**Oct.**	**Nov**	**Dec**		**Total / Range**
No. of Rainy days	5	2	6	4	5	0		22
Total Rainfall (mm)	40.00	45.70	65.60	89.50	56.60	0		297.4
Avg. Max. Temp. (^{0}C)	28.60	32.30	28.20	31.30	29.70	29.80		28.20-32.30
Avg. Mini. Temp. (^{0}C)	19.50	19.40	20.60	19.40	19.40	18.00		18.00-20.60
* Avg. Sunshine hours	0.0	0.50	6.70	7.10	6.40	6.50		4.53
*Avg. wind velocity	6.70	4.70	4.30	1.90	2.00	2.10		3.61

MARUTERU								
Latitude :	16.38^o N		Longitude:	81.44^o E		Elevation (m):		5m
Soil type:	Black alluvial clay		Soil pH :	6.5-7.5		Soil texture		Delta alluvial
	June	**July**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Total / Range**
No. of rainy days	7	17	8	9	1	4	3	49
Total rainfall (mm)	71.1	197.3	119.3	79.4	8.1	25.2	275.8	776.2
Avg. Max Temp. (°C)	35.1	31.4	30.5	31.2	33.4	30.6	28.7	28.7-35.1
Avg. Min.Temp. (°C)	22.9	24.8	27.1	27.1	26.9	22.3	20.8	20.8-27.1
* Solar radiation (CAL/CM^2)	83.9	85.4	84.0	87.6	80.3	86.4	85.2	84.69
* Avg. Sunshine hours	5.32	3.04	4.55	2.79	2.98	2.31	2.21	3.31
* Avg. wind velocity	15.25	9.42	6.04	3.77	1.96	2.04	2.8	5.89

MEDIZIPHEMA- ICAR							
Latitude :	25°45'24'N		Longitude:	93°50'26'E		Elevation (m):	295 M
Soil type:	-		Soil pH :	-		Soil texture	-
	Month 1	**Month 2**	**Month 3**	**Month 4**	**Month 5**	**Month 6**	**Total / Range**
No. of rainy days	14	16	11	9	9	0	59
Total rainfall (mm)	160.8	375.8	261.8	161.2	94.8	0.0	1054.4

MONCOMPU							
Latitude :	9°26'15"N		Longitude:	76°25'42"E		Elevation(m) :	1-2.5m below MSL
Soil type:	Alluvial clay		Soil pH :	5.5		Soil texture :	Silty Clay Loam
	June	**July**	**Aug**	**Sep**	**Oct**	**Nov**	**Total / Range**
No. of Rainy days	21	19	4	23	16	13	96
Total Rainfall (mm)	316.1	506.3	90.6	442.5	348.7	290.4	1994.6
Avg. Max. Temp. (^{0}C)	32.7	30.5	33.0	32.1	32.5	32.7	30.5-33.0
Avg. Mini. Temp. (^{0}C)	25.9	24.2	26.9	26.6	26.6	26.9	24.2-26.9

NAGINA							
Latitude :	**29^0 28'N**		Longitude:	**78^0 32'E**		Elevation(m) :	**450**
Soil type:	**Sandy loam**		Soil pH :	**7.5**		Soil texture :	
	June	**July**	**Aug**	**Sep**	**Oct**	**Nov**	**Total / Range**
No. of Rainy days	05	13	10	06	02	00	36
Total Rainfall (mm)	290.6	522.6	224.6	341.6	32.6	00	1412
Avg. Max. Temp. (^{0}C)	34.5	31.6	32.8	32.9	31.4	27.4	27.4-34.5
Avg. Mini. Temp. (^{0}C)	23.5	19.4	25.1	23.4	15.9	10.0	10.0-25.1
Avg. Sunshine hours	5.9	7.4	5.3	4.8	7.2	6.1	6.11
Avg. wind velocity	5.1	4.4	4.4	2.9	1.8	1.7	3.38

NAVASARI								
Latitude:	20^o 29'		Longitude:	73o 29'		Elevation (m):		105 m
Soil type:	Clayey		Soil pH :	7.5		Soil texture		Loamy
	June	**July**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Total / Range**
No. of rainy days	9	26	7	12	0	2	0	56
Total rainfall (mm)	306	1130.7	40	289	0	42	0	1807.7
Avg. Max Temp. (°C)	33.8	29.5	30.6	31.8	35.1	33.7	30.9	29.5-35.1
Avg. Min.Temp. (°C)	26.9	24.8	25.2	24.3	21.8	19.1	17.1	26.9-17.1
* Avg. Sunshine hours	6.2	0.9	3.2	4.5	8.2	7.3	6.1	5.2
* Avg. wind velocity	7.9	4.4	6.0	2.1	0.7	1.6	2.0	3.52

NAWAGAM							
Latitude:	22^0 48'		Longitude:	71^0 3'		Elevation (m):	32.4
Soil type:	Medium Black		Soil pH :	7.8		Soil texture	Sandy Clay loam
	May	**June**	**July**	**Aug**	**Sep**	**Oct**	**Total / Range**
No. of rainy days	02	07	15	03	06	00	33
Total rainfall (mm)	40.0	214.8	334.4	19.0	126.1	00	734.3
Avg. Max Temp. (°C)	41.0	36.0	32.2	31.4	32.3	34.8	31.4 -41.0
Avg. Min.Temp. (°C)	24.9	25.1	24.9	24.3	25.2	21.1	21.1-25.2
* Avg. Sunshine hours	10.9	6.2	3.8	4.6	6.0	8.9	6.73
* Avg. wind velocity	5.5	8.3	3.5	2.7	2.1	0.3	3.73

NRRI CUTTACK							
Latitude	20.5N		Longitude:	86.0N		Elevation (m):	23.48
Soil type:	Clay loam		Soil pH :	6.9		Soil texture	
	July	**Aug**	**Sep**	**Oct**	**Nov**	**DEC**	**Total / Range**
No. of rainy days	7	7	14	3	0	1	32
Total rainfall (mm)	128	90.8	297	142.0	0	20	677.8
Avg. Max Temp. (°C)	32	33.2	31.9	31	31.0	27.6	27.6-33.2
Avg. Min.Temp. (°C)	27.5	25.9	25.0	25.2	23.9	16.9	16.9-27.5
* Avg. Sunshine hours	3.9	2.7	4.0	1.9	5.7	4.8	3.83
* Avg. wind velocity	-	-	5.0	-	-	-	5.0

PANTNAGAR							
Latitude:	29 degree North		Longitude:	79 degree 30'' East		Elevation (m):	243.84 m,
Soil type:	Clay-loam		Soil pH:	8.06		Soil texture:	Clay-loam
	June	**July**	**Aug**	**Sep**	**Oct**	**Nov**	**Total / Range**
No. of Rainy days	5	15	15	8	1	0	44
Total Rainfall (mm)	119.6	603.6	395.2	301.8	7.4	0	1427.6
Avg. Max. Temp. (^{0}C)	37.1	32.3	32.3	32.9	31.7	28.2	28.2-37.1
Avg. Mini. Temp. (^{0}C)	24.2	26.2	25.9	24.8	17.9	13	13-26.2
Avg. Sunshine hours	8.3	4.5	3.8	6.3	8.6	6.9	6.40
Avg. wind velocity	6.4	3.9	2.4	1	0.4	0.8	2.48

PANVEL							
Latitude:	18° 59'		Longitude:	73⁰ 10'E		Elevation (m) :	5 m MSL
Soil type:	Coastal saline		Soil pH :	7 - 8		Soil texture :	Silty clay
	June	**July**	**Aug**	**Sep**	**Oct**	**Nov**	**Total / Range**
No. of Rainy days	10	28	29	19	2	3	91
Total Rainfall (mm)	626.2	1909.4	378.8	559.4	25.4	11.0	3510.2
Avg. Max. Temp. (⁰C)	29.72	28.57	31.54	31.72	36.75	36.17	28.57-36.75

PARBHANI							
Latitude :	19.16 N		Longitude	76.47 E		Elevation :	409 m
Soil type:	Black Cotton		Soil pH :	7.8		Soil texture :	Medium
	Month 1	**Month 2**	**Month 3**	**Month 4**	**Month 5**	**Month 6**	**Total/Range**
No. of Rainy days	5	15	6	10	0	3	39
Total Rainfall (mm)	42.0	302.2	136.4	102.5	0	123.0	706.1
Avg. Max. Temp. ('0C)	38.1	30.9	31.5	31.2	33.5	31.1	30.9-38.1
Avg. Mini. Temp. ('0C)	25.0	23	22.1	22.2	17.6	16.4	16.4-25.0
Avg. Sunshine hours	7.8	2.6	5.6	4.3	8.4	6.4	5.85
Avg. wind velocity	5.8	4.0	4.7	3.6	--	--	4.525

PATNA							
Latitude :	25.30⁰ N		Longitude:	85.15⁰ E		Elevation (m) :	52 m
Soil type:	Recent alluvial		Soil pH :	7.5		Soil texture	Clay loam
	June	**July**	**Aug.**	**Sep.**	**Oct.**	**Nov**	**Total / Range**
No. of Rainy days	05	09	14	09	06	0	43
Total Rainfall (mm)	171.6	200.5	297.3	188.9	33.0	0	891.3
Avg. Max. Temp. (⁰C)	40.4	35.5	33.1	33.7	32.9	30.2	30.2-40.4
Avg. Mini. Temp. (⁰C)	28.2	27.4	26.9	26.6	22.6	17.8	17.8-28.2
Avg. Sunshine hours	7.0	3.89	NR	NR	NR	NR	5.44
Avg. wind velocity	NR	NR	NR	NR	NR	NR	NR

PATTAMBI							
Latitude:	10.770388		Longitude:	76.37706		Elevation (m):	63M
Soil type:	LATERITE		Soil pH:			Soil texture:	
	Month 1	**Month 2**	**Month 3**	**Month 4**	**Month 5**	**Month 6**	**Total / Range**
No. of Rainy days	14	18	4	20	11	9	76
Total Rainfall (mm)	304.9	545.7	48.5	461.5	249	351	1960.6
Avg. Max. Temp. (⁰C)	31.4	29.1	31.0	30.2	31.0	32.7	29.1-32.7
Avg. Mini. Temp. (⁰C)	22.8	21.7	33.4	22.6	22.1	21.6	21.6-33.4
Avg. Sunshine hours	113.3/3.7	92.3/2.9	193/6.2	99.8/3.3	143.1/4.6	196.8/6.5	
Avg. wind velocity	94.4/3.1	82.3/2.6	80.3/2.5	83.9/2.7	56.4/1.8	69.4/2.3	

PONNAMPET							
Latitude:	12.29N		Longitude:	75.56E		Elevation (m):	867m above MSL
Soil type:			Soil pH:	5 to 6		Soil texture:	Sandy loam
	Month 1	**Month 2**	**Month 3**	**Month 4**	**Month 5**	**Month 6**	**Total / Range**
No. of Rainy days	25	5	17	6	2	0	55
Total Rainfall (mm)	774.8	102	251.6	145.3	78	0	1351.7
Avg. Max. Temp. (⁰C)	20	19	20	20	20	17	17-20
Avg. Mini. Temp. (⁰C)	26	29	27	30	30	29	26-30
Avg. Sunshine hours	-	-	-	-	-	-	-
Avg. wind velocity	-	-	-	-	-	-	-

PUSA							
Latitude:	25.97 N		Longitude:	85.64 E		Elevation (m):	52.0
Soil type:	calcareous		Soil pH:	8.2-8.4		Soil texture:	Sandy-loam
	June	**July**	**Aug**	**Sep**	**Oct**	**Nov**	**Total / Range**
No. of Rainy days	05	07	17	12	07	00	48
Total Rainfall (mm)	92.6	146.2	532.9	434.6	39.6	0.0	1245.9
Avg. Max. Temp. (⁰C)	38.3	33.9	32.2	32.7	31.9	29.8	29.8-38.3
Avg. Mini. Temp. (⁰C)	24.6	25.4	24.7	24.4	21.9	16.3	16.3-25.4
Avg. Sunshine hours	7.3	5.0	3.2	4.3	7.3	5.2	5.38
Avg. wind velocity	6.8	5.5	3.7	2.2	1.4	1.6	3.53

RAGOLU							
Latitude:	18.24 ◦ N		Longitude:	83.84◦E		Elevation (m):	27 MSL
Soil type:	Red sandy loam with clay base		Soil pH:	-		Soil texture:	Low organic matter content
	July	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Total / Range**
No. of Rainy days	12	12	13	2	2	3	44
Total Rainfall (mm)	396	127.5	253	60	7	84.5	928
Avg. Max. Temp. (⁰C)	32.48	32.93	32.18	33.30	31.30	28.45	28.45-33.3
Avg. Mini. Temp. (⁰C)	27.27	27.04	26.51	24.82	23.25	18.77	18.77-27.27
Avg. Sunshine hours	3.57	5.03	3.30	6.50	5.45	7.38	5.21
Avg. wind velocity	4.02	3.20	0.84	0.10	0.26	0.23	1.44

RAIPUR							
Latitude:	21◦16' N		Longitude:	80◦ 36' E		Elevation (m):	298
Soil type:	Sandy loam		Soil pH:	-		Soil texture:	Clay loam
	July	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Total / Range**
No. of Rainy days	18	14	15	01	01	02	51
Total Rainfall (mm)	501.8	348.6	479.6	9.4	5.0	17.8	1362.2
Avg. Max. Temp. (⁰C)	32.2	31.7	31.4	32.5	29.9	27.3	27.3-32.5
Avg. Mini. Temp. (⁰C)	25.7	25.1	25.0	20.9	13.8	13.8	13.8-25.7
Avg. Sunshine hours	3.9	3.9	3.3	7.9	7.5	5.3	5.30
Avg. wind velocity	2.5	2.5	2.2	0.5	0.8	0.9	1.57

RAJENDRANAGAR							
Latitude:	17.32510 ◦		Longitude:	78.39912◦		Elevation (m):	586.60
Soil type:	Loamy		Soil pH:	-		Soil texture:	-
	July	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Total / Range**
No. of Rainy days	14	3	13	01	01	0	32
Total Rainfall (mm)	378.4	42.1	270.8	3.0	10.6	3.8	708.7
Avg. Max. Temp. (⁰C)	29.2	31.1	30.0	32.0	30.2	28.3	28.3-32
Avg. Mini. Temp. (⁰C)	23.3	23.2	22.5	19.9	19.8	15.0	15-23.3
Avg. Sunshine hours	2.7	5.8	4.2	7.6	5.1	6.6	5.33
Avg. wind velocity	10.4	7.0	5.9	3.3	3.6	3.2	5.57

RAJOURI							
Latitude:	33°22" N latitude		Longitude:	74°16" E longitude		Elevation (m):	915 meters
Soil type:	-		Soil pH:	-		Soil texture:	-
	Month 1	**Month 2**	**Month 3**	**Month 4**	**Month 5**	**Month 6**	**Total / Range**
No. of Rainy days	12	11	11	10	5	4	53
Total Rainfall (mm)	139.2	113.2	207.4	113.4	105.2	57.6	736
Avg. Max. Temp. (⁰C)	28.7	31.9	30.2	32.0	31.2	26.9	26.9-32
Avg. Mini. Temp. (⁰C)	13.2	18.4	21.1	21.3	19.0	10.7	10.7-21.3
Avg. Sunshine hours	6.3	7.6	5.2	7.7	7.4	7.6	6.97
Avg. wind velocity	0.1	0.5	0.4	0.5	0.3	0.5	0.38

RANCHI							
Latitude:	27⁰ 17' N		Longitude:	85⁰19' E		Elevation (m):	625 m
Soil type:	Red Lateritic		Soil pH:	5.6		Soil texture:	Sandy loam
	June	**July**	**Aug**	**Sep**	**Oct**	**Nov**	**Total / Range**
No. of Rainy days	7.0	15.0	11.0	17.0	5.0	0.0	55
Total Rainfall (mm)	91.6	276.8	193.8	497.8	223.7	2.0	1285.7
Avg. Max. Temp. (⁰C)	37.9	32.9	31.5	31.3	29.1	26.0	26-37.9
Avg. Mini. Temp. (⁰C)	27.1	23.2	22.5	22.0	18.9	14.5	14.5-27.1
Avg. Sunshine hours	NA	NA	NA	NA	NA	NA	
Avg. wind velocity	2.8	2.3	2.3	2.3	2.3	2.2	2.37

REWA							
Latitude:	24⁰ 30' N		Longitude:	81⁰ 2' E		Elevation (m):	360 msl
Soil type:	Clay loam		Soil pH:	7.3		Soil texture:	Silty Clay loam
	Jun	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Total / Range**
No. of Rainy days	4	8	10	7	1	1	31
Total Rainfall (mm)	100.6	286.6	315.2	67.4	3.2	7.4	780.4
Avg. Max. Temp. (⁰C)	38.0	35.0	32.0	34.0	34.0	29.0	29-38
Avg. Mini. Temp. (⁰C)	26.0	25.0	24.0	25.0	18.0	14.0	14-26

SAKOLI							
Latitude:	20⁰ 04'01N		Longitude:	79⁰ 59' 17E		Elevation (m):	243m
Soil type:	Lateritic		Soil pH:	6.57 to 7.02 (Neutral)		Soil texture:	Clay loam
	Month 1	**Month 2**	**Month 3**	**Month 4**	**Month 5**	**Month 6**	**Total / Range**
No. of Rainy days	6	17	10	17	1	1	52
Total Rainfall (mm)	266.50	407.50	152	259.50	17.50	12.50	1115.5

Shirgaon							
Latitude:	17⁰ 50' N		Longitude:	73⁰ E		Elevation (m):	10
Soil type:	Lateritic		Soil pH:	6.7		Soil texture:	Porous
	Jun	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Total / Range**
No. of Rainy days	20	25	26	17	7	0	95
Total Rainfall (mm)	841.7	663.2	780.0	296.8	249.6	0.0	2831.3
Avg. Max. Temp. (⁰C)	31.5	30.2	29.7	30.7	32.1	34.5	29.7-34.5
Avg. Mini. Temp. (⁰C)	25.3	24.9	25.0	25.1	21.3	17.0	17-25.3
Avg. Sunshine hours	4.7	2.0	1.7	4.4	5.7	8.1	4.43
Avg. wind velocity	3.1	4.6	4.6	2.8	1.8	2.0	3.15

SINDEWAHI							
Latitude:	20 ⁰ 15⁰N		Longitude:	79 ⁰ 40⁰N		Elevation (m):	222.00 Meter
Soil type:	Clay loam		Soil pH:	Slightly Acidic 6.60 – 6.72		Soil texture:	Sandy clay
	Jun	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Total / Range**
No. of Rainy days	6	20	9	16	2	0	53
Total Rainfall (mm)	63.6	520.4	297.2	314.6	29.6	1.2	1226.6
Avg. Max. Temp. (⁰C)	37.4	30.4	31.2	29.4	32.8	30.7	29.4-37.4
Avg. Mini. Temp. (⁰C)	26.9	26.0	25.6	24.5	22.0	18.0	18-26.9
Avg. Sunshine hours	5.8	1.8	3.4	1.9	7.6	5.1	4.27
Avg. wind velocity	4.2	1.6	2.0	0.8	0.2	0.3	1.52

SUNDERNAGAR							
Latitude:	31°32´17´´ N		Longitude:	76°53´48´´E		Elevation (m):	**Clay Loam**
Soil type:	**Clay**		Soil pH:	**7.8**		Soil texture:	**870 m**
	Jun	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Total / Range**
No. of Rainy days	8	16	11	3	2	1	41
Total Rainfall (mm)	236.1	484.3	696.2	46.5	2.2	11.3	1476.6
Avg. Max. Temp. (⁰C)	31.8	30.3	31.0	32.2	29.9	25.6	25.6-32.2
Avg. Mini. Temp. (⁰C)	19.1	21.6	21.7	19.5	11.8	7.2	7.2-21.7
Avg. Sunshine hours	8	8	8	7	6	6	7.17
Avg. wind velocity	0.8	0.7	0.7	0.8	0.8	0.2	0.67

TIRUR					
Latitude:	13⁰7'N	Longitude:	78⁰56'E	Elevation (m):	39.47
Soil type:	Enceptisol	Soil pH:	7-8.5	Soil texture:	Sandy clay loam
	Sep	**Oct**	**Nov**	**Dec**	**Total / Range**
No. of Rainy days	15	7	17	6	45
Total Rainfall (mm)	268.8	71.0	203.5	392.5	935.8
Avg. Max. Temp. (⁰C)	35.9	34.7	30.7	29.1	29.1-35.9
Avg. Mini. Temp. (⁰C)	25.8	25.2	24.3	22.9	22.9-25.8

TITABAR							
Latitude:	-		Longitude:	-		Elevation (m):	-
Soil type:	-		Soil pH:	-		Soil texture:	-
	Jun	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Total / Range**
No. of Rainy days	13	15	16	8	17	2	71
Total Rainfall (mm)	280.2	169.4	204.8	102.8	306.5	22.0	1085.7
Avg. Max. Temp. (⁰C)	33.26	33.88	33.25	34.67	32.43	29.18	29.18-34.67
Avg. Mini. Temp. (⁰C)	22.13	23.44	22.95	22.84	20.54	12.93	12.93-23.44
Avg. Sunshine hours	3.71	3.76	3.21	5.74	5.68	6.65	4.79

UPPER SHILLONG							
Latitude:	2532'41" N		Longitude:	91 50'35" E		Elevation (m):	1735.80msl
Soil type:	-		Soil pH:	-		Soil texture:	-
	May	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Total / Range**
No. of Rainy days	17	26	22	25	15	15	120
Total Rainfall (mm)	154.2	623	366.8	367.4	202.2	179.6	1893.2
Avg. Max. Temp. (^{0}C)	22.99	23.01	23.28	23.26	24.18	21.34	21.34-24.18
Avg. Mini. Temp. (^{0}C)	13.82	16.68	17.74	17.53	17.24	13.22	13.22-17.74

VADGAON MAVAL									
Latitude:	187-45 North		Longitude:		73 – 41 East		Elevation (m):		677.9 m
Soil type:	Medium		Soil pH:		6.5-7.5		Soil texture:		Clay-loam
	Upto May	**June**	**July**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Total / Range**
No. of Rainy days	8	6	24	17	16	2	2	0	75
Total Rainfall (mm)	62.6	103.2	509.8	137.2	255.6	68.2	54.0	0.0	1190.6
Avg. Max. Temp. (^{0}C)	-	37.7	29.4	29.4	28.6	33.3	33.1	32.1	28.6-37.7
Avg. Mini. Temp. (^{0}C)	-	22.1	22.1	21.0	20.6	16.0	15.0	13.3	15.0-22.1

VARANASI							
Latitude:	25.18 N		Longitude:	80.30 E		Elevation (m):	-
Soil type:	-		Soil pH:	-		Soil texture:	-
	Month 1	**Month 2**	**Month 3**	**Month 4**	**Month 5**	**Month 6**	**Total / Range**
No. of Rainy days	6	13	14	16	5	2	56
Total Rainfall (mm)	103.2	155.4	139.6	83.3	130.8	4.4	616.7
Avg. Max. Temp. (^{0}C)	39.83	35.74	32.95	33.86	32.71	29.49	29.49-39.83
Avg. Mini. Temp. (^{0}C)	24.43	26.44	23.95	25.90	21.13	16.52	16.52-26.44
Avg. Sunshine hours	8.9	6.6	3.1	5.4	7.3	4.3	5.93
Avg. wind velocity	5.9	5.3	4.5	3.9	1.9	0.98	3.75

WANGBAL							
Latitude:	24·8^{0}N		Longitude:	94^{0}E		Elevation (m):	781m
Soil type:	Clay loam		Soil pH:	5.5		Soil texture:	Fine
	Jun	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Total / Range**
No. of Rainy days	16	13	22	15	8	3	77
Total Rainfall (mm)	109.8	106	184.8	164.8	30.4	44.4	640.2
Avg. Max. Temp. (^{0}C)	35 ^{0}C	36^{0}C	35^{0}C	36^{0}C	33^{0}C	31^{0}C	31-36
Avg. Mini. Temp. (^{0}C)	19^{0}C	20 ^{0}C	19^{0}C	20 ^{0}C	16^{0}C	13^{0}C	13-20

WARASEONI						
Latitude:	21"45'N		Longitude:	80^{0}50'E	Elevation (m):	301.5
Soil type:	Sandy loam		Soil pH:	7.5	Soil texture:	-
	Jun	**Jul**	**Aug**	**Sep**	**Oct**	**Total / Range**
No. of Rainy days	09	25	17	18	02	71
Total Rainfall (mm)	174.7	695.1	387.6	594.2	32.4	1884

CENTRE WISE BREEDER SEED PRODUCTION DURING KHARIF, 2023 (AS PER DAC INDENT)

(Quantity in Quintals)

Sl. No.	Centre Name	Variety	Actual allocation as per BSP-I	Actual Production	Surplus (+)/ Deficit (-)
1	TNAU, Coimbatore	ADT-37	0.65	1.00	0.35
		ADT-39	1.20	2.00	0.80
		ADT-45	0.10	0.50	0.40
		ADT 52 (IET 25521) (AD 13121)	0.30	0.50	0.20
		ADT 53 (IET23955)-AD 07073	0.12	0.20	0.08
		ADT 54 (AD 09493) (IET 24249)	0.40	0.50	0.10
		ADT 55	0.10	0.50	0.40
		ADT 56 (IET27920)	0.10	0.10	0.00
		CO 51	7.99	8.50	0.51
		ASD-16	0.20	0.50	0.30
		CO 54 (CB 12588)	0.10	0.10	0.00
		TKM 13	0.02	0.10	0.08
		TM 07278	3.22	3.50	0.28
		Rice CR 1009 Sub 1	2.00	2.00	0.00
		Rice VGD 1	0.10	0.50	0.40
		MDU-6 (IET 23994)	0.02	0.02	0.00
		Total	**16.62**	**20.52**	**3.90**
2	VPKAS, Almora	VL DHAN 157 (VL31611) (IET 22292)	0.60	0.00	-0.60
		VL 88	3.60	3.60	0.00
		Total	**4.20**	**3.60**	**-0.60**
3	CIARI, Port Blair	CARI Dhan-5	0.02	0.80	0.78
		Total	**0.02**	**0.80**	**0.78**
4	ANGRAU, Guntur	Amara (MTU-1064)	6.10	66.75	60.65
		BPT 5204	40.94	620.00	579.06
		BPT 2411 (Sasya)	0.30	10.00	9.70
		BPT 2595 (Teja)	0.10	46.00	45.90
		Bhavathi (BPT 2782)	0.20	70.00	69.80
		Bapatla Mahsuri (BPT 2295)	0.10	36.00	35.90
		Sona Mahsuri (BPT 3291)	4.65	26.00	21.35
		Chandra (IET 23409)(MTU 1153)	90.07	202.00	111.93
		Cottondora Sannalu (MTU1010)	152.37	400.00	247.63
		Vijetha (MTU 1001)	81.70	100.00	18.30
		MTU 1075 (IET 18482)	18.70	65.00	46.30
		Varam (MTU 1190)	3.22	3.00	-0.22
		MTU 1223	2.10	2.70	0.60
		MTU 1281	3.32	13.25	9.93
		MTU 1140 (Bheema)	5.64	17.50	11.86
		MTU 1156	140.27	305.00	164.73
		MTU 1061	8.30	120.00	111.70
		MTU 1121 (Sri Dhruthi)	14.98	120.00	105.02
		MTU 1172 (Ksheera)	1.00	16.50	15.50
		MTU 1210 (Sujatha)	0.72	29.25	28.53

Sl. No.	Centre Name	Variety	Actual allocation as per BSP-I	Actual Production	Surplus (+)/ Deficit (-)
		MTU 1224	8.20	97.50	89.30
		MTU Rice 1239 (IET 26263)	3.50	70.50	67.00
		MTU 1318	7.15	136.00	128.85
		MTU 1262	1.22	63.75	62.53
		MTU 7029	229.00	500.00	271.00
		MTU 7025#	1.50		
		MTU 1264#	0.30		
		MTU 1212	0.52	14.25	13.73
		MTU 1159#	0.10		
		MTU 1280	0.10	19.25	19.15
		MTU 1123#	0.25		
		Nellore Dhanyarasi (NLR 3354)	0.12	5.00	4.88
		NLR 4001 (Nellore Siri)	0.10	5.00	4.90
		Nellore Sugandha(NLR40054)	0.22	5.00	4.78
		NLR 3041	0.10	1.00	0.90
		NDLR 7	0.44	40.00	39.56
		Nellore Mahsuri (NLR 34449)	12.10	100.00	87.90
		Pardhhiva (NLR 33892)	0.60	10.00	9.40
		RGL 2537	6.00	69.00	63.00
		Vasundhara (RGL 2538)	0.10	1.10	1.00
		BPT 2812#	0.32		
		Total	**846.72**	**3406.30**	**2562.05**
5	Rice Research Station, Bankura, W. B.	Dhruba (BNKR-2)	1.15	1.15	0.00
		Pushpa (IET 17509)	2.50	1.40	-1.10
		BNKR-1 (DHIREN) (IET 20760)	3.42	3.42	0.00
		BNKR-3(SAMPRITI) IET-21987	0.42	0.42	0.00
		Total	**7.49**	**6.39**	**-1.10**
6	BEDF, Meerut	Pusa Basmati-1(IET 10364)	8.01	5.60	-2.41
		PUSA-1121 (PUSA SUGANDH-4)	61.24	42.00	-19.24
		PUSA BASMATI 1637 (IET 24570)	3.90	0.00	-3.90
		PUSA BASMATI-6 (PUSA 1401) (IET18005)	15.04	16.00	0.96
		Total	**88.19**	**63.60**	**-24.59**
7	OUAT, Bhubaneswar	Hasanta	1.50	8.00	6.50
		Kalachampa	32.82	85.00	52.18
		Lalat (IET 9947)	18.90	32.00	13.10
		Parijat (IET 2684)	2.30	4.20	1.90
		PRATIBHA (OR 2172-7) IET 21582	0.30	1.10	0.80
		Pratikshya (ORS 201-5) (IET 15191)	10.35	26.00	15.65
		Rani Dhan (IET 19148)	2.30	2.20	-0.10
		Sebati (IET 11786)*	2.00	3.60	1.60
		Kalinga Dhan 1204	1.00	2.20	1.20
		Kalinga Dhan 1205	1.00	1.10	0.10
		Kalinga Dhan 1401	1.30	2.20	0.90
		Kalinga Dhan 1502	1.00	2.20	1.20
		Kalinga Dhan 1501	1.00	4.80	3.80

Sl. No.	Centre Name	Variety	Actual allocation as per BSP-I	Actual Production	Surplus (+)/ Deficit (-)
		Kalinga Dhan 1301	3.20	6.00	2.80
		Upahar(OR 1234-12-1) (IET 17318)	0.30	3.00	2.70
		HIRANYAMAYEE OR 2329-44 (IET 20601)	0.02	0.50	0.48
		Tanmayee (OR2329-44) (20262)	0.02	0.20	0.18
		Nua Acharamati (IET 19713)	0.30	0.20	-0.10
		KHANDAGIRI	2.10	8.20	6.10
		Nabanna**		10.42	10.42
		Udayagiri**		3.40	3.40
		Mrunalini**		2.40	2.40
		Kalinga Dhan 1201**		1.10	1.10
		Kalinga Dhan 1202**		1.10	1.10
		Kalinga Dhan 1203**		1.10	1.10
		Pathara		2.20	2.20
		Total	**81.71**	**214.42**	**132.71**
8	SKUAST, Jammu	GIZA-14	6.00	8.00	2.00
		Jammu Basmati 11/8 (SJBR 118) (IET 27733)	2.00	2.50	0.50
		Total	**8.00**	**10.50**	**2.50**
9	Rice Research Station, Chinsurah (Government of West Bengal)	Ajit	4.00	5.00	1.00
		Bhupesh (CN 1752-18-1- 9-MLD-19)	0.60	1.00	0.40
		Chinsurah Nona - 2 (GOSABA-6)(IET-21943)	0.60	1.00	0.40
		CN1272-55-105 (IET- 19886)	0.02	0.50	0.48
		Khitish (IET-4094)	9.05	10.00	0.95
		Manisha (IET 23770)	0.20	0.50	0.30
		Muktashree (IET 21845)	0.65	1.00	0.35
		Rajdeep (CN 1039-9)	0.02	0.50	0.48
		Sabita (IET 8970)	0.35	1.00	0.65
		Sukumar (IET 21261)	2.10	2.50	0.40
		SATABADI (IET-4786)	32.10	35.00	2.90
		Gosaba-5 (Chinsurah Nona-1) (IET-23403)	0.12	0.50	0.38
		Total	**49.81**	**58.50**	**8.69**
10	CSSRI, Karnal	CSR 76	0.90	5.00	4.10
		CSR-30	1.08	12.00	10.92
		CSR-43	0.50	5.00	4.50
		Total	**2.48**	**22.00**	**19.52**
11	NDUAT, Ayodhya	NDR 9930111	5.00	7.50	2.50
		NDR-359	1.70	20.50	18.80
		Narendra Dhan 97	0.20	12.50	12.30
		NDR 2064	2.50	31.50	29.00
		NDR 2065	0.50	73.50	73.00
		Sarjoo 52	1.00	72.00	71.00
		IR 64- Sub 1 (IET21247)	3.00	13.20	10.20
		NDGR 702		48.00	48.00
		Total	**13.90**	**278.70**	**264.80**
12	UAS, Raichur	Gangavati Sona (GGV-05-01)	0.32	1.00	0.68
		Gangavati Ageti (IET-19251)	0.02	0.25	0.23
		Total	**0.34**	**1.25**	**0.91**

Sl. No.	Centre Name	Variety	Actual allocation as per BSP-I	Actual Production	Surplus (+)/ Deficit (-)
13	PRDF, Gorakhpur	Bauna Kalanamak-102	0.90	0.90	0.00
		Bauna Kalanamak-101	0.92	1.00	0.08
		Kalanamak Kiran (PRDF-2-14-10)	1.60	1.60	0.00
		Total	**3.42**	**3.50**	**0.08**
14	ICAR-NRRI, Cuttack	SAHBHAGI (SAHBHAGI DHAN IET-19576)	20.30	21.00	0.70
		Ankit	5.00	4.00	-1.00
		Annada	4.65	4.64	-0.01
		CR 1017	0.70	4.80	4.10
		CR Dhan 101 (ANKD (CR 2702) (IET 21627)	0.10	0.64	0.54
		CR Dhan 102 (IET 25121)	5.00	6.40	1.40
		CR Dhan 103 (Pramod) IET 22020	1.00	1.20	0.20
		CR Dhan 203 (Sachala lET-2717-10-IR 84899-B-185)(IET 22731)	4.10	4.72	0.62
		CR Dhan 204 (IET 21692)	1.70	3.20	1.50
		CR Dhan 205 (IET 22737)	3.30	3.30	0.00
		CR Dhan 206 (Gopinath) (CR 2996-1-14-29-3-1) (IET 22731)	2.00	3.20	1.20
		CR Dhan 210 (IET 23449)	3.10	3.20	0.10
		CR Dhan 300 (CR2301-5) (IET 19816)	0.20	1.20	1.00
		CR Dhan 304 (IET 22117)	0.22	1.60	1.38
		CR Dhan 305 (IET 21287)	0.30	1.20	0.90
		CR Dhan 306 (IET 22084)	0.10	1.20	1.10
		CR Dhan 307 (Maudamani)	1.45	2.40	0.95
		CR Dhan 308 (IET 25523)	3.10	3.10	0.00
		CR Dhan 309 (IET25345) (IR95797-CR3847-2-1-1-1-1)	0.10	1.20	1.10
		CR Dhan 310	15.52	40.00	24.48
		CR Dhan 311 (MuKul)	16.52	17.84	1.32
		CR Dhan 312 (CR 3808-13) (IET 25997)	5.12	17.40	12.28
		CR Dhan 314 (IET 27263)	2.20	3.60	1.40
		CR Dhan 315 (IET 27179)	5.10	4.64	-0.46
		CR Dhan 316 (CRRI Gaurav-1)	5.12	6.00	0.88
		CR Dhan 317 (Roshan)	5.10	4.96	-0.14
		CR DHAN 320 (IET 27914)	0.97	1.50	0.53
		CR Dhan 321 (IET 28354)	3.20	4.50	1.30
		CR Dhan 401(Reeta)(IET 19969)	0.50	4.80	4.30
		CR Dhan 407 (IET 21974)	0.32	1.20	0.88
		CR Dhan 408 (Chakaakhi) (IET 20265) (CR491-1590- 330-2-1)	0.32	1.20	0.88
		CR DHAN 409	0.60	0.60	0.00
		CR Dhan 410 (IET 24471)	1.10	0.00	-1.10
		CR Dhan 411 (Swaranjali, IET 27852)	3.10	5.60	2.50
		CR Dhan 412 (NICRA Dhan, Luna Ambika)	3.10	4.80	1.70
		CR Dhan 413 (Reeta-Panidhan)	3.10	6.40	3.30
		CR Dhan 414 (IET 27051)	1.20	3.60	2.40
		CR Dhan 505 (IET 21719)	0.10	0.96	0.86

Sl. No.	Centre Name	Variety	Actual allocation as per BSP-I	Actual Production	Surplus (+)/ Deficit (-)
		CR Dhan 506 (IET 23053) (CR2687-2-3-1-1-1)	0.22	0.96	0.74
		CR Dhan 510 (IET 23895) (CR 2593-1-1-1-1)	0.40	0.96	0.56
		CR DHAN 511 (IET 23906) (CR 2789-9-2)	0.10	0.96	0.86
		CR Dhan 512 (Satrughan)	3.00	4.80	1.80
		CR Dhan 602 (IET 26692)	0.10	1.20	1.10
		CR DHAN 702 (IET 25231)	0.12	0.12	0.00
		CR Dhan 703 (IET 25278)	0.12	0.12	0.00
		CR Dhan 800 (Swarna – MAS) (CRMAS 2232- 85 (IET 20672)	13.30	16.90	3.60
		CR Dhan 801 (IET 25667) (IR96322-34-223-B-1-1-1-CR3955-2)	2.50	8.00	5.50
		CR Dhan 802 (Subhar)	1.25	3.60	2.35
		CR Dhan 803 (Trilochan, IET 26398)	10.00	6.40	-3.60
		CR Dhan 909 (IET 23193) (CRL74-89-2-4-1)	0.32	4.80	4.48
		CR Dhan107 (Unnat Vandana) IET 26337	1.50	1.70	0.20
		CR DHAN-201(Aerobic) (DRR DHAN-44)	0.27	1.20	0.93
		CR DHAN-318 (IET 27803)	0.30	1.20	0.90
		CR DHAN-319	1.42	1.42	0.00
		CR Sugandh Dhan 908 (IET 23189) (CR 2713-35)	0.02	4.80	4.78
		CR Sugandh Dhan 910 (IET 22649) (CR 2713- 180)	1.00	0.00	-1.00
		CR SWARNA DHAN 800	0.60	0.60	0.00
		CR-1009 Sub-1	17.90	32.00	14.10
		CR-1014	0.30	0.80	0.50
		Gayatri	0.60	9.60	9.00
		Geeanjali	0.50	6.40	5.90
		Khitish	9.05	6.40	-2.65
		Luna Sankhi (IET 21237)	1.00	1.60	0.60
		LUNASUWARNA (IET 18697)	1.00	1.60	0.60
		LUNISREE	0.50	0.00	-0.50
		POOJA (IET-12241)	11.95	71.20	59.25
		Pradhan Dhan (CR 409) IET 23110 (CR 2690-2- 2-1-1-1)	1.50	9.00	7.50
		Prasant (CR Dhan 507)	1.00	3.20	2.20
		Varshadhan (CRLC-899)(IET- 16481)	2.30	9.60	7.30
		SARALA CR-260-77 (IET-10279)	2.70	22.70	20.00
		SWARANA-SUB 1 (CR 2539-1) IET-20266	81.35	83.20	1.85
		Sambha Sub - 1 (IET 21248)	14.30	12.80	-1.50
		Improved Lalat (CRMAS 2621-7-1) (IET 21066)*	2.00	4.80	2.80
		Ciherang Sub-1*	4.00	3.20	-0.80
		Total	**317.20**	**539.64**	**222.44**
15	IARI, New Delhi	Pusa 1592	1.02	2.50	1.48
		Pusa Basmati 1692	60.50	19.00	-41.50

Sl. No.	Centre Name	Variety	Actual allocation as per BSP-I	Actual Production	Surplus (+)/ Deficit (-)
		Pusa Basmati 1847	47.97	12.00	-35.97
		Pusa Basmati 1985	11.45	6.00	-5.45
		Pusa Basmati 1885	23.90	2.00	-21.90
		Pusa Basmati 1886	15.59	3.50	-12.09
		Pusa Basmati 1979	4.28	1.00	-3.28
		Pusa 1557	1.00	0.00	-1.00
		Pusa 2511	0.10	0.00	-0.10
		Total	165.81	46.00	-119.81
16	IARI-RS, Karnal	Pusa Basmati-1609	0.02	0.02	0.00
		Pusa Basmati 1728	10.00	11.00	1.00
		Pusa Basmati-1718 (IET 24565)	58.10	13.00	-45.10
		Pusa Basmati-1509 (IET 21960) (PUSA 1509-03-3-9-5)	45.92	5.00	-40.92
		Pusa Basmati 1637 (IET24570)	0.10	4.00	3.90
		Pusa Sugandh-2 (IET- 16310,PUSA-204-1-126)	0.10	0.40	0.30
		Pusa SUGANDHA-5	4.45	6.00	1.55
		Pusa-44	13.54	0.00	-13.54
		Total	**132.23**	**39.42**	**-92.81**
17	IIRR, Hyderabad	Kasturi (IET-8580)*	5.00	5.00	0.00
		Masuri*	1.30	1.30	0.00
		BARI Dhan 75	0.10	0.30	0.20
		IET 5656	0.15	0.30	0.15
		BINA DHAN – 11	16.70	12.00	-4.70
		BINA DHAN – 17	7.32	34.15	26.83
		DRR DHAN – 50 (IET 25671)	0.20	14.00	13.80
		DRR DHAN – 45 (IET 23832)*	9.12	9.50	0.38
		DRR DHAN – 53	20.50	113.00	92.50
		DRR DHAN – 39*	5.00	5.00	0.00
		DRR DHAN – 42*	54.22	55.00	0.78
		DRR DHAN – 43*	7.02	7.10	0.08
		DRR DHAN – 44*	6.00	6.00	0.00
		DRR DHAN – 46	1.50	4.00	2.50
		DRR DHAN – 47*	0.02	0.10	0.08
		DRR DHAN – 48	0.02	75.00	74.98
		DRR DHAN – 49*	0.02	0.10	0.08
		DRR DHAN – 51	5.02	16.00	10.98
		DRR DHAN – 52	0.02	1.00	0.98
		DRR DHAN – 54	15.40	16.00	0.60
		DRR DHAN – 55	20.00	21.00	1.00
		IMPROVED SAMBA MAHSURI	1.10	35.00	33.90
		JAYA*	10.45	10.50	0.05
		DRH-2 (A Line)	0.10	0.10	0.00
		DRH-2 (B Line)	0.10	0.10	0.00
		DRH-2 (R Line)	0.10	0.10	0.00
		DRR DHAN -58*	3.80	3.90	0.10
		DRR DHAN -62	1.70	25.90	24.20
		DRR DHAN -63	0.10	124.80	124.70

Sl. No.	Centre Name	Variety	Actual allocation as per BSP-I	Actual Production	Surplus (+)/ Deficit (-)
		DRR DHAN -64	0.20	0.30	0.10
		DRR DHAN -65*	0.10	0.10	0.00
		DRR DHAN -67	0.20	0.30	0.10
		DRR DHAN -68*	0.20	0.20	0.00
		DRR DHAN -69	0.30	0.30	0.00
		DRR DHAN -60	3.30	0.30	-3.00
		DRR DHAN -59*	2.00	2.00	0.00
		DRR DHAN -56	0.10	55.00	54.90
		DRR DHAN -57*	0.10	0.10	0.00
		Sampada (IET 19424)*	3.00	3.00	0.00
		Total	**201.58**	**657.85**	**456.27**
18	JNKVV, Jabalpur	Improved Chinnor	1.00	9.52	8.52
		Improved Jeera Shankar	3.50	9.32	5.82
		JR 10	2.50	17.82	15.32
		JR 206 (IET 26079)	67.50	151.80	84.30
		JR 767	25.00	25.12	0.12
		JR-81	53.02	119.06	66.04
		KRANTI (R-2022)	1.00	150.46	149.46
		PURVA (JR-16-15-1-1)	0.32	0.00	-0.32
		Total	**153.84**	**483.10**	**329.26**
19	IGKV, Raipur	Baster Dhan 1	7.00	15.00	8.00
		CG Madhuraj Dhan-55	10.00	22.00	12.00
		Chhattisgarh Devbhog	30.02	63.00	32.98
		Chhattisgarh Zinc Rice -1	10.00	14.00	4.00
		Chhattisgarh Zinc Rice-2	10.00	16.80	6.80
		Dubraj Selection-1	15.00	19.60	4.60
		IGKVR-1 (IET 19569)	20.00	40.20	20.20
		IGKVR-2 (IET 19795)	5.00	14.50	9.50
		Indira Aerobic- 1 (R1570-2649-1- 1546-1) (IET 21686)	15.30	35.20	19.90
		IR-64	34.17	51.00	16.83
		IR-20	2.20	0.00	-2.20
		Mahamaya (IET-10749)	70.00	175.00	105.00
		Maheswari (IGRKVR-1244) (R 12244-1246-1-605-1) (IET 19796)	10.00	16.00	6.00
		Tarun Bhog Selection-1	20.30	27.00	6.70
		Bhadshabhhog Selection-1	20.35	21.00	0.65
		Vikram TCR	45.05	100.00	54.95
		Protezin (IET 25470) (R-RHZ-R-56)	10.00	21.90	11.90
		Trombey Chattisgarh Dubraj Mutent-1	25.00	44.20	19.20
		Vishnubhog Selection-1	20.42	46.30	25.88
		ZINCO RICE MS	5.00	12.00	7.00
		CG Jawaphool Turobey	12.00	14.70	2.70
		CG Tejaswi Dhan (IGKV DH Rice-1)	2.00	8.00	6.00
		Chhatisgarh Dhan 1919	3.00	7.70	4.70
		Indira barani dhan 1	1.00	3.90	2.90
		Indira barani dhan 2	1.00	2.10	1.10
		IR-36	4.70	23.50	18.80

Sl. No.	Centre Name	Variety	Actual allocation as per BSP-I	Actual Production	Surplus (+)/ Deficit (-)
		Trombey Chattisgarh sonagathi Mutent (TCSM)	1.00	3.70	2.70
		Trombey Chattisgarh Vishnubhog Mutent (TCVM)	21.00	39.70	18.70
		Total	**430.51**	**858.00**	**427.49**
20	BSKKV, Dapoli	AMBE MOHAN@	0.30		
		Karjat 8	0.24	2.86	2.62
		Karjat 9	0.22	10.95	10.73
		KARJAT-2	0.40	13.15	12.75
		KARJAT-3	3.30	23.94	20.64
		Karjat-5	0.60	5.54	4.94
		Karjat-7	1.00	18.09	17.09
		Trombay karjat kolam (BARCKKV 13) (IET27000)	0.20	2.14	1.94
		Ratnagiri-1	0.60	7.82	7.22
		Ratnagiri-5	0.02	3.20	3.18
		Ratnagiri-6	0.20	4.76	4.56
		Ratnagiri-7	0.40	1.80	1.40
		Ratnagiri-8	0.40	12.75	12.35
		Total	**7.88**	**107.00**	**99.42**
21	CCS HAU, Hisar	BASMATI-370	12.00	8.00	-4.00
		HKR 48 (HKR 99-60)	0.02	0.50	0.48
		HKR-127 (HKR-95-222)	1.60	3.00	1.40
		HKR-147&	0.00	0.00	0.00
		HKR-47	4.61	7.00	2.39
		Total	**18.23**	**18.50**	**0.27**
22	SKUAST K, Srinagar	K-332	1.00	1.50	0.50
		K-39	3.00	4.00	1.00
		Shalimar Rice-2	3.12	2.00	-1.12
		Shalimar Rice-3	0.32	3.00	2.68
		Shalimar Rice-4 (SKUA-408)	9.32	18.00	8.68
		SR-V	1.00	2.00	1.00
		Mushkbudgi	0.03	0.03	0.00
		Shalimar Rice -6	0.02	0.02	0.00
		Red Rice	0.06	0.06	0.00
		Shalimar Sungdh-1	0.00	4.00	4.00
		Chenab	0.00	2.00	2.00
		Total	**17.87**	**36.61**	**18.74**
23	ICAR-NEH, Tripura	Gomati Dhan TRC-2005-1 (TRC-05-8-4-42-8-3-7) IET 21512	0.02	0.02	0.00
		TRC 216-14 (IET 26435)/ICAR NEH NICRA-Boro Dhan 1	0.15	0.15	0.00
		Tripura Aush	0.02	0.02	0.00
		Tripura Chikan Dhan	0.02	0.02	0.00
		Tripura Sarat	0.02	0.02	0.00
		Total	**0.23**	**0.23**	**0.00**
24	PAU, Ludhiana	PR 118	2.46	20.00	17.54
		PR 121 (RYT 3240)	9.04	20.00	10.96
		PR 122	2.50	20.00	17.50

Sl. No.	Centre Name	Variety	Actual allocation as per BSP-I	Actual Production	Surplus (+)/ Deficit (-)
		PR 126	41.28	60.00	18.72
		PR 127	0.30	20.00	19.70
		PR 128	12.50	30.00	17.50
		PR 129	2.34	20.00	17.66
		PR-111	0.78	0.00	-0.78
		PR-113	12.33	30.00	17.67
		PR-114	13.94	20.00	6.06
		PR-123	0.02	0.00	-0.02
		PR-124 (IET 22767)	3.42	9.60	6.18
		PR-126 (RYT 3379)(IET-24721)	0.10	0.00	-0.10
		PR-130	14.00	25.00	11.00
		PR-131$	12.18	13.00	0.82
		PR-132@	2.02		0.00
		PR-133@	0.32		0.00
		PUNJAB BASMATI - 7	4.38	7.00	2.62
		PUNJAB BASMATI-2	0.02		
		PAU-201	0.32		
		Total	**134.25**	**294.60**	**163.03**
25	CSKHPKV, Palampur	HPR-1068	10.00	10.68	0.68
		HPR-2612 (Palam Basmati-1)	10.00	10.20	0.20
		Him Palam Dhan 1 (HPR 2656)	8.00	8.18	0.18
		Him Palam Dhan 2 (HPR 2880)	5.00	5.40	0.40
		Total	**33.00**	**34.46**	**1.46**
26	UAS, Bangalore	THANU	1.17	4.99	3.82
		KMP-220	0.32	5.88	5.56
		BR-2655	1.01	5.00	3.99
		KRH 2 (A Line)	0.10	2.85	2.75
		KRH 2 (B Line)	0.10	0.34	0.24
		KRH 2 (R Line)	0.10	1.12	1.02
		MSN-36	0.32	2.23	1.91
		KMP 175		5.92	5.92
		Total	**3.12**	**28.33**	**25.21**
27	KAU, Trissur	Bhadra (MO-4)	3.28	3.30	0.02
		UMA (MO-16)	15.89	16.00	0.11
		KAU Pournami (MO 23)	0.42	0.50	0.08
		Kau Manu Rathna (HS-16)	0.50	0.50	0.00
		Pankaj	0.10	0.10	0.00
		Athira (PBT-51)	0.25	0.45	0.20
		Jyothi	7.15	30.30	23.15
		KAU Akshya (PTB 62)	0.30	1.40	1.10
		KAU Supriya (PTB 61)	0.30	1.90	1.60
		Swetha (IET 14735)	0.10	0.20	0.10
		KAU VTL-10 (Lavanya) KAUVTL 51-5 (IET 25083)	0.30	0.30	0.00
		Total	**28.59**	**54.95**	**26.36**
28	UAS, Dharwad	Intan	0.75	2.50	1.75
		Abhilash (KMD-2)	1.11	3.00	1.89
		Total	**1.86**	**5.50**	**3.64**

Sl. No.	Centre Name	Variety	Actual allocation as per BSP-I	Actual Production	Surplus (+)/ Deficit (-)
29	BCKV, Nadia	Gontra Bidhan-1 (IET 17430)	23.81	24.00	0.19
		Gontra Bidhan-3 (IET 22752)	14.33	16.00	1.67
		Gontra Bidhan-4$	0.20		
		Bidhan Surchi (IET 25701)	8.55	11.00	2.45
		Total	**46.89**	**51.00**	**4.31**
30	NAU, Navsari	GNV 10-89 (IET 24716)@	0.02	0.00	-0.02
		GNR-3	0.02	15.00	14.98
		GR-18	0.30	2.00	1.70
		Total	**0.34**	**17.00**	**16.66**
31	AAU, Anand	GAR-13	0.70	1.00	0.30
		Gujarat Anand Rice-3 (GAR-3)	0.32	0.75	0.43
		Mahisagar	0.72	1.00	0.28
		Total	**1.74**	**2.75**	**1.01**
32	GBPUAT, Pantnagar	PANT DHAN-18 (IET 17920) (UPRI 99-1)	1.00	14.00	13.00
		Pant Basmati-1	0.18	0.00	-0.18
		PANT DHAN-24	6.02	21.50	15.48
		PANT DHAN-26	3.30	6.50	3.20
		PB-1785%	0.50	0.00	0.00
		PB-1854%	2.00	0.00	0.00
		Total	**13.00**	**42.00**	**31.50**
33	ICAR-RCER, Patna	Swarna Shakti Dhan (IET 25640)	20.12	21.00	0.88
		Swarna Shreya	35.00	41.00	6.00
		Swarna Samriddhi Dhan (IET 24306)	16.75	46.70	29.95
		Swarna unnat Dhan (IET 27892)	0.10	6.00	5.90
		Swarna shusk dhan	0.90	1.20	0.30
		Total	**72.87**	**115.90**	**43.03**
34	PJTSAU, Hyderabad	Erra Mallelu (WGL-20471)	2.95	3.00	0.05
		JGL-1798	2.79	2.80	0.01
		JGL-18047 (Bathukamma)	1.44	1.50	0.06
		JGL-24423 (Jagityal Rice-1)	5.22	5.50	0.28
		JGL 11118 (Anjana)	0.10	0.10	0.00
		JGL 11727 (Pranahitha)	0.10	0.10	0.00
		JGL 17004 (Prathyumna)	0.12	0.15	0.03
		Kampasagar vari 1 (IET 27816)	0.10	15.00	14.90
		Kunaram Sannalu (KNM 118)(IET No.23748)	12.10	12.10	0.00
		RNR-15048 (Telangana Sona)	50.95	60.00	9.05
		Krishna (RNR-2458)	0.12	0.15	0.03
		Shobhini (RNR-2354) (IET- 21260)	0.72	1.00	0.28
		Telangana Vari-5 (RNR28362)	0.10	4.00	3.90
		Telangana Vari-6 (KNM7048)	0.20	0.20	0.00
		Tellahamsa	0.33	0.50	0.17
		Telangana Vari-1(IET 25330)	3.70	4.00	0.30
		Telangana Vari-3 (JGL 21078)	0.12	0.12	0.00
		WGL-697 (IET 26027)	3.32	4.00	0.68
		WGL-915 (Warangal rice 1)	0.22	1.00	0.78
		Kavya (WGL-48684)	0.60	1.00	0.40
		Kunaram Vari 2 (KNM 1638)	2.12	2.12	0.00

Sl. No.	Centre Name	Variety	Actual allocation as per BSP-I	Actual Production	Surplus (+)/ Deficit (-)
		Kunaram Rice 1 (KNM 733)	0.22	0.22	0.00
		Rajendra nagar vari-2 (IET 26143)	0.10	0.40	0.30
		Rajendra nagar vari-1 (IET 27077)	0.10	0.50	0.40
		RNR-15038	0.50	0.00	-0.50
		Telangana Vari-4	0.10	0.10	0.00
		Warangal vari 2 (IET 26094)	0.10	0.50	0.40
		Shriram^	1.00		
		Total	**89.54**	**120.06**	**31.52**
35	SHUATS, Prayagraj	SHIATS DHAN 5	3.02	10.00	6.98
		SHIATS DHAN-4	6.02	25.00	18.98
		Total	**9.04**	**35.00**	**25.96**
36	UBKV, Pundibari	Uttar Lakshmi (IET 24173) UBKVR-15	1.42	1.50	0.08
		Uttar Samir (PUR-B-36(IET 26453)	0.15	0.20	0.05
		Uttar Sona (UBKVR -1) (IET 24171)	2.32	2.50	0.18
		Uttar Sugandhi (UBKVRA-2 (IET 24616)	0.10	0.50	0.40
		Total	**3.99**	**4.70**	**0.71**
37	RPCAU, Pusa	Rajendra Bhagvati	0.65	2.30	1.65
		Rajshree (TCA-80-4) (IET 7970)	0.40	11.60	11.20
		Rajendra Mahsuri-1	12.60	24.50	11.90
		Rajendra Sweta	1.40	5.80	4.40
		R Neelam	30.00	45.80	15.80
		Total	**45.05**	**90.00**	**44.95**
38	MPKV, Rahuri	Bhogavati	0.60	5.00	4.40
		Indrayani	15.30	110.00	94.70
		Phule Samruddhi (VDN -99-29)	0.30	5.00	4.70
		Total	**16.20**	**120.00**	**103.80**
39	BAU, Ranchi	Birsa Vikas Dhan - 111 (IET 19848) (PY - 84)	1.00	1.50	0.50
		Birsa Vikas Dhan - 203	4.00	4.50	0.50
		Birsa Vikas Sugandha - 1 (IET 18941)	5.00	10.40	5.40
		Total	**10.00**	**16.40**	**6.40**
40	BAU, Sabour	Sabour Ardhjal (BRR 0007)	15.10	27.50	12.40
		Sabour Deep (RAU 3055)	15.00	29.00	14.00
		Sabour Heera Dhan (IET-27538) (BRR 2110)	0.10	10.10	10.00
		Sabour Sampanna Dhan (IET 25960)	45.10	116.64	71.54
		Sabour Shree (RAU 724-48-33) (IET 18878)	75.00	123.50	48.50
		Sabour Surbhit RAU 3036)	15.00	15.00	0.00
		Sabour Harshit Dhan**		43.00	43.00
		Rajendra Mahsuri-1**		10.24	10.24
		Rajendra Sweta**		12.00	12.00
		Reajendra Suwasini**		37.50	37.50
		Rajendra Kasturi**		35.00	35.00
		Swarna Sub 1**		47.50	47.50
		Total	**165.30**	**506.98**	**341.68**
41	PDKV, Akola	SAKOLI-9	0.20	45.50	45.30
		PDKV TILAK	4.10	205.30	201.20
		PKV KISAN	0.20	15.52	15.32

Sl. No.	Centre Name	Variety	Actual allocation as per BSP-I	Actual Production	Surplus (+)/ Deficit (-)
		PKV HMT	33.50	65.10	31.60
		PDKV Sadhana	0.20	185.05	184.85
		Total	**38.20**	**516.47**	**478.27**
42	UAHS, Shivamoga	Sahyadri Megha	0.52	1.00	0.48
		Sahyadri Panchmukhi	0.32	0.60	0.28
		Sahyadrikempumukthi (IET-29855)	1.16	2.50	1.34
		TUNGA (IET-13901)	5.16	13.00	7.84
		KHP-13 (Bharath) (IET 21479)	0.02	2.00	1.98
		KKP-5	0.10	2.00	1.90
		Total	**7.28**	**21.10**	**13.82**
43	AAU, Jorhat	RANJEET (IET - 12554)	8.10	20.40	12.30
		RANJIT SUB -1	10.10	20.90	10.80
		Bahadur Sub-1	3.00	5.00	2.00
		Bahadur	1.00	12.60	11.60
		Jalashri (TTB 202-3)	0.12	0.00	-0.12
		Ketakijoha	1.00	1.10	0.10
		Numali	0.10	1.00	0.90
		Labanya	0.50	0.00	-0.50
		Total	**23.92**	**61.00**	**37.08**
44	BHU, Varanasi	HUR-917	5.30	5.30	0.00
		Total	**5.30**	**5.30**	**0.00**
45	ICAR RCNEH, Manipur	RC Maniphou-13	0.02	15.00	14.98
		Total	**0.02**	**15.00**	**14.98**
46	CAU, Imphal	CAU – R4 (Eenotphou) (IET 22469)	0.02	2.35	2.33
		CAU-R1 (Tamphaphou)**		8.97	8.97
		CAU-R2 (Tomthinphou)**		2.72	2.72
		CAU-R3 (Mangalphou)**		1.96	1.96
		Total	**0.02**	**16.00**	**15.98**
		Grand Total	**3317.80**	**9050.93**	**5742.28**

*: indicates expected yield to be produced during Rabi 2023-24; #: No such variety available; @ Variety is not released; &Not a rice variety; $ This variety is not notified yet; % Not a variety of GBPUAT; ^ Not the PJTSAU variety; ** Not indented by DAC.

Appendix-11

VARIETY WISE BREEDER SEED PRODUCTION DURING KHARIF, 2022 (AS PER DAC INDENT)

(Quantity in Quintals)

SN	Variety	Actual allocation as per BSP-I	Actual Production	Surplus (+)/ Deficit (-)	Centre Name
1	Abhilash (KMD-2)	1.11	3.00	1.89	UAS, Dharwad
2	ADT 52 (IET 25521) (AD 13121)	0.30	0.50	0.20	TNAU, Coimbatore
3	ADT 53 (IET23955)-AD 07073	0.12	0.20	0.08	TNAU, Coimbatore
4	ADT 54 (AD 09493) (IET 24249)	0.40	0.50	0.10	TNAU, Coimbatore
5	ADT 55	0.10	0.50	0.40	TNAU, Coimbatore
6	ADT 56 (IET27920)	0.10	0.10	0.00	TNAU, Coimbatore
7	ADT-37	0.65	1.00	0.35	TNAU, Coimbatore
8	ADT-39	1.20	2.00	0.80	TNAU, Coimbatore
9	ADT-45	0.10	0.50	0.40	TNAU, Coimbatore
10	Ajit	4.00	5.00	1.00	Rice Research Station, Chinsurah (Government of West Bengal)
11	Amara (MTU-1064)	6.10	66.75	60.65	ANGRAU, Guntur
12	AMBE MOHAN@	0.30			BSKKV, Dapoli
13	Ankit	5.00	4.00	-1.00	ICAR-NRRI, Cuttack
14	Annada	4.65	4.64	-0.01	ICAR-NRRI, Cuttack
15	ASD-16	0.20	0.50	0.30	TNAU, Coimbatore
16	Athira (PBT-51)	0.25	0.45	0.20	KAU, Trissur
17	Bahadur	1.00	12.60	11.60	AAU, Jorhat
18	Bahadur Sub-1	3.00	5.00	2.00	AAU, Jorhat
19	Bapatla Mahsuri (BPT 2295)	0.10	36.00	35.90	ANGRAU, Guntur
20	BARI Dhan 75	0.10	0.30	0.20	IIRR, Hyderabad
21	BASMATI-370	12.00	8.00	-4.00	CCS HAU, Hisar
22	Baster Dhan 1	7.00	15.00	8.00	IGKV, Raipur

SN	Variety	Actual allocation as per BSP-I	Actual Production	Surplus (+)/ Deficit (-)	Centre Name
23	Bauna Kalanamak-101	0.92	1.00	0.08	PRDF, Gorakhpur
24	Bauna Kalanamak-102	0.90	0.90	0.00	PRDF, Gorakhpur
25	Bhadra (MO-4)	3.28	3.30	0.02	KAU, Trissur
26	Bhadshabhhog Selection-1	20.35	21.00	0.65	IGKV, Raipur
27	Bhavathi (BPT 2782)	0.20	70.00	69.80	ANGRAU, Guntur
28	Bhogavati	0.60	5.00	4.40	MPKV, Rahuri
29	Bhupesh (CN 1752-18-1- 9-MLD-19)	0.60	1.00	0.40	Rice Research Station, Chinsurah (Government of West Bengal)
30	Bidhan Surchi (IET 25701)	8.55	11.00	2.45	BCKV, Nadia
31	BINA DHAN – 11	16.70	12.00	-4.70	IIRR, Hyderabad
32	BINA DHAN – 17	7.32	34.15	26.83	IIRR, Hyderabad
33	Birsa Vikas Dhan - 111 (IET 19848) (PY - 84)	1.00	1.50	0.50	BAU, Ranchi
34	Birsa Vikas Dhan - 203	4.00	4.50	0.50	BAU, Ranchi
35	Birsa Vikas Sugandha - 1 (IET 18941)	5.00	10.40	5.40	BAU, Ranchi
36	BNKR-1 (DHIREN) (IET 20760)	3.42	3.42	0.00	Rice Research Station, Bankura, W. B.
37	BNKR-3(SAMPRITI) IET-21987	0.42	0.42	0.00	Rice Research Station, Bankura, W. B.
38	BPT 2411 (Sasya)	0.30	10.00	9.70	ANGRAU, Guntur
39	BPT 2595 (Teja)	0.10	46.00	45.90	ANGRAU, Guntur
40	BPT 2812#	0.32			ANGRAU, Guntur
41	BPT 5204	40.94	620.00	579.06	ANGRAU, Guntur
42	BR-2655	1.01	5.00	3.99	UAS, Bangalore
43	CARI Dhan-5	0.02	0.80	0.78	CIARI, Port Blair
44	CAU – R4 (Eenotphou) (IET 22469)	0.02	2.35	2.33	CAU, Imphal
45	CAU-R1 (Tamphaphou)		8.97	8.97	CAU, Imphal
46	CAU-R2 (Tomthinphou)		2.72	2.72	CAU, Imphal
47	CAU-R3 (Mangalphou)		1.96	1.96	CAU, Imphal

SN	Variety	Actual allocation as per BSP-I	Actual Production	Surplus (+)/ Deficit (-)	Centre Name
48	CG Jawaphool Turobey	12.00	14.70	2.70	IGKV, Raipur
49	CG Madhuraj Dhan-55	10.00	22.00	12.00	IGKV, Raipur
50	CG Tejaswi Dhan (IGKV DH Rice-1)	2.00	8.00	6.00	IGKV, Raipur
51	Chandra (IET 23409)(MTU 1153)	90.07	202.00	111.93	ANGRAU, Guntur
52	Chenab	0.00	2.00	2.00	SKUAST K, Srinagar
53	Chhatisgarh Dhan 1919	3.00	7.70	4.70	IGKV, Raipur
54	Chhattisgarh Devbhog	30.02	63.00	32.98	IGKV, Raipur
55	Chhattisgarh Zinc Rice -1	10.00	14.00	4.00	IGKV, Raipur
56	Chhattisgarh Zinc Rice-2	10.00	16.80	6.80	IGKV, Raipur
57	Chinsurah Nona - 2 (GOSABA-6)(IET-21943)	0.60	1.00	0.40	Rice Research Station, Chinsurah (Government of West Bengal)
58	Ciherang Sub-1*	4.00	3.20	-0.80	ICAR-NRRI, Cuttack
59	CN1272-55-105 (IET- 19886)	0.02	0.50	0.48	Rice Research Station, Chinsurah (Government of West Bengal)
60	CO 51	7.99	8.50	0.51	TNAU, Coimbatore
61	CO 54 (CB 12588)	0.10	0.10	0.00	TNAU, Coimbatore
62	Cottondora Sannalu (MTU1010)	152.37	400.00	247.63	ANGRAU, Guntur
63	CR 1017	0.70	4.80	4.10	ICAR-NRRI, Cuttack
64	CR Dhan 101 (ANKD (CR 2702) (IET 21627)	0.10	0.64	0.54	ICAR-NRRI, Cuttack
65	CR Dhan 102 (IET 25121)	5.00	6.40	1.40	ICAR-NRRI, Cuttack
66	CR Dhan 103 (Pramod) IET 22020	1.00	1.20	0.20	ICAR-NRRI, Cuttack
67	CR Dhan 203 (Sachala lET-2717-10-IR 84899-B-185)(IET 22731)	4.10	4.72	0.62	ICAR-NRRI, Cuttack
68	CR Dhan 204 (IET 21692)	1.70	3.20	1.50	ICAR-NRRI, Cuttack
69	CR Dhan 205 (IET 22737)	3.30	3.30	0.00	ICAR-NRRI, Cuttack
70	CR Dhan 206 (Gopinath) (CR 2996-1-14-29-3-1) (IET 22731)	2.00	3.20	1.20	ICAR-NRRI, Cuttack

SN	Variety	Actual allocation as per BSP-I	Actual Production	Surplus (+)/ Deficit (-)	Centre Name
71	CR Dhan 210 (IET 23449)	3.10	3.20	0.10	ICAR-NRRI, Cuttack
72	CR Dhan 300 (CR2301-5) (IET 19816)	0.20	1.20	1.00	ICAR-NRRI, Cuttack
73	CR Dhan 304 (IET 22117)	0.22	1.60	1.38	ICAR-NRRI, Cuttack
74	CR Dhan 305 (IET 21287)	0.30	1.20	0.90	ICAR-NRRI, Cuttack
75	CR Dhan 306 (IET 22084)	0.10	1.20	1.10	ICAR-NRRI, Cuttack
76	CR Dhan 307 (Maudamani)	1.45	2.40	0.95	ICAR-NRRI, Cuttack
77	CR Dhan 308 (IET 25523)	3.10	3.10	0.00	ICAR-NRRI, Cuttack
78	CR Dhan 309 (IET25345) (IR95797-CR3847-2-1-1-1-1)	0.10	1.20	1.10	ICAR-NRRI, Cuttack
79	CR Dhan 310	15.52	40.00	24.48	ICAR-NRRI, Cuttack
80	CR Dhan 311 (MuKul)	16.52	17.84	1.32	ICAR-NRRI, Cuttack
81	CR Dhan 312 (CR 3808-13) (IET 25997)	5.12	17.40	12.28	ICAR-NRRI, Cuttack
82	CR Dhan 314 (IET 27263)	2.20	3.60	1.40	ICAR-NRRI, Cuttack
83	CR Dhan 315 (IET 27179)	5.10	4.64	-0.46	ICAR-NRRI, Cuttack
84	CR Dhan 316 (CRRI Gaurav-1)	5.12	6.00	0.88	ICAR-NRRI, Cuttack
85	CR Dhan 317 (Roshan)	5.10	4.96	-0.14	ICAR-NRRI, Cuttack
86	CR DHAN 320 (IET 27914)	0.97	1.50	0.53	ICAR-NRRI, Cuttack
87	CR Dhan 321 (IET 28354)	3.20	4.50	1.30	ICAR-NRRI, Cuttack
88	CR Dhan 401(Reeta)(IET 19969)	0.50	4.80	4.30	ICAR-NRRI, Cuttack
89	CR Dhan 407 (IET 21974)	0.32	1.20	0.88	ICAR-NRRI, Cuttack
90	CR Dhan 408 (Chakaakhi) (IET 20265) (CR491-1590- 330-2-1)	0.32	1.20	0.88	ICAR-NRRI, Cuttack
91	CR DHAN 409	0.60	0.60	0.00	ICAR-NRRI, Cuttack
92	CR Dhan 410 (IET 24471)	1.10	0.00	-1.10	ICAR-NRRI, Cuttack
93	CR Dhan 411 (Swaranjali, IET 27852)	3.10	5.60	2.50	ICAR-NRRI, Cuttack
94	CR Dhan 412 (NICRA Dhan, Luna Ambika)	3.10	4.80	1.70	ICAR-NRRI, Cuttack

SN	Variety	Actual allocation as per BSP-I	Actual Production	Surplus (+)/ Deficit (-)	Centre Name
95	CR Dhan 413 (Reeta-Panidhan)	3.10	6.40	3.30	ICAR-NRRI, Cuttack
96	CR Dhan 414 (IET 27051)	1.20	3.60	2.40	ICAR-NRRI, Cuttack
97	CR Dhan 505 (IET 21719)	0.10	0.96	0.86	ICAR-NRRI, Cuttack
98	CR Dhan 506 (IET 23053) (CR2687-2-3-1-1-1)	0.22	0.96	0.74	ICAR-NRRI, Cuttack
99	CR Dhan 510 (IET 23895) (CR 2593-1-1-1-1)	0.40	0.96	0.56	ICAR-NRRI, Cuttack
100	CR DHAN 511 (IET 23906) (CR 2789-9-2)	0.10	0.96	0.86	ICAR-NRRI, Cuttack
101	CR Dhan 512 (Satrughan)	3.00	4.80	1.80	ICAR-NRRI, Cuttack
102	CR Dhan 602 (IET 26692)	0.10	1.20	1.10	ICAR-NRRI, Cuttack
103	CR DHAN 702 (IET 25231)	0.12	0.12	0.00	ICAR-NRRI, Cuttack
104	CR Dhan 703 (IET 25278)	0.12	0.12	0.00	ICAR-NRRI, Cuttack
105	CR Dhan 800 (Swarna – MAS) (CRMAS 2232- 85 (IET 20672)	13.30	16.90	3.60	ICAR-NRRI, Cuttack
106	CR Dhan 801 (IET 25667) (IR96322-34-223-B-1-1-1-CR3955-2)	2.50	8.00	5.50	ICAR-NRRI, Cuttack
107	CR Dhan 802 (Subhar)	1.25	3.60	2.35	ICAR-NRRI, Cuttack
108	CR Dhan 803 (Trilochan, IET 26398)	10.00	6.40	-3.60	ICAR-NRRI, Cuttack
109	CR Dhan 909 (IET 23193) (CRL74-89-2-4-1)	0.32	4.80	4.48	ICAR-NRRI, Cuttack
110	CR Dhan107 (Unnat Vandana) IET 26337	1.50	1.70	0.20	ICAR-NRRI, Cuttack
111	CR DHAN-201(Aerobic) (DRR DHAN-44)	0.27	1.20	0.93	ICAR-NRRI, Cuttack
112	CR DHAN-318 (IET 27803)	0.30	1.20	0.90	ICAR-NRRI, Cuttack
113	CR DHAN-319	1.42	1.42	0.00	ICAR-NRRI, Cuttack
114	CR Sugandh Dhan 908 (IET 23189) (CR 2713-35)	0.02	4.80	4.78	ICAR-NRRI, Cuttack
115	CR Sugandh Dhan 910 (IET 22649) (CR 2713- 180)	1.00	0.00	-1.00	ICAR-NRRI, Cuttack
116	CR SWARNA DHAN 800	0.60	0.60	0.00	ICAR-NRRI, Cuttack

SN	Variety	Actual allocation as per BSP-I	Actual Production	Surplus (+)/ Deficit (-)	Centre Name
117	CR-1009 Sub-1	17.90	32.00	14.10	ICAR-NRRI, Cuttack
118	CR-1014	0.30	0.80	0.50	ICAR-NRRI, Cuttack
119	CSR 76	0.90	5.00	4.10	CSSRI, Karnal
120	CSR-30	1.08	12.00	10.92	CSSRI, Karnal
121	CSR-43	0.50	5.00	4.50	CSSRI, Karnal
122	Dhruba (BNKR-2)	1.15	1.15	0.00	Rice Research Station, Bankura, W. B.
123	DRH-2 (A Line)	0.10	0.10	0.00	IIRR, Hyderabad
124	DRH-2 (B Line)	0.10	0.10	0.00	IIRR, Hyderabad
125	DRH-2 (R Line)	0.10	0.10	0.00	IIRR, Hyderabad
126	DRR DHAN – 39*	5.00	5.00	0.00	IIRR, Hyderabad
127	DRR DHAN – 42*	54.22	55.00	0.78	IIRR, Hyderabad
128	DRR DHAN – 43*	7.02	7.10	0.08	IIRR, Hyderabad
129	DRR DHAN – 44*	6.00	6.00	0.00	IIRR, Hyderabad
130	DRR DHAN – 45 (IET 23832)*	9.12	9.50	0.38	IIRR, Hyderabad
131	DRR DHAN – 46	1.50	4.00	2.50	IIRR, Hyderabad
132	DRR DHAN – 47*	0.02	0.10	0.08	IIRR, Hyderabad
133	DRR DHAN – 48	0.02	75.00	74.98	IIRR, Hyderabad
134	DRR DHAN – 49*	0.02	0.10	0.08	IIRR, Hyderabad
135	DRR DHAN – 50 (IET 25671)	0.20	14.00	13.80	IIRR, Hyderabad
136	DRR DHAN – 51	5.02	16.00	10.98	IIRR, Hyderabad
137	DRR DHAN – 52	0.02	1.00	0.98	IIRR, Hyderabad
138	DRR DHAN – 53	20.50	113.00	92.50	IIRR, Hyderabad
139	DRR DHAN – 54	15.40	16.00	0.60	IIRR, Hyderabad
140	DRR DHAN – 55	20.00	21.00	1.00	IIRR, Hyderabad
141	DRR DHAN -56	0.10	55.00	54.90	IIRR, Hyderabad

SN	Variety	Actual allocation as per BSP-I	Actual Production	Surplus (+)/ Deficit (-)	Centre Name
142	DRR DHAN -57*	0.10	0.10	0.00	IIRR, Hyderabad
143	DRR DHAN -58*	3.80	3.90	0.10	IIRR, Hyderabad
144	DRR DHAN -59*	2.00	2.00	0.00	IIRR, Hyderabad
145	DRR DHAN -60	3.30	0.30	-3.00	IIRR, Hyderabad
146	DRR DHAN -62	1.70	25.90	24.20	IIRR, Hyderabad
147	DRR DHAN -63	0.10	124.80	124.70	IIRR, Hyderabad
148	DRR DHAN -64	0.20	0.30	0.10	IIRR, Hyderabad
149	DRR DHAN -65*	0.10	0.10	0.00	IIRR, Hyderabad
150	DRR DHAN -67	0.20	0.30	0.10	IIRR, Hyderabad
151	DRR DHAN -68*	0.20	0.20	0.00	IIRR, Hyderabad
152	DRR DHAN -69	0.30	0.30	0.00	IIRR, Hyderabad
153	Dubraj Selection-1	15.00	19.60	4.60	IGKV, Raipur
154	Erra Mallelu (WGL-20471)	2.95	3.00	0.05	PJTSAU, Hyderabad
155	Gangavati Ageti (IET-19251)	0.02	0.25	0.23	UAS, Raichur
156	Gangavati Sona (GGV-05-01)	0.32	1.00	0.68	UAS, Raichur
157	GAR-13	0.70	1.00	0.30	AAU, Anand
158	Gayatri	0.60	9.60	9.00	ICAR-NRRI, Cuttack
159	Geeanjali	0.50	6.40	5.90	ICAR-NRRI, Cuttack
160	GIZA-14	6.00	8.00	2.00	SKUAST, Jammu
161	GNR-3	0.02	15.00	14.98	NAU, Navsari
162	GNV 10-89 (IET 24716)@	0.02	0.00	-0.02	NAU, Navsari
163	Gomati Dhan TRC-2005-1 (TRC-05-8-4-42-8-3-7) IET 21512	0.02	0.02	0.00	ICAR-NEH, Tripura
164	Gontra Bidhan-1 (IET 17430)	23.81	24.00	0.19	BCKV, Nadia
165	Gontra Bidhan-3 (IET 22752)	14.33	16.00	1.67	BCKV, Nadia
166	Gontra Bidhan-4$	0.20			BCKV, Nadia
167	Gosaba-5 (Chinsurah Nona-1) (IET-23403)	0.12	0.50	0.38	Rice Research Station, Chinsurah (Government of West Bengal)

SN	Variety	Actual allocation as per BSP-I	Actual Production	Surplus (+)/ Deficit (-)	Centre Name
168	GR-18	0.30	2.00	1.70	NAU, Navsari
169	Gujarat Anand Rice-3 (GAR-3)	0.32	0.75	0.43	AAU, Anand
170	Hasanta	1.50	8.00	6.50	OUAT, Bhubaneswar
171	Him Palam Dhan 1 (HPR 2656)	8.00	8.18	0.18	CSKHPKV, Palampur
172	Him Palam Dhan 2 (HPR 2880)	5.00	5.40	0.40	CSKHPKV, Palampur
173	HIRANYAMAYEE OR 2329-44 (IET 20601)	0.02	0.50	0.48	OUAT, Bhubaneswar
174	HKR 48 (HKR 99-60)	0.02	0.50	0.48	CCS HAU, Hisar
175	HKR-127 (HKR-95-222)	1.60	3.00	1.40	CCS HAU, Hisar
176	HKR-147&	0.00	0.00	0.00	CCS HAU, Hisar
177	HKR-47	4.61	7.00	2.39	CCS HAU, Hisar
178	HPR-1068	10.00	10.68	0.68	CSKHPKV, Palampur
179	HPR-2612 (Palam Basmati-1)	10.00	10.20	0.20	CSKHPKV, Palampur
180	HUR-917	5.30	5.30	0.00	BHU, Varanasi
181	IET 5656	0.15	0.30	0.15	IIRR, Hyderabad
182	IGKVR-1 (IET 19569)	20.00	40.20	20.20	IGKV, Raipur
183	IGKVR-2 (IET 19795)	5.00	14.50	9.50	IGKV, Raipur
184	Improved Chinnor	1.00	9.52	8.52	JNKVV, Jabalpur
185	Improved Jeera Shankar	3.50	9.32	5.82	JNKVV, Jabalpur
186	Improved Lalat (CRMAS 2621-7-1) (IET 21066)*	2.00	4.80	2.80	ICAR-NRRI, Cuttack
187	IMPROVED SAMBA MAHSURI	1.10	35.00	33.90	IIRR, Hyderabad
188	Indira Aerobic- 1 (R1570-2649-1-1546-1) (IET 21686)	15.30	35.20	19.90	IGKV, Raipur
189	Indira barani dhan 1	1.00	3.90	2.90	IGKV, Raipur
190	Indira barani dhan 2	1.00	2.10	1.10	IGKV, Raipur
191	Indrayani	15.30	110.00	94.70	MPKV, Rahuri
192	Intan	0.75	2.50	1.75	UAS, Dharwad
193	IR 64- Sub 1 (IET21247)	3.00	13.20	10.20	NDUAT, Ayodhya
194	IR-20	2.20	0.00	-2.20	IGKV, Raipur
195	IR-36	4.70	23.50	18.80	IGKV, Raipur

SN	Variety	Actual allocation as per BSP-I	Actual Production	Surplus (+)/ Deficit (-)	Centre Name
196	IR-64	34.17	51.00	16.83	IGKV, Raipur
197	Jalashri (TTB 202-3)	0.12	0.00	-0.12	AAU, Jorhat
198	Jammu Basmati 11/8 (SJBR 118) (IET 27733)	2.00	2.50	0.50	SKUAST, Jammu
199	JAYA*	10.45	10.50	0.05	IIRR, Hyderabad
200	JGL 11118 (Anjana)	0.10	0.10	0.00	PJTSAU, Hyderabad
201	JGL 11727 (Pranahitha)	0.10	0.10	0.00	PJTSAU, Hyderabad
202	JGL 17004 (Prathyumna)	0.12	0.15	0.03	PJTSAU, Hyderabad
203	JGL-1798	2.79	2.80	0.01	PJTSAU, Hyderabad
204	JGL-18047 (Bathukamma)	1.44	1.50	0.06	PJTSAU, Hyderabad
205	JGL-24423 (Jagityal Rice-1)	5.22	5.50	0.28	PJTSAU, Hyderabad
206	JR 10	2.50	17.82	15.32	JNKVV, Jabalpur
207	JR 206 (IET 26079)	67.50	151.80	84.30	JNKVV, Jabalpur
208	JR 767	25.00	25.12	0.12	JNKVV, Jabalpur
209	JR-81	53.02	119.06	66.04	JNKVV, Jabalpur
210	Jyothi	7.15	30.30	23.15	KAU, Trissur
211	K-332	1.00	1.50	0.50	SKUAST K, Srinagar
212	K-39	3.00	4.00	1.00	SKUAST K, Srinagar
213	Kalachampa	32.82	85.00	52.18	OUAT, Bhubaneswar
214	Kalanamak Kiran (PRDF-2-14-10)	1.60	1.60	0.00	PRDF, Gorakhpur
215	Kalinga Dhan 1201		1.10	1.10	OUAT, Bhubaneswar
216	Kalinga Dhan 1202		1.10	1.10	OUAT, Bhubaneswar
217	Kalinga Dhan 1203		1.10	1.10	OUAT, Bhubaneswar
218	Kalinga Dhan 1204	1.00	2.20	1.20	OUAT, Bhubaneswar
219	Kalinga Dhan 1205	1.00	1.10	0.10	OUAT, Bhubaneswar
220	Kalinga Dhan 1301	3.20	6.00	2.80	OUAT, Bhubaneswar

SN	Variety	Actual allocation as per BSP-I	Actual Production	Surplus (+)/ Deficit (-)	Centre Name
221	Kalinga Dhan 1401	1.30	2.20	0.90	OUAT, Bhubaneswar
222	Kalinga Dhan 1501	1.00	4.80	3.80	OUAT, Bhubaneswar
223	Kalinga Dhan 1502	1.00	2.20	1.20	OUAT, Bhubaneswar
224	Kampasagar vari 1 (IET 27816)	0.10	15.00	14.90	PJTSAU, Hyderabad
225	Karjat 8	0.24	2.86	2.62	BSKKV, Dapoli
226	Karjat 9	0.22	10.95	10.73	BSKKV, Dapoli
227	KARJAT-2	0.40	13.15	12.75	BSKKV, Dapoli
228	KARJAT-3	3.30	23.94	20.64	BSKKV, Dapoli
229	Karjat-5	0.60	5.54	4.94	BSKKV, Dapoli
230	Karjat-7	1.00	18.09	17.09	BSKKV, Dapoli
231	Kasturi (IET-8580)*	5.00	5.00	0.00	IIRR, Hyderabad
232	KAU Akshya (PTB 62)	0.30	1.40	1.10	KAU, Trissur
233	Kau Manu Rathna (HS-16)	0.50	0.50	0.00	KAU, Trissur
234	KAU Pournami (MO 23)	0.42	0.50	0.08	KAU, Trissur
235	KAU Supriya (PTB 61)	0.30	1.90	1.60	KAU, Trissur
236	KAU VTL-10 (Lavanya) KAUVTL 51-5 (IET 25083)	0.30	0.30	0.00	KAU, Trissur
237	Kavya (WGL-48684)	0.60	1.00	0.40	PJTSAU, Hyderabad
238	Ketakijoha	1.00	1.10	0.10	AAU, Jorhat
239	KHANDAGIRI	2.10	8.20	6.10	OUAT, Bhubaneswar
240	Khitish	9.05	6.40	-2.65	ICAR-NRRI, Cuttack
241	Khitish (IET-4094)	9.05	10.00	0.95	Rice Research Station, Chinsurah (Government of West Bengal)
242	KHP-13 (Bharath) (IET 21479)	0.02	2.00	1.98	UAHS, Shivamoga
243	KKP-5	0.10	2.00	1.90	UAHS, Shivamoga
244	KMP 175		5.92	5.92	UAS, Bangalore
245	KMP-220	0.32	5.88	5.56	UAS, Bangalore
246	KRANTI (R-2022)	1.00	150.46	149.46	JNKVV, Jabalpur
247	KRH 2 (A Line)	0.10	2.85	2.75	UAS, Bangalore
248	KRH 2 (B Line)	0.10	0.34	0.24	UAS, Bangalore
249	KRH 2 (R Line)	0.10	1.12	1.02	UAS, Bangalore

SN	Variety	Actual allocation as per BSP-I	Actual Production	Surplus (+)/ Deficit (-)	Centre Name
250	Krishna (RNR-2458)	0.12	0.15	0.03	PJTSAU, Hyderabad
251	Kunaram Rice 1 (KNM 733)	0.22	0.22	0.00	PJTSAU, Hyderabad
252	Kunaram Sannalu (KNM 118)(IET No.23748)	12.10	12.10	0.00	PJTSAU, Hyderabad
253	Kunaram Vari 2 (KNM 1638)	2.12	2.12	0.00	PJTSAU, Hyderabad
254	Labanya	0.50	0.00	-0.50	AAU, Jorhat
255	Lalat (IET 9947)	18.90	32.00	13.10	OUAT, Bhubaneswar
256	Luna Sankhi (IET 21237)	1.00	1.60	0.60	ICAR-NRRI, Cuttack
257	LUNASUWARNA (IET 18697)	1.00	1.60	0.60	ICAR-NRRI, Cuttack
258	LUNISREE	0.50	0.00	-0.50	ICAR-NRRI, Cuttack
259	Mahamaya (IET-10749)	70.00	175.00	105.00	IGKV, Raipur
260	Maheswari (IGRKVR-1244) (R 12244-1246-1-605-1) (IET 19796)	10.00	16.00	6.00	IGKV, Raipur
261	Mahisagar	0.72	1.00	0.28	AAU, Anand
262	Manisha (IET 23770)	0.20	0.50	0.30	Rice Research Station, Chinsurah (Government of West Bengal)
263	Masuri*	1.30	1.30	0.00	IIRR, Hyderabad
264	MDU-6 (IET 23994)	0.02	0.02	0.00	TNAU, Coimbatore
265	Mrunalini		2.40	2.40	OUAT, Bhubaneswar
266	MSN-36	0.32	2.23	1.91	UAS, Bangalore
267	MTU 1061	8.30	120.00	111.70	ANGRAU, Guntur
268	MTU 1075 (IET 18482)	18.70	65.00	46.30	ANGRAU, Guntur
269	MTU 1121 (Sri Dhruthi)	14.98	120.00	105.02	ANGRAU, Guntur
270	MTU 1123#	0.25			ANGRAU, Guntur
271	MTU 1140 (Bheema)	5.64	17.50	11.86	ANGRAU, Guntur
272	MTU 1156	140.27	305.00	164.73	ANGRAU, Guntur
273	MTU 1159#	0.10			ANGRAU, Guntur

SN	Variety	Actual allocation as per BSP-I	Actual Production	Surplus (+)/ Deficit (-)	Centre Name
274	MTU 1172 (Ksheera)	1.00	16.50	15.50	ANGRAU, Guntur
275	MTU 1210 (Sujatha)	0.72	29.25	28.53	ANGRAU, Guntur
276	MTU 1212	0.52	14.25	13.73	ANGRAU, Guntur
277	MTU 1223	2.10	2.70	0.60	ANGRAU, Guntur
278	MTU 1224	8.20	97.50	89.30	ANGRAU, Guntur
279	MTU 1262	1.22	63.75	62.53	ANGRAU, Guntur
280	MTU 1264#	0.30			ANGRAU, Guntur
281	MTU 1280	0.10	19.25	19.15	ANGRAU, Guntur
282	MTU 1281	3.32	13.25	9.93	ANGRAU, Guntur
283	MTU 1318	7.15	136.00	128.85	ANGRAU, Guntur
284	MTU 7025#	1.50			ANGRAU, Guntur
285	MTU 7029	229.00	500.00	271.00	ANGRAU, Guntur
286	MTU Rice 1239 (IET 26263)	3.50	70.50	67.00	ANGRAU, Guntur
287	Muktashree (IET 21845)	0.65	1.00	0.35	Rice Research Station, Chinsurah (Government of West Bengal)
288	Mushkbudgi	0.03	0.03	0.00	SKUAST K, Srinagar
289	Nabanna		10.42	10.42	OUAT, Bhubaneswar
290	Narendra Dhan 97	0.20	12.50	12.30	NDUAT, Ayodhya
291	NDGR 702		48.00	48.00	NDUAT, Ayodhya
292	NDLR 7	0.44	40.00	39.56	ANGRAU, Guntur
293	NDR 2064	2.50	31.50	29.00	NDUAT, Ayodhya
294	NDR 2065	0.50	73.50	73.00	NDUAT, Ayodhya
295	NDR 9930111	5.00	7.50	2.50	NDUAT, Ayodhya
296	NDR-359	1.70	20.50	18.80	NDUAT, Ayodhya

SN	Variety	Actual allocation as per BSP-I	Actual Production	Surplus (+)/ Deficit (-)	Centre Name
297	Nellore Dhanyarasi (NLR 3354)	0.12	5.00	4.88	ANGRAU, Guntur
298	Nellore Mahsuri (NLR 34449)	12.10	100.00	87.90	ANGRAU, Guntur
299	Nellore Sugandha(NLR40054)	0.22	5.00	4.78	ANGRAU, Guntur
300	NLR 3041	0.10	1.00	0.90	ANGRAU, Guntur
301	NLR 4001 (Nellore Siri)	0.10	5.00	4.90	ANGRAU, Guntur
302	Nua Acharamati (IET 19713)	0.30	0.20	-0.10	OUAT, Bhubaneswar
303	Numali	0.10	1.00	0.90	AAU, Jorhat
304	Pankaj	0.10	0.10	0.00	KAU, Trissur
305	Pant Basmati-1	0.18	0.00	-0.18	GBPUAT, Pantnagar
306	PANT DHAN-18 (IET 17920) (UPRI 99-1)	1.00	14.00	13.00	GBPUAT, Pantnagar
307	PANT DHAN-24	6.02	21.50	15.48	GBPUAT, Pantnagar
308	PANT DHAN-26	3.30	6.50	3.20	GBPUAT, Pantnagar
309	Pardhhiva (NLR 33892)	0.60	10.00	9.40	ANGRAU, Guntur
310	Parijat (IET 2684)	2.30	4.20	1.90	OUAT, Bhubaneswar
311	Pathara		2.20	2.20	OUAT, Bhubaneswar
312	PAU-201	0.32			PAU, Ludhiana
313	PB-1785%	0.50	0.00	0.00	GBPUAT, Pantnagar
314	PB-1854%	2.00	0.00	0.00	GBPUAT, Pantnagar
315	PDKV Sadhana	0.20	185.05	184.85	PDKV, Akola
316	PDKV TILAK	4.10	205.30	201.20	PDKV, Akola
317	Phule Samruddhi (VDN -99-29)	0.30	5.00	4.70	MPKV, Rahuri
318	PKV HMT	33.50	65.10	31.60	PDKV, Akola
319	PKV KISAN	0.20	15.52	15.32	PDKV, Akola
320	POOJA (IET-12241)	11.95	71.20	59.25	ICAR-NRRI, Cuttack
321	PR 118	2.46	20.00	17.54	PAU, Ludhiana
322	PR 121 (RYT 3240)	9.04	20.00	10.96	PAU, Ludhiana
323	PR 122	2.50	20.00	17.50	PAU, Ludhiana
324	PR 126	41.28	60.00	18.72	PAU, Ludhiana
325	PR 127	0.30	20.00	19.70	PAU, Ludhiana

SN	Variety	Actual allocation as per BSP-I	Actual Production	Surplus (+)/ Deficit (-)	Centre Name
326	PR 128	12.50	30.00	17.50	PAU, Ludhiana
327	PR 129	2.34	20.00	17.66	PAU, Ludhiana
328	PR-111	0.78	0.00	-0.78	PAU, Ludhiana
329	PR-113	12.33	30.00	17.67	PAU, Ludhiana
330	PR-114	13.94	20.00	6.06	PAU, Ludhiana
331	PR-123	0.02	0.00	-0.02	PAU, Ludhiana
332	PR-124 (IET 22767)	3.42	9.60	6.18	PAU, Ludhiana
333	PR-126 (RYT 3379)(IET-24721)	0.10	0.00	-0.10	PAU, Ludhiana
334	PR-130	14.00	25.00	11.00	PAU, Ludhiana
335	PR-131$	12.18	13.00	0.82	PAU, Ludhiana
336	PR-132@	2.02		0.00	PAU, Ludhiana
337	PR-133@	0.32		0.00	PAU, Ludhiana
338	Pradhan Dhan (CR 409) IET 23110 (CR 2690-2- 2-1-1-1)	1.50	9.00	7.50	ICAR-NRRI, Cuttack
339	Prasant (CR Dhan 507)	1.00	3.20	2.20	ICAR-NRRI, Cuttack
340	PRATIBHA (OR 2172-7) IET 21582	0.30	1.10	0.80	OUAT, Bhubaneswar
341	Pratikshya (ORS 201-5) (IET 15191)	10.35	26.00	15.65	OUAT, Bhubaneswar
342	Protezin (IET 25470) (R-RHZ-R-56)	10.00	21.90	11.90	IGKV, Raipur
343	PUNJAB BASMATI - 7	4.38	7.00	2.62	PAU, Ludhiana
344	PUNJAB BASMATI-2	0.02			PAU, Ludhiana
345	PURVA (JR-16-15-1-1)	0.32	0.00	-0.32	JNKVV, Jabalpur
346	Pusa 1557	1.00	0.00	-1.00	IARI, New Delhi
347	Pusa 1592	1.02	2.50	1.48	IARI, New Delhi
348	Pusa 2511	0.10	0.00	-0.10	IARI, New Delhi
349	PUSA BASMATI 1637 (IET 24570)	3.90	0.00	-3.90	BEDF, Meerut
350	Pusa Basmati 1637 (IET24570)	0.10	4.00	3.90	IARI-RS, Karnal
351	Pusa Basmati 1692	60.50	19.00	-41.50	IARI, New Delhi
352	Pusa Basmati 1728	10.00	11.00	1.00	IARI-RS, Karnal
353	Pusa Basmati 1847	47.97	12.00	-35.97	IARI, New Delhi
354	Pusa Basmati 1885	23.90	2.00	-21.90	IARI, New Delhi
355	Pusa Basmati 1886	15.59	3.50	-12.09	IARI, New Delhi

SN	Variety	Actual allocation as per BSP-I	Actual Production	Surplus (+)/ Deficit (-)	Centre Name
356	Pusa Basmati 1979	4.28	1.00	-3.28	IARI, New Delhi
357	Pusa Basmati 1985	11.45	6.00	-5.45	IARI, New Delhi
358	Pusa Basmati-1(IET 10364)	8.01	5.60	-2.41	BEDF, Meerut
359	Pusa Basmati-1509 (IET 21960) (PUSA 1509-03-3-9-5)	45.92	5.00	-40.92	IARI-RS, Karnal
360	Pusa Basmati-1609	0.02	0.02	0.00	IARI-RS, Karnal
361	Pusa Basmati-1718 (IET 24565)	58.10	13.00	-45.10	IARI-RS, Karnal
362	PUSA BASMATI-6 (PUSA 1401) (IET18005)	15.04	16.00	0.96	BEDF, Meerut
363	Pusa Sugandh-2 (IET-16310,PUSA-204-1-126)	0.10	0.40	0.30	IARI-RS, Karnal
364	Pusa SUGANDHA-5	4.45	6.00	1.55	IARI-RS, Karnal
365	PUSA-1121 (PUSA SUGANDH-4)	61.24	42.00	-19.24	BEDF, Meerut
366	Pusa-44	13.54	0.00	-13.54	IARI-RS, Karnal
367	Pushpa (IET 17509)	2.50	1.40	-1.10	Rice Research Station, Bankura, W. B.
368	R Neelam	30.00	45.80	15.80	RPCAU, Pusa
369	Rajdeep (CN 1039-9)	0.02	0.50	0.48	Rice Research Station, Chinsurah (Government of West Bengal)
370	Rajendra Bhagvati	0.65	2.30	1.65	RPCAU, Pusa
371	Rajendra Kasturi		35.00	35.00	BAU, Sabour
372	Rajendra Mahsuri-1	12.60	24.50	11.90	RPCAU, Pusa
373	Rajendra Mahsuri-1		10.24	10.24	BAU, Sabour
374	Rajendra nagar vari-1 (IET 27077)	0.10	0.50	0.40	PJTSAU, Hyderabad
375	Rajendra nagar vari-2 (IET 26143)	0.10	0.40	0.30	PJTSAU, Hyderabad
376	Rajendra Sweta	1.40	5.80	4.40	RPCAU, Pusa
377	Rajendra Sweta		12.00	12.00	BAU, Sabour
378	Rajshree (TCA-80-4) (IET 7970)	0.40	11.60	11.20	RPCAU, Pusa
379	Rani Dhan (IET 19148)	2.30	2.20	-0.10	OUAT, Bhubaneswar
380	RANJEET (IET - 12554)	8.10	20.40	12.30	AAU, Jorhat
381	RANJIT SUB -1	10.10	20.90	10.80	AAU, Jorhat
382	Ratnagiri-1	0.60	7.82	7.22	BSKKV, Dapoli
383	Ratnagiri-5	0.02	3.20	3.18	BSKKV, Dapoli
384	Ratnagiri-6	0.20	4.76	4.56	BSKKV, Dapoli
385	Ratnagiri-7	0.40	1.80	1.40	BSKKV, Dapoli

SN	Variety	Actual allocation as per BSP-I	Actual Production	Surplus (+)/ Deficit (-)	Centre Name
386	Ratnagiri-8	0.40	12.75	12.35	BSKKV, Dapoli
387	RC Maniphou-13	0.02	15.00	14.98	ICAR RCNEH, Manipur
388	Reajendra Suwasini		37.50	37.50	BAU, Sabour
389	Red Rice	0.06	0.06	0.00	SKUAST K, Srinagar
390	RGL 2537	6.00	69.00	63.00	ANGRAU, Guntur
391	Rice CR 1009 Sub 1	2.00	2.00	0.00	TNAU, Coimbatore
392	Rice VGD 1	0.10	0.50	0.40	TNAU, Coimbatore
393	RNR-15038	0.50	0.00	-0.50	PJTSAU, Hyderabad
394	RNR-15048 (Telangana Sona)	50.95	60.00	9.05	PJTSAU, Hyderabad
395	Sabita (IET 8970)	0.35	1.00	0.65	Rice Research Station, Chinsurah (Government of West Bengal)
396	Sabour Ardhjal (BRR 0007)	15.10	27.50	12.40	BAU, Sabour
397	Sabour Deep (RAU 3055)	15.00	29.00	14.00	BAU, Sabour
398	Sabour Harshit Dhan		43.00	43.00	BAU, Sabour
399	Sabour Heera Dhan (IET-27538) (BRR 2110)	0.10	10.10	10.00	BAU, Sabour
400	Sabour Sampanna Dhan (IET 25960)	45.10	116.64	71.54	BAU, Sabour
401	Sabour Shree (RAU 724-48-33) (IET 18878)	75.00	123.50	48.50	BAU, Sabour
402	Sabour Surbhit RAU 3036)	15.00	15.00	0.00	BAU, Sabour
403	SAHBHAGI (SAHBHAGI DHAN IET-19576)	20.30	21.00	0.70	ICAR-NRRI, Cuttack
404	Sahyadri Megha	0.52	1.00	0.48	UAHS, Shivamoga
405	Sahyadri Panchmukhi	0.32	0.60	0.28	UAHS, Shivamoga
406	Sahyadrikempumukthi (IET-29855)	1.16	2.50	1.34	UAHS, Shivamoga
407	SAKOLI-9	0.20	45.50	45.30	PDKV, Akola
408	Sambha Sub - 1 (IET 21248)	14.30	12.80	-1.50	ICAR-NRRI, Cuttack
409	Sampada (IET 19424)*	3.00	3.00	0.00	IIRR, Hyderabad
410	SARALA CR-260-77 (IET-10279)	2.70	22.70	20.00	ICAR-NRRI, Cuttack

SN	Variety	Actual allocation as per BSP-I	Actual Production	Surplus (+)/ Deficit (-)	Centre Name
411	Sarjoo 52	1.00	72.00	71.00	NDUAT, Ayodhya
412	SATABADI (IET-4786)	32.10	35.00	2.90	Rice Research Station, Chinsurah (Government of West Bengal)
413	Sebati (IET 11786)*	2.00	3.60	1.60	OUAT, Bhubaneswar
414	Shalimar Rice -6	0.02	0.02	0.00	SKUAST K, Srinagar
415	Shalimar Rice-2	3.12	2.00	-1.12	SKUAST K, Srinagar
416	Shalimar Rice-3	0.32	3.00	2.68	SKUAST K, Srinagar
417	Shalimar Rice-4 (SKUA-408)	9.32	18.00	8.68	SKUAST K, Srinagar
418	Shalimar Sungdh-1	0.00	4.00	4.00	SKUAST K, Srinagar
419	SHIATS DHAN 5	3.02	10.00	6.98	SHUATS, Prayagraj
420	SHIATS DHAN-4	6.02	25.00	18.98	SHUATS, Prayagraj
421	Shobhini (RNR-2354) (IET- 21260)	0.72	1.00	0.28	PJTSAU, Hyderabad
422	Shriram^	1.00			PJTSAU, Hyderabad
423	Sona Mahsuri (BPT 3291)	4.65	26.00	21.35	ANGRAU, Guntur
424	SR-V	1.00	2.00	1.00	SKUAST K, Srinagar
425	Sukumar (IET 21261)	2.10	2.50	0.40	Rice Research Station, Chinsurah (Government of West Bengal)
426	SWARANA-SUB 1 (CR 2539-1) IET-20266	81.35	83.20	1.85	ICAR-NRRI, Cuttack
427	Swarna Samriddhi Dhan (IET 24306)	16.75	46.70	29.95	ICAR-RCER, Patna
428	Swarna Shakti Dhan (IET 25640)	20.12	21.00	0.88	ICAR-RCER, Patna
429	Swarna Shreya	35.00	41.00	6.00	ICAR-RCER, Patna
430	Swarna shusk dhan	0.90	1.20	0.30	ICAR-RCER, Patna
431	Swarna Sub 1		47.50	47.50	BAU, Sabour

SN	Variety	Actual allocation as per BSP-I	Actual Production	Surplus (+)/ Deficit (-)	Centre Name
432	Swarna unnat Dhan (IET 27892)	0.10	6.00	5.90	ICAR-RCER, Patna
433	Swetha (IET 14735)	0.10	0.20	0.10	KAU, Trissur
434	Tanmayee (OR2329-44) (20262)	0.02	0.20	0.18	OUAT, Bhubaneswar
435	Tarun Bhog Selection-1	20.30	27.00	6.70	IGKV, Raipur
436	Telangana Vari-1(IET 25330)	3.70	4.00	0.30	PJTSAU, Hyderabad
437	Telangana Vari-3 (JGL 21078)	0.12	0.12	0.00	PJTSAU, Hyderabad
438	Telangana Vari-4	0.10	0.10	0.00	PJTSAU, Hyderabad
439	Telangana Vari-5 (RNR28362)	0.10	4.00	3.90	PJTSAU, Hyderabad
440	Telangana Vari-6 (KNM7048)	0.20	0.20	0.00	PJTSAU, Hyderabad
441	Tellahamsa	0.33	0.50	0.17	PJTSAU, Hyderabad
442	THANU	1.17	4.99	3.82	UAS, Bangalore
443	TKM 13	0.02	0.10	0.08	TNAU, Coimbatore
444	TM 07278	3.22	3.50	0.28	TNAU, Coimbatore
445	TRC 216-14 (IET 26435)/ICAR NEH NICRA-Boro Dhan 1	0.15	0.15	0.00	ICAR-NEH, Tripura
446	Tripura Aush	0.02	0.02	0.00	ICAR-NEH, Tripura
447	Tripura Chikan Dhan	0.02	0.02	0.00	ICAR-NEH, Tripura
448	Tripura Sarat	0.02	0.02	0.00	ICAR-NEH, Tripura
449	Trombay karjat kolam (BARCKKV 13) (IET27000)	0.20	2.14	1.94	BSKKV, Dapoli
450	Trombey Chattisgarh Dubraj Mutent-1	25.00	44.20	19.20	IGKV, Raipur
451	Trombey Chattisgarh sonagathi Mutent (TCSM)	1.00	3.70	2.70	IGKV, Raipur
452	Trombey Chattisgarh Vishnubhog Mutent (TCVM)	21.00	39.70	18.70	IGKV, Raipur
453	TUNGA (IET-13901)	5.16	13.00	7.84	UAHS, Shivamoga
454	Udayagiri		3.40	3.40	OUAT, Bhubaneswar
455	UMA (MO-16)	15.89	16.00	0.11	KAU, Trissur
456	Upahar(OR 1234-12-1) (IET 17318)	0.30	3.00	2.70	OUAT, Bhubaneswar

SN	Variety	Actual allocation as per BSP-I	Actual Production	Surplus (+)/ Deficit (-)	Centre Name
457	Uttar Lakshmi (IET 24173) UBKVR-15	1.42	1.50	0.08	UBKV, Pundibari
458	Uttar Samir (PUR-B-36(IET 26453)	0.15	0.20	0.05	UBKV, Pundibari
459	Uttar Sona (UBKVR -1) (IET 24171)	2.32	2.50	0.18	UBKV, Pundibari
460	Uttar Sugandhi (UBKVRA-2 (IET 24616)	0.10	0.50	0.40	UBKV, Pundibari
461	Varam (MTU 1190)	3.22	3.00	-0.22	ANGRAU, Guntur
462	Varshadhan (CRLC-899)(IET-16481)	2.30	9.60	7.30	ICAR-NRRI, Cuttack
463	Vasundhara (RGL 2538)	0.10	1.10	1.00	ANGRAU, Guntur
464	Vijetha (MTU 1001)	81.70	100.00	18.30	ANGRAU, Guntur
465	Vikram TCR	45.05	100.00	54.95	IGKV, Raipur
466	Vishnubhog Selection-1	20.42	46.30	25.88	IGKV, Raipur
467	VL 88	3.60	3.60	0.00	VPKAS, Almora
468	VL DHAN 157 (VL31611) (IET 22292)	0.60	0.00	-0.60	VPKAS, Almora
469	Warangal vari 2 (IET 26094)	0.10	0.50	0.40	PJTSAU, Hyderabad
470	WGL-697 (IET 26027)	3.32	4.00	0.68	PJTSAU, Hyderabad
471	WGL-915 (Warangal rice 1)	0.22	1.00	0.78	PJTSAU, Hyderabad
472	ZINCO RICE MS	5.00	12.00	7.00	IGKV, Raipur
	Grand Total	**3317.80**	**9050.93**	**5742.28**	

MONITORING OF AICRPR TRIALS 2023

The monitoring teams from IIRR visited physically to different AICRIP centres during kharif 2023. The information received from field monitoring, self-monitoring reports, zone wise teams from IIRR and proceedings of the monitoring is compiled as zone wise and are presented below:

Kharif, 2023: Team of Scientists of ICAR-IIRR interacted with co-operators

Zones	Locations	Crop Improvement	Crop Protection	Crop Production
Zone II North Western-1	IARI, Modipuram, Chatha, Nagina, Pantnagar	Dr. Haritha B (IARI)	Dr. Jhansi Laxmi	Dr. B Sreedevi
Zone II North Western-2	Kaul, Karnal, Ludhiana, Kapurthala, Gurdaspur, Rauni	Dr. AVSR Swamy Dr. Gopala Krishnan S (IARI)	Dr. C Kannan	
Zone V Western	Sindewahi, Sakoli, Parbhani	Dr. SV Sai Prasad Dr. KB Kemparaju	Dr. P.LakshmiPrasanna Dr. Basavaraj K	Dr. Bandeppa Dr. Mangal Deep Tuti
Zone V Central	Raipur, Rewa Jabalpur, Ambikapur, Jagadalpur	Dr. P Revathi Dr. Suvarna Rani	Dr. V. Prakasam	
Zone VI Western-1	Kota, Nawagam, Derol, Dabhoi, Vyara, Navsari	Dr. M S Anantha Dr. Kalyani B Dr. J L Katara	Dr. G Jesudas	Dr. Santhosha Rathod
Zone VI Western-2 (Not submitted)	Shirgaon, Panvel, Karjat, Vadagaon, Radhanagari, Goa, Lonavala	Dr. Suneetha Kota Dr. Papa Rao	Dr. Somashakar D. Ladha Lakshmi	Dr. Gopinath Dr. Sanjeeva Rao
Zone VII Southern-1	Moncompu, Vytilla, Pattambi, Coimbatore, Gudalur	Dr. A.S. Hari Prasad	Dr. G S Laha	Dr.M B B Prasad Babu Dr. P. Muthuraman Dr. P. Jeyakumar Dr. Akshay S. Sakhare Dr. P. C. Jena (NRRI)

Zones	Locations	Crop Improvement	Crop Protection	Crop Production
Zone VII Southern-2	Aduthurai, Puducherry, Karaikal, Trichy.	Dr. DivyaBalakrishnan	Dr. Satish Chavan Dr. Guru Pirasanna Pandi G.(NRRI)	
Zone VII Southern-3	Gangavathi	Dr. P Senguttuvel	Dr. Y Sridhar Dr. Basana Gowda G (NRRI)	
Zone VII Southern-4	Rajendranagar, Warangal, Jagtial, Kunaram, Kampasagar	Dr. Jyothi Badri Dr. K Shruthi	Dr. M Srinivas Prasad Dr. Chinna Babu	Dr. Amtul Waris
Zone VII Southern-5	Ragolu, Maruteru, Bapatla,	Dr. CN Neeraja	Dr. AP Padmakumari, Dr. Prabhukarthikeyan SR (NRRI)	Dr. K. Surekha Dr. B. Sree Devi Dr. B. Sailaja

Zone II (North Western-1)

Team members: Dr V.Jhansilakshmi, Principal Scientist & Head (Plant breeding, ICAR-IIRR**), Dr. B Sreedevi (**Principal Scientist, Agronomy ICAR-IIRR**) and Dr Haritha B,** Senior Scientist (Genetics,ICAR-IARI)

Dates: 27-10-2023 to 02-11-2023

Centres visited: Chatha, Rajouri, New Delhi, Pantnagar, Nagina and Modipuram

Chatha:

All the trials were laid according to the AICRIP recommendations. Six trials of agronomy were laid out as per the technical program including entries along with the checks and in harvesting stage. 90% crop under the dry DSR method is lodged and the dry DSR may not be suitable for the soil condition. In dry DSR trials brown spot problem has started from flowering time and high at maturity and visited organic farming. All the trials were well conducted

Rajouri:

Three AICRPR trials of early duration are conducted and harvested. October hailstorms can be with stand by GIZA14 variety (pudding rice). Blast is the major problem of rice in this region. Almorah varieties VL 69, VL89, K39, K 343 are under FLDs of 40 ha. Overall the conduct of the trials was good.

IARI, New Delhi:

Four AICRPR trials viz., IVT BT, AVT BT, IHRT were monitored. 30 entries under IVT and AVT BT were evaluated and early entries were harvested. Basmati Station trial and Kalanamak introgression lines for blight, blast, submergence tolerance are in milky to grain hardening stage the field. Pest incidence of Stem borer and leaf folder was observed. Overall performance of the trials was good

Pantnagar:

All the trials were laid as per the recommendations and in the trial of AVT-1-BT, duration of entries is not uniform grain discoloration was observed. Stem borer incidence is high. Since soil fertility is high, there is no difference between 50% and100% Recommended Fertilizer Dose (RFD). In AVT-IM, shifts for different durations were observed. The AVT-Aerobic entries are received late and planting was taken up in july and night temperatures affected the crop during flowering. Two trials of Soil Science and four Plant Physiology trials were monitored and influence of silicon on improving abiotic stress tolerance in rice genotype were evaluated. All the trials were conducted as per the recommendations and in good manner

Nagina:

Eight trials viz., IVT-BT, AVT trials of (MS, E(TP), IME, CSTVT, HT(NIL)) was monitored. In AVT-1-IME and CSTVT trials most of the entries were not flowered or matured. The long term trial on weed dynamics, was monitored. Overall conduct of trials was good as per the recommendations.

Modipuram:

Under AICRPR, Plant Breeding trials on IVT-BT, IME, MS, were conducted as per the technical program. The trials are in maturity stage. Irrespective of the trial and the type of insecticide applied, stem borer incidence was reported and white ears are seen in the fields. All the trials were well conducted

Zone II (North Western-2)

Team members: Dr. AVSR Swamy Principal Scientist & Head (Plant breeding ICAR-IIRR), **Dr. Gopala Krishnan S** Principal Scientist & Head **(**Genetics, ICAR-IARI**) Dr. C Kannan (**Principal Scientist, ICAR-IIRR**)**

Dates: 9-10-2023 to 13-10-2023

Centres visited: Kaul, Karnal, Ludhiana, Kapurthala, Gurdaspur, Rauni

Kaul:

A total of 14 experiments (ETP: IVT,AVT-I and AVT-II IME: IVT,AVT-I and AVT-II IM: IVT,AVT-I and AVT-II Late: IVT,AVT-I&2 and AEROB: IVT,AVT-I and AVT-II) of AICRIP are conducted at the research station during 2023 Kharif Season. All experiments are very neat and clean without any weeds. Incidence of false smut is observed in some entries. Overall the experiments are nicely conducted.

Karnal:

All the experiments are conducted as per the given layout conducted as per the prescribed lay out. Each plot was looking neat and relatively weeds free with appropriate labels. AVT-Aerob experiment is a bit under performance due to late planting.

Ludhiana:

A total of 18 experiments (ETP: IVT, AVT-I and AVT-II IME: IVT, AVT-I and AVT-II IM: IVT, AVT-I and IVT, AVT-I and AVT-II, LPT, LNT: IVT, AVT-I and AVT-II, Spl CRP Bio fort trial and Bio fort IVT, and AVT-I & II,) along with basmati trials of IVT, AVT-I and AVT-II were conducted. All the trials are showing excellent performance. Incidence of False smut is observed in some of the entries in some trials. Early maturity of one or two entries in late trial is also observed especially in AVT-2 late trials, similarly in late maturity of one or two entries are observed in trials of ETP and IM AVT-2 trials of ETP and IM.

Kapurthala:

The Basmati trials conducted in the Regional Research Station of PAU. The trials are neat and clean without any weeds. No major disease and pests are observed. The Basmati trials are also very neat and clean and full expression of the entries is observed

Gurdaspur:

Basmati Trials, conducted in the station along with the elite lines evaluation and suitability programme. The trial is good with no weeds and free from disease and pests.

Rauni:

Basmati trails are conducted during kharif. IVT-BT trial is conducted in the research station along with station trials and evaluation of elite lines developed by IARI and PAU. The trail is good with neat and clean without weeds. The crop is in near maturing no major pests and diseases are observed.





Zone V (Western)

Team members: Dr S.V. Sai Prasad, Principal Scientist (Plant Breeding), ICAR-IIRR, **Dr. Kemparaju K. B**, Senior Scientist (Plant Breeding), ICAR-IIRR, **Dr. Mangal Deep Tuti**, Senior Scientist (Agronomy), ICAR-IIRR, **Dr. Bandeppa Sonth**, Senior Scientist (Pl. Microbiology), ICAR-IIRR, **Dr. K. Basavaraj**, Scientist (Plant Pathology), ICAR-IIRR, **Dr. P. A. Lakshmi Prasanna**, Senior Scientist (Agri. Economics), ICAR-IIRR

Dates: 26.10.23 to 28.10.23 (Parbhani) and 1.11.23 to 4.11.23 (Sindewahi and Sakoli)

Centres visited: Parbhani, Sindewahi and Sakoli

Parbhani:

A total of 3 trials viz., AVT-2 (Aerobic), AVT-1 (Aerobic) and IVT (Aerobic) were conducted. All the trials were laid out as per the AICRIP guidelines. 18 entries in AVT-2 (Aerobic), 17 entries in AVT-1 (Aerobic) and 64 entries in IVT (Aerobic) Overall the trial conduct and performance of entries are good, but due to water stress some forced maturity is noticed. Diseases such as brown spot was found moderate to severe on different entries. In few entries leaf blast was also seen. Crop condition is very good and good crop stand was observed.

Sindewahi:

A total 19 AICRIP trials viz., AVT-2 (ETP), AVT-1 (ETP), IVT (ETP), AVT-2 (IME), AVT-1 (IME), IVT (IME), AVT-2 (IM), AVT-1 (IM), IVT (IM), AVT-2 (MS), AVT-1 (MS), IVT (MS), AVT-1& IVT (Biofort), Special trial –CRP biofortification, IIHRT-Early, IIHRT (MS), Hybrid-MLT, IIHRT-Medium and IIHRT-Mid-early were conducted. All the trials were laid out as per the AICRIP guidelines. Few entries in trials were reported to be not-germinated, which was informed in the station report. Diseases such as false smut, brown spot were reported in many entries. In few entries, Blast, neck blast and BLB was also observed. Overall, the trial conduct and performance of entries are good

Sakoli:

A total 13 AICRIP trials viz., AVT-2 (ETP), AVT-1 (ETP), IVT (ETP), AVT-2 (IME), AVT-1 (IME), IVT (IME), AVT-2 (IM), AVT-1 (IM), IVT (IM), AVT-1& IVT (Biofort), IIHRT-Early, IIHRT (MS) and Hybrid-MLT were conducted. Entries lodging and with segregation and good performance were noted down. All the trials were laid out as per the AICRIP guidelines. Total of six entomology trials were conducted at Sakoli centre such as National Screening Nursery (NSN-1 sent from Both IIRR and NRRI separately), Plant Hoppers Screening Trial (PHS), Multiple Resistant Screening Trial (MRST), Gall Midge Screening Trial (GMS) and Gall Midge Biotype Monitoring Trial (GMBT) during *Kharif* 2023. All the trials were conducted as per the technical programme of Entomology 2023-24 and crop was well maintained. The trials for gall midge

resistance was conducted under natural infestation conditions. Diseases like brown spot was observed to be moderate to severe and overall trial conduct was good.





Zone V (Central)

Team members: Dr. P. Revathi, Senior Scientist (Plant Breeding), ICAR-IIRR, **Dr. Suvarna Rani Ch, Scientist** (Plant Breeding), ICAR-IIRR, **Dr. V Prakasam,** Senior Scientist (Plant Pathology), ICAR-IIRR

Dates: 30.10.2023 to 4.11.2023

Centres visited: Jagadalpur, Raipur, Ambikapur, Rewa, and Jabalpur

Jagadalpur

All the allotted trials of Plant breeding, Pathology, Entomology, and Agronomy trials were laid out very well and conducted meticulously with the recommended plot sizes and replications as per the instructions received from IIRR. In the Agronomy trial, AVT-2 Aerobic sowing was done late due to late receipt of seed. In the pathology screening nursery trials, brown spot and neck blast symptoms have not appeared. Leaf blast and Gall midge incidence was more at Jagadalpur.

Raipur

All the trials were laid out very well and conducted meticulously with recommended plot size and replications as per the instructions received from IIRR. At Raipur trials entries were barcoded and it was very impressive. The digital field book was used to record data. IVT-Aerobic trial was as good as irrigated trial due to high rainfall. Yellow stem borer, BLB and sheath blight incidence was very high at Raipur. Entomology trials were conducted excellently. Physiology trials namely low light stress and drought tolerance trials were conducted. Stem borer and Plant hopper trials were artificially inoculated and the insect population was sufficient, whereas in the Gall midge and leaf folder trials, no symptoms were seen. The Pathology trials were very well conducted and artificially inoculated with BLB, Sheath blight and Sheath rot pathogens. In the Agronomy trial all seven allotted trials were conducted as per the technical program received from IIRR.

Ambikapur

All the trials were laid out very well and conducted meticulously with the recommended plot size and replications as per the instructions received from IIRR. Eight entomology trials were conducted very well and natural infestation of stem borer and Gall midge were observed in the trials. Neck blast symptoms were very high in the other trials. Rice hybrids are preferred over pure line varieties by farmers at Ambikapur and Rewa for rainfed rice cultivation due to higher yield and less infestation of disease and pests.

Rewa

Overall the crop stands and trial conduct was not satisfactory at Rewa due to lack of manpower with respect to breeding trials. Monitoring team from IIRR visited Rewa location after four years. The funded centre Rewa is suitable for upland/rain fed ecology, weed control was major problem in Aerobic, Drought NIL and Direct seeded trials. They could not conduct IVT-I ME trial. All Plant pathology trials were conducted very well and brown spot disease pressure was very high at screening and management trials. In the physiology trials viz., heat, silica and drought trials were infested with weeds. The agronomy trials were conducted well. The major issue at Rewa location for raising crop was delayed monsoon.

Jabalpur

All the trials were laid out very well and conducted meticulously with the recommended plot size and replications as per the instructions received from IIRR.





Zone VI (Western-1)

Team members: Dr M S Anantha, Senior Scientist, Plant breeding, ICAR- IIRR, **Dr Jawahar Lal Katara**, Senior Scientist, Biotechnology, ICAR-NRRI, **Dr Santosha Rathod**, Scientist, Agri Statistics, TTT, ICAR- IIRR, **Dr Kalyani M Barbadikar**, Scientist, Biotechnology, ICAR-IIRR, **Dr G S Jasudasu**, Scientist, Pathology, ICAR- IIRR, **Dr D J Kancha**, Asst. Research Scientist, Main Rice Research Station, Anand Agricultural University, Nawagam, Gujarat.
Dates: 14.10.2023 to 18.10.2023

Centres visited: Nawagam, Derol, Dabhoi, Vyara, Navsari and Kota

Nawagam:

AVT 2- E TP, AVT 1 – E TP, IVT - E TP, AVT 2 – IME, AVT 1 – IME, IVT – IME, AVT 2 – IM, AVT 1 – IM, IVT – IM, AVT 2 – MS, AVT 1 – MS, IVT – MS, AVT & IVT – Biofort, IVT – AGT were conducted. All the trials were conducted as per recommendations with properly laid out plots and statistical designs. A coloured rice trail was not conducted due to the late receipt of the seeds. An incidence of yellow stem borer was observed in some entries. All the fields were weed-free and maintained as per recommendations. The main segment of rice is long bold grain-

type suitable for flat and puffed rice. Pathology 20 and Entomology 6 trails were conducted as per the recommendations

Derol:

All the trails AVT 2- E TP, AVT 1 – E TP, IVT - E TP, AVT 2 – Aerob, AVT 1 – Aerob, IVT Aerob were conducted. Rainfed irrigation and need based irrigation was provided and fields were maintained as recommended.

Debhoi:

Trials AVT 2- E TP, AVT 1 – E TP, IVT - E TP, AVT 2 – MS, AVT 1 – MS, IVT – MS were conducted. All the trials were conducted as per recommendations with properly laid out plots and statistical designs.

Vyara:

The trails AVT 2- E TP, AVT 1 – E TP, IVT - E TP, AVT 2 – IME, AVT 1 – IME, IVT – IME, AVT 2 – Aerob, AVT 1 – Aerob, IVT – Aerob, AVT 2 – MS, AVT 1 – MS, IVT – MS were conducted at two places as per the requirement of irrigated and aerobic trails. The aerobic trials were conducted perfectly and the few lines were found to be promising. Panicle mite and grain discoloration were the main issues found at the center.

Navsari:

A total of 22 trials were allotted viz. AVT 2 – IME, AVT 1 – IME, IVT – IME, AVT 2 – IM, AVT 1 – IM, IVT – IM, AVT 2 & 1 – LATE, IVT – LATE, AVT 2 – Aerob, AVT 1 – Aerob, IVT – Aerob, AVT 2 – MS, AVT 1 – MS, IVT – MS, AVT & IVT – Biofort, AVT 2 – AL&ISTVT, AVT 1 – AL&ISTVT, IVT – AL & ISTVT, AVT & IVT – CSTVT, IVT – AGT. One trial due to the seed germination issues was not satisfactory. The colored rice trials were conducted and two lines were found to be promising. A higher number of lines displayed segregation/ mixtures. All the trials were conducted as per recommendations with properly laid out plots and statistical designs. The agronomy trials were conducted properly and were satisfactory. Pathology 17 and Entomology 6 trails were conducted. The alkalinity and salinity trails were conducted at Danti. The overall stress was found to be low and uneven in the plots. The agronomy trials were satisfactory.

Kota:

All five-crop improvement and agronomy trials were conducted properly as per the recommendations. AVT 2- E TP, AVT 1 – E TP, IVT - E TP, AVT & IVT – Biofort, and CRP Special Biofortification were conducted. The farmer's demand is only for Basmati and was requested that long scented grain type segment should be given to the center. The biofortification trails were also given focus at the center after the Basmati trails were discontinued.

Zone VI (Western-2)

Team members: Dr. N. Somasekhar (Principal Scientist, Nematology), **Dr. Suneetha Kota** (Sr. Scientist, Plant Breeding), **Dr. Ladhalakshmi** (Sr. Scientist, Plant Pathology), **Dr. Sanjeeva Rao** (Sr. Scientist, Biochemistry), **Dr. Gobinath** (Scientist, Soil Science) and **Dr. Paparao V**. (Scientist, Biotechnology) from ICAR-IIRR

Dates: 25-10-2023 to 31-10-2023

Centres visited: Vadgaon, Lonavala, Karjat, Panvel, Shirgaon, Radhanagari, Goa

Vadgaon:

At this Centre, AICRIP trials namely IVT- IME, IVT- Late, AVT2-IME, AVT 1-IME, AVT 2&1- Late and IHRT- Early were conducted and general crop stand was good. Moderate to severe incidence of false smut particularly in hybrid trial entries was observed across majority of the trails. Diseases such as false smut, brown spot, sheath blight and grain discoloration were recorded. With respect to Crop production trials, all the five trials were conducted. Based on the observation, all trials were executed well and accordance with the technical program. Five agrocnomical trials were also conducted in accordance with the technical program

Lonavala:

The disease screening nurseries of NSN1 and NSN2 were monitored. The team also visited the field facility where seed production of varieties including Indrayani and other varieties was undertaken. strengthening the screening trials and to identify the promising donors with improved glass facility is recommended. All trials were executed well and accordance with the technical program.

Karjat:

A total of 23 AICRIP plant breeding trials, 7 entomology and 16 pathology trials and 13 agronomy trials are being conducted at this station. The entries in IVT- colored rice, was observed to be mostly segregating. Moderate incidence of stem borer, leaf folder and ear head bug was observed. Over all conduct of the trials and crop stand was good and are in accordance with the recommendations of technical programme

Panvel:

The coastal saline trial viz., AVT 1 & IVT CSTVT was conducted at this station. Due to heavy rains, the stress level is very low. A high degree of soil heterogeneity for salinity stress where patches of salt crusting on the top soil was observed. The increase in replications and smaller plot size would facilitate the correct evaluation, assessment, and identification of tolerant entries. None of the entries in the agronomy trial were germinated. With respect to diseases, the incidence was low and few entries showed brown spots and disease samples were collected

Shirgaon:

A total of 9 trials were sent to this station. Among the two trials: AVT-1-IM and CRP-SPL Biofort were not conducted due to the late receipt of trials. The other trials were conducted as per the guidelines prescribed and the crop stand was good with a low incidence of pests and diseases among the entries. Due to excess rains in a short period at flowering led to sterility, and chaffy grains in few entries were observed. With respect to diseases, the incidence was low and few entries showed false smut.

Radhanagari:

Nine varietal trials namely IVT-ETP, IVT-IME, IVT-MS, AVT1-ETP, AVT 1-IME, AVT 1-MS, AVT2- ETP, AVT2-IME, AVT-2 MS, and 2 hybrid trials: IHRT- E and IHRT-ME being taken up at this station. Severe incidence of false smut was recorded among the entries. The crop stand is affected by sterility and stunted growth. All the trials were conducted as per the prescribed guidelines. All entries were thoroughly evaluated and assessed for their performance across the different trials.

Goa:

The trial AVT 1 & IVT CSTVT was allotted to this center, due to late receipt of the trial and continuous heavy rains led immediately after transplantation in August led to submergence conditions. Poor crop stand in many of the entries was observed due to submerged conditions, The data from locations is only useful to identify the tolerant genotypes. With respect to diseases, the incidence was low and few entries showed sheath rot, sheath blight, false smut.

Zone 7 (Southern 1)

Team members: Dr. A.S. Hari Prasad, Principal Scientist (Hybrid Rice), ICAR-IIRR, **Dr. G.S. Laha**, Principal Scientist (Plant Pathology), ICAR-IIRR, **Dr. P. Muthuraman**, Principal Scientist (Agril Extension), ICAR-IIRR, **Dr M.B.B. Prasad Babu**, Principal Scientist (soil Science), ICAR-IIRR, **Dr Jeyakumar**, Principal Scientist (Entomology), ICAR-IIRR, **Dr Akshay Sakhare**, Senior Scientist (Plant Physiology), ICAR-IIRR, **Dr P. C. Jena**, Senior Scientist (Agril. Engg.), ICAR-NRRI

Dates: 05.11.2023 to 05.12.2023

Centres visited: Vytilla, Moncompu, Pattambi, Coimbatore, Gudalur

Vyttila:

Though all the five trials (four Plant Breeding - AVT 2 Al & ISTVT; AVT 1 Al &ISTVT; IVT Al & ISTVT; AVT & IVT CSTVT and one Agronomy) were laid out, due to untimely heavy rain and intermittent dry spell, complete crop loss occurred at the centre and hence no trial was monitored. Screening for leaf blast, Sheath blight in testing nurseries was done

Moncompu:

Of the nine plant breeding trials, viz., AVT-IVT-Early Rabi 2022 23; AVT 2 E TP; AVT 1 E TP; IVT E TP; AVT-2 ME; AVT-1 ME; IVT-IME; AVT & IVT Biofortification; Special CRP Biofort. Trail, eight trials (except the first one) were monitored and these trials were conducted very nicely with given technical programme. AVT-IVT Early Rabi 2022-23 trial data was submitted during September 2023. Screening for leaf blast, Sheath blight in testing nurseries was done

Pattambi:

Of the 17 plant breeding trials, three trials viz., IVT E TP; IVT IME; IVT-M were harvested; remaining trials viz., IVT MS; AVT 2 E TP; AVT 1 E TP; AVT 2 M; AVT 1 M; AVT 2 ME; AVT 1ME; AVT 2 MS; AVT 1 MS; AVT-IVT-Biofort; IVT-AGT; IVT Coloured rice; were in grain filling/maturity stage and were monitored. The trails were not conducted as per the technical programme and a review may kindly be considered about the conduct of trials at this center. AVT-IVT Early Rabi 2022-23 trial data was submitted during October 2023. Screening for leaf blast, Sheath blight and bacterial blight was done

Coimbatore:

Of the 21 plant breeding trials (16 – plant breeding; 5 – hybrid rice) five hybrid rice trials viz., IHRT E; IHRT ME; IHRT M; IHRT MS; Hybrid MLT trial were harvested; Remaining trials viz., IVT -ME; AVT 1 ME, AVT 2 ME; IVT E TP; AVT 1 E TP; AVT 2 E TP; IVT MS; AVT 1 MS; AVT 2 MS; IVT M; AVT 1 M; AVT 2 M; AVT & IVT Biofort were monitored. These trials were conducted as per the given technical programme. Three trials viz., AVT 1 EDS; IVT E DS; AVT 1 NIL DRT were in early flowering stage, hence couldn't monitor their performance. Screening for leaf blast, brown spot and rice tungro was done along with field virulence of Pyricularia oryzae and Xanthomonas oryzae pv. oryzae

Gudalur: Three breeding trials viz., IVT Hill (E); IVT Hill (M); AVT Hill (M) were monitored, and these were conducted as per the technical programme. Screening for false smut resistance, screening for leaf blast resistance at NSN1 and neck blast resistance at NSN Hills was observed.





Zone 7 (Southern 2)

Team members: Dr Divya Balakrishnan, Senior Scientist (Plant Breeding, ICAR-IIRR)**, Dr Satish Chavan,** Scientist (Entomology, ICAR-IIRR)**, Dr Guru Prasanna Pandi,** Scientist (Entomology, ICAR-NRRI)

Dates: 06.11.2023 to 10.11.2023

Centres visited: Aduthurai, Puducherry, Karaikal, Trichy

Puducherry:
Among the 14 trials allotted only 9 breeding trials (IVT ETP, AVT 1-E-TP, AVT 2-E-TP, IVT IM, AVT 1-IM, AVT 2-IM, IVT Late, AVT 1& AVT 2-Late) were carried out in the first season and the remaining 5 trials were planned for the next season AVT 2-IME, AVT 1-IME, IVT-IME, AVT2- MS, AVT1 MS and IVT MS is in nursery for the next season or just transplanted and were in seedling stage. The trials were conducted as per recommendations. several entries with mixture/ segregants observed in the combined trial of AVT2 & 1 late. Poor germination of entries observed in AVT1-IM. Seven agronomy trials were conducted. Overall, the trials were conducted as per the recommendations

Aduthurai:
A total of 19 breeding trials (IVT ETP, AVT2- ETP, AVT1- ETP, AVT2-IME, AVT1-IME, IVT-IME, AVT2-IM, AVT1-IM, IVT-IM, AVT1&2-L, IVT-L, IVT-AGT, IVT&AVT1-BIOFORT, AVT2- MS, AVT1- MS, IVT- MS, Special Trial under CRP Bio-fortification, and IVT Coloured Rice) and 2 hybrid rice trials (IHRT-E, IHRT-ME) were conducted. Fourteen entomology trials and 15Plant Pathology trials were taken up. All the trials were conducted as per recommendations with excellently laid out plots and were weed free

Karaikal:
Seventeen breeding trials (IVT ETP, AVT1 ETP, AVT2 ETP, AVT2- MS, AVT1- MS, IVT- MS, IVT-AGT, IVT IM, AVT1 IM, AVT2 IM, IVT IME, AVT1 IME, AVT2 IME, IVT&AVT1-BIOFORT, AVT1&2 & IVT ALISTVT, AVT2 & IVT ISTVT, AVT1 NIL SUB) and two hybrid trials (IHRT-MS, IHRT-M) were conducted along with eight Agronomy trials were conducted out

three Plant physiology trials and two soil science trials were taken up, leaf folder and BLB are the major biotic stresses observed in completed trials. Poor germination and poor establishment of entries observed in many of the trials. Salinity along Leaf folder and BLB are the major abiotic and biotic stresses observed. Overall the conduct of the trials was good

Trichy:
Three trials AVT1 ALISTVT, AVT2 ALISTVT & IVT ALISTVT were allotted and are in nursery stage as the trial is conducted on second season of this region and also due to delay in irrigation water facilities. No significant disease and insect pest infestation was observed at this stage. Breeding programmes targeting towards salinity stress improvement

Zone 7 (Southern 3)

Team members: Dr. P.Senguttuvel, Senior Scientist, (Plant Breeding, ICAR-IIRR), **Dr Y Sridhar**, Principal Scientist, (Entomology ICAR-IIRR) and **Dr Basavana Gouda**, Senior Scientist Entomology, NRRI, Cuttack

Dates:

Centre visited: Gangavathi

Gangavathi:

In breeding, 16 trials were conducted viz., AVT1&2 ME, IVT ME, AVT1&2 M, IVT M, AVT1&2 LPT, IVT LPT, AVT1&2 LNT, IVT LNT, AVTs & IVT Biofort, AVTs AL&ISTVT were conducted. All the trials were in flowering and grain filling stage. Due to late planting of IVT M trials, the performance was not satisfactory. Along with the pathological trials, 18 entomological trials were conducted. Conduct of the trials was according to the technical programme and general maintenance of the trials is very good.

Zone 7 (Southern 4)

Team members: Dr. M. Srinivas Prasad, Principal Scientist & Head (Plant Pathology, ICAR-IIRR), **Dr.Amtul Waris**, Principal Scientist (Transfer of Technology, ICAR-IIRR), **Dr. Jyothi Badri**, Senior Scientist (Plant breeding, ICAR-IIRR), **Dr. Chinna Babu Naik**, Senior Scientist (Entomology, ICAR-IIRR), **Dr. K. Sruthi**, Scientist (Hybrid Rice, ICAR-IIRR)

Dates: 27.10.2023 to 31.10.2023; 02.11.2023

Centres visited: Rajendranagar, Warangal, Kunaram, Jagtial and Kampasagar

Rajendranagar:

Total 11 trials consisting of AVT-2(IME), AVT-1(IME), IVT-(IME), AVT-2(IM), AVT-1(IM), IVT-(IM), AVT-2(MS), AVT-1(MS), IVT(MS), AVT&IVT-Biofort and IVT-AGT trials were monitored. In IVT-(IM), AVT1&IVT-Biofort and IVT-AGT some of the entries were observed as not uniform and segregating lines. In entomology, twelve trials were conducted. All the trials were laid out as per the AICRIP guidelines and overall performance of the trials was good.

Warangal:

Total sixteen (16) trials were monitored at Warangal including thirteen (12) varietal trials [AVT-2(ETP), AVT-1(ETP), IVT(ETP), AVT-2(IME), AVT-1(IME), IVT-(IME), AVT-2(IM), AVT-1(IM), IVT(IM), AVT-2(MS), AVT-1(MS), IVT(MS) and four hybrid rice trials (IHRT-E, IHRT-ME, IHRT-M and IHRT-MS). In each trial, overall conduct of the trial, promising, poor performance, segregants/offtypes and shifts were observed and noted. Same local check has been used for E and ME trials. In entomology, eleven trials were conducted and Pest incidence of, stem borer, BPH and leaf folder was observed and found to be low to moderate. Overall performance of the trials was good.

Kunaram

In Kunaram 6 trials consisting of IVT-ETP, AVT-1(ETP), AVT-2(ETP), IVT-IME, IVT-IME, AVT-1(IME), AVT-2(IME) were monitored. In IVT-ETP, lodging entries has been observed and noted. Entries with mixtures/segregants or offtypes were observed. The entomological and pathological trials were laid out as per the AICRIP guidelines. The incidence of stem borer was noticed during visit. Overall trial conduct was good

Jagitial:

Six trials consisting of IVT-ETP, AVT-1(ETP), AVT2-(ETP), IVT-IM, AVT-1(IM) and AVT-2 (IM) were monitored. In IVT-ETP, majority of the entries were lodged because of maturity. Entries that are promising, poor performance, segregants/offtypes and shifts were observed and noted. In entomology and pathology all the trials were laid out as per the AICRPR guidelines. In AICRPR trials incidence of Gall midge, BPH and stem borer was found to have low to moderate incidence. Overall performance of the trials was good

Kampasagar:

Total seven trials were monitored. Severe stem borer incidence was observed in ARS, Kampasagar AICRPR trials. In IVT-ETP, majority of the entries were lodged. In entomology and pathology all the trials were laid out as per the AICRIP guidelines. Pest incidence of, BPH were observed to low incidence Overall performance of the trials was good.

Zone 7 (Southern 5)

Team members: Dr C N Neeraja, Principal Scientist & Head (Plant Biotechnology, ICAR-IIRR); **Dr K Surekha**, Principal Scientist (Soil Science, ICAR-IIRR); **AP Padmakumari,** Principal Scientist **(**Entomology**,** ICAR-IIRR**); Dr B Sree Devi**, Principal Scientist (Agronomy (ICAR-IIRR); **Dr B Sailaja** Principal Scientist (Computer Science, ICAR-IIRR); **Dr Prabhu Karthikeyan**, Scientist (Plant pathology ICAR-NRRI)

Dates: 11.11.2023 and 14.11.2023 to 17.11.2023

Centres visited: Ragolu, Bapatla and Maruteru

Ragolu:

Out of eight breeding trials allotted to this centre viz., AVT2 IME, AVT1 IME, IVT IME, AVT2 M, AVT1 M, IVT M are in grain filling stage and AVT2 and 1 Late and IVT Late are still in flowering. Severe incidence of BPH was observed in AICRP trials despite the application of pesticides and some entries found to be highly susceptible. Under AICRP-R Entomology, GMBT, GMPM, EPBI and EIGM trials were taken up. Screening against mixed populations of BPH and WBPH was so effective that few of the resistant entries could be identified whose reaction was at par with the standard resistant check PTB 33. Over all conductance was good

Maruteru:

All the allotted trials under Breeding and Hybrid rice viz., IVT E TP, AVT2 E TP, IVT-IME, AVT1 and AVT2 IME, IVT, AVT1 and AV2 – IM, IVT and AVT Late, IVT, AVT1 and AVT2-MS, IVT-AVT-Biofortification, IHRT-E, ME, M, MS and MLT-HR are well conducted, while AVT1- E – TP was harvested. The low Nitrogen and low Phosphorus trials should not be given to Maruteru Centre as the native fertility of the soil especially during Kharif appears to be very high. In the trial on suitability of varieties for wet DSR, Varalu is the best by visual evaluation and in grain filling stage. The trial conductance was good as per the recommendations

Bapatla:

Six trials were conducted viz., Medium slender (IVT- MS, AVT1 MS, AVT2 MS), Coloured rice (IVT), Biofortificaiton (IVT and AVT) and IHRT trials MS and all the trials are well conducted following the technical program with proper replications.

PROGRESS REPORT

KHARIF 2023

VARIETAL IMPROVEMENT

AICRIP

RAINFED TRIALS

ICAR-NRRI, Cuttack

SUMMARY

AICRIP- Rainfed breeding trials *kharif* 2023

RAINFED UPLAND

AVT-1-EDS and IVT-EDS trials were conducted with 23 and 46 test entries, respectively in upland direct seeded condition.

AVT 1- E DS:

Among 23 test entries 9 entries were in the 3rd year of testing and 14 were in the 2nd year of testing. Trials were conducted in 18 locations distributed in Zone III, V, VI and VII.

Promotion:

- **Promotion to AVT-2-EDS on overall basis:** IET 31170 and IET 31185
- **Promotion to AVT-2-EDS for Zone-III:** IET 31163
- **Entry to be repeated in AVT-1-EDS:** IET 31193
- **Entry to be repeated in AVT-2-EDS:** IET 30330

Promising entries:

- **IET 29036 is considered promising for Zone-III and Zone-V and IET 29052 is considered promising for Zone-III.**

IVT- E DS:

Among 46 entries tested along with 7 checks in 18 locations in 4 Zones (Zone III, V, VI, VII) the following entries are promoted to AVT-1-EDS

<u>On Zonal mean basis</u>

Moderate drought condition

- **Zone VI: IET 32077 is promoted to AVT-1-EDS**

Severe drought condition

- **Zone- V: IET 32085, 32087, 32100 are promoted to AVT-1-EDS**

RAINFED LOWLAND ECOSYSTEM

During *Kharif* 2023, rainfed lowland trials were evaluated under rainfed shallow lowland (RSL), semi deep water (SDW) and deep water (DW) ecologies. A total of 139 test entries were

evaluated along with suitable checks in five trials namely AVT1 -RSL **(28** test entries), IVT - RSL (55 test entries), IVT-RSL-DS (16 test entries), AVT 1-SDW (8 test entries), IVT-SDW (27 test entries), IVT-DW (5 test entries). Trait verification trial for submergence tolerance (AVT-1-NIL-Sub) was also conducted in 4 locations with 8 test entries.

Rainfed Shallow Lowland

AVT 1-RSL:

Out Of 28 test entries (13 inbred, 15 NIL entries) along with 8 recurrent parents and 4 checks were evaluated across 3 zones (III, IV, VII). One entry was in the 3rd year of testing, four entries, including 12 inbreds and 02 NILs were in 2ndyear of testing and 13 NIL entries were in 1st year of testing.

Promotion to AVT-2-RSL

- IET31204 and IET 31237 are promoted in Zone IV

NIL entries promotion to AVT-2 - RSL

- Submergence tolerant NILs: IET32121 and IET32122 are promoted to 2nd year of testing.
- Submergence tolerant and HT: IET 32123, IET32124 are promoted to 2nd year of testing
- HT entries: IET 32130 and IET 32131 promoted to 2nd year of testing.

Promising NIL entry:

- Submergence tolerant NIL: IET30409-R is found promising for Odisha

IVT-RSL:

In IVT-RSL, 55 test entries along with 4 checks were evaluated across 15 locations. The following entries are promoted to AVT-1-RSL.

Promoted on overall mean basis:

- **Nil**

Promoted entries based on zonal mean:

- Zone IV- IET 32146 and 32134
- Zone VII- IET 32175, 32176, 32150 and 32147

IVT-RSL-DS:

This pilot trial was constituted with 16 test entries and 3 checks in only 4 locations.

- IET 32223 is performed significantly better in Zone- III and overall basis over the checks.

Semi Deep and Deep Water ecology

AVT 1-SDW:

A total 8 test entries (including 2 NIL entries) along with 4 checks were tested over 10 locations in Zone III, IV and VII. All entries are in the 2nd year of testing.

The following entry is promoted to the AVT-2-SDW:

- **IET 31258 is promoted in Zone III**

Performance of NIL entries

- **IET 29031 and IET 29026 are repeated**

IVT-SDW:

In IVT-SDW, out of 27 test entries evaluated in 10 locations across three zones (Zones III, IV, VII), 3 entries are promoted to AVT-1-SDW.

- Overall mean basis: Nil
- Zone VII: IET 32198, IET 32196 and IET 2193.

IVT-DW:

In IVT-DW trial 5 test entries along with 3 checks were tested under the 1st year of testing in 4 locations

- **Promoted to AVT-1:** Nil

AVT-1-EDS

Locations: 18 **Test Entries: 23**

Normal rainfall locations: 10; Moderate drought locations: 04; Severe drought locations: 03

Checks:
National Checks: Shabhagidhan and Vandana **Sensitive check: IR 64**

Zonal Checks: Anjali (all zones), Govind (Northern), Narendra Dhan 97 (Eastern), Samaleshwari (Central), Varalu (Western) and Tulasi (Southern).
Hybrid check: US-314

Total 23 entries were tested in AVT1-EDS of *Kharif* 2023 which also include nine entries in third year of testing and rest 14 entries were in second year. The entries were tested in 18 locations, out of which data from one location (Jabalpur) was not considered for analysis due to low CV (4.09%). Among the remaining 17 locations, normal rainfall was recorded in 10 locations, whereas 04 locations were categorized as moderate drought affected areas (Cuttack, Parbhani, Vyara and Coimbatore) and 03 locations were categorized as severe drought affected areas (Hazaribagh, Rewa and Derol) .

General information on drought spell in different locations AVT 1- E DS *Kharif*, 2023

Sl. No	Location	Experimental Grain Yield (Kg/ha)	Dry Spell	Drought Situation
1.	**Jeypore**	4165.4	15 days during grain filling stages	Normal
2.	**Cuttack**	1932.69	02 drought spell, 1st drought spell observed at panicle initiation state, 2nd drought spell flowering to grain filling	Moderate drought
3.	**Bikramganj**	3151.17	04 (16-31 July, 18-31 August, 09-20 September, 18 October onwards)	Normal
4.	**Pusa**	3404.99	Two drought spells of 25 and 30 days 1st: 25 days after sowing 2nd: period between Tillering and Flowering stage	Normal
5.	**Sabour**	3618.33	3 dry spells (12 days: 1 -11 June; 15 days: 18 July - 26 Aug & 10 days: 10-19 Sept)	Normal
6.	**Hathwara**	4829.19	only initial drought after seed sowing	Normal
7.	**Hazaribag**	433.72	2 dry spells of 8 (26 Aug. to 2 Sept.) & 55 days (7 Oct. to 30 Nov.)	Severe Drought
8.	**Ranchi**	3101.68	4 dry spells observed from 9-17 Aug. 2023, 25 Aug. to 02 Sept. 2023 , 06-17 Oct. and 19 Oct. to 03 Nov. 2023	Normal
9.	**Jabalpur**	3924.1	3 dry spells (July- 7 days, Aug- 10 days, Sep- 8 days)	Normal
10.	**Jagadalpur**	6380.37	No drought spell	Normal
11.	**Raipur**	4082.11	2 dry spells 1st: 31 days (04 Oct 2023 to 03	Normal

			Nov 2023), and 2nd: 24 days (05 to 28 Nov 2023)	
12.	**Rewa**	519.13	4 dry spells, (21 July to 31 July 2023, 7 Aug to 17 Aug 2023 ,25 Aug to 5 Sep 2023,21 Sep to 31 Sep 2023)	Severe Drought
13.	**Parbhani**	2824.49	1 dry spell of 19 days (31 July to 18 August)	Moderate drought
14.	**Derol**	721.33	2 spells, (9 days and 23 days 02-08-2023 to 10-08-2023 and 15-08-2023 to 6-9-2023	Severe Drought
15.	**Vyara**	2682.5	Nil	Moderate drought
16.	**Kumta**	4601.2	4 dry spells (August: 5 Days, September; 7 Days, October: 15 days and November: 15 days	Normal
17.	**Mugad**	4397.6	5 dry spells (July: 5days, August: 10 days, September: 10 days, October: 20 days and November: 20 days	Normal
18.	**Coimbatore**	2961.37	-	Moderate drought

Performance of entries under moderate drought:

Among the 23 entries, only two genotypes (IET 31170 and IET 31185) showed significantly superior yield under moderate drought over the best check on overall basis. These two entries also showed significantly superior performance under moderate drought in Zone-III. Four other genotypes (IET 31203, 31163, 31192 and 31201) also showed significantly superior performance only in Zone-III.

Performance of entries under severe drought:

Among the 23 entries, only three genotypes (IET 29036, 31185 and 31193) showed significantly superior yield under severe drought over the best check on overall basis. Among those, only one entry (IET 29036) showed significantly superior performance under severe drought in Zone-III. In Zone-V also, only one genotype (IET 30330) showed significant superiority besides overall basis. Two genotypes (IET 29036 and 31193) showed significantly superior performance in Zone-VI.

Performance of entries showing significantly superior performance under drought situations in normal rainfall locations:

Total nine entries showed significantly superior performance at-least in one zone under either moderate or severe drought situations or both. The entry no. IET 31185 showed overall significantly superior performance both under moderate and severe drought conditions. This genotype also showed at-par performance under normal conditions in Zone-III, V and overall, as compared to BVC. **Hence, IET 31185 may be considered for promotion to AVT-2.** The entries IET 31163, 31192, 31201, 31170, 31203 showed significantly superior performance under moderate drought in Zone-III. Out of these, IET 31163 and IET 31170 showed at-par

performance compared to BVC in Zone-III, V, VII and overall basis, under normal rainfall. **Hence IET 31163 and IET 31170 are also considered for promotion to AVT-2 in Zone-III.** The entry IET 31193 showed significantly superior performance under severe drought compared to BVC on overall basis. It also performed significantly higher in Zone-III and at-par in other zones and overall, under normal rainfall. However, due lack of significant superiority of the entry under moderate drought condition, **IET 31193 may be considered for repeat testing**. All the entries showed acceptable grain quality parameters (HRR >55.0% and intermediate AC of 20-25%).

Three-year performance of entries in third year of testing:

The nine entries in third year of testing were compared for performance over three years. IET 30330 (tested in IVT from 2021) has not shown consistent performance in moderate drought over years in particular zone or overall basis. It has shown at-par performance in comparison to BVC under normal rainfall. The genotype has shown superior performance under severe drought over years and is considered for repeat testing. **The entry may be repeat tested in AVT-2 during *Kharif*, 2024. Besides, considering its performance under severe drought, it may be considered as suitable candidates for registration as drought tolerant germplasm.** IET 29036 (tested in IVT in 2020) showed superior and consistent performance in Zone-III and Zone-V, besides overall basis. Another entry IET 29052 (tested in IVT in 2020) showed superior and consistent performance in Zone-III only. All the entries showed acceptable grain quality parameters (HRR >55.0% and intermediate AC of 20-25%). **Hence IET 29036 is considered promising for Zone-III and Zone-V. IET 29052 is considered promising only for Zone-III.**

Promising entries: IET 29036 and IET 29052.

Promoted/Repeated entries:

- **Promotion to AVT-2-EDS on overall basis:** IET 31170 and IET 31185
- **Promotion to AVT-2-EDS for Zone-III:** IET 31163
- **Entry to be repeated in AVT1-EDS:** IET 31193
- **Entries to be repeated in AVT2-EDS:** IET 30330

Entries considered for promotion/ repeat based on performance under drought and normal rainfall which are in second year of testing

Entry No.	IET No.	Performance under moderate drought (Grain yield, Kg/ha)	Performance under severe drought (Grain yield, Kg/ha)	Performance of test entry under normal rainfall				Grain Quality	Remarks
				Zone-III	Zone-V	Zone-VII	Overall		
112	31163	Zone III (2913*), Zone VI (2666), Zone VII (2559) and Overall (2701)	Zone-III (267), Zone-V (814), Zone-VI (791), Overall (529)	4438	5877	4368	4712	HRR: 55.0% and AC: 24.1%, GC: 47	Promoted to AVT-2 (Zone-III)
116	31193	Zone III (1267), Zone VI (3226), Zone VII (4302) and Overall (3005)	Zone-III (174), Zone-V (1262), Zone-VI (3067*), Overall (1621)	4536*	4937	4676	4660	HRR: 64.0% and AC: 22.4%, GC: 56	Repeat (AVT-1)
125	31170	Zone III (2547*), Zone VI (2752), Zone VII (4636) and Overall (3172*)	Zone III (593), Zone V (0.00), Zone VI (875) and Overall (734.00)	3760	4657	3825	3953	HRR: 61.0% and AC: 23.4%, GC: 56	Promoted to AVT-2 (Overall)
127	31185	Zone III (3096), Zone VI (2913), Zone VII (3711) and Overall (3158)	Zone III (1333), Zone V (573), Zone VI (1289) and Overall (1311*)	3806	4989	3133$^{\$}$	3908	HRR: 60.0% and AC: 24.5%, GC: 54	Promoted to AVT-2 (Overall)
BVC yield		Zone III (LC: 2086), Zone VI (Sahbhagidhan: 3243), Zone VII (LC: 3548) and Overall (LC: 2757)	Zone III (Sahbhagidhan: 1193), Zone V (Sahbhagidhan: 1840), Zone VI (LC: 1462) and Overall (LC: 1144)	Vandana (NC): 4054	Vandana (NC): 5593	Sahbhagidhan (NC): 4839	Sahbhagidhan (NC): 4337		
CD value		Zone III (324.96), Zone VI (430.41), Zone VII (1098.83) and Overall (352.57)	Zone III (158.92), Zone V (296.76), Zone VI (268.94) and Overall (113.98)	468.06	951.79	1692.77	465.03		

Three-year performance of entries under third year of testing in AVT-1-EDS (*Kharif*, 2023)

IET NO	IVT1 (2020/2021)		2022			2023			Remarks
	MD/ Drought	Normal	MD	SD	Normal	MD	SD	Normal	
29036	Year 2020 (Drought) Zone-III (2490), Zone V (4399, 16%) and Overall (3126, 7%)	Year 2020 Zone III (4826*22%), Zone-V (3731), Zone-VI (2157), Zone-VII (3404) and Overall (4000, 10%)	Zone III (3204*), Zone VI (3333), Overall (3230*)	Zone III (872), Zone V (2713*), Overall (1792*)	Zone-III (5169), Zone-V (3754), Zone-VI (3862*) and Zone-VII (4530), Overall (4395)	Zone-III (2209), Zone-VI (2938), Zone-VII (1766$^{\$}$), Overall (2463)	Zone-III (1593*), Zone-V (1937), Zone-VI (1849*), Overall (1721*)	Zone-III (3838), Zone-V (5357), Zone-VI (4742), Overall (4322)	Promising (Zone-III and Zone-V)
30336	Zone III (2322, -17.36%)	Zone-III (3761), Zone-V (2654), Zone-VI (3827) and Zone-VII (7068), Overall (4557*)	Zone III (2843*), Zone VI (2778), Overall (2830)	Zone III (467), Zone V (634), Overall (610)	Zone-III (4988), Zone-V (4029), Zone-VI (3352) and Zone-VII (4651), Overall (4384)	Zone-III (2039), Zone-VI (2772), Zone-VII (3728), Overall (2828)	Zone-III (0.00), Zone-V (430), Zone-VI (849), Overall (425)	Zone-III (4046), Zone-V (5909), Zone-VI (4246), Overall (4459)	Discontinued (Not consistently superior in moderate drought)
29052	Year 2020 (Drought) Zone-III (3137*25%), Zone V (2433) and Overall (2785)	Year 2020 Zone-III (3674), Zone-V (3040), Zone-VI (2040), Zone-VII (3973.5, 10%) and Overall (3465)	Zone III (3445*), Zone VI (1289), Overall (3014*)	Zone III (515), Zone V (56), Overall (286)	Zone-III (4826), Zone-V (4334*), Zone-VI (3223) and Zone-VII (5929*), Overall (4772*)	Zone-III (2351), Zone-VI (2571), Zone-VII (2350), Overall (2461)	Zone-III (37.00), Zone-V (0.00), Zone-VI (0.00), Overall (19.00)	Zone-III (3781), Zone-V (6648*), Zone-VI (6335), Overall (4865*)	Promising (Zone-III)

29038	Year 2020 (Drought) Zone-III (2941*18%), Zone V (3194) and Overall (3025)	Year 2020 Zone-III (3798), Zone-V (3015), Zone-VI (2614), Zone-VII (2838) and Overall (3312)	Zone III (2027), Zone VI (2067), Overall (2035)	Zone III (587), Zone V (634*), Overall (610)	Zone-III (4057), Zone-V (2464), Zone-VI (1944) and Zone-VII (3243), Overall (3067)	Zone-III (1071), Zone-VI (2217), Zone-VII (2467), Overall (1993)	Zone-III (741), Zone-V (0.00), Zone-VI (809), Overall (775)	Zone-III (3855), Zone-V (3728), Zone-VI (5113), Overall (4081)	Discontinued (Not consistently superior for drought situation)
30330	Zone-III (2381)	Zone-III (3586), Zone-V (4846), Zone-VI (3467), Zone-VII (6900), Overall (4475, 9*)	Zone III (2360), Zone VI (3778*), Overall (2643)	Overall (610)	Zone-III (4657), Zone-V (3730), Zone-VI (3426) and Zone-VII (4888), Overall (4282)	Zone-III (1816), Zone-VI (2809), Zone-VII (3798), Overall (2808)	Zone-III (396), Zone-V (2142*), Zone-VI (1414), Overall (905)	Zone-III (4258), Zone-V (5306), Zone-VI (5101), Overall (4636)	Repeated (Superior in severe drought but not moderate drought)
30334	Zone-III (3036)	Zone-III (4001, 8*), Zone-V (5403), Zone-VI (2769), Zone-VII (6641), Overall (4779, 1*)	Zone III (2882*), Zone VI (2689), Overall (2843)	Zone III (873), Zone V (1003*), Overall (938)	Zone-III (4816), Zone-V (3922), Zone-VI (3739) and Zone-VII (4678), Overall (4368)	Zone-III (1579), Zone-VI (2432), Zone-VII (4399), Overall (2711)	Zone-III (267), Zone-V (0.00), Zone-VI (973), Overall (620)	Zone-III (3800), Zone-V (5320), Zone-VI (5357), Overall (4415)	Discontinued (Not consistently superior in moderate drought)
30332	Zone-III (2441, 9)	Zone-III (4181, 4*), Zone-V (3730), Zone-VI (3124),	Zone III (2830*), Zone VI (2000), Overall	Zone III (551), Zone V (95), Overall (323)	Zone-III (4024), Zone-V (4271*), Zone-VI	Zone-III (1911), Zone-VI (3387), Zone-VII	Zone-III (07.00), Zone-V (0.00), Zone-VI	Zone-III (3781), Zone-V (6651*), Zone-VI	Discontinued (Not consistently

		Zone-VII (6769), Overall (4705, 3*)	(2664)		(3277) and Zone-VII (5484), Overall (4690*)	(2825), Overall (2878)	(640), Overall (324)	(6266), Overall (4852*)	superior in moderate drought)
30351	Zone-III (2798, 4)	Zone-III (4355, 1*), Zone-V (4801), Zone-VI (3231), Zone-VII (6073), Overall (4749, 2*)	Zone III (2475), Zone VI (2733), Overall (2527)	Zone III (1855*), Zone V (1380*), Overall (1618*)	Zone-III (4453), Zone-V (4199*), Zone-VI (2599) and Zone-VII (4587), Overall (4154)	Zone-III (1267), Zone-VI (2581), Zone-VII (4173), Overall (2651)	Zone-III (541), Zone-V (1283), Zone-VI (658), Overall (600)	Zone-III (4014), Zone-V (5205), Zone-VI (5157), Overall (4480)	Discontinued (Not consistently superior in moderate drought)
30328	Zone-III (2679, 6)	Zone-III (1774,), Zone-V (1412), Zone-VI (2369), Zone-VII (5975), Overall (3007)	Zone III (2809*), Zone VI (3133), Overall (2874)	Zone III (567), Zone V (2587*), Overall (1577*)	Zone-III (5314), Zone-V (3293), Zone-VI (3528) and Zone-VII (5401), Overall (4506)	Zone-III (1829), Zone-VI (3119), Zone-VII (2627), Overall (2673)	Zone-III (152), Zone-V (0.00), Zone-VI (0.00), Overall (76.00)	Zone-III (4390), Zone-V (5615), Zone-VI (5411), Overall (4839*)	Discontinued (Not consistently superior in moderate drought)

Table No. 1.1: Composition of entries in Advance Variety Trial 1–Early Direct Seeded (AVT 1 - EDS), *Kharif* 2023

Entry No.	IET No.	Designation	Cross Combination	Grain Type
3rd year of testing:				
101	29036	RCPR 68-IR83929-B-B-291-2-1-1-2	IR78878-53-2-2-2 / CT6510-24-1-2	LB
102	30336	ORJ 1356	Sampada/IRGC 25966//RP Bio 226	LB
103		CR 2889-208-1	Apo/CR 143-2-2	MS
104		CRR 523-2-2-1-3	Kalinga III/Bhupen	LS
105	30330	RCPR 84-IR14L155	IR 81039-B-173-U 3-3/IR 81063-B-94-U 3-1	LS
106	30334	ORJ 1347	IR 10L128/IR 09N520	MB
107	30332	BRR 0163	Swarna/AD 09379	LS
108	30351	R 2341-142-1-122-1	Mahamaya X IRBL-5	LS
109	30328	CR 4059-1312-1-1-4	IET 22729 / PR 118	LB
110	**Shabhagidhan (NC)**			
2nd year of testing				
111	31164	BRR-0199-IRSAH-07	IR 04N114/IR 01N144//IR 72102-4-159-1-3-3-3 (NSIC RC 112)	LS
112	31163	CR 4392-RGA-40	C767-4-2-1-1 / IET27218 // N22	MS
113		CRR 667-19-2	Poornima/Salumpikit	LS
114	**Vandana (NC)**			
115	29045	TM 15021	ADT43/Senthuram	MS
116	31193	KAVERI7117	Hybrid (KR20SA050/KR20SR054)	LS
117		CR 4362-9-35-4-71	N 22*2/Way Raren/CRMAS 2620-1	LS
118	31177	IIABR-12/IIAB-271/IRRI 132	UPL RI 5/IR 12979-24-1	MB
119	**IR 64 (Sensitive check)**			
120	31165	CR 4389-RGA-176	CR Dhan 202 x SR-36-2-1 // Shatabdi	MS
121	**Govind (Northern), Narendradhan97 (Eastern), Samaleshwari (Central), Varalu (Western) and Tulasi (Southern)—ZC**			
122	31157	IIABR-11/IIAB-315/IR14T107	IR05F102/2*CSR 36	MS
123	31161	CR 4384-RGA-55	C745-3-1-1-1-1 x IET27218 / N22	MS
124	31201	RCRR-3	Single plant selection from UPR-2992-17-3-1	LB
125		CB 17561	CO 41/CB 08504	MS
126	**Anjali (ZC for all zone)**			
127	31185	CRR 514-6-1-1-1-12	Brown gora/ N22//CR143-2-2	LS
128	31203	CGR 5	Samba Mahsuri*2/*O. rufipogon*-VN90-1032-58(3)	MS
129	**US-314 (Hybrid check)**			
130	**Local Check**			

Table 1.2: Grain yield of genotypes tested in AVT 1- EDS *Kharif* 2023 in different zones under moderate drought situations

Entry No	IET NO	Zone III(1)		Zone VI				Zone VI(2)		Zone VII(1)		Overall (4)	
		OD(1)		MH(1)		GJ(1)				TN(1)			
		CTK		PBN		VYR		mean		CBT		mean	
101	29036	2209	10 #	3111	8.5	2764		2938		1766		2463	
102	30336	2039		2311		3232	2	2772		3728	7 #	2828	7
103	29052	2351	8 #	2489		2653		2571		2350		2461	
104	29038	1071		2222		2211		2217		2467		1993	
105	30330	1816		2711		2907	10	2809		3798	6 #	2808	9
106	30334	1579		2311		2553		2432		4399	2 #	2711	
107	30332	1911		3555	3 #	3219	3	3387	2	2825		2878	6
108	30351	1267		2355		2807		2581		4173	4 #	2651	
109	30328	1829		2889		3348	1	3119	6	2627		2673	
110	**Shabhagidhan (NC)**	1863		3378	6	3107	6	3243	3	2579		2732	
111	31164	2378	7 #	3400	5	2660		3030	8	2670		2777	10
112	31163	2913	3 *	2889		2443		2666		2559		2701	
113	31202	1714		2355		2530		2443		2868		2367	
114	**Vandana (NC)**	942		3111	8.5	2942	9	3027	9	3115		2528	
115	29045	1728		3022		2981	8	3002	10	2424		2539	
116	31193	1267		3355	7	3097	7	3226	5	4302	3 #	3005	4 #
117	31192	2724	4 *	2622		2812		2717		3714	8 #	2968	5 #
118	31177	1951		2622		2582		2602		1489		2161	
119	**IR 64 (Sensitive check)**	962		2422		1984		2203		2633		2000	
120	31165	2039		3778	1 #	2689		3234	4	3916	5 #	3106	3 #
121	**ZC**	1233		2800		2883		2842		2728		2411	

122	31157	2337	9 #	2578		2719		2649		2654		2572	
123	31161	1978		3644	2 #	3168	4	3406	1	2509		2825	8
124	31201	2507	6 *	2267		2041		2154		1181		1999	
125	31170	2547	5 *	2978		2526		2752		4636	1 #	3172	1 *
126	**Anjali (ZC for all zone)**	962		2267		1394		1831		2454		1769	
127	31185	3096	1 *	3422	4 #	2404		2913		3711	9 #	3158	2 *
128	31203	2927	2 *	1822		2359		2091		2501		2402	
129	**US-314 (Hybrid check)**	1755		2978		3136	5	3057	7	2516		2596	
130	**Local Check**	2086		3067	10	2325		2696		3548	10	2757	
Exp. Mean		**1932.69**		**2824.49**		**2682.5**		**2753.49**		**2961.37**		**2600.26**	
F Value		27.63(p<0.0001) S		10.44(p<0.0001) S		2.03(p<0.0112) S		6.83(p<0.0001) S		4.85(p<0.0001) S		8.16(p<0.0001) S	
CD		**324.96**		**433.74**		**853.72**		**430.41**		**1098.83**		**352.57**	
CV%		10.29		9.4		19.47		9.56		22.7		8.3	
D/S		21-06-2023		07-08-2023		28-06-2023				08.08.2023			
Local Check name		Vandana		Avishkar		PURNA				CO 53			

Table 1.3: Grain yield of genotypes tested in AVT 1- EDS *Kharif* 2023 in different zones under severe drought situations

Entry No	IET NO	Zone III(1)		Zone V(1)		Zone VI(1)		Overall (3)	
		JH(1)		MP(1)		GU(1)			
		HZB		REW		DRL		mean	
101	29036	1593	1 * #	1937	2	1849	2 * #	1721	1 #*
102	30336	0		430		849	#	425	
103	29052	37		0		0		19	
104	29038	741	6 #	0		809	#	775	10
105	30330	396	#	2142	1*	1414	4 #	905	7
106	30334	267	#	0		973	10 #	620	
107	30332	7		0		640		324	
108	30351	541	#	1283	5	658		600	
109	30328	152		0		0		76	
110	**Shabhagidhan (NC)**	1193	3	1840	3	1053	8	1123	5
111	31164	0		0		0		0	
112	31163	267	#	814	8	791		529	
113	31202	1111	4 #	1711	4	858	#	985	6
114	**Vandana (NC)**	237		0		1342	6	790	9
115	29045	0		0		0		0	
116	31193	174		1262	6	3067	1 * #	1621	2 #*
117	31192	0		0		0		0	
118	31177	689	7 #	946	7	0		345	
119	**IR 64 (Sensitive check)**	41		0		0		21	
120	31165	500	#	0		1014	9 #	757	
121	**ZC**	89		491		716		403	
122	31157	519	#	700	10	0		260	
123	31161	345	#	695		1409	5 #	877	8
124	31201	667	8 #	0		0		334	

125	31170	593	10 #	0		875	#	734	
126	**Anjali (ZC for all zone)**	645	9	0		0		323	
127	31185	1333	2 #	573		1289	7 #	1311	3 #*
128	31203	0		0		0		0	
129	**US-314 (Hybrid check)**	52		0		573		313	
130	**Local Check**	826	5	749	9	1462	3	1144	4
		1351.92		2136.76		1730.94		1257.98	
Exp. Mean		**433.72**		**519.13**		**721.33**		**577.53**	
F Value		73.37(p<0.0001)S		32.59(p<0.0001)S		93.88(p<0.0001)S		173.25(p<0.0001)S	
CD		**158.92**		**296.76**		**268.94**		**113.98**	
CV%		22.32		34.06		22.52		12.03	
D/S		26-07-2023		14-07-2023		04-07-2023			
Local Check Name		CR Dhan 40		Dhanteshwari		AAUDR 1			

Table 1.4: Grain yield of genotypes tested in AVT 1- EDS *Kharif* 2023 in different zones under normal rainfall

Entry No	IET NO	Zone III														Zone III (6)	
		OD (1)		WB (1)		BI						BI (3)		JH (1)			
		JYP		HTW		BKG		SBR		PSA		mean		RCI		mean	
101	29036	4216		5550	#	3254		3487		2871		3204		3648	9 #	3838	
102	30336	3938		6985	1 #	3061		4127	9 #	3056		3415		3110		4046	6
103	29052	3642		5725	10 #	0		5447	1 * #	3148		2865		4724	1 * #	3781	
104	29038	4770	8	5574		3411	9	1961		4815	2 *	3396		2601		3855	
105	30330	4785	7	6141	8 #	2984		3606		4445	3	3678	8	3588	10.5 #	4258	4 #
106	30334	4130		3159		3246		4007	10 #	3981	6.5	3745	7	4276	3 #	3800	
107	30332	3664		4561		3158		4733	2 #	4444	4	4112	2	2123		3781	
108	30351	5384	3	5688		3090		3183		3148		3140		3588	10.5 #	4014	8
109	30328	5663	2	6349	5 #	3330		3328		3722	9	3460		3947	5 #	4390	3 #
110	**Shabhagidhan (NC)**	4459	10	3285		4224	4 #	4177	8	3981	6.5	4127	1	4007	4	4022	7
111	31164	3908		4207		2559		4643	4 #	3241		3481		3827	6 #	3731	
112	31163	4282		6847	2 #	4928	2 * #	3888	#	3426		4081	3	3259	#	4438	2 #
113	31202	3764		5627		2598		2677		2778		2684		2661		3351	
114	**Vandana (NC)**	4840	4	6234	6	3315		3505		3889	8	3570		2542		4054	5 #
115	29045	3409		6179	7 #	2819		3929	#	3056		3268		2302		3616	
116	31193	6101	1 #	6555	4 #	2824		4695	3 #	2685		3401		4515	2 #	4563	1 * #

117	31192	1490		3967		2382		4586	5 #	3426		3465		1973		2971	
118	31177	3853		5764	9 #	2591		4302	7 #	3704	10	3532		3050		3877	10
119	**IR 64 (Sensitive check)**	4821	5	2444		2149		2345		2593		2362		2572		2821	
120	31165	4180		2950		3953	6 #	3396		2871		3407		3678	8 #	3505	
121	**ZC**	3467		6685	3	4075	5 #	3719		2963		3586	10	2960		3978	9
122	31157	4130		3179		2792		3194		4259	5	3415		3469	#	3504	
123	31161	4036		5488	#	3324		4413	6 #	3056		3598	9	2452		3795	
124	31201	3770		2304		3447	8	2315		2685		2816		2123		2774	
125	31170	4563	9	5386	#	3464	7	3283		3056		3268		2810		3760	
126	**Anjali (ZC for all zone)**	3286		4809		2947		2156		2778		2627		2302		3046	
127	31185	3869		3758		5123	1 * #	3512		2778		3804	5	3797	7 #	3806	
128	31203	3333		2274		1916		3061		2685		2554		2153		2570	
129	**US-314 (Hybrid check)**	4411		3081		3341	10	2964		5093	1 *	3799	6	2571		3577	
130	Local Check	4800	6	4120		4230	3 #	3910		3518		3886	4	2422		3833	
		6170.03		8030.49								4512.12		4673.46		4522.06	
Exp. Mean		**4165.4**		**4829.19**		**3151.17**		**3618.33**		**3404.99**		**3391.5**		**3101.68**			
F Value		3.23(p<0.0001)S		5.46(p<0.0001)S		23.69(p<0.0001)S		11.52(p<0.0001)S		10.19(p<0.0001)S		11.79(p<0.0001)S		10.88(p<0.0001)S			
CD		1330.03		1796.49		542.01		697.75		608.07		385.12		666.46			
CV%		19.54		22.76		10.52		11.8		10.93		6.95		13.15			
D/S		25.07.23		03-07-2023		09-07-2023		27-06-2023		05-07-2023				24.06.2023			
Local Check name		Mandakini		Sahbhagidhan		Sabour Harshit		Sabour Harshit Dhan		Rajendra Nilam				BVD-110			

Table 1.4 (Contd.): Grain yield of genotypes tested in AVT 1- EDS *Kharif* 2023 in different zones under normal rainfall

Entry No	IET NO	Zone V								Zone V(2)	
		CG				CG(2)		MP(0)			
		JDP		RPR		mean		JBP@		mean	
101	29036	7082	9	3631		5357		3598		5357	
102	30336	6859		4959	7 #	5909	5	3240		5909	5
103	29052	8182	1 *	5114	6 #	6648	2 *	3840		6648	2 *
104	29038	5610		1846		3728		3579		3728	
105	30330	6538		4073		5306		4327	2 *	5306	
106	30334	6073		4567	#	5320		4300	3.5	5320	
107	30332	7840	2	5462	3 #	6651	1 *	3334		6651	1 *
108	30351	6422		3988		5205		3706		5205	
109	30328	6087		5143	5 #	5615	9	4220	7	5615	9
110	**Shabhagidhan (NC)**	6003		3561		4782		3793		4782	
111	31164	7547	4	5722	1 #	6635	3 *	4167	8	6635	3 *
112	31163	7163	8	4590	#	5877	7	4290	5	5877	7
113	31202	4794		2489		3642		3820		3642	
114	**Vandana (NC)**	5487		5698	2	5593		4046		5593	
115	29045	6871	10	4885	8 #	5878	6	4113	10	5878	6
116	31193	6593		3280		4937		4033		4937	
117	31192	7255	6	4304		5780	8	4300	3.5	5780	8
118	31177	6377		4687	9 #	5532		4274	6	5532	
119	**IR 64 (Sensitive check)**	5931		3193		4562		3872		4562	
120	31165	5991		4451	#	5221		3511		5221	
121	ZC	6693		4497		5595	10	3425		5595	10
122	31157	5450		4599	10 #	5025		3642		5025	
123	31161	7500	5	5215	4 #	6358	4 #	3819		6358	4 #
124	31201	4943		3554		4249		4125	9	4249	
125	31170	5554		3760		4657		3885		4657	
126	**Anjali (ZC for all zone)**	3809		2148		2979		4044		2979	
127	31185	5984		3993		4989		4656	1 *	4989	
128	31203	7599	3	2656		5128		3775		5128	
129	**US-314 (Hybrid check)**	7216	7	2974		5095		4046		5095	
130	Local Check	5956		3421		4689		3944		4689	
Exp. Mean		**6380.37**		**4082.11**		**5231.24**		**3924.1**			

F Value	4.23(p<0.0001)S	5.96(p<0.0001)S	6.62(p<0.0001)S	12.79(p<0.0001)S
CD	1348.06	1195.99	951.79	262.02
CV%	12.93	17.93	11.13	4.09
D/S	26.06.23	04-07-2023		22.06.2023
Local Check name	Bastar Dhan 1	Indira Aerobic-1		JR 206

Table 1.4 (Contd.) :Grain yield of genotypes tested in AVT 1- EDS *Kharif* 2023 in different zones under normal rainfall

Entry No	IET NO	Zone VII				Zone VII (2)			Overall (10)	
		KA				KA (2)				
		KMT		MGD		mean			mean	
101	29036	5238		4246		4742	3146.23		4322	
102	30336	4116		4376		4246	3146.23		4459	10 #
103	29052	5850	7 #	6819	1 *	6335	3146.23	1 #	4865	1 *
104	29038	6662	4 #	3563		5113	3146.23	7	4081	
105	30330	5670	9 #	4531		5101	3146.23	8	4636	7 #
106	30334	6768	3 #	3945		5357	3146.23	5	4415	
107	30332	6804	2 #	5727	5	6266	3146.23	2 #	4852	2 *
108	30351	6978	1 #	3335		5157	3146.23	6	4480	9 #
109	30328	6280	5 #	4541		5411	3146.23	4	4839	3 *
110	**Shabhagidhan (NC)**	6084	6 #	3593		4839	3146.23		4337	
111	31164	5202		5951	4	5577	3146.23	3	4681	5 #
112	31163	3993		4743		4368	3146.23		4712	4 #
113	31202	3690		2880		3285	3146.23		3396	
114	**Vandana (NC)**	2633		3899		3266	3146.23		4204	
115	29045	2669		4993	6	3831	3146.23		4111	
116	31193	5304	10	4048		4676	3146.23		4660	6 #
117	31192	4077		6030	3	5054	3146.23	9	3949	
118	31177	4903		4697		4800	3146.23		4393	
119	**IR 64 (Sensitive check)**	5786	8 #	3988		4887	3146.23		3582	
120	31165	2646		4855	9	3751	3146.23		3897	
121	**ZC**	2832		4902	8	3867	3146.23		4279	
122	31157	3403		4181		3792	3146.23		3866	
123	31161	3683		6128	2	4906	3146.23	10	4530	8 #
124	31201	5269		2282		3776	3146.23		3269	

125	31170	4428		3222		3825	3146.23		3953	
126	**Anjali (ZC for all zone)**	3356		2681		3019	3146.23		3027	
127	31185	2727		3539		3133	3146.23		3908	
128	31203	3403		4961	7	4182	3146.23		3404	
129	**US-314 (Hybrid check)**	3683		4437		4060	3146.23		3977	
130	Local Check	3899		4833	10	4366	3146.23		4111	
						6531.77	3146.23		4802.03	
Exp. Mean		**4601.2**		**4397.6**		**4499.6**			**4173.17**	
F Value		6.20 (p<0.0001)S		2.73 (p<0.0001)S		2.09 (p<0.0001)S			8.79 (p<0.0001)S	
CD		1625.98		1810.25		1692.77			465.03	
CV%		17.28		25.19		23.22			6.84	
D/S		6.07.2023		04.07.23						
Local Check name		MGD 101		MGD-101						

Table 1.5: Days to 50% flowering of AVT 1-E DS *Kharif*-2023 (normal rainfall)

Entry No	IET NO	Zone III							Zone III (6)	Zone V				Zone V (2)	Zone VII		Zone VII(2)	Overall (10)
		OD(1)	WB(1)	BI			BI(3)	JH(1)		CG		CG(2)	MP(0)		KA		KA(2)	
		JYP	HTW	BKG	SBR	PSA	mean	RCI	mean	JDP	RPR	mean	JBP@	mean	KMT	MGD	mean	mean
101	29036	88	75	78	87	72	79	87	81	87	76	82	88	82	81	82	82	81
102	30336	96	79	78	91	79	83	90	86	88	90	89	91	89	79	87	83	86
103	29052	96	94	-	109	102	106	105	101	99	100	100	94	100	74	93	84	97
104	29038	79	63	72	77	65	71	77	72	74	65	70	88	70	81	88	85	74
105	30330	85	76	76	82	72	77	84	79	81	71	76	97	76	89	83	86	80
106	30334	84	78	76	85	71	77	83	80	79	76	78	94	78	83	82	83	80
107	30332	96	87	88	93	80	87	93	90	89	83	86	85	86	92	90	91	89
108	30351	79	73	73	85	71	76	83	77	79	73	76	93	76	87	80	84	78
109	30328	82	74	75	84	73	77	85	79	83	74	79	86	79	89	81	85	80
110	**Shabhagidhan (NC)**	87	72	72	82	70	75	79	77	79	71	75	84	75	97	78	88	79
111	31164	96	101	99	109	105	104	104	102	97	99	98	91	98	78	98	88	99
112	31163	84	79	75	85	76	79	88	81	87	72	80	101	80	80	89	85	82
113	31202	75	62	71	65	64	67	73	68	68	63	66	91	66	87	95	91	72
114	**Vandana (NC)**	87	74	74	84	73	77	85	80	81	77	79	101	79	82	86	84	80
115	29045	97	86	77	88	80	82	91	87	89	76	83	102	83	88	90	89	86
116	31193	79	67	78	73	68	73	77	74	76	66	71	95	71	88	79	84	75
117	31192	97	91	81	90	82	84	99	90	95	83	89	102	89	90	96	93	90
118	31177	89	69	77	81	74	77	88	80	86	78	82	102	82	74	86	80	80
119	**IR 64 (Sensitive check)**	85	73	76	73	72	74	86	78	83	73	78	100	78	79	81	80	78
120	31165	76	84	74	87	75	79	88	81	85	77	81	99	81	74	91	83	81
121	ZC	79	70	72	74	65	70	77	73	86	77	82	103	82	77	93	85	77
122	31157	86	70	74	82	71	76	82	78	84	73	79	98	79	83	80	82	79
123	31161	86	83	77	85	77	80	90	83	86	78	82	102	82	91	90	91	84
124	31201	79	69	70	78	66	71	77	73	78	68	73	104	73	90	78	84	75
125	31170	88	69	68	60	69	66	75	72	76	68	72	96	72	84	80	82	74
126	**Anjali (ZC for all zone)**	75	59	60	59	59	59	68	63	65	62	64	88	64	74	67	71	65
127	31185	80	68	69	81	70	73	77	74	75	71	73	87	73	77	79	78	75
128	31203	93	96	106	108	105	106	94	100	97	98	98	90	98	83	90	87	97
129	**US-314 (Hybrid check)**	79	72	74	81	70	75	81	76	79	70	75	90	75	91	82	87	78
130	Local Check	87	69	79	82	75	79	73	78	74	74	74	88	74	77	93	85	78
Exp. Mean		**86**	**76**	**77**	**83**	**75**	**79**	**85**	**80**	**83**	**76**	**79**	**94**	**79**	**83**	**86**	**85**	**81**

Table 1.6: Days to 50% Flowering of AVT 1-EDS under moderate drought *Kharif*-2023

Entry No	IET NO	Zone III (1)	Zone VI		Zone VI (2)	Zone VII(1)	Overall (4)
		OD(1)	MH(1)	GJ(1)		TN(1)	
		CTK	PBN	VYR	mean	CBT	mean
101	29036	78	91	77	84	87	83
102	30336	92	97	83	90	91	91
103	29052	96	82	96	89	95	92
104	29038	71	81	74	78	77	76
105	30330	74	91	78	85	83	82
106	30334	74	96	76	86	86	83
107	30332	87	97	80	89	100	91
108	30351	73	89	78	84	84	81
109	30328	76	90	77	84	88	83
110	**Shabhagidhan (NC)**	70	81	77	79	84	78
111	31164	83	86	80	83	97	87
112	31163	82	90	83	87	98	88
113	31202	74	78	68	73	82	76
114	**Vandana (NC)**	70	91	78	85	91	83
115	29045	85	96	84	90	95	90
116	31193	69	82	71	77	83	76
117	31192	92	86	79	83	100	89
118	31177	90	89	79	84	91	87
119	**IR 64 (Sensitive check)**	77	90	81	86	91	85
120	31165	83	89	79	84	98	87
121	ZC	75	88	80	84	97	85
122	31157	77	89	77	83	89	83
123	31161	82	89	82	86	97	88
124	31201	73	81	75	78	83	78
125	31170	71	83	71	77	83	77
126	**Anjali (ZC for all zone)**	71	97	66	82	77	78
127	31185	76	87	77	82	84	81
128	31203	84	97	79	88	87	87
129	**US-314 (Hybrid check)**	81	87	72	80	82	81
130	Local Check	73	87	67	77	84	78
Exp. Mean		**79**	**89**	**77**	**83**	**89**	**83**

Table 1.7: Days to 50% flowering of AVT 1-EDS under severe drought in *Kharif*-2023

Entry No	IET NO	Zone III(1)	Zone V(1)	Zone VI(1)	Overall (3)
		JH(1)	MP(1)	GU(1)	
		HZB	REW	DRL	mean
101	29036	84	94	82	87
102	30336	-	96	61	79
103	29052	89	-	-	89
104	29038	82	81	78	80
105	30330	86	85	85	85
106	30334	88	94	90	91
107	30332	104	96	93	98
108	30351	85	93	85	88
109	30328	87	96		92
110	**Shabhagidhan (NC)**	79	86	85	83
111	31164	-	-	-	
112	31163	88	95	90	91
113	31202	70	70	71	70
114	**Vandana (NC)**	88	93	83	88
115	29045	-	84	-	84
116	31193	84	77	76	79
117	31192	-	-	-	-
118	31177	84	95	-	90
119	**IR 64 (Sensitive check)**	91	94	-	93
120	31165	87	95	90	91
121	**ZC**	84	85	90	86
122	31157	86	93	-	90
123	31161	89	96	95	93
124	31201	82	82		82
125	31170	83	82	82	82
126	**Anjali (ZC for all zone)**	69	68	-	69
127	31185	83	85	78	82
128	31203	105	-	-	105
129	**US-314 (Hybrid check)**	87	94	86	89
130	Local Check	68	84	64	72
Exp. Mean		85	88	82	86

Table 1.8: Plant Height (cm) of AVT 1-E DS Normal *Kharif*-2023

Entry No	IET NO	Zone III							Zone III (6)	Zone V				Zone V (2)	Zone VII	Zone VII(2)	Overall (10)	
		OD(1)	WB(1)	BI			BI(3)	JH(1)		CG		CG(2)	MP(0)		KA	KA(2)		
		JYP	HTW	BKG	SBR	PSA	mean	RCI	mean	JDP	RPR	mean	JBP@	mean	KMT	MGD	mean	mean
101	29036	101	100	108	119	112	113	104	107	98	138	118	107	118	88	70	79	104
102	30336	84	94	99	112	107	106	93	98	85	110	97	102	97	105	57	81	95
103	29052	95	94	.	125	135	130	125	115	107	136	121	114	121	94	80	87	110
104	29038	102	99	113	472	100	228	102	165	101	135	118	106	118	100	89	95	141
105	30330	103	90	96	110	112	106	97	101	104	125	114	101	114	98	75	86	101
106	30334	89	82	106	111	102	106	87	96	95	119	107	103	107	99	68	84	96
107	30332	90	93	122	120	127	123	98	108	100	117	109	105	109	95	80	88	104
108	30351	95	84	107	106	109	107	95	99	86	117	101	110	101	102	60	81	96
109	30328	87	80	109	101	100	103	95	95	79	118	98	105	98	91	63	77	92
110	**Shabhagidhan (NC)**	93	82	112	100	98	103	90	96	73	132	102	104	102	95	78	87	95
111	31164	85	83	107	106	113	109	95	98	64	115	89	107	89	89	68	78	92
112	31163	85	83	101	94	98	98	85	91	69	111	90	109	90	91	58	74	87
113	31202	114	95	114	119	112	115	112	111	110	116	113	106	113	92	92	92	108
114	**Vandana (NC)**	82	79	90	88	91	89	75	84	76	105	91	98	91	66	56	61	81
115	29045	91	87	96	113	114	108	98	100	84	114	99	101	99	95	75	85	97
116	31193	84	82	90	91	78	86	91	86	76	103	89	101	89	102	59	81	86
117	31192	79	85	96	109	102	102	98	95	84	130	107	93	107	96	66	81	94
118	31177	98	94	106	110	103	106	102	102	103	119	111	105	111	93	71	82	100
119	**IR 64 (Sensitive check)**	81	79	100	89	100	96	81	88	70	95	82	93	82	96	54	75	84
120	31165	96	82	103	101	103	102	89	96	69	112	90	91	90	86	62	74	90
121	ZC	79	76	91	89	77	86	77	81	98	103	100	104	100	93	70	81	85

122	31157	90	80	100	103	95	99	89	93	70	114	92	94	92	90	67	78	90
123	31161	90	79	99	102	111	104	87	95	76	113	95	102	95	92	67	80	92
124	31201	86	71	84	89	80	84	73	80	75	113	94	107	94	79	61	70	81
125	31170	88	82	87	96	85	89	97	89	70	111	90	97	90	91	77	84	88
126	**Anjali (ZC for all zone)**	110	92	87	98	102	96	96	98	100	99	99	103	99	87	65	76	94
127	31185	107	89	111	117	118	115	103	107	93	123	108	97	108	93	79	86	103
128	31203	92	92	104	117	127	116	93	104	96	137	116	100	116	90	67	79	101
129	**US-314 (Hybrid check)**	85	82	131	105	102	113	90	99	76	118	97	104	97	92	70	81	95
130	Local Check	102	90	104	110	100	105	101	101	77	118	97	96	97	105	78	92	99
	Exp Mean	**92**	**86**	**102**	**117**	**104**	**108**	**94**	**99**	**85**	**117**	**101**	**102**	**101**	**93**	**69**	**81**	**96**

Table 1.9: Plant Height (cm) of AVT 1-E DS under moderate drought *Kharif*-2023

Entry No	IET NO	Zone III(1)	Zone VI		Zone VI (2)	Zone VII(1)	Overall (4)
		OD(1)	MH(1)	GJ(1)		TN(1)	
		CTK	PBN	VYR	mean	CBT	mean
101	29036	111	56	118	87	95	95
102	30336	103	48	111	80	86	87
103	29052	115	58	110	84	84	92
104	29038	105	69	120	95	89	96
105	30330	115	61	119	90	90	96
106	30334	105	52	108	80	80	86
107	30332	111	58	123	91	90	96
108	30351	95	57	107	82	80	85
109	30328	92	51	116	84	85	86
110	**Shabhagidhan (NC)**	97	60	114	87	85	89
111	31164	116	50	108	79	70	86
112	31163	100	60	113	87	86	90
113	31202	93	79	118	99	100	98
114	**Vandana (NC)**	91	50	108	79	77	82
115	29045	102	54	124	89	77	89
116	31193	97	45	104	74	73	80
117	31192	101	44	106	75	79	83
118	31177	103	60	114	87	90	92
119	**IR 64 (Sensitive check)**	88	42	107	74	73	77
120	31165	103	60	111	86	90	91
121	**ZC**	77	58	114	86	89	85
122	31157	98	50	113	81	82	86
123	31161	93	57	108	82	84	85
124	31201	100	47	113	80	77	84
125	31170	102	58	105	82	79	86
126	**Anjali (ZC for all zone)**	102	69	111	90	91	93
127	31185	110	70	118	94	97	99
128	31203	100	64	112	88	87	91
129	**US-314 (Hybrid check)**	98	49	115	82	76	85
130	Local Check	92	66	127	96	85	93
Exp Mean		**101**	**57**	**113**	**85**	**84**	**89**

Table 1.10: **Plant Height (cm) of AVT 1-E DS under severe drought *Kharif*-2023**

Entry No	IET NO	Zone III(1)	Zone V(1)	Zone VI(1)	Overall (3)
		JH(1)	MP(1)	GU(1)	
		HZB	REW	DRL	mean
101	29036	78	97	113	96
102	30336		75	79	77
103	29052	66	.	.	66
104	29038	75	85	93	84
105	30330	68	91	94	84
106	30334	65	74	78	72
107	30332	74	88	63	75
108	30351	67	82	84	78
109	30328	57	.	.	57
110	**Shabhagidhan (NC)**	70	78	103	84
111	31164		.	.	.
112	31163	59	69	72	67
113	31202	90	119	115	108
114	**Vandana (NC)**	54	.	75	65
115	29045		.	.	.
116	31193	58	62	83	68
117	31192		.	.	.
118	31177	82	85	.	84
119	**IR 64 (Sensitive check)**	56	.	.	56
120	31165	68	.	89	79
121	ZC	56	65	83	68
122	31157	52	56	.	54
123	31161	60	63	76	66
124	31201	62	.	.	62
125	31170	63	52	86	67
126	**Anjali (ZC for all zone)**	80	121	.	100
127	31185	79	81	111	90
128	31203	54	.	.	54
129	**US-314 (Hybrid check)**	49	.	85	67
130	Local Check	83	61	105	83
Exp Mean		**66**	**79**	**89**	**75**

Table 1.11: No of Panicles in sqm of AVT 1-EDS Normal *Kharif*-2023

Entry No	IET NO	Zone III							Zone III (6)	Zone V				Zone V (2)	Zone VII		Zone VII (2)	Overall (10)
		OD (1)	WB (0)	BI			BI (3)	JH (1)		CG		CG (2)	MP (0)		KA		KA (2)	
		JYP	HTW	BKG	SBR	PSA	mean	RCI	mean	JDP	RPR	mean	JBP@	mean	KMT	MGD	mean	mean
101	29036	279	-	319	239	276	278	183	259	330	233	282	195	282	252	199	226	257
102	30336	366	-	436	245	240	307	189	295	305	288	297	167	297	313	248	281	292
103	29052	340	-		319	249	284	224	283	296	231	264	165	264	283	267	275	276
104	29038	279	-	452	253	254	320	129	273	262	189	226	192	226	266	282	274	263
105	30330	389	-	411	243	227	294	175	289	308	230	269	145	269	329	196	263	279
106	30334	368	-	451	253	247	317	197	303	303	250	277	172	277	326	184	255	287
107	30332	351	-	394	358	244	332	147	299	333	228	281	210	281	368	215	292	293
108	30351	298	-	349	333	284	322	198	292	320	229	275	217	275	259	194	227	274
109	30328	358	-	414	309	272	332	182	307	296	308	302	186	302	326	168	247	293
110	**Shabhagidhan (NC)**	316	-	405	318	270	331	165	295	298	231	265	186	265	262	173	218	271
111	31164	341	-	470	279	255	335	214	312	323	230	277	164	277	383	196	290	299
112	31163	235	-	403	208	268	293	177	258	256	218	237	213	237	428	153	291	261
113	31202	364	-	380	360	223	321	158	297	299	182	241	196	241	268	196	232	270
114	**Vandana (NC)**	346	-	399	323	254	325	179	300	281	236	259	186	259	245	224	235	276
115	29045	397		354	304	259	306	193	301	325	223	274	187	274	275	241	258	286
116	31193	355		354	257	240	284	252	292	321	234	278	212	278	311	267	289	288
117	31192	358		396	219	272	296	193	288	304	219	262	195	262	290	236	263	276
118	31177	264		343	278	233	285	170	258	280	246	263	175	263	229	217	223	251
119	**IR 64 (Sensitive check)**	322		413	259	253	308	198	289	346	278	312	182	312	180	206	193	273
120	31165	315		423	285	242	317	192	291	302	221	262	186	262	173	256	215	268
121	**ZC**	317		441	304	247	331	219	306	289	227	258	185	258	371	255	313	297
122	31157	333		438	283	283	335	130	293	282	224	253	178	253	320	240	280	281
123	31161	318		481	331	266	359	158	311	327	249	288	196	288	189	197	193	280
124	31201	312		481	278	281	347	113	293	307	225	266	175	266	257	191	224	272

125	31170	349		434	221	240	298	198	288	310	229	270	206	270	279	174	227	270
126	**Anjali (ZC for all zone)**	298		466	248	245	320	131	278	250	167	209	192	209	273	180	227	251
127	31185	326		475	234	261	323	154	290	298	253	276	157	276	371	209	290	287
128	31203	287		413	214	247	291	143	261	316	176	246	163	246	320	201	261	257
129	**US-314 (Hybrid check)**	343		432	324	277	344	199	315	306	229	268	157	268	189	228	209	281
130	Local Check	357		399	331	273	334	172	306	265	168	217	146	217	320	174	247	273
Exp. Mean		**329**		**415**	**280**	**256**	**316**	**178**	**291**	**301**	**228**	**265**	**183**	**265**	**288**	**212**	**235**	**276**

Table 1.12: No. of panicles in sqm of AVT 1-EDS under moderate drought *Kharif*-2023

Entry No	IET NO	Zone III(1)	Zone VI		Zone VI (2)	Zone VII(1)	Overall (4)
		OD(1)	MH(1)	GJ(1)		TN(1)	
		CTK	PBN	VYR	mean	CBT	mean
101	29036	87	336	230	283	257	228
102	30336	112	172	250	211	290	206
103	29052	46	227	146	187	258	169
104	29038	82	223	139	181	300	186
105	30330	68	290	199	245	277	209
106	30334	86	257	215	236	265	206
107	30332	62	275	191	233	263	198
108	30351	79	305	228	267	265	219
109	30328	66	352	216	284	342	244
110	**Shabhagidhan (NC)**	74	380	173	277	272	225
111	31164	94	381	215	298	268	240
112	31163	89	361	186	274	267	226
113	31202	88	357	153	255	258	214
114	**Vandana (NC)**	76	385	191	288	300	238
115	29045	86	383	172	278	265	227
116	31193	71	387	236	312	307	250
117	31192	84	379	205	292	290	240
118	31177	90	310	203	257	220	206
119	**IR 64 (Sensitive check)**	95	250	170	210	292	202
120	31165	80	393	189	291	272	234
121	**ZC**	99	385	174	280	270	232
122	31157	92	243	181	212	317	208
123	31161	69	386	162	274	265	221
124	31201	103	246	196	221	242	197
125	31170	103	382	195	289	385	266
126	**Anjali (ZC for all zone)**	96	250	119	185	315	195
127	31185	102	392	180	286	292	242
128	31203	57	214	164	189	322	189
129	**US-314 (Hybrid check)**	95	349	172	261	303	230
130	Local Check	87	389	149	269	353	245
Exp. Mean		**84**	**321**	**187**	**254**	**286**	**220**

Table 1.13: No. of panicles in sqm of AVT 1-EDS under severe drought *Kharif*-2023

Entry No	IET NO	Zone III(1)	Zone V(1)	Zone VI(1)	Overall (3)
		JH(1)	MP(1)	GU(1)	
		HZB	REW	DRL	mean
101	29036	242	131	239	204
102	30336	-	113	204	159
103	29052	160	-	-	160
104	29038	218	-	180	199
105	30330	180	109	240	176
106	30334	156	-	216	186
107	30332	54	-	196	125
108	30351	145	122	243	170
109	30328	62	-	-	62
110	**Shabhagidhan (NC)**	235	118	209	187
111	31164		-	-	
112	31163	109	109	197	138
113	31202	223	122	151	165
114	**Vandana (NC)**	132	-	248	190
115	29045	-	-	-	-
116	31193	125	118	209	151
117	31192	-	-	-	-
118	31177	204	110	-	157
119	**IR 64 (Sensitive check)**	58	-	-	58
120	31165	183	-	199	191
121	**ZC**	105	104	199	136
122	31157	184	101	-	143
123	31161	142	107	191	147
124	31201	156	-	-	156
125	31170	176	-	207	192
126	**Anjali (ZC for all zone)**	164	-	-	164
127	31185	263	106	152	174
128	31203	-	-	-	-
129	**US-314 (Hybrid check)**	63	-	216	140
130	Local Check	155	109	228	164
Exp. Mean		**158**	**113**	**206**	**159**

Table 1.14: Grain Quality characteristics of entries in AVT 1-E DS, *Kharif* 2023

Entry No	IET No	Hull %	Mill %	HRR%	Moist %	Chalkiness	KL (mm)	KB (mm)	L/B	GT	ASV	WU ml/ 100g	VER	ER	KL AC/ mm	Amy %	GC (mm)
101	29036	74	68	62	12.5	VOC	5.73	1.54	3.72	SS	4	140	3.75	1.75	10	21.5	56
102	30336	84	69	63	12.4	VOC	4.77	1.52	3.14	SS	4	130	3.75	1.89	9	21.4	54
103	29052	72	65	63	12.3	VOC	5.42	1.54	3.52	SS	4	140	3.75	1.66	9	20.1	56
104	29038	81	67	61	12	OC	4.93	1.52	3.24	SS	3	150	3.75	1.83	9	23.5	57
105	30330	76	67	58	12.5	VOC	5.24	1.57	3.34	SS	4	160	3.75	1.72	9	25.2	42
106	30334	75	69	60	12.3	VOC	5.53	1.53	3.61	SS	3	120	3.75	1.99	11	20.8	55
107	30332	70	68	62	12.3	VOC	5.66	1.56	3.63	SS	4	150	3.75	1.41	8	21.4	54
108	30351	74	68	62	12.4	VOC	5.23	1.57	3.33	SS	4	110	3.75	1.91	10	23.5	54
109	30328	78	69	60	12.4	VOC	5.24	1.59	3.30	SS	4	150	3.75	1.72	9	23.5	48
110	**Shabhagidhan (NC)**	75	67	61	12.5	VOC	5.46	1.58	3.46	SS	4	140	3.75	1.65	9	24.5	55
111	31164	79	67	59	12.3	VOC	5.33	1.62	3.29	SS	3	140	3.75	1.50	8	24.5	49
112	31163	76	68	55	12.1	VOC	5.32	1.54	3.45	SS	4	170	3.75	1.69	9	24.1	47
113	31202	72	68	63	12.6	VOC	5.12	1.61	3.18	SS	3	100	3.75	1.76	9	24.3	54
114	**Vandana (NC)**	74	65	62	12.3	VOC	5.73	1.65	3.47	SS	4	120	4	1.40	8	23.1	58
115	29045	72	67	62	13.1	VOC	5.88	1.55	3.79	SS	5	150	3.75	1.53	9	24.5	58
116	31193	75	69	64	13.4	VOC	6.04	1.7	3.55	LS	4	90	3.75	1.66	10	22.4	56
117	31192	72	67	63	12.7	A	5.79	1.54	3.76	SS	3	150	3.75	1.90	11	23.4	54
118	31177	74	69	64	12.5	Ab	5.32	1.57	3.39	SS	4	170	4	1.88	10	24.1	46
119	**IR 64 (Sensitive check)**	74	68	64	12.9	VOC	5.74	1.75	3.28	SS	4	140	3.75	1.74	10	22.5	57
120	31165	72	68	63	12.6	VOC	5.89	1.52	3.88	SS	4	170	3.75	1.36	8	24.8	54
121	**ZC**	70	67	60	12.4	VOC	5.95	1.52	3.91	SS	5	150	3.75	1.68	10	24.5	57
122	31157	72	65	62	12.2	VOC	5.86	1.55	3.78	SS	5	115	3.75	1.71	10	22.5	57
123	31161	70	69	64	12.5	VOC	5.53	1.51	3.66	SS	3	160	3.75	1.63	9	24.7	48
124	31201	77	68	59	13.2	VOC	5.11	2.04	2.50	MS	3	150	3.75	1.76	9	23.4	48
125	31170	75	68	61	12.7	VOC	5.8	1.42	4.08	SS	5	95	3.75	1.90	11	23.4	56

126	**Anjali (ZC for all zone)**	70	69	60	12.6	VOC	5.91	1.77	3.34	SS	4	120	3.75	1.52	9	23.5	51
127	31185	72	65	60	12.5	A	5.35	1.74	3.07	SS	4	110	3.75	1.87	10	24.5	54
128	31203	78	68	62	13	VOC	5.82	2.13	2.73	MS	5	180	4	1.67	9.7	20.55	60
129	**US-314 (Hybrid check)**	74	68	58	13.1	VOC	5.92	1.51	3.92	SS	5	130	3.75	1.35	8	23.5	52
130	Local Check	75	68	61	12.4	VOC	5.53	1.85	2.99	MS	5	110	3.75	1.81	10	24.3	45

INITIALVARIETYTRIAL-EARLY DIRECTSEEDED (IVT-EDS)

Locations: 18 **TestEntries: 46**

Checks:Sahabhagidhan and Vandana – National, Govind (Northern-II), Narendra 97(Eastern-III&IV), Samaleshwari(Central-V),Varalu (Western-VI)and Tulasi (Southern-VII) & Anjali - Zonal, US 314 – Hybrid, IR64 (Sensitive) and Local check

In IVT-EDS trial, there were forty-six test entries with 7 checks. These checks were national checks ((Sahabhagidhan and Vandana), zonal checks {Govind (Northern-II), Narendra 97 (Eastern-III and IV), Samaleshwari (Central- V), Varalu (western-VI)and Tulasi (Southern-VII)—ZC)}, all zone check (Anjali), hybrid check (US 314), sensitive check(IR64) and local check. The trial was sent to 18 locations out of which Hatwara location trial was rejected by the monitoring team. In other 17 test locations the trial was evaluated under dry direct seeded conditions covering various rainfall situations like normal rainfall and moderate to severe drought conditions. Normal rainfall conditions prevailed in 12 locations viz. Jeypore (Odisha), Bikramganj, Sabour and Pusa(Bihar) and Ranchi (Jharkhand) in zone III; Raipur and Jagdalpur (Chattisgarh) and Jabalpur (M.P.) in zone V; Parbani (Maharashtra) in zone VI; Coimbator (T.N.), Kumta and Mugad (Karnataka) in zone VII out of which Pusa and Mugad data were not considered in final resultsas it showed non-significant F value. Three locations experienced moderate drought situations were Cuttack (Odisha) in zone III; Vyara and Derol (Gujarat) in zone VI. Similarly, in two locations severe drought situations were experienced;Hazaribag (Jharkhand) in zone III and Rewa (M.P.) in zone V. So in total
15 locations data were considered in final results interpretation. All these centres were classified to normal rainfall, moderate drought and severe drought locations based on standard criterias.

Grain yield, plant height, days to 50% flowering, number of panicles per m^2 of entries under different drought condition is presented in Tables 10.7 to 10.18. The information on drought and general performance at different location is given below.

General information on drought situation in different locations

Location	Drought situation	Average Expt. Yield (Kg/ha)	CV (%)	F value/ C.D.	Best check	Best check Yield (Kg/ha)	Drought Situation
Jeypore	Normal	3481.82	16.23	Significant	Shabhagidhan	5000.0	Grain filling
Bikramganj	Normal	3188.9	19.99	Significant	Vandana	6011.0	
Sabour	Normal	3080.12	10.48	Significant	Local check Sabour Harshit Dhan	3012.0	2 dry spells early vegetative and flowering
Pusa	Normal	3866.36	8.64	Non-significant	Local check Rajendra Nilam	4732.1	2 drought spells Early vegetative, Tillering to flowering
Ranchi	Normal	3139.1	12.57	Significant	Zonal check Narendra 97	3465.0	2 dry spells late vegetative, flowering and grain filling
Jagdalpur	Normal	5408.0	14.97	Significant	Shabhagidhan	5622	No
Raipur	Normal	3639.25	15.28	Significant	Shabhagidhan	3854	Flowering and grain filling to maturity
Jabalpur	Normal	4047.15	6.75	Significant	Vandana	4362.0	Early and late vegetative, Flowering
Parbani	Normal	3123.58	18.05	Significant	Vandana	4000.0	Vegetative
Coimbatore	Normal	3452.46	15.69	Significant	Hybrid check US -314	4234	No
Kumta	Normal	4352.52	8.43	Significant	Shabhagidhan	5502	4 dry spell 2 long dry spell at flowering and grain filling
Mugad	Normal	3314.45	15.07	Non-significant	Vandana	3657	
NRRI, Cuttack	Moderate	2317.08	10.11	Significant	Shabhagidhan	3764	Early vegetative, Tillering to flowering,
Location	**Drought situation**	**Average Expt.**	**CV**	F value/ C.D.	**Best check**	**Best check**	**Drought Situation**

		Yield (Kg/ha)	(%)			Yield (Kg/ha)	
Vyara	Moderate	1939.58	26.13	Significant	Shabhagidhan	2922	20 days dry spell of late entries at flowering
Derol	Moderate	1068.9	16.68	Significant	Vandana	2396	Early and late vegetative
Hazaribag	Severe	256.79	23.45	Significant	Anjali	1034	Vegetative Flowering to maturity
Rewa	Severe	594.27	25.56	Significant	Shabhagidhan	1043	4 dry spells early and late vegetative, flowering and grain filling
Hatwara	trial rejected						

Performance of entries under moderate drought situation

Moderate drought situation was prevailed at NRRI, Cuttack, Odisha in zone III and at Vyara and Derol in Gujarat in zone VI.

Zone III

In zone III, i.e. at NRRI, Cuttack the grain yield of entries ranged from 917kg/ha(IET32112) to 4306 kg/ha (IET 32105), 50% flowering duration from 67 days (IET 32085) to 107 days (IET 32093), plant height from 73.0cm (IET 32112) to 118.5(IET 32085), number of panicles/m2 ranged from 41.0 (IET 32098) to 132(IET 32096). The national check Sahbhagidhan was the best check with grain yield of 3764 kg/ha and 50% flowering duration of 88days. The only entry that outyielded the best check Sahbhagidhan was IET 32105 with grain yield of 4306 kg/ha and in normal condition it performed at par with the best check vandana. However, due to higher flowering duration both at zone III (97 days) and overall level (98 days) as compared to checks, this entry is discontinued.

Zone VI

The zone VI data reflected the average of two locations i.e.Derol and Vyara in Gujarat where moderate drought was experienced.

The experimental grain yield of the trial in zone VI was 1504.24 kg/ha with a CV of 17.74%. The grain yield of entries ranged from 0 kg/ha(IET32110) to 3031 kg/ha (IET 32077), 50% flowering duration from 49 days (IET 32107) to 103 days (IET 32098), plant height from 68.3 cm (IET 32092) to 126.9 (IET 32105), number of panicles/m2 ranged from 175 (IET 32075) to 340 (IET 32093).

The only entry that found superior than the best check Vandana was IET 32077 with grain yield of 3031 kg/ha and 50% flowering duration of 76 days. The national check Vandana was the best check with grain yield of 2473 kg/ha and 50% flowering duration of 74 days. It performed at par with the best check. **Hence, IET 32077 is promoted to second year of testing.**

The promising entry under moderate drought and normal condition compared to the BVC in Zones-III

	Moderate Drought		Normal Condition	
	Entry no.	**Yield (kg/ha)/FD/GT**	**Entry no.**	**Yield (kg/ha)/FD/GT**
1	IET 32105 CR 2889-109-115-15 Apo/CR 143-2-2	4306* 97 MS	IET 32105 CR 2889-109-115-15 Apo/CR 143-2-2	3349 102 MS
BVC	**Sahabhagidhan(NC)**	**3764 88**	**Vandana(NC)**	**3778 79**
		CD(5%):470.29		**CD(5%):389.45**

*Significant w.r.t. CD (at 5% level)

The promising entries under moderate drought condition compared to the BVC in Zones-VI

	Moderate Drought		Normal Condition	
	Entry no.	**Yield (kg/ha)/FD/GT**	**Entry no.**	**Yield (kg/ha)/FD/GT**
1	IET 32077 R-RF-213 Selection from IR 17L1454	3031* 76 MB	IET 32077 R-RF-213 Selection from IR 17L1454	4100 93 MB
BVC	**Sahabhagidhan(NC)**	**2344 73**	**Vandana (NC)**	**4000 97**
		CD(5%):535.68		**CD(5%):1131.39**

*Significant w.r.t. CD (at 5% level)

Performance of entries under severe drought situation

Two locations experienced severe drought conditions were Hazaribag (JH) and Rewa (M.P.). The severe drought stress was prevailed at vegetative, flowering and maturity stage of the crop at Hazaribag whereas Rewa experienced drought at early and late vegetative, flowering and grain filling stages.

On Overall basis including two severe drought locations, the trial mean yield was 425.23 kg/ha with a CV of 16.94%. The grain yield of entries ranged from 0 kg/ha(IET 32075, IET 32092, IET 32098, IET 32105, IET 32118) to 1711.0kg/ha (IET 32085), mean 50% flowering duration of entries ranged from 69 days (Anjali, all zone checks) to 104 days (IET 32115), plant height ranged from 47 cm (IET 32112) to 103.85 cm (IET 32085) and number of panicles per m^2 from29 (IET 32115) to 177 (IET 32083. Under this situation, National check Sahbhagidhan was the best varietal check with grain yield of 983kg/ha with 80 days to 50% flowering duration, 81cm plant height and 154 panicles /m^2.

Two entries outperformed the best varietal check Sahbhagidhan with CD at 5%. These entries are IET 32085 (grain yield of 1711kg/ha, 50% flowering duration of 73 days) and IET 32083(grain yield of 1391kg/ha, 50% flowering duration of 80 days). However, since the yield level is low at severe drought situation, the promotion of entries was considered if the entries performed superior/ at par with the best varietal check at normal situations. The BVC Sahbhagidhan with grain yield of 4133 and CD (0.05) of 302.59. The performance of both the entries (IET 32085 with grain

yield of 3770kg/ha) and (IET 32083 with grain yield of 3252 kg/ha) was not at par with BVC, hence, these two entries (IET 32085 and IET 32083) are discontinued.

Zone III

Only Hazaribag locations experienced severe drought. The mean grain yield of this locations was 256.79 kg/ha with a CV of 23.45%. As many as 15 entries did not show any grain yield. Only one entry **IET 32083**(1222kg/ha and flowering duration of 83 days.) showed yield advantage over the bestvarietal check Sahbhagidhan. The plant height was 90.17cm and panicles/m2 was 202 in IET 32083 while plant height was 70.0cm and panicles/m2 was 178 in Sahbhagidhan. However, since the yield issignificantly less compared to BVC (Vandana), in normal situation, **IET 32083** is discontinued.

Zone V

Only one location i.e. Rewa in M.P. experienced severe drought covering almost every stage of crop growth starting from early and late vegetative, flowering and grain filling. Sahbhagidhan Dhan was the best varietal check. Six entries performed significantly better than the best varietal check Sahbhagidhan. Among the six, three entries viz., **IETs 32085, 32087 and 32100 performed superiorto BVC and found at par with the normal, hence are promoted to 2nd year of testing,** while IETs 32080, 32083 and 32102 are dropped because the yield was significantly less than the best varietal check, Vandana in normal situation.

The promising entries under severe drought condition compared to the BVC in Zone-V

	Severe Drought		**Normal Condition**	
	Entry no.	**Yield (kg/ha)/FD/GT**	**Entry no.**	**Yield (kg/ha)/FD/GT**
1.	IET 32085 NVSR 2837 GR 7/GR 5	2265 72 LB	IET 32085 NVSR 2837 GR 7/GR 5	3927 80 LB
2.	IET 32087 ADVRH200057 Hybrid	1549 79 LS	IET 32087 ADVRH200057 Hybrid	4695 80 LS
3.	IET 32100 RCPR104-IR16L1499 IR09L303*2/BENONG 130	1520 86 LS	IET 32100 RCPR104-IR16L1499 IR09L303*2/BENONG 130	4709 78 LS
BVC	**Sahabhagidhan(NC)**	**1043 73**	**Vandana (NC)**	**4705 84**
CD(5%):307.73			**CD(5%):790.59**	

Promotionanddeletionofthe entriesinIVTEDStrials

Entrynoof Inbred/ Hybrid	Severe Drought	Moderate Drought	Normal	Remark
IET 32077		Superior	At-par/Superior	Promoted to AVT1-EDS,Zone VI
IET 32085	Superior		At-par/Superior	Promoted to AVT1-EDS,Zone V
IET 32087	Superior		At-par/Superior	Promoted to AVT1-EDS,Zone V
IET 32100	Superior		At-par/Superior	Promoted to AVT1-EDS,Zone V

Trial No.2.1: Composition of entries in Initial Variety Trial 1–Early Direct Seeded (IVT-E DS), *Kharif* 2023

Entry No.	IET No.	Designation	Cross combination	Grain type
201	32075	CR 2889-208-3-1	Apo/CR 143-2-2	MB
202	32076	RCPR 103-IR15F1886	IR06A150/IRRI 154//IR10F379	LS
203	32077	R-RF-213	Selection from IR 17L1454	MB
204	32078	CR 4488-19-9-4-5-1	Naveen/Surjamukhi	LS
205	32079	BRR 2015	Sita * Sugandha	LB
206	32080	CB 18801	Norungan / Swarna Sub1//Norungan	MS
207	32081	CR 3426-227-155-15	Apo/O. nivara	MS
208	32082	CRU-BCKV-13(14-N22/35-13-8-5-5)	N22/L35(A RIL from a cross Gobindabhog and Satabdi)	MB
209	32083	BKR-270	BG 102X Naveen	SB
210	32084	CR-4121-37-6-1	IR-73963-86-1-5-2-2/CR-2324-1	LB
211	32085	NVSR 2837	GR 7XGR 5	LB
212	**Shabhagidhan (NC)**			
213	32086	CR 4004-14228-2-1-4-1	BS-6444G x C460-3-2	MS
214	32087	ADVRH200057	***Hybrid***	LS
215	32088	RP 6420-C10-103	MTU 1010/Tualsi	LB
216	32089	CGR 19-CGIL-68-CGK 2-1-2131-68-1	BPT 5204*1/IR53236-218-3(TRP 38-5)	MS
217	32090	ORR 1818	Parijat X Subhadra	LS
218	32091	BRR-200-IRSAH-24	IR 84899-B-185-10-1-4-1/Vardhan	LS
219	32092	RAU 1415-12-7-6-4-3-6	Saket-4 X Sita	SB
220	32093	Rewa 19-2-8 (M4 19-20-8)	Mutant from GP Acc.no.593	MB
221	**Anjali (all zones)**			
222	32094	R-RF-212	Selection from IR 95817-5-1-1-2	LS
223	32095	CR 4472-1-1-2-2-1-1	Dular/satabdi	SB
224	32096	R 2307-73-1-38-1	Mahamaya X IR 2006-P-12-12-2-2	Mssg
225	32097	CR 4487-9-1-1-3-1	Lalat/Surjamukhi	LS
226	32098	RGL7036 (RGL 2034-9-1-1)	MTU 1210/MTU 1224/RP Bio 226	Mssg
227	**Vandana (NC)**			
228	32099	CR 4471-7-3-8-1-5	IR93312-30-101-20-13-66-6/IR94225-B-82-B	LS
229	32100	RCPR 104-IR16L1499	IR09L303*2/BENONG 130	LS
230	32101	CR 4474-2-2-6-1-1-1	Kasalath/CR Dhan 203	MS
231	32102	CB 17542	CO 41 / CO 51	MS
232	32103	MSAC-16-141	MTU 1010X DRR Dhan 44	LS
233	32104	CB HTR 22002	CO 51/Robin HTM	MS
234	32105	CR 2889-109-115-15	Apo/CR 143-2-2	MS
235	**Govind (Northern-II), Narendra 97 (Eastern-III and IV), Samaleshwari (Central- V), Varalu (western-VI)and Tulasi (Southern-VII)—ZC**			
236	32106	CR 4204-226-2	CR Dhan 307/O. rufipogon (AC 100444)//CR Dhan 307	MB
237	32107	ODR-1-2-21-1	Geetanjali /Zhu 11-26	LS
238	32108	BRR 2034	Sita * RAU 3036	MS
239	**IR 64 – Sensitive Check**			
240	32109	BRR 2180	Taraori Basmati Dwarf-2 * Sugandha-2	LS

241	32110	CR 4473-2-3-1-1-1-1	Kasalath/lalat	SB
242	32111	Rewa 3-5-2 (M4 3-53)	Mutant from acc.no.258	LS
243	32112	CR 4437-7-4-5	IR 64 SUB-1/MER-20	MS
244	32113	BRR-0193-IRSAH-12	Swarna/IR 84895-B-127-22-1-3-1	LS
245	32114	JR 15	JR 201 X NPT 24 X IR 64	LS
246	32115	NVSR 3332	GR 7XGR 5	LB
247	32116	R2272-515-2-287-1	R 1243-1224-578-1 X Danteshwari	LS
248	32117	MSAC-16-714-IR144574-40-2-1-1-B	IR 91648-B-89-B*2/IR144560	LS
249	32118	RP 6460-C3-345	166S-Swarana/O. nivara//148S-Swarna/O.nivara	MS
250	32119	MSAC-16-267	SwarnaX MTU 1010	MB
251	32120	CGR 29-IR144574-32-3-1-1-B	IR 91648-B-89-B*2/IR144560	`LS
252	**US-314 (Hybrid check)**			
253	**Local check**			

Table No. 2.2: Grain Yield (kg/ha) of IVT-E DS Severe Drought *Kharif*-2023

Entry No	IET NO	Zone III(1)		Zone V(1)		Overall (2)	
		JH(1)		MP			
		HZZB		REW		mean	
201	32075	0		0		0	
202	32076	134		0		67	
203	32077	239		595	#	417	#
204	32078	278	#	927	#	603	#
205	32079	28		461		245	
206	32080	283	#	1729	2 * #	1006	3 #
207	32081	0		521	#	261	
208	32082	139		0		70	
209	32083	1222	1 * #	1559	3 * #	1391	2 * #
210	32084	11		1090	9 #	551	#
211	32085	1156	2 #	2265	1*	1711	1 * #
212	**Shabhagidhan (NC)**	922	5.5 #	1043	10 #	983	5 #
213	32086	0		524	#	262	
214	32087	272		1549	4 * #	911	7 #
215	32088	33		0		17	
216	32089	56		765	#	411	#
217	32090	45		635	#	340	#
218	32091	0		240		120	
219	32092	0		0		0	
220	32093	206		508		357	#
221	Anjali (all zones)	1035	3 #	0		518	#
222	32094	667	9 #	1119	8 #	893	8 #
223	32095	745	8 #	724	#	735	#
224	32096	45		775	#	410	#
225	32097	245		720	#	483	#
226	32098	0		0		0	

227	**Vandana (NC)**	467		415		441	#
228	32099	217		569	#	393	#
229	32100	39		1520	6 * #	780	10 #
230	32101	556	10 #	455		506	#
231	32102	461	#	1521	5 * #	991	4 #
232	32103	0		233		117	
233	32104	800	7 #	685	#	743	#
234	32105	0		0		0	
235	**ZC**	523	#	992	#	758	#
236	32106	0		0		0	
237	32107	922	5.5 #	719	#	821	9 #
238	32108	0		868	#	434	#
239	**IR 64 – Sensitive Check**	239		992	#	616	#
240	32109	161		177		169	
241	32110	0		0		0	
242	32111	17		782	#	400	#
243	32112	11		0		6	
244	32113	0		1247	7 #	624	#
245	32114	0		0		0	
246	32115	11		0		6	
247	32116	28		578	#	303	
248	32117	150		574	#	362	#
249	32118	0		0		0	
250	32119	0		337		169	
251	32120	145		0		73	
252	**US-314 (Hybrid check)**	156		212		184	
253	Local check	956	4	876		916	6 #
Exp. Mean		**256.79**		**594.27**		**425.53**	
F Value		91.10 (p<0.0001) S		35.09 (p<0.0001) S		67.92 (p<0.0001) S	
CD		**122**		**307.73**		**145.31**	
CV%		23.45		25.56		16.94	
D/S		26-07-2023		14-07-2023			
Local Check name		CR Dhan 40		Hansraj			

Table No. 2.3: Days to 50% Flowering of IVT-E DS Severe Drought *Kharif*-2023

Entry No	IET NO	Zone III(1)	Zone V(1)	Overall (2)
		JH	MP(1)	
		HZB	REW	mean
201	32075			
202	32076	93		93
203	32077	87	86	87
204	32078	87	86	87
205	32079	104	86	95
206	32080	87	82	85
207	32081		82	82
208	32082	92		92
209	32083	83	76	80
210	32084	105	96	101
211	32085	74	72	73
212	**Shabhagidhan (NC)**	84	76	80
213	32086		78	78
214	32087	89	79	84
215	32088	92	85	89
216	32089	94	79	87
217	32090	103	75	89
218	32091		78	78
219	32092			
220	32093	104	96	100
221	Anjali (all zones)	69	69	69
222	32094	86	85	86
223	32095	90	96	93
224	32096	97	84	91
225	32097	92	91	92
226	32098			
227	**Vandana (NC)**	92	92	92
228	32099	92	93	93
229	32100	85	86	86
230	32101	91	94	93
231	32102	87	75	81
232	32103		77	77
233	32104	84	74	79
234	32105			
235	**ZC**	83	93	88
236	32106			
237	32107	69	73	71
238	32108		74	74
239	**IR 64 – Sensitive Check**	88	94	91
240	32109	92	83	88

241	32110			
242	32111	99	96	98
243	32112	103		103
244	32113		95	95
245	32114		94	94
246	32115	104		104
247	32116	99	94	97
248	32117	90	94	92
249	32118			
250	32119		95	95
251	32120	92		92
252	**US-314 (Hybrid check)**	90	95	93
253	Local check	69	85	77
Exp. Mean		**90**	**85**	**88**

Table No.2.4: Plant Height (cm) of IVT-E DS Severe Drought *Kharif*-2023

Entry No	IET NO	Zone III(1)	Zone V(1)	Overall (2)
		JH(1)	MP(1)	
		HZB	REW	mean
201	32075	.	.	.
202	32076	58.00	.	58.00
203	32077	59.67	63.00	61.33
204	32078	66.17	75.00	70.58
205	32079	58.50	72.00	65.25
206	32080	55.17	78.00	66.58
207	32081	.	98.00	98.00
208	32082	66.67	.	66.67
209	32083	90.17	100.00	95.08
210	32084	58.67	87.00	72.83
211	32085	97.70	110.00	103.85
212	**Shabhagidhan (NC)**	70.00	92.00	81.00
213	32086	.	94.00	94.00
214	32087	57.50	74.00	65.75
215	32088	62.33	73.00	67.67
216	32089	62.50	74.00	68.25
217	32090	44.83	75.00	59.92
218	32091	.	80.00	80.00
219	32092	.	.	.
220	32093	51.83	76.00	63.92
221	Anjali (all zones)	82.50	75.00	78.75
222	32094	61.50	83.00	72.25
223	32095	69.83	72.00	70.92
224	32096	49.50	76.00	62.75
225	32097	58.70	65.00	61.85
226	32098	.	.	.

227	**Vandana (NC)**	46.67	56.00	51.33
228	32099	69.83	62.00	65.92
229	32100	63.33	75.00	69.17
230	32101	66.53	70.00	68.27
231	32102	62.50	56.00	59.25
232	32103	.	70.00	70.00
233	32104	66.00	63.00	64.50
234	32105	.	.	.
235	**ZC**	51.83	76.00	63.92
236	32106	.	.	.
237	32107	65.50	62.00	63.75
238	32108	.	65.00	65.00
239	**IR 64 – Sensitive Check**	51.83	55.00	53.42
240	32109	57.33	86.00	71.67
241	32110	.	.	.
242	32111	54.53	83.00	68.77
243	32112	47.00	.	47.00
244	32113	.	85.00	85.00
245	32114	.	83.00	83.00
246	32115	57.33	.	57.33
247	32116	57.17	83.00	70.08
248	32117	61.83	66.00	63.92
249	32118	.	.	.
250	32119	.	83.00	83.00
251	32120	59.50	.	59.50
252	**US-314 (Hybrid check)**	55.60	75.00	65.30
253	Local check	75.67	83.00	79.33
Exp. Mean		**62**	**76**	**70**

Table No.2.5: No. of Panicles in sqm of IVT-E DS Severe Drought *Kharif*-2023

Entry No	**IET NO**	**Zone III(1)**	**Zone V(1)**	**Overall (2)**
		JH(1)	**MP(1)**	
		HZZB	**REW**	**mean**
201	32075			
202	32076	98		98
203	32077	123	105	114
204	32078	130	140	135
205	32079	30	102	66
206	32080	128	153	141
207	32081		111	111
208	32082	83		83
209	32083	202	151	177
210	32084	27	145	86
211	32085	199	143	171

212	**Shabhagidhan (NC)**	178	129	154
213	32086		102	102
214	32087	79	134	107
215	32088	47		47
216	32089	48	108	78
217	32090	110	111	111
218	32091		104	104
219	32092			
220	32093	90	106	98
221	Anjali (all zones)	153		153
222	32094	193	134	164
223	32095	185	134	160
224	32096	28	135	82
225	32097	145	138	142
226	32098			
227	**Vandana (NC)**	171	129	150
228	32099	128	127	128
229	32100	45	136	91
230	32101	186	104	145
231	32102	213	145	179
232	32103		106	106
233	32104	220	118	169
234	32105			
235	**ZC**	173	136	155
236	32106			
237	32107	148	123	136
238	32108		130	130
239	**IR 64 – Sensitive Check**	93	135	114
240	32109	123	104	114
241	32110			
242	32111	115	127	121
243	32112	43		43
244	32113		138	138
245	32114			
246	32115	29		29
247	32116	68	119	94
248	32117	122	126	124
249	32118			
250	32119		113	113
251	32120	90		90
252	**US-314 (Hybrid check)**	67	105	86
253	Local check	185	127	156
Exp. Mean		**118**	**124**	**117**

Table No.2.6: Grain Yield (kg/ha) of IVT-E DS Moderate Drought *Kharif*-2023

Entry No	IET NO	Zone III(1)		Zone VI				Zone VI(2)		Overall (3)	
		OD(1)		GJ				GJ(2)			
		CTK		VYR		DRL		mean		mean	
201	32075	3236	10.5 #	1304		0		652		1513	
202	32076	2959	#	2796	8	1396	#	2096		2384	10 #
203	32077	1431		2665	10	3396	1 * #	3031	1 * #	2497	6 #
204	32078	1653	#	2326		2105	10 #	2216		2028	#
205	32079	3459	6.5 #	2343		563		1453		2122	#
206	32080	1889	#	2113		1229	#	1671		1744	
207	32081	1945	#	1028		0		514		991	
208	32082	2097	#	1380		1073	#	1227		1517	
209	32083	1806	#	2400		927		1664		1711	
210	32084	2278	#	2517		1375	#	1946		2057	#
211	32085	2528	#	1947		1636	#	1792		2037	#
212	**Shabhagidhan (NC)**	3764	3.5	2922	4	1766		2344	10	2817	3
213	32086	2528	#	1232		1709	#	1471		1823	
214	32087	3889	2 #	3265	1	1438	#	2352	8 #	2864	2 #
215	32088	2014	#	1691		1032		1362		1579	
216	32089	2653	#	2323		709		1516		1895	
217	32090	1889	#	2502		573		1538		1655	
218	32091	1473		164		0		82		546	
219	32092	1861	#	519		0		260		793	
220	32093	2278	#	1804		0		902		1361	
221	Anjali (all zones)	2112		2293		0		1147		1468	
222	32094	2056	#	2978	3	2323	6 #	2651	3 #	2452	7 #
223	32095	1570		2472		1875	#	2174		1972	#
224	32096	3000	#	2993	2	1990	#	2492	5 #	2661	5 #
225	32097	1459		2026		521		1274		1335	
226	32098	2847	#	582		605		594		1345	
227	**Vandana (NC)**	3333	8	2550		2396	5	2473	6	2760	4
228	32099	1722	#	2334		2157	9 #	2246		2071	#
229	32100	1972	#	2569		2573	3 #	2571	4 #	2371	#
230	32101	2181	#	2491		2427	4 #	2459	7 #	2366	#
231	32102	2209	#	2808	7	1063	#	1936		2027	#
232	32103	3292	9 #	546		615		581		1484	
233	32104	1764		2236		782		1509		1594	
234	32105	4306	1 * #	930		0		465		1745	
235	**ZC**	3667	5	1495		730		1113		1964	

236	32106	3459	6.5 #	1530		792		1161		1927	
237	32107	2223	#	2602		0		1301		1608	
238	32108	1820	#	1567		0		784		1129	
239	**IR 64 (Sensitive Check)**	1403		1684		0		842		1029	
240	32109	2056	#	2178		2250	8 #	2214		2161	#
241	32110	2820	#	0		0		0		940	
242	32111	1736	#	967		490		729		1064	
243	32112	917		1102		584		843		868	
244	32113	3236	10.5	2915	5	1177	#	2046		2443	8 #
245	32114	1334		1463		781		1122		1193	
246	32115	2542	#	2426		2271	7 #	2349	9 #	2413	9 #
247	32116	3764	3.5	2741	9	3063	2 * #	2902	2 #	3189	1 #
248	32117	1195		1006		771		889		991	
249	32118	2125	#	1859		656		1258		1547	
250	32119	1445		1706		1657	#	1682		1603	
251	32120	2389	#	1523		0		762		1304	
252	**US-314 (Hybrid check)**	1153		2869	6	677		1773		1566	
253	Local check	2083		2131		508		1320		1574	
Exp. Mean		**2317.08**		**1939.58**		**1068.9**		**1504.24**		**1775.19**	
F Value		23.49 (p<0.0001) S		4.97 (p<0.0001) S		66.02 (p<0.0001) S		16.15 (p<0.0001) S		17.75 (p<0.0001) S	
CD		**470.29**		**1017.66**		**360.27**		**535.68**		**397.33**	
CV%		10.11		26.13		16.68		17.74		11.15	
D/S		21-06-2023		28-06-2023		04-07-2023					
Local Check name		**CR Dhan 211**		**PURNA**		**AAUDR 1**					

Table No. 2.7: Days to 50% Flowering of IVT-E DS Moderate Drought *Kharif*-2023

Entry No	IET NO	Zone III(1)	Zone VI		Zone VI(2)	Overall (3)
		OD(1)	GJ		GJ(2)	
		CTK	VYR	DRL	mean)	mean
201	32075	86	91		91	89
202	32076	93	79	91	85	88
203	32077	86	71	80	76	79
204	32078	75	70	81	76	75
205	32079	76	79	88	84	81
206	32080	80	63	73	68	72
207	32081	83	94		94	89
208	32082	103	98	96	97	99
209	32083	87	64	93	79	81
210	32084	87	79	99	89	88
211	32085	67	61	69	65	66
212	**Shabhagidhan (NC)**	88	68	78	73	78
213	32086	70	89	96	93	85
214	32087	85	71	76	74	77
215	32088	83	87	90	89	87
216	32089	82	76	87	82	82
217	32090	86	79	86	83	84
218	32091	83	95		95	89
219	32092	94	96		96	95
220	32093	107	91		91	99
221	Anjali (all zones)	73	54		54	64
222	32094	86	75	83	79	81
223	32095	88	75	97	86	87
224	32096	81	70	79	75	77
225	32097	83	73	83	78	80
226	32098	86	107	99	103	97
227	**Vandana (NC)**	70	68	80	74	73
228	32099	73	74	82	78	76
229	32100	81	71	81	76	78
230	32101	85	72	91	82	83
231	32102	85	64	73	69	74
232	32103	89	105	97	101	97
233	32104	84	63	69	66	72
234	32105	97	99		99	98
235	**ZC**	80	79	91	85	83
236	32106	105	95	93	94	98
237	32107	76	49		49	63
238	32108	97	82		82	90
239	**IR 64 (Sensitive Check)**	76	72		72	74
240	32109	94	70	78	74	81

241	32110	81				81
242	32111	93	85	92	89	90
243	32112	86	74	88	81	83
244	32113	93	81	89	85	88
245	32114	82	78	83	81	81
246	32115	90	78	79	79	82
247	32116	85	76	81	79	81
248	32117	83	78	82	80	81
249	32118	88	79	89	84	85
250	32119	84	79	87	83	83
251	32120	88	71		71	80
252	**US-314 (Hybrid check)**	82	70	84	77	79
253	Local check	85	57	62	60	68
Exp. Mean		**85**	**77**	**84**	**80**	**82**

Table No.2.8: Plant Height (cm) of IVT-E DS Moderate Drought *Kharif*-2023

Entry No	IET NO	Zone III(1)	Zone VI		Zone VI(2)	Overall (3)
		OD(1)	GJ		GJ(2)	
		CTK	VYR	DRL	mean	mean
201	32075	105.00	120.70	.	120.70	112.85
202	32076	104.50	101.40	88.40	94.90	98.10
203	32077	100.50	102.00	91.00	96.50	97.83
204	32078	108.50	101.00	93.40	97.20	100.97
205	32079	101.00	97.90	93.60	95.75	97.50
206	32080	93.50	75.60	82.60	79.10	83.90
207	32081	101.00	137.70	.	137.70	119.35
208	32082	110.00	110.10	83.60	96.85	101.23
209	32083	107.50	121.40	115.20	118.30	114.70
210	32084	104.50	116.20	82.20	99.20	100.97
211	32085	118.50	111.80	107.60	109.70	112.63
212	**Shabhagidhan (NC)**	107.50	96.00	105.00	100.50	102.83
213	32086	92.00	79.70	72.60	76.15	81.43
214	32087	93.00	90.80	84.40	87.60	89.40
215	32088	99.00	111.50	67.20	89.35	92.57
216	32089	98.50	110.70	91.20	100.95	100.13
217	32090	83.50	89.80	65.40	77.60	79.57
218	32091	98.00	87.30	.	87.30	92.65
219	32092	110.00	68.30	.	68.30	89.15
220	32093	117.50	108.30	.	108.30	112.90
221	Anjali (all zones)	101.50	88.60	.	88.60	95.05
222	32094	86.00	107.40	80.20	93.80	91.20
223	32095	92.00	118.10	105.60	111.85	105.23
224	32096	96.50	85.80	88.00	86.90	90.10
225	32097	90.50	86.80	83.00	84.90	86.77
226	32098	98.50	106.40	83.80	95.10	96.23

227	**Vandana (NC)**	96.50	84.60	74.60	79.60	85.23
228	32099	92.50	96.10	102.60	99.35	97.07
229	32100	106.50	102.20	101.80	102.00	103.50
230	32101	105.50	117.30	94.00	105.65	105.60
231	32102	89.50	83.20	97.80	90.50	90.17
232	32103	102.00	96.00	98.20	97.10	98.73
233	32104	91.50	87.80	92.00	89.90	90.43
234	32105	118.00	126.90	.	126.90	122.45
235	**ZC**	80.00	108.50	91.20	99.85	93.23
236	32106	87.50	111.70	92.00	101.85	97.07
237	32107	95.00	90.40	.	90.40	92.70
238	32108	103.50	115.70	.	115.70	109.60
239	**IR 64 (Sensitive Check)**	86.50	88.20	.	88.20	87.35
240	32109	102.50	103.20	85.80	94.50	97.17
241	32110	108.50	.	.	.	108.50
242	32111	101.00	105.10	93.80	99.45	99.97
243	32112	73.00	74.40	73.60	74.00	73.67
244	32113	102.50	113.60	96.40	105.00	104.17
245	32114	97.50	107.20	97.00	102.10	100.57
246	32115	108.00	99.50	85.00	92.25	97.50
247	32116	98.00	107.90	103.80	105.85	103.23
248	32117	98.00	81.70	93.60	87.65	91.10
249	32118	83.50	84.90	81.80	83.35	83.40
250	32119	108.00	128.30	119.60	123.95	118.63
251	32120	92.50	84.30	.	84.30	88.40
252	**US-314 (Hybrid check)**	89.00	92.30	83.40	87.85	88.23
253	Local check	87.00	105.00	122.20	113.60	104.73
Exp. Mean		**99**	**101**	**91**	**97**	**98**

Table No.2.9: No of Panicles in sqm of IVT-E DS Moderate Drought *Kharif*-2023

Entry No	IET NO	Zone III(1)	Zone VI		Zone VI(2)	Overall (3)
		OD(1)	GJ		GJ(2)	
		CTK	VYR	DRL	mean	mean
201	32075	50	175		175	113
202	32076	90	241	386	314	239
203	32077	82	310	304	307	232
204	32078	65	254	348	301	222
205	32079	89	233	262	248	195
206	32080	76	303	212	258	197
207	32081	75	211		211	143
208	32082	90	268	294	281	217
209	32083	68	233	156	195	152
210	32084	68	255	174	215	166
211	32085	68	267	202	235	179
212	**Shabhagidhan (NC)**	80	232	226	229	179

213	32086	94	211	326	269	210
214	32087	85	286	274	280	215
215	32088	97	332	246	289	225
216	32089	88	234	222	228	181
217	32090	76	156	228	192	153
218	32091	57	303		303	180
219	32092	77	246		246	162
220	32093	67	340		340	204
221	Anjali (all zones)	73	205		205	139
222	32094	95	305	236	271	212
223	32095	92	325	212	269	210
224	32096	132	272	330	301	245
225	32097	100	281	234	258	205
226	32098	41	199	204	202	148
227	**Vandana (NC)**	75	264	196	230	178
228	32099	74	231	220	226	175
229	32100	90	234	242	238	189
230	32101	88	292	240	266	207
231	32102	85	245	210	228	180
232	32103	51	214	232	223	166
233	32104	104	330	188	259	207
234	32105	71	240		240	156
235	**ZC**	100	290	198	244	196
236	32106	60	205	204	205	156
237	32107	75	193		193	134
238	32108	82	276		276	179
239	**IR 64 (Sensitive Check)**	81	273		273	177
240	32109	69	299	210	255	193
241	32110	50				50
242	32111	74	307	272	290	218
243	32112	81	327	236	282	215
244	32113	80	199	224	212	168
245	32114	79	171	228	200	159
246	32115	73	309	232	271	205
247	32116	74	275	242	259	197
248	32117	73	233	294	264	200
249	32118	87	276	248	262	204
250	32119	73	228	174	201	158
251	32120	85	278		278	182
252	**US-314 (Hybrid check)**	110	316	228	272	218
253	Local check	71	284	180	232	178
Exp. Mean		**79**	**259**	**239**	**250**	**184**

Table No. 2.10: Grain Yield (kg/ha) of IVT-E DS Normal *Kharif*-2023

Entry No	IET NO	Zone III												Zone III (5)		Zone V								Zone V (3)		Zone VI(1)		Zone VII								Zone VII (2)		Overall (11)	
		OD(1)		BI						BI(3)		JH(1)				CG				CG(2)		MP(1)				MH(1)		TN(1)		KA				KA(1)					
		JYP		BKJ		SBR		PSA		mean		RCI		mean		JDP		RPR		mean		JBP		mean		PBN		CBT		KMT		MGD@		mean		mean		mean	
201	32075	2078		2372		5005	4 * #	4108		3828	8	3402		3393		6979	1 #	3633		5306	10	4206		4939		3400		3700		3778		3391		3778		3739		3878	
202	32076	3524		3292		3491	#	4108		3630		3087		3500		5378		3698		4538		3324		4133		2800		3837		3605		3320		3605		3721		3649	
203	32077	4511	10	3382		3134		3750		3422		3591	10	3674		6739	4 #	3773		5256		3569		4694		4100	3	3027		4204		3708	10	4204		3616		3980	10
204	32078	3388		4009	6	3428	#	3572		3670		3276		3535		5254		4511	10.5	4883		3972		4579		3400		4487	1	3568		3673		3568		4028		3897	
205	32079	2944		2889		2287		3750		2975		3276		3029		5225		3793		4509		4525		4514		3700		2705		4877		3521		4877		3791		3634	
206	32080	5718	2 #	3669		2414		3750		3278		3150		3740	7	5157		1860		3509		3624		3547		3900	8.5	3597		5297	#	3302		5297	#	4447		3831	
207	32081	2428		0		3458	#	3750		2403		2520		2431		6719	5 #	3668		5194		4700	5 #	5029	6	3000		3079		3549		3558		3549		3314		3352	
208	32082	3364		0		4546	8 *	3929		2825		2709		2910		6573	#	3730		5152		4559	8	4954	9	4200	1.5	2749		4771		2841		4771		3760		3739	
209	32083	2156		3680		2061		4108		3283		1953		2792		4398		1434		2916		3076		2969		3700		3044		6160	2 #	3442		6160	2 #	4602	10	3252	
210	32084	2500		3426		2014		4465	3	3302		2583		2998		6644	8 #	5000	6	5822	4 #	4232		5292	2#	3700		3396		5923	4 #	4091	3	5923	4 #	4660	7	3989	9
211	32085	3799		3667		2176		3929		3257		3024		3319		4525		3609		4067		3646		3927		4000	4.5	4101	6	4995		3212		4995		4548		3770	
212	**Shabhagidhan (NC)**	5000	5	4676	4	2532		3750		3653		2835		3759	6	5622		3854		4738		4021		4499		3500		4175	4	5502	9	3024		5502	9	4839	3	4133	7
213	32086	2819		3113		3673	* #	4108		3631		1953		3133		4330		2717		3524		5405	2 * #	4151		3200		2588		4136		2837		4136		3362		3458	
214	32087	6433	1 * #	3530		4910	5 * #	4108		4183	2 #	3717	5.5	4540	1 * #	4717		4448		4583		4921	3 #	4695		2600		4331	2	5998	3 #	4045	4	5998	3	5165	1 #	4519	1 * #
215	32088	2645		2426		2528		4108		3021		3276		2997		4414		4494		4454		3602		4170		2700		3170		5170	#	3718	9	5170	#	4170		3503	
216	32089	3370		2950		2037		4465	3	3151		3465		3257		4965		4511	10.5	4738		3256		4244		3500		3386		3250		3458		3250		3318		3560	
217	32090	4176		4132	5	3269	#	3929		3777	10	3150		3731	8	5183		3166		4175		3591		3980		3600		3871	10	3265		3599		3265		3568		3757	
218	32091	3089		2453		4690	7 * #	4108		3750		3402		3548		6566	#	1689		4128		4167		4141		3950	6	2134		3245		3974	5	3245		2690		3590	
219	32092	4520	9	3774	8	4416	9 * #	3750		3980	5 #	3591	10	4010	3 #	6335		4696	9	5516	6	4297		5109	5 #	3800		3788		5789	6 #	4134	2	5789	6 #	4789	4	4432	2 #
220	32093	1232		3158		1955		4108		3074		2142		2519		4590		2675		3633		4557	10	3941		3500		3262		5801	5 #	3840	7	5801	5 #	4532		3362	
221	Anjali (all zones)	1404		3247		1931		4465	3	3214		3087		2827		4102		2423		3263		3714		3413		2700		3995	9	5094		2916		5094		4545		3287	
222	32094	5040	4	3012		2665		3750		3142		3276		3549		6065		4331		5198		4602	6 #	4999	8	3700		3712		5620	7 #	3009		5620	7 #	4666	6	4161	6
223	32095	4254		1747		3871	* #	3393		3004		3654	7.5	3384		6576	10	4084		5330	9	4397		5019	7	3900	8.5	3522		3207		3347		3207		3365		3873	

																	#																					
224	32096	4632	8	2822		3562	#	3572		3319		2772		3472		6468		5534	1 #	6001	2 #	3761		5254	3 #	3400		3433		6323	1 * #	2940		6323	1 * #	4878	2	4207	3 #
225	32097	4205		3674		2880		3750		3435		3024		3507		6573	#	4354		5464	7	3474		4800		3850		3820		5475	10 #	3033		5475	10 #	4648	8	4098	8
226	32098	2141		2514		4199	10 * #	3929		3547		2835		3124		4971		1923		3447		4558	9	3817		2800		2760		3207		3312		3207		2984		3258	
227	**Vandana (NC)**	4375		6011	1	2162		3571		3915	6	2772		3778	5	4528		5226	3	4877		4362		4705		4000	4.5	3286		3232		3658		3232		3259		3957	
228	32099	2319		4006	7	2834		4108		3649		2331		3120		4912		3195		4054		3839		3982		2100		1569		3315		3170		3315		2442		3139	
229	32100	4438		3697	10	2431		3929		3352		2646		3428		4847		4918	7	4883		4362		4709		4200	1.5	3714		3488		3672		3488		3601		3879	
230	32101	4018		3236		2426		3393		3018		3843	2.5	3383		6960	2 #	4251		5606	5 #	3081		4764		3400		3816		4563		3112		4563		4190		3908	
231	32102	5701	3 #	2999		2369		3929		3099		2772		3554		4336		2334		3335		3445		3372		2600		4026	8	3331		2989		3331		3679		3440	
232	32103	2147		2481		5101	2 * #	3929		3837	7	3591	10	3450		6511		4051		5281		3635		4732		2400		3347		3587		3235		3587		3467		3707	
233	32104	4199		2861		2412		3929		3067		3339		3348		4596		2456		3526		3970		3674		2300		3104		3422		2956		3422		3263		3326	
234	32105	1002		3125		5149	1 * #	3750		4008	4 #	3717	5.5	3349		6664	7 #	3101		4883		3602		4456		3200		3633		4327		3767	8	4327		3980		3752	
235	ZC	3815		5006	3	2285		3929		3740		3465		3700	9	6195		4400		5298		4232		4942	10	2800		3653		3679		4196	1	3679		3666		3951	
236	32106	4109		2793		4896	6 * #	3750		3813	9	2835		3677	10	6689	6 #	3477		5083		4582	7 #	4916		2400		3375		3778		3025		3778		3577		3880	
237	32107	1000		3756	9	1512		4108		3125		3465		2768		4395		2635		3515		4753	4 #	3928		2200		4050	7	4032		2714		4032		4041		3264	
238	32108	2861		5579	2 #	3857	* #	3929		4455	1 * #	2709		3787	4	6361		4484		5423	8	3262		4702		3000		3501		3225		2896		3225		3363		3888	
239	**IR 64 (Sensitive Check)**	4975	6	2835		2301		4108		3081		3150		3474		4743		3218		3981		3841		3934		2900		3306		3304		2945		3304		3305		3516	
240	32109	4218		2856		3204	#	4286	5.5	3449		3654	7.5	3644		5283		3712		4498		3906		4300		3900	8.5	3870		4197		3369		4197		4034		3917	
241	32110	1040		3125		2348		0		1824				1628		4099		0		2050		3877		2659		1000		3019		4749		3250		4749		3884		2326	
242	32111	1645		2980		2013		3750		2914		3150		2708		4444		3301		3873		4223		3989		2600		2986		3486		3136		3486		3236		3143	
243	32112	3315		3220		2404		3750		3125		3339		3206		5192		3656		4424		4232		4360		2200		3196		3599		2850		3599		3398		3464	
244	32113	3660		2499		3939	* #	4108		3515		3024		3446		6885	3 #	5198	4 #	6042	1 #	4049		5377	1 #	2000		3098		4357		3059		4357		3728		3892	
245	32114	4169		3551		3119		3750		3473		3465		3611		5277		3651		4464		4142		4357		2400		3215		4742		3027		4742		3979		3771	
246	32115	4964	7	3188		5061	3 * #	4108		4119	3 #	3465		4157	2 #	4675		5154	5 #	4915		4232		4687		2300		3628		5292	#	3951	6	5292	#	4460		4188	4 #
247	32116	3796		3453		3290	#	3750		3498		3843	2.5	3626		6579	9 #	5291	2 #	5935	3 #	3845		5238	4 #	2750		3813		5528	8 #	3091		5528	8 #	4671	5	4176	5 #
248	32117	4004		2325		2037		3572		2645		3780	4	3144		4339		3495		3917		5595	1 * #	4476		2600		4123	5	5136		2861		5136		4630	9	3728	

249	32118	3709		2302		2125		3929		2785		4473	1 * #	3308		4544		2217		3381		4362		3708		2600				4479		2916		4479		4479		3474	
250	32119	2094		3240		3213	#	4286	5.5	3580		3087		3184		5463		3745		4604		3329		4179		2700		3447		3997		3370		3997		3722		3509	
251	32120	3026		3109		2126		4108		3114		2520		2978		4603		3280		3942		3451		3778		3900	8.5	3075		4002		3058		4002		3539		3382	
252	**US-314 (Hybrid check)**	4457		3654		2501		3929		3361		3276		3563		4919		3921		4420		4019		4286		3300		4234	3	4263		3241		4263		4249		3861	
253	Local check	4121		3526		3012		4732	1	3757		2772		3633		3542		4905	8	4224		4529		4325		3200		3787		3778		2922		3778		3783		3809	
Exp. Mean		**3481.82**		**3188.9**		**3080.12**		**3866.36**		**3378.46**		**3139.1**		**3345.56**		**5408.2**		**3639.25**		**4524.11**		**4047.15**		**4364.98**		**3123.58**		**3452.46**		**4352.52**		**3314.45**		**4352.52**		**3912.17**		**3708.29**	
F Value		10.21 (p<0.0001) S		5.13 (p<0.0001) S		19.90 (p<0.0001) S		6.66 (p<0.0001) S		6.67 (p<0.0001) S		3.24 (p<0.0001) S		11.30 (p<0.0001) S		2.86 (p<0.0001) S		7.13 (p<0.0001) S		3.99 (p<0.0001) S		7.94 (p<0.0001) S		4.08 (p<0.0001) S		3.04 (p<0.0001) S		2.06 (p<0.0054) S		13.18 (p<0.0001) S		1.23 (p<0.2330) NS		13.18 (p<0.0001) S		6.88 (p<0.0001) S		11.78 (p<0.0001) S	
CD		**1133.89**		**1280.07**		**647.48**		**670.76**		**508.26**		**791.94**		**389.45**		**1625.07**		**1126.76**		**1161.3**		**547.9**		**790.59**		**1131.39**		**1087.3**		**736.16**		**1002.38**		**736.16**		**652.13**		**302.59**	
CV%		16.23		19.99		10.48		8.64		7.5		12.57		5.8		14.97		15.28		12.74		6.75		9		18.05		15.69		8.43		15.07		8.43		8.31		4.07	
D/S		25.07.23		09-07-2023		25-06-2023		05-07-2023				03.07.2023				01.07.23		05-07-2023				22.06.2023				07-07-2023		09.08.2023		08.07.2023		12.08.23							
Local Check name		Mandakini		Sabour Ardhjal		Sabour Harshit Dhan		Rajendra Nilam				BVD-110				Bastar Dhan 1		Indira Aerobic -1				JR 206				Avishkar		CO 53		MGD 101		MGD-101							

Table No.2.11: Days to 50% Flowering of IVT-E DS Normal *Kharif*-2023

Entry No	IET NO	Zone III						Zone III (5)	Zone V				Zone V (3)	Zone VI(1)	Zone VII				Zone VII (2)	Overall (11)
		OD(1)	BI			BI(3)	JH(1)		CG		CG(2)	MP(1)		MH(1)	TN(1)	KA		KA(1)		
		JYP	BKJ	SBR	PSA	mean	RCI	mean	JDP	RPR	mean	JBP	mean	PBN	CBT	KMT	MGD@	mean	mean	mean
201	32075	97	97	106	103	102	68	94	93	99	96	98	97	109	97	78	100	78	88	95
202	32076	86	78	98	78	85	89	86	82	82	82	97	87	98	89	89	87	89	89	88
203	32077	83	77	87	71	78	83	80	72	72	72	87	77	93	81	89	84	89	85	81
204	32078	80	71	87	72	77	46	71	74	72	73	96	81	91	83	84	86	84	84	78
205	32079	86	79	80	74	78	91	82	86	84	85	94	88	93	96	94	94	94	95	87
206	32080	78	68	77	71	72	78	74	70	68	69	92	77	85	80	86	81	86	83	78
207	32081	94		108	86	97	97	96	88	91	90	101	93	100	89	84	93	84	87	94
208	32082	97		105	102	104	107	103	90	101	96	86	92	100	98	87	95	87	93	97
209	32083	80	68	68	67	68	80	73	72	67	70	92	77	87	81	92	74	92	87	78
210	32084	87	79	85	74	79	95	84	88	83	86	91	87	95	95	91	91	91	93	88
211	32085	71	74	81	68	74	73	73	70	69	70	100	80	97	70	84	77	84	77	78
212	**Shabhagidhan (NC)**	82	73	83	69	75	80	77	71	72	72	83	75	86	82	90	74	90	86	79
213	32086	97	102	76	72	83	103	90	90	95	93	103	96	92	98	81	99	81	90	92
214	32087	78	74	80	68	74	82	76	72	68	70	101	80	85	75	83	81	83	79	79
215	32088	95	91	90	72	84	81	86	77	79	78	103	86	95	84	94	96	94	89	87
216	32089	83	71	85	74	77	85	80	77	74	76	91	81	99	86	90	86	90	88	83
217	32090	89	77	91	80	83	86	85	82	88	85	98	89	97	90	89	92	89	90	88
218	32091	96	107	118	117	114	112	110	91	114	103	102	102	108	94	88	91	88	91	104
219	32092	86	98	107	103	103	98	98	86	93	90	99	93	99	89	83	93	83	86	95
220	32093	89	86	97	88	90	96	91	86	76	81	101	88	95	90	91	95	91	91	90
221	Anjali (all zones)	80	63	62	59	61	69	67	70	73	72	98	80	64	73	87	72	87	80	73

222	32094	83	79	81	70	77	82	79	74	74	74	83	77	90	84	92	78	92	88	81
223	32095	83	76	86	75	79	87	81	77	76	77	84	79	98	82	79	92	79	81	82
224	32096	78	76	85	73	78	82	79	74	80	77	101	85	98	85	90	92	90	88	84
225	32097	83	75	83	79	79	87	81	76	75	76	96	82	96	83	86	87	86	85	84
226	32098	100	104	118	111	111	109	108	89	106	98	103	99	110	96	96	97	96	96	104
227	**Vandana (NC)**	90	73	76	71	73	83	79	73	77	75	101	84	97	88	77	90	77	83	82
228	32099	83	76	89	73	79	87	82	77	78	78	92	82	97	83	89	82	89	86	84
229	32100	78	79	85	73	79	84	80	72	75	74	87	78	91	78	86	82	86	82	81
230	32101	86	78	85	74	79	91	83	70	74	72	88	77	95	86	81	88	81	84	83
231	32102	84	73	81	69	74	82	78	70	67	69	101	79	82	81	88	82	88	85	80
232	32103	96	73	108	105	95	106	98	91	100	96	103	98	101	95	94	92	94	95	97
233	32104	82	69	77	67	71	77	74	71	66	69	101	79	83	81	92	80	92	87	79
234	32105	95	102	99	105	102	109	102	89	101	95	96	95	104	89	82	91	82	86	97
235	**ZC**	80	67	76	67	70	81	74	77	77	77	102	85	93	95	75	91	75	85	81
236	32106	96	94	99	105	99	108	100	90	96	93	100	95	101	89	78	91	78	84	96
237	32107	68	96	68	62	75	74	74	72	52	62	101	75	65	69	79	77	79	74	73
238	32108	97	81	96	87	88	96	91	82	73	78	87	81	101	95	84	92	84	90	89
239	**IR 64 (Sensitive Check)**	84	79	82	71	77	87	81	74	72	73	100	82	94	83	78	86	78	81	82
240	32109	83	75	79	74	76	81	78	71	77	74	99	82	93	89	82	86	82	86	82
241	32110	106	102	118		110		109	90	125	108	99	105	122	108	94	101	94	101	107
242	32111	79	93	99	81	91	95	89	87	82	85	102	90	98	89	86	86	86	88	90
243	32112	85	98	82	81	87	91	87	77	73	75	101	84	98	85	80	92	80	83	86
244	32113	91	81	97	79	86	90	88	84	83	84	100	89	101	95	88	89	88	92	90
245	32114	86	76	80	71	76	89	80	78	76	77	91	82	93	93	82	86	82	88	83
246	32115	86	80	93	80	84	83	84	76	79	78	102	86	97	82	98	88	98	90	87
247	32116	96	72	86	72	77	82	82	76	73	75	103	84	93	82	95	89	95	89	85
248	32117	83	80	85	72	79	85	81	76	74	75	103	84	92	81	87	85	87	84	83
249	32118	74	81	90	73	81	96	83	80	94	87	100	91	93		92	100	92	92	87

250	32119	91	77	85	74	79	90	83	82	76	79	98	85	96	88	102	92	102	95	87
251	32120	85	71	85	67	74	79	77	72	72	72	101	82	94	84	105	83	105	95	83
252	**US-314 (Hybrid check)**	80	74	85	67	75	83	78	72	71	72	97	80	87	78	100	85	100	89	81
253	Local check	84	77	85	75	79	73	79	75	72	74	91	79	89	84	78	80	78	81	80
Exp. Mean		**86**	**80**	**88**	**78**	**83**	**87**	**84**	**79**	**80**	**80**	**96**	**85**	**94**	**86**	**87**	**88**	**87**	**87**	**86**

Table No.2.12: Plant Height (cm) of IVT-E DS Normal *Kharif*-2023

Entry No	IET NO	Zone III						Zone III (5)	Zone V				Zone V (3)	Zone VI(1)	Zone VII				Zone VII (2)	Overall (11)
		OD (1)	BI			BI(3)	JH(1)		CG		CG(2)	MP(1)		MH(1)	TN(1)	KA		KA(1)		
		JYP	BKG	SBR	PSA	mean	RCI	mean	JDP	RPR	mean	JBP	mean	PBN	CBT	KMT	MGD@	mean	mean	mean
201	32075	77	105	120	103	109	94	100	102	99	100	80	94	54	79	86	74	86	82	91
202	32076	87	112	118	102	111	94	103	85	97	91	77	86	55	95	53	71	53	74	89
203	32077	87	101	104	88	98	92	94	100	99	100	61	87	70	90	78	69	78	84	88
204	32078	100	115	111	100	109	98	105	92	107	99	57	85	65	100	76	67	76	88	93
205	32079	89	108	106	100	105	88	98	74	91	83	73	79	47	91	83	72	83	87	86
206	32080	93	94	85	88	89	85	89	104	87	96	73	88	49	83	72	78	72	77	83
207	32081	94	.	126	125	125	92	109	111	118	115	81	103	61	103	69	73	69	86	98
208	32082	94	.	131	126	128	95	111	118	109	113	78	101	53	92	83	75	83	87	98
209	32083	125	107	100	121	109	102	111	123	99	111	66	96	82	112	90	74	90	101	102
210	32084	85	127	127	107	120	92	108	98	106	102	72	92	66	100	94	78	94	97	98
211	32085	103	101	101	120	107	94	104	72	105	89	55	77	75	109	89	68	89	99	93
212	**Shabhagidhan (NC)**	96	111	94	88	98	90	96	83	90	86	70	81	58	97	86	63	86	92	88
213	32086	73	85	93	100	93	70	84	71	87	79	74	77	45	67	77	63	77	72	77
214	32087	89	111	104	84	100	92	96	76	95	85	71	81	43	87	92	62	92	89	86
215	32088	89	97	124	103	108	96	102	101	95	98	73	90	53	93	96	82	96	94	93
216	32089	97	118	112	109	113	102	108	104	107	105	61	91	61	102	85	79	85	93	96
217	32090	90	85	92	90	89	86	89	89	92	90	51	77	43	84	75	67	75	79	80
218	32091	81	99	112	94	102	87	94	86	96	91	69	84	47	90	96	69	96	93	87
219	32092	99	106	134	150	130	105	119	83	112	97	65	86	69	99	71	83	71	85	99
220	32093	94	110	128	103	114	91	105	101	99	100	74	91	58	95	78	75	78	86	94
221	Anjali (all zones)	96	95	95	91	94	87	93	107	108	108	85	100	60	103	73	68	73	88	91
222	32094	89	117	114	107	113	97	105	106	83	95	74	88	47	92	94	70	94	93	93
223	32095	91	103	113	98	105	99	101	97	102	99	54	84	58	88	76	77	76	82	89
224	32096	82	90	104	96	97	91	93	84	97	91	61	81	40	85	84	61	84	85	83

225	32097	83	97	94	100	97	90	93	76	89	82	67	77	38	74	61	67	61	67	79
226	32098	88	103	119	110	111	95	103	100	98	99	62	87	46	98	78	85	78	88	91
227	**Vandana (NC)**	77	107	90	95	97	75	89	76	94	85	63	78	41	86	58	69	58	72	78
228	32099	86	102	103	100	102	94	97	97	88	93	54	80	55	89	69	75	69	79	85
229	32100	95	103	110	99	104	100	101	101	107	104	80	96	65	95	80	76	80	87	94
230	32101	91	113	109	107	110	98	104	100	97	99	71	89	69	103	88	78	88	96	95
231	32102	94	77	84	88	83	90	87	89	86	87	75	83	62	88	92	77	92	90	84
232	32103	85	103	119	107	110	88	100	97	95	96	77	90	58	90	72	78	72	81	90
233	32104	90	99	84	80	88	91	89	88	83	85	71	81	61	79	59	70	59	69	80
234	32105	90	114	130	128	124	91	111	109	116	112	74	100	65	101	80	82	80	90	100
235	**ZC**	73	97	81	82	87	69	80	93	83	88	54	77	50	93	76	80	76	84	77
236	32106	78	109	121	103	111	89	100	93	98	96	56	82	55	87	86	75	86	87	89
237	32107	92	111	99	83	97	86	94	84	95	90	76	85	52	90	79	75	79	84	86
238	32108	90	108	127	120	118	92	107	101	113	107	74	96	69	94	68	78	68	81	96
239	**IR 64 (Sensitive Check)**	82	90	90	109	96	76	89	76	81	79	69	76	47	68	73	64	73	70	78
240	32109	88	102	98	82	94	94	93	90	96	93	58	81	55	95	70	75	70	82	84
241	32110	66	89	123	.	106	.	93	93	85	89	77	85	50	90	51	84	51	70	80
242	32111	89	112	115	120	116	91	105	84	95	90	73	84	48	83	89	69	89	86	91
243	32112	71	92	91	81	88	97	86	71	72	72	59	67	35	80	80	67	80	80	75
244	32113	87	119	119	122	120	94	108	87	114	101	75	92	55	90	90	75	90	90	96
245	32114	91	114	110	106	110	90	102	91	101	96	63	85	54	88	83	81	83	86	90
246	32115	81	104	107	101	104	87	96	77	93	85	60	77	43	80	110	70	110	95	86
247	32116	77	108	106	101	105	52	89	89	104	96	69	87	49	89	102	79	102	96	86
248	32117	84	101	106	100	102	89	96	85	88	87	76	83	50	82	83	68	83	82	86
249	32118	100	74	87	94	85	83	88	79	80	79	67	75	42	.	84	69	84	84	79
250	32119	102	115	146	121	127	96	116	119	100	110	67	96	83	109	79	86	79	94	103
251	32120	90	93	83	98	91	85	90	74	81	78	56	71	47	99	87	68	87	93	81
252	**US-314 (Hybrid check)**	88	98	107	99	101	93	97	71	103	87	55	76	42	91	55	65	55	73	82
253	Local check	96	106	115	100	107	89	101	90	93	92	66	83	73	87	79	85	79	83	90
Exp. Mean		**89**	**103**	**108**	**102**	**105**	**90**	**98**	**91**	**96**	**94**	**68**	**85**	**55**	**91**	**80**	**73**	**80**	**85**	**88**

Table No.2.13: No of Panicles in sqm of IVT-E DS Normal *Kharif*-2023

Entry No	IET NO	Zone III						Zone III (5)	Zone V				Zone V (3)	Zone VI (1)	Zone VII				Zone VII (2)	Overall (11)
		OD(1)	BI			BI(3)	JH(1)		CG		CG(2)	MP(1)		MH(1)	TN(1)	KA		KA(1)		
		JYP	BKJ	SBR	PSA	mean	RCI	mean	JDP	RPR	mean	JBP	mean	PBN	CBT	KMT	MGD@	mean	mean	mean
201	32075	211	412	265	203	293	232	265	361	192	277	211	255	165	268	214	257	214	241	249
202	32076	251	447	210	198	285	196	260	273	251	262	199	241	250	273	344	196	344	309	263
203	32077	188	353	286	205	281	265	259	348	250	299	185	261	308	293	294	238	294	294	270
204	32078	225	392	299	190	294	256	272	323	260	292	209	264	379	360	291	235	291	326	289
205	32079	333	352	213	186	250	271	271	301	243	272	217	254	383	293	258	223	258	276	277
206	32080	276	425	313	204	314	270	298	330	178	254	115	208	387	315	282	203	282	299	281
207	32081	268		187	207	197	237	225	323	292	308	208	274	270	285	243	223	243	264	252
208	32082	382		330	206	268	231	287	333	267	300	157	252	365	263	320	232	320	292	285
209	32083	238	337	225	199	254	151	230	294	131	213	141	189	358	328	325	170	325	327	248
210	32084	232	305	183	197	228	184	220	374	294	334	150	273	298	258	353	243	353	306	257
211	32085	262	303	189	204	232	201	232	313	277	295	136	242	393	320	258	229	258	289	260
212	**Shabhagidhan (NC)**	222	400	262	216	293	236	267	356	197	277	191	248	288	325	317	207	317	321	274
213	32086	231	320	268	210	266	245	255	301	277	289	210	263	265	303	339	192	339	321	270
214	32087	272	384	243	206	278	246	270	257	260	259	190	236	258	308	336	214	336	322	269
215	32088	235	294	278	207	260	246	252	260	262	261	219	247	168	278	333	189	333	306	253
216	32089	245	454	255	241	317	213	282	277	281	279	165	241	275	288	272	243	272	280	270
217	32090	322	359	293	223	292	227	285	299	188	244	142	210	345	320	242	182	242	281	269
218	32091	201	199	244	200	214	223	213	384	237	311	188	270	305	278	250	273	250	264	246
219	32092	269	257	178	208	214	209	224	322	295	309	227	281	330	345	316	219	316	331	269
220	32093	188	301	237	200	246	175	220	288	261	275	210	253	298	270	379	231	379	325	255
221	Anjali (all zones)	248	405	267	201	291	168	258	343	253	298	204	267	210	320	300	191	300	310	265
222	32094	255	306	234	196	245	218	242	343	246	295	210	266	315	275	343	207	343	309	267
223	32095	241	344	244	192	260	276	259	358	270	314	225	284	350	285	404	227	404	345	290

224	32096	218	372	216	206	265	226	248	338	268	303	182	263	279	323	338	204	338	331	270
225	32097	317	367	238	204	270	293	284	319	259	289	204	261	210	305	331	275	331	318	277
226	32098	208	409	218	197	275	256	258	343	228	286	190	254	214	275	162	236	162	219	245
227	**Vandana (NC)**	287	437	288	203	309	146	272	353	279	316	174	269	330	278	184	216	184	231	269
228	32099	218	438	170	212	273	190	246	281	222	252	213	239	369	200	238	252	238	219	250
229	32100	255	376	262	202	280	232	265	254	253	254	204	237	392	300	217	215	217	259	268
230	32101	201	398	225	201	275	242	253	307	260	284	194	254	368	338	112	267	112	225	259
231	32102	272	431	218	205	285	139	253	357	288	323	171	272	313	385	196	210	196	291	270
232	32103	215	420	260	204	295	274	275	322	258	290	177	252	268	310	220	238	220	265	266
233	32104	245	295	235	197	242	206	236	310	293	302	200	268	278	265	172	189	172	219	245
234	32105	205	399	230	190	273	234	252	323	283	303	162	256	265	260	191	243	191	226	249
235	**ZC**	350	300	205	184	230	269	262	355	293	324	181	276	268	273	171	268	171	222	259
236	32106	359	435	270	203	303	166	287	324	209	267	180	238	173	275	214	208	214	245	255
237	32107	198	372	238	199	270	149	231	295	263	279	225	261	258	290	177	203	177	234	242
238	32108	228	376	288	182	282	199	255	302	273	288	161	245	310	280	220	168	220	250	256
239	**IR 64 (Sensitive Check)**	301	199	208	194	200	303	241	316	214	265	172	234	265	293	168	275	168	231	239
240	32109	251	362	281	191	278	244	266	285	267	276	219	257	275	348	268	213	268	308	272
241	32110	312	424	213		319		316	355		355	115	235	155	275	376	242	376	326	278
242	32111	243	400	216	215	277	272	269	316	252	284	169	246	265	288	196	226	196	242	257
243	32112	282	177	250	216	214	303	246	321	220	271	208	250	228	263	235	234	235	249	246
244	32113	312	355	211	220	262	192	258	333	272	303	194	266	300	288	253	226	253	271	266
245	32114	285	372	262	202	279	154	255	228	260	244	190	226	243	300	198	215	198	249	245
246	32115	265	374	271	196	280	260	273	258	277	268	180	238	269	285	239	196	239	262	261
247	32116	249	364	278	201	281	282	275	310	256	283	229	265	260	335	344	264	344	340	283
248	32117	185	414	196	203	271	224	244	310	269	290	228	269	205	375	293	237	293	334	264
249	32118	243	112	283	206	200	260	221	300	122	211	213	212	165		209	213	209	209	211
250	32119	252	395	259	230	295	256	278	379	270	325	172	274	220	290	306	253	306	298	275
251	32120	288	414	209	227	283	247	277	307	211	259	162	227	242	275	270	228	270	273	259
252	**US-314 (Hybrid check)**	218	399	288	215	301	238	272	334	282	308	218	278	190	338	274	251	274	306	272
253	Local check	318	330	267	222	273	263	280	338	288	313	204	277	388	385	227	197	227	306	294
Exp. Mean		**256**	**358**	**244**	**204**	**268**	**228**	**258**	**317**	**251**	**285**	**188**	**252**	**281**	**299**	**264**	**224**	**264**	**281**	**263**

ADVANCE VARIETY TRIAL 1 -RAINFED SHALLOW LOWLAND (AVT1-RSL)

Locations: **13** **Test Entries: 28**

Checks: **Swarna-*Sub1* (National), Zonal checks: Pooja (Eastern), Bahadur (North Eastern), Savitri (Southern); CR Dhan 801 (yield check) and Local Check**

Advanced Variety Trial-Rainfed Shallow Lowland (AVT1-RSL) was constituted with 39 test entries (13 inbred and 15 NIL entries, 08 recipient parents of corresponding NILs and 04 checks *viz.*, National check (Swarna-*Sub1*), Zonal check (Pooja for Eastern zone, Bahadur for North eastern zone and Savitri for Southern zone), yield check (CR Dhan 801) and a local check. Out of the 39 test entries, one was in the third year of testing *i.e.*, IET 30367. Four entries, including 12 inbreds and 02 NILs were in 2nd year of testing and 13 NIL entries were in first year of testing. The trial was sent to 15 locations and data were received from 13 locations. In Arundhatinagar and Malda trials are not conducted owing to lack of land. Data from two locations (Masodha and Karimganj) were not considered for analysis due to low CV.

Experimental mean yield ranged from 2429 Kg/ha at Ghaghraghat to 6333 Kg/ha at Bikramganj. CV % ranged from 1.57 (Karimganj) to 16.98 (Kumta). The data pertaining to yield, days to 50% flowering, plant height, no. of panicles/m^{2}and quality are presented in Tables 11.2 to 11.6.

On the basis of overall mean, only one entry IET 32127 showed better performance though not significantly superior over best varietal check (NC-Swarna *Sub1*).

Zone wise performance of entries during *Kharif*, 2023

Eastern zone (Zone III)

In Zone III, the trial was conducted at 07 locations namely Cuttack, Bhubaneswar (Odisha), Chinsurah (WB), Sabour, Bikramganj (Bihar), Ghaghraghat and Masodha (UP). However, owing to low CV (4.16%), data from Masodha not considered for analysis. The data from 06 locations were considered for analysis and their CV ranged between 4.16% (Masodha) and 11.7% (Sabour).

The mean yield of the entries ranged from 2934 kg/ha (IET 29069) to 5248 kg/ha (IET 31246), days to 50% flowering ranged from 91 days (IET29069) to 127 days (Gayatri-RP); plant height ranged from 86 cm (IET 32126) to 122 cm (IET 30423) and mean panicles/m^{2}varied from 228 (Sarala-RP) to 330 (IET 32130). Among all the entries, only one entry IET 31246 was shown better performance for yield though not significantly superior over best varietal check (NC-Swarna *Sub1*).

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North Eastern Zone (Zone IV)

In Zone IV, the trial was conducted at three locations namely Titabar, Karimganj and Lembucherra. The data from Karimganj was not considered due to <5% CV (1.57%). The mean yield of the entries ranged from 3827 kg/ha (IET 31244) to 6044 kg/ha (IET 31204), daysto 50% flowering ranged from 87 days (IET 32129) to 129 days (IET 31245); plant height

ranged from 84cm (Swarna-RP) to 129 cm (IET 30423) and mean panicles/m^2varied from 248 (IET 31204) to 338 (IET31242). Among all the entries, IET 31204 (6044 kg/ha), IET 31237 (6016kg/ha) recorded significantly superior yield over the best check i.e. local check (LVC) and promoted to AVT2-RSL. However, the flowering duration of the IET 31204 and IET 31237 considered taking into account the overall mean.

Southern zone (Zone VII)

In Zone VII, the trial was conducted at three locations Kumta, Sirsi and Ponnampet. Mean yield of the entries in Zone VII ranged from 2824 kg/ha (IET 29069) to 5475 kg/ha (IET 32130); days to 50% flowering ranged from 102 days (IET 32129, IET 32142 and IET 32146) to 122 days (Gayatri-RP); plant height ranged from 73cm (IET 32125) to 108cm (IET 31250) and mean panicles/m^2varied from 235 (IET 31204) to 353 (IET 32131). Among all the entries, 05 entries, IET 32130, IET 32131, IET 31250, IET 32127 and IET30410 are shown better performance for yield though not significantly superior over best varietal check (Local Check), hence, no entry promoted.

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Performance of entry in 3rd year of testing

One entry, IET 30367 (BRR 2010) was tested in the third year, does not record requisite yield superiority in Zonal and overall basis. **Hence, the entry is discontinued.**

Performance of entries in 2nd year of testing

Total twelve entries were tested across the zones in 2nd year where entries, IET 31204 (6044 kg/ha) and IET 31237 (6016kg/ha) recorded significant yield superiority over the best check i.e. local check (LVC) in Zone-IV. Grain quality parameters of both entries, IET 31204 (59.0 % HRR and 22.35 AC) and IET 31237 (60.5 % HRR and 23.02 AC) were also as per the standard requirements, hence, promoted for 3rd year testing (AVT 2- RSL).

Performance of NIL entries during *Kharif*, 2023

Two NILs for submergence tolerance (IET 30409 (R) and IET 30410 (R)) were repeated in 2nd year of testing and 13 other NILs (04-submergence, 02-drought, 04-herbicide and 03-bacterial blight resistance/tolerance were in 1st year of testing. For trait verification, NILs with submergence tolerance were tested in Advance variety trial 1- NIL (Submergence) (AVT 1-NIL-*Sub1*). The NILs with herbicide tolerance were tested in AVT 1 - NIL – HT trial whereas, Drought NILs were evaluated in AVT1-NIL-DRT. The NIL with BB resistance was tested in NSN1. As the recurrent parents of NILs, IET 30409-R and IET30410-R are released in Odisha only, yield data was compared for Bihar only. RP of NILs IET 32121, IET 32122, IET 32125, IET 32126 were released for the Bihar state only, yield data was compared for Bihar only. The recurrent parent of NILs, IET 32128 and IET 32129 is released for Andaman and Nicobar, so, yield data of Zone-VII is compared only. Whereas, other NILs, IET 32123, IET32124, IET32130, IET32131, IET30439 and IET29069 are released in several states, so, zonal and overall yield data is compared. However, for trait verification purpose, data from all the centres were considered.

Performance of NIL of Gayatri (IET 30409)

IET 30409 (R) (CR2531-72-6-19-3) was derived from the cross of Gayatri*3/IR49830-7. The NIL was developed for submergence tolerance in the background of recurrent parent Gayatri, a popular variety in Odisha. Under normal condition, the IET 30409 (R) yielded better in the across zones than the recurrent parent in 2023, however, similar to the recurrent parent over three years (statistically at par). The NIL performed significantly better than the recurrent parent in 2021 and 2023 for yield under submergence. In 2022, the entry IET30409 was repeated. Seedling survival percentage under submergence condition of IET 30409 was higher (2021, 80.05%; 2022, 82.59% and 2023, 74.71%) than its recurrent parent Gayatri (2021, 51.90%; 2022, 53.64 and 2023, 50.59%) in all three years. Besides, IET30409 (R) has moderate HRR (55%), moderate AC (22.57%) and soft GC (42mm). Hence, it is found promising for Odisha

Performance of NIL of Sarala, IET 30410 (R)

IET 30410(R) (CR 2532-9-21-35-3) was derived from the cross of Sarala*3/IR49830-7. The NIL was developed for submergence tolerance in the background of recurrent parent Sarala, which was released for Odisha. Under normal condition, the NIL yielded significantly superior yield in 2023 (across zone) which was also recorded statistically at par yield with the recurrent parent in 2021, but not in 2022. The NIL performed significantly better than the recurrent parent in 2021 for yield under submergence stress. However, in 2022 and 2023, though the NIL performed better than the recurrent parent, the difference of yield was not significant under submergence stress. Seedling survival percentage under submergence condition of IET 30410 was higher than its recurrent parent Sarala in 2021 (65.10), 2022 (65.27%) and 2023 (55.26%). Hence, it is dropped.

Performance of NIL of Sabour Shree (IET32121) during *Kharif*, 2023

IET32121 (BRR 0263) and IET32122 (BRR 0266) are derived from the cross of Sabour Shree x Swarna *sub1*. The NILs were developed for submergence tolerance in the background of recurrent parent Sabour Shree, which was released for Bihar. Under normal condition, the NIL IET 32122 yielded significant yield superiority in Bihar over the recurrent parent whereas, IET32121 recorded at par yield with RP in Bihar. Both NIL also recorded significant yield superiority than RP under submergence stress. Bothe has recorded high HRR% (62.5%AND 63.0%), moderate AC (19.57% and 20.77%) and soft GC (44mm and 57mm) thus found promising and promoted to 2nd year.

Performance of NIL of Rajendra Sweta (IET32125) during *Kharif*, 2023

IET32125 (BRR 0257) was derived from the cross of Rajendra Sweta x Swarna *sub1*. The NIL was developed for submergence tolerance in the background of recurrent parent Rajendra Sweta, which is released in Bihar. Under normal condition, the NIL yielded significant yield superiority with the recurrent parent in Bihar. However, no difference in yield under submergence stress was recorded between the NIL and the recurrent parent at any centre. Hence, it is dropped.

Performance of NIL of Rajendra Sweta (IET32126) during *Kharif*, 2023

IET32126 (BRR 0256) was derived from the cross of Rajendra Sweta x Swarna *sub1*. The NIL was developed for submergence tolerance in the background of recurrent parent Rajendra Sweta, which is released in Bihar. Under normal condition, the NIL yielded at par yield with the recurrent parent. no difference in yield under submergence stress was recorded between the NIL and the recurrent parent. Hence, it is dropped.

Performance of NIL of Swarna (IET30439) during *Kharif*, 2023

IET30439 (R-RF-156) was derived from the cross of Swarna*3/ IR 90019-17-159-B. The NIL was developed for drought tolerance in the background of recurrent parent Swarna, which is mega variety in the country. Under normal condition, the NIL yielded statistically inferior yield than the recurrent parent across the zones and also recorded drastic reduction in DFF. Though, under draught stress it has recorded significant yield superiority than RP, but due to drastic reduction in DFF (25-day reduction), hence, it may not be considered as NIL.

Performance of NIL of Swarna (IET29069) during *Kharif*, 2023

IET 29069 (R-RF-120) was derived from the cross of Swarna / IR 90019-17-159-B/Swarna/Swarna/Swarna. The NIL was developed for drought tolerance in the background of recurrent parent Swarna, which is mega variety in the country. Under normal condition, the NIL yielded statistically inferior yield than the recurrent parent across the zones and also recorded drastic reduction in DFF. Though, under draught stress it has recorded significant yield superiority than RP, but due to drastic reduction in DFF (22-day reduction), hence, it may not be considered as NIL.

Performance of NIL of Swarna *Sub1* (IET32123) during *Kharif*, 2023

IET32123 (CR 4430-1-3-2-1) was derived from the cross of Swarna Sub 1*4 / Robin. The NIL was developed for herbicide tolerance in the background of recurrent parent Swarna Sub1, which is mega variety in the country. Under normal condition, the NIL yielded at par with the recurrent parent. Under trait verification trial, IET32123 has recorded statically significant yield superiority than tolerant check (Robin) with complete mortality in RP, hence found promising.

Performance of NIL of Swarna *Sub1* (IET32124) during *Kharif*, 2023

IET32124 (CR 4430-13-19-1-1) was derived from the cross of Swarna Sub 1*4 / Robin. The NIL was developed for herbicide tolerance in the background of recurrent parent Swarna Sub1, which is mega variety in the country. Under normal condition, the NIL yielded at par with the recurrent parent. Under trait verification trial, IET32123 has recorded statically significant yield superiority than tolerant check (Robin) with complete mortality in RP, hence found promising.

Performance of NIL of Pooja (IET32130) during *Kharif*, 2023

IET32130 (CR 4431-117-3-2-1) was derived from the cross of Pooja*4 / Robin. The NIL was developed for herbicide tolerance in the background of recurrent parent Pooja, which is released for Odisha. Under normal condition, the NIL yielded at par with the recurrent parent. Under trait verification trial, IET32123 has recorded statically significant yield superiority than

tolerant check (Robin) with complete mortality in RP, hence found promising and promoted to 2nd year of testing

Performance of NIL of Pooja (IET32131) during *Kharif*, 2023

IET32131 (CR 4431-63-2-1-1) was derived from the cross of Pooja*4 / Robin. The NIL was developed for herbicide tolerance in the background of recurrent parent Pooja, which is released for Odisha. Under normal condition, the NIL yielded at par with the recurrent parent. Under trait verification trial, IET32123 has recorded statically significant yield superiority than tolerant check (Robin) with complete mortality in RP, hence found promising and promoted to 2nd year of testing.

Performance of NIL of CARI Dhan 5 (IET32127) during *Kharif*, 2023

IET32127 (ANR 46-3-95-647) was derived from the cross of CARI Dhan 5/IR BB 60. The NIL was developed for bacterial blight resistance in the background of recurrent parent CARI Dhan 5, which is released for Andaman and Nicobar Islands. Under normal condition, the NIL yielded significant yield superiority than the recurrent parent. However, no difference in bacterial blight disease response was recorded between the NIL and the recurrent parent at any centre, hence, dropped.

Performance of NIL of CARI Dhan 5 (IET32128) during *Kharif*, 2023

IET32128 (ANR131-2-175-1223) was derived from the cross of CARI Dhan 5/IR BB 60. The NIL was developed for bacterial blight resistance in the background of recurrent parent CARI Dhan 5, which is released for Andaman and Nicobar Islands. Under normal condition, the NIL yielded at par yield with the recurrent parent. However, no difference in bacterial blight disease response was recorded between the NIL and the recurrent parent at any centre, hence, dropped.

Performance of NIL of CARI Dhan 5 (IET32129) during *Kharif*, 2023

IET32129 (ANR131-2-190-659) was derived from the cross of CARI Dhan 5/IR BB 60. The NIL was developed for bacterial blight resistance in the background of recurrent parent CARI Dhan 5, which is released for Andaman and Nicobar Islands. Under normal condition, the NIL recorded significant yield superiority over the recurrent parent. However, no difference in bacterial blight disease response was recorded between the NIL and the recurrent parent at any centre, hence, dropped.

Promotion to AVT-2-RSL

- IET31204 and IET 31237 are promoted in Zone IV

NIL entries promotion to AVT-2 - RSL

- Submergence tolerant NILs: IET32121 and IET32122 are promoted to 2nd year of testing.
- Submergence tolerant and HT: IET 32123, IET32124 are promoted to 2nd year of testing
- HT entries: IET 32130 and IET 32131 promoted to 2nd year of testing.

Promising NIL entry:

- Submergence tolerant NIL: IET30409-R is found promising for Odisha

Performance of promising entries in AVT1-RSL, *Kharif* 2020, 2021, 2022 & 2023

S. No.	Designation/ Cross combination	IET No.	GT	Grain yield (kg/ha)																						Remark
				2021								2022								2023							
				Z-III (8)		Z-IV (1)		V-II(3)		Overall (11)		Z-III (11)		Z-IV (2)		V-II (2)		Overall (17)		Z-III (6)		Z-IV (2)		V-II (3)		Overall (11)		
				GY(kg/ha)/ FD/PH (cm)	% over BVC	GY(kg/ha)/ FD/PH (cm)	% over BVC	GY(kg/ha)/ FD/PH (cm)	% over BVC	GY(kg/ha)/ FD/PH (cm)	% over BVC	GY(kg/ha)/ FD/PH (cm)	% over BVC	GY(kg/ha)/ FD/PH (cm)	% over BVC	GY(kg/ha)/ FD/PH (cm)	% over BVC	GY(kg/ha)/ FD/PH (cm)	% over BVC	GY(kg/ha)/ FD/PH (cm)	% over BVC	GY(kg/ha)/ FD/PH (cm)	% over BVC	GY(kg/ha)/ FD/PH (cm)	% over BVC	GY(kg/ha)/ FD/PH (cm)	% over BVC	
3rd year of testing																										
301	BRR 2010	30367	MS			6705 114 109	13					5283 120 102	6.6							4986 120 106		4228 124 95		4390 113 93		4685 119 100		Discontinue
2nd year of testing																										
304	CR 4419-3-1-1-1-1	31204	MB													6542 82 108	74.9					6044 104 109	18.11					Promoted
309	BRR-0222-IR93339:39-B-6-5-B-B-B-47	31237	LS															5289 108 118	7.5			6016 104 111	17.56					Promoted
CR Dhan 801 (Yield check)				4231 110 99		4230 107 103		5589 110 86		4570 110 99		4956 112 99		5193 97 102		3741 112 85		4919 110 97		4624 111 101		4458 104 99		4795 110 85		4640 109 96		
Swarna *Sub1* (NC)				4191 113 96		5265 115 98		4322 118 77		4313 114 95		4774 117 94		4469 111 96		3756 114 86		4780 115 93		5099 118 92		4817 113 92		4829 129 74		4962 117 87		
Zonal Check				5596 113 100		5940 108 112		5066 114 89		5483 113 101		4362 122 99		4205 105 125		2847 119 95		4306 120 100		4490 120 103		4637 123 106		4765 119 83		4591 120 98		
Local check				4829 112 107		4680 116 116		5462 113 94		4975 113 107		4794 118 106		4549 97 123		3409 124 105		4602 116 109		4616 113 111		5117 112 111		5067 106 102		4830 112 109		
CD (0.05)				353.62		629.09		646.13		327.14		180.04		339.50		615.63		199.43		238.8		705.26		691.06		236.93		
BVC+ CD (0.05)				5,949.62		6,569.09		6,235.13		5,810.14		5,136.04		5,532.5		4,371.63		5,118.43		5338.8		5822.3		5758.06		5,198.93		

2nd year NILs

Performance of NILs for submergence tolerance (IET 30409-R and IET 30410-R)

Genotype	Yield Trials			Trait verification					
	Yield (kg/ha) under normal growing conditions in Odisha			Yield (kg/ha) under submergence stress			Seedling survival (%)		
	2021	2022	2023	2021 (CTC, MTU)	2022 (CTC, KRK)	2023 (BKG, KRK)	2021 (CTC, MTU)	2022 (CTC, KRK)	2023 (BKG, KRK)
Gayatri NIL (IET 30409-R)	3572	4428	3988	5617*	2758	4340* 124 107	80.05	82.59	74.71
Gayatri (RP)	3794	4172	3637	4483	2640	1472 103 101	51.90	53.64	50.59
Sarala NIL (IET30410-R)	3224	4025	3553	5209*	2713	3057 122 109	65.10	65.27	55.26
Sarala (RP)	3483	4610	3403	4528	2489	2542 122 101	58.90	54.3	39.74
Susceptible check (Swarna)				2525	1758.00	1801.0		35.07	31.76
CD	293.94	369.84	445.14	610.76	443.74	626.83			

1st year NILs

Performance of NILs of Sabour Shree under submergence stress

Genotype	Yield Trial (2023)	Trait verification (2023)	
	Yield (kg/ha) under normal growing conditions in Bihar	Yield (kg/ha) under submergence stress	Seedling survival (%)
	Bihar (2)	(BKG, KRK)	(BKG, KRK)
Sabour Shree NIL (IET 32121)	4601 98 121	4316*	85.96
Sabour Shree NIL (IET32122)	5621 121 120	3817*	82.93
Sabour Shree (RP)	4861 108 109	3155*	54.54
Rajendra Sweta NIL (IET 32125)	4501* 103 95	3547	76.145
Rajendra Sweta NIL (IET 32126)	4297 108 86	3282	80.075
Rajendra Sweta (RP)	3981 101 87	3290	63.23
Susceptible check (Swarna)		1801	31.76
CD	450.3	626.83	

Performance of NILs of Swarna normal and drought stress

Genotype	Yield Trial (2023)				Trait verification (2023)	Drought tolerance scores (0-9 scores)					
	Yield (kg/ha) under normal growing conditions				Yield (kg/ha) under drought stress						
	III	IV	VII	Overall	Overall (5)	BKJ	CBT	HZB	JYP	NRRI	Mean
Swarna NIL (IET 30439)	3515 85 100	4416 93 95	4467 109 95	3938 91 97	2515*	7	3	5	5	7	5.4
Swarna NIL (IET29069)	2934 80 111	4531 88 109	4589 103 88	3750 94 104	2847*	3	3	3	3	7	3.8
Swarna (RP)	4939 102 93	4057 123 84	4007 112 73	4524 116 86	1528	7	3	7	7	NF	6.0
Susceptible check (IR64)					1571	7	3	7	5	9	6.2
CD	238.8	705.26	691.06	236.9	626.83						

Performance of NILs of Swarna *Sub1* and Pooja under normal and herbicide treatment

Genotype	**Yield Trial (2023)**				**Trait verification (2023)**
	Yield (kg/ha) under normal growing conditions in Odisha				**Imazethapyr (kg/ha)**
	III	**IV**	**VII**	**Overall**	**Odisha**
Swarna Sub1 NIL (IET 32123)	5013 112 105	5282 107 92	3822 115 77	4710 112 94	5100
Swarna Sub1 NIL (IET32124)	3607 120 92	5161 109 85	4377 116 91	4099 117 90	4590
Swarna Sub1 (RP)	5099 118 92	4817 113 92	4829 117 74	4962 117 87	0.00
Pooja NIL (IET 32130)	4180 121 111	5232 114 106	5475* 116 93	4724 118 105	5100
Pooja NIL (IET 32131)	4212 120 105	4867 107 107	5427* 114 85	4586 116 101	4800
Pooja (RP)	4473 115 103	5825 98 107	4433 112 77	4708 111 96	0.00
Tolerant check (Robin)					2110
CD	238.8	705.26	691.06	236.93	

Performance of NILs of CARI Dhan 5

Genotype	Yield Trial (2023)				Trait verification (2023)						
	Yield (kg/ha) under normal growing conditions				BLB disease score						
	III	IV	VII	**Overall**	MSD	CHN	MTU	RPR	TTB	SBR	**SI**
CARI Dhan 5 NIL (IET 32127)	4753	5413	5221	5000*	5	3	7	7	7	3	5.33
CARI Dhan 5 NIL (IET 32128)	3989	3945	4538	4131	9	7	5	7	5	3	6.00
CARI Dhan 5 NIL (IET 32129)	4500*	5508*	4509	4685*	9	3	5	5	5	5	5.33
CARI Dhan 5 (RP)	**4242**	**4378**	**4087**	**4224**	**7**	**3**	**7**	**7**	**5**	**5**	**5.67**
CD	238.8	705.26	691.06	236.93							

Trial No.3.1: Composition of entries in Advance Variety Trial 1–Rainfed Shallow Lowland (AVT 1-RSL), *Kharif* 2023

Entry No.	IET No.	Designation	Cross combination	Grain Type
3rd year of testing				
301	30367	BRR 2010	RAU-724-48-23-Sel	MS
2nd year of testing				
302	31244	CR 3856-44-22-2-1-11-4-1-10	IR 73963-86-1-5-2-2/CR 2324-1	SB
303	30423	GB-4	Mutant of Sabita	LB
304	31204	CR 4419-3-1-1-1-1	CR 3504-10-1-1-1-1/CR 3541-1-2-5-4-1	MB
305	31207	TRC-H2TS-77-B-B-09-6	Hakuchuk2XTripura Sharat	LS
306	31245	CR 4207-15-2-1-1	Swarna-Sub1/Kedargouri//Swarna MAS	SB
307	31215	PAN-847 (Pujarini)	PAN-804/AN 3236	SB
308	31220	BRR 2228	BRR2028 * S Shree	MB
309	31237	BRR-0222-IR93339:39-B-6-5-B-B-B-47	IR 77289-14-1-2-10/SANHUANGZHAN NO 2//IR 45427-2B-2-2B-1-1/NSIC RC 158///IRRI 123/IR 4630-22-2-5-1-3//FEDEARROZ 50/IR 07F 287	LS
310	31242	CR 3967-51-2-1-1-1	IR 73895-33-1-3-2/Pratikshya	LS
311	31246	BRR 2141	IR 74355-CN3/ CN-6-78 (TTB-680-Sel.)	MS
312	31250	OR 2757-1	Upahar / CN 1231-11-7	MB
313	**CR Dhan 801 (Yield check)**			
314	31253	IR 85947-CR 1-TTB-1-1-1	IR 05F 102/ IR 7225-26-3-2-3// BR 11	MS
315	**Pooja (Eastern), Bahadur (North Eastern), Savitri (Southern)-- ZC**			
NIL entries				
2nd Year of testing:				
316	30409(R)	CR2531-72-6-19-3	Gayatri*3/IR49830-7	SB
317	**Gayatri (RP)**			
318	30410(R)	CR 2532-9-21-35-3	Sarala*3/IR49830-7	MS
319	**Sarala (RP)**			
1st Year of testing:				
320	32121	BRR 0263	Sabour Shree X Swarna sub-1	MS
321	**Sabour Shree (RP)**			
322	32122	BRR 0266	Sabour Shree X Swarna sub-1	MS
323	30439	R-RF-156	Swarna*3/ IR 90019-17-159-B	SB
324	**Swarna (RP)**			
325	29069	R-RF-120	Swarna / IR 90019-17-159-B/Swarna/Swarna/Swarna	SB
326	32123	CR 4430-1-3-2-1	Swarna Sub 1*4 / Robin	MS
327	32124	CR 4430-13-19-1-1	Swarna Sub 1*4 / Robin	MS
328	**Swarna *Sub1* (RP &NC)**			
329	32125	BRR 0257	Rajendrasweta X Swarna sub-1	MS
330	**Rajendra Sweta (RP)**			
331	32126	BRR 0256	Rajendrasweta X Swarna sub-1	MS

332	32127	ANR 46-3-95-647	CARI Dhan 5/IR BB 60	LB
333	**CARI Dhan 5(RP)**			
334	32128	ANR131-2-175-1223	CARI Dhan 5/IR BB 60	MS
335	32129	ANR131-2-190-659	CARI Dhan 5/IR BB 60	LB
336	32130	CR 4431-117-3-2-1	Pooja*4 / Robin	MS
337	**Pooja (RP)**			
338	32131	CR 4431-63-2-1-1	Pooja*4 / Robin	MS
339	**Local Check**			

Table No. 3.2: Grain Yield (kg/ha) of entries in AVT1-RSL *Kharif*, 2023

Entry No	IET No	Zone III																				Zone III(6)	
		OD				OD(2)		WB(1)		BI				BI(2)		UP				UP(1)			
		CTK		BBN		mean		CHN		SBR		BKG		mean		GGT		MSD @		mean		mean	
301	30367	4478	10	3915		4197	9	5721	6	4021		9386	2 *	6704	3*	2394		3478		2394		4986	4
302	31244	4743	5	3859		4301	8	5981	2	3380		5692		4536		1791		2837		1791		4241	
303	30423	4547	7	2702		3625		4634		3040		6167		4604		2175		5210		2175		3878	
304	31204	4119		3363		3741		5354		5156	3	7571	6	6364	4	2485		4018		2485		4675	10
305	31207	4357		3886		4122	10	5220		3632		6367		5000		3472	1*	4400		3472	1*	4489	
306	31245	4195		2688		3442		4874		--	-	-		-		2193		5338	9	2193		3488	
307	31215	5086	2	4254	9	4670	3	5371	10	4185		7673	5	5929	7	2522	10	4299		2522	10	4849	7
308	31220	4238		3538		3888		5434	9	4185		9342	3 *	6764	2*	2083		3620		2083		4803	8
309	31237	4233		4769	6	4501	6	5526	7	5252	2	5869		5561		2175		4381		2175		4637	
310	31242	4357		3439		3898		5175		4126		7173	8	5650		2504		5158		2504		4462	
311	31246	4129		3386		3758		5991	1	5647	1	9390	1 *	7519	1*	2942	5	5636	5	2942	5	5248	1
312	31250	4252		2229		3241		5967	3	3492		8337	4 *	5915	8	2230		4910		2230		4418	
313	**CR Dhan 801(Yield check)**	4081		3637		3859		5367		4261		7544	7	5903	9	2851	7	5349	8	2851	7	4624	
314	31253	5057	4	2133		3595		5121		3110		6500		4805		2997	3.5	4681		2997	3.5	4153	
315	**Zonal Check**	4124		5040	2	4582	5	4982		4112		6305		5209		2376		3677		2376		4490	
316	30409(R)	4662	6	3314		3988		4672		2559		6149		4354		2175		4476		2175		3922	
317	**Gayatri (RP)**	3933		3340		3637		4444		2295		3080		2688		2339		5352	7	2339		3239	
318	30410(R)	4148		2957		3553		4851		-		-		-		2175		3887		2175		3533	
319	**Sarala (RP)**	3924		2882		3403		4815		-		-		-		2339		2649		2339		3490	
320	32121	4233		3307		3770		5297		4044		5158		4601		2230		5698	2*	2230		4045	
321	**Sabour Shree (RP)**	4186		3962		4074		5355		3963		5759		4861		2284		5251		2284		4252	
322	32122	4081		6425	1*	5253	1*	5732	5	4411	10	6831		5621		2230		5630	6	2230		4952	5
323	30439	3781		3208		3495		5166		2949		3662		3306		2321		4353		2321		3515	
324	**Swarna (RP)**	5148	1	4921	5	5035	2*	5276		4446	9	6843		5645		2997	3.5	4463		2997	3.5	4939	6
325	29069			2278		2278		4613		2053		3240		2647		2485		4476		2485		2934	
326	32123	4300		3694		3997		5185		4857	8	7030	9	5944	6			4334				5013	3
327	32124	3119		3307		3213		4667		2772		5529		4151		2248		5838	1*	2248		3607	
328	**Swarna Sub 1 (RP &NC)**	4257		3373		3815		5783	4	5090	5	6991	10	6041	5			3792				5099	2
329	32125	5076	3	2993		4035		4952		3135		5867		4501		2284		2777		2284		4051	
330	**Rajendra Sweta (RP)**	3410		2695		3053		5204		2998		4963		3981		2065		5663	4*	2065		3556	
331	32126	4071		4107	10	4089		4780		3585		5008		4297		2138		5674	3*	2138		3948	
332	32127	4281		4980	4	4631	4	5524	8	5068	6	6524		5796	10	2138		5030		2138		4753	9
333	**CARI Dhan 5(RP)**	3190		4557	7	3874		5319		3815		6249		5032		2321		4291		2321		4242	
334	32128	3574		3596		3585		5251		3527		5721		4624		2266		4757		2266		3989	
335	32129	4162		4005		4084		5315		5066	7	6313		5690		2138		5254	10	2138		4500	
336	32130	4105		3593		3849		4598		4029		5957		4993		2796	8	3890		2796	8	4180	
337	**Pooja (RP)**	4538	8	3704		4121		4988		4304		6231		5268		3070	2	4847		3070	2	4473	
338	32131	3091		5010	3	4051		4596		3897		5790		4844		2888	6	4768		2888	6	4212	
339	**Local Check**	4533	9	4439	8	4486	7	5059		5120	4	5788		5454		2759	9	5087		2759	9	4616	
Exp. Mean		**4205.32**		**3679.03**		**3917.47**		**5183.58**		**3932.78**		**6333.34**		**5133.06**		**2429.13**		**4595.61**		**2429.13**		**4269.1**	
CD		746.17		399.48		445.14		700.47		749.24		556.73		450.28		231.27		310.76		231.27		238.8	
CV%		10.91		6.68		6.99		8.31		11.7		5.4		5.39		5.85		4.16		5.85		3.44	
D/S		**20.06.2023**		**27.06.23**				**04.07.23**		**04-07-2023**		**07-07-2023**				**18-07-2023**		**09.07.2023**					
D/P		**28.07.2023**		**28.07.23**				**10.08.23**		**02-08-2023**		**04-08-2023**						**12.08.2023**					
Local Check Name		**CR Dhan 404**		**Bhargavi**				**Sujala**		**Rajendra Mahsuri-1**		**Sabour Shree**				**Sambha Sub 1**		**Sambha *Sub1***					

Table No. 3.2: (contd.) Grain Yield (kg/ha) of entries in AVT1-RSL *Kharif*, 2023

Entry No	IET No	Zone IV								Zone IV(2)		Zone VII								Zone VII(3)		Overall(11)	
		AS				AS(1)		TP(1)				KA						KA(3)					
		TTB		KMJ @		mean		LMB		mean		PNP		SRS		KMT		mean		mean		mean	
301	30367	4620		4888		4620		3836		4228		4913	7	3950	10	4306		4390		4390		4685	
302	31244	4645		3878		4645		3009		3827		4624		2988		5920		4511		4511		4239	
303	30423	6710	4*	5824	9	6710	4 *	3862		5286	9	4948	6	2850		5087		4295		4295		4247	
304	31204	6938	2*	5044		6938	2 *	5149	4	**6044**	1*	3578		1275		3619		2824		2824		4419	
305	31207	4344		6030	4	4344				4344		4144		3363		5981		4496		4496		4477	
306	31245	4498		6149	2 *	4498		3452		3975		4236		3925		4343		4168		4168		3823	
307	31215	5245		5561		5245		4743		4994		4871		4144	8	5730		4915	7	4915	7	4893	5
308	31220	5399		5472		5399		4659		5029		4422		3263		5120		4268		4268		4698	
309	31237	7055	1 *	4709		7055	1*	4976	5	6016	2 *	4976	5	2281		7100	6	4786		4786		4928	4
310	31242	6885	3 *	5454		6885	3*	3600		5243		4437		2769		6451	9	4552		4552		4629	
311	31246	5929		4671		5929		4670		5300	8	4099		2719		5535		4118		4118		4949	3
312	31250	5369		5159		5369		4939	6.5	5154		4901	9	4881	5	6120		5301	3	5301	3	4792	8
313	**CR Dhan 801 (Y.check)**	5220		5577		5220		3696		4458		5219	3	3638		5527		4795	10	4795	10	4640	
314	31253	4064		5481		4064		3876		3970		3840		5913	2	3540		4431		4431		4196	
315	**Zonal Check**	5227		4830		5227		4046		4637		4892	10	4250	7	5152		4765		4765		4591	
316	30409(R)	4903		6202	1 *	4903		3880		4392		4123		2719		3690		3511		3511		3895	
317	**Gayatri (RP)**	4010		5339		4010		4231		4121		4156		2694		4683		3844		3844		3564	
318	30410(R)	4930		5769	10	4930		3852		4391		4882		3838		6779	7	5166	5	5166	5	4268	
319	**Sarala (RP)**	4848		5639		4848		3574		4211		5085	4	2550		5035		4223		4223		3895	
320	32121	6185	7	5835	8	6185	7	4872	8	5529	4	3945		3200		4421		3855		3855		4263	
321	**Sabour Shree (RP)**	5415		4799		5415		5297	2	5356	7	3083		2163		3805		3017		3017		4116	
322	32122	5358		6084	3	5358		3899		4629		5303	2	2025		7259	4	4862	8	4862	8	4869	6
323	30439	4955		3849		4955		3876		4416		3144		2088		8169	1 *	4467		4467		3938	
324	**Swarna (RP)**	4075		5967	5	4075		4039		4057		3253		1594		7173	5	4007		4007		4524	
325	29069	5177		4386		5177		3884		4531		3574		2744		7448	3	4589		4589		3750	
326	32123	5709		5017		5709		4854	9	5282	10	4014		2556		4896		3822		3822		4710	10
327	32124	5124		4693		5124		5197	3	5161		3668		3106		6356	10	4377		4377		4099	
328	**Swarna Sub 1 (RP-NC)**	5196		5958	6	5196		4437		4817		4490		3725		6273		4829	9	4829	9	4962	2
329	32125	5054		3359		5054		4356		4705		3150		2588		3971		3236		3236		3948	
330	**Rajendra Sweta (RP)**	4461		4033		4461		3869		4165		3360		3413		5590		4121		4121		3821	
331	32126	4952		3833		4952		4444		4698		3125		2969		7659	2	4584		4584		4258	
332	32127	6227	6	3975		6227	6	4599		5413	6	4557		4381	6	6724	8	5221	4	5221	4	5000	1
333	**CARI Dhan 5(RP)**	4920		5346		4920		3836		4378		4567		3594		4100		4087		4087		4224	
334	32128	4012		5078		4012		3877		3945		4219		3888		5508		4538		4538		4131	
335	32129	6180	8	3845		6180	8	4835	10	5508	5	4511		4131	9	4884		4509		4509		4685	
336	32130	6016	9	5696		6016	9	4448		5232		4764		5494	4	6168		5475	1	5475	1	4724	9
337	**Pooja (RP)**	6265	5	5740		6265	5	5385	1	5825	3*	4909	8	2919		5471		4433		4433		4708	
338	32131	5976	10	5846	7	5976	10	3758		4867		4873		5981	1			5427	2	5427	2	4586	
339	**Local Check**	5294		5460		5294		4939	6.5	5117		5619	1	5694	3	3887		5067	6	5067	6	4830	7
Exp. Mean		**5317.66**		**5140.3**		**5317.66**		**4282.93**		**4801.08**		**4319.79**		**3391.32**		**5512.62**		**4407.23**		**4211.61**		**4409.59**	
CD		1130.2		130.99		1130.2		680.35		705.26		552.92		301.49		1896.62		691.06		691.06		236.93	
CV%		13.07		1.57		13.07		9.76		9.03		7.87		5.47		16.98		10.09		10.09		3.33	
D/S		**15-07-2023**		**10.07.2023**				**12-07-2023**				**14-07-2023**		**30-06-2023**		**16.07.2023**							
D/P		**10-08-2023**		**11.08.2023**				**02-08-2023**				**24-08-2023**		**21-07-2023**		**25.08.2023**							
Local Check Name		**Ranjit *Sub1***		**Ranjit**				**Gomati**				**Tunga**		**ASHA**		**PSB-68**							

Table No. 3.3: Days to 50 % flowering of entries in AVT-1 RSL *Kharif*, 2023

Entry No	IET No	Zone III										ZoneIII (6)
		OD		OD(2)	WB(1)	BI		BI(2)	UP		UP(1)	
		CTK	BBN	mean	CHN	SBR	BKG	mean	GGT	MSD@	mean	mean
301	30367	129	126	128	117	117	116	117	117	109	117	120
302	31244	124	116	120	114	118	111	115	104	111	104	115
303	30423	122	129	126	118	127	118	123	111	119	111	121
304	31204	119	101	110	111	108	102	105	88	115	88	105
305	31207	120	117	119	113	122	107	115	116	109	116	116
306	31245	129	134	132	113				128	110	128	126
307	31215	129	113	121	118	143	111	127	117	124	117	122
308	31220	124	116	120	118	120	114	117	100	111	100	115
309	31237	123	103	113	115	111	105	108	88	116	88	108
310	31242	125	111	118	117	119	110	115	102	105	102	114
311	31246	125	108	117	116	133	110	122	99	123	99	115
312	31250	117	113	115	116	130	112	121	113	107	113	117
313	**CR Dhan 801 (Yield check)**	107	105	106	118	131	107	119	97	111	97	111
314	31253	122	120	121	117	128	116	122	115	116	115	120
315	**Zonal Check**	112	120	116	121	139	118	129	112	121	112	120
316	30409(R)	129	114	122	122	137	125	131	117	110	117	124
317	**Gayatri (RP)**	129	128	129	120	134	131	133	118	122	118	127
318	30410(R)	122	134	128	113	-	-	-	116	113	116	121
319	**Sarala (RP)**	129	132	131	109	-	-	-	116	114	116	122
320	32121	112	110	111	118	108	104	106	101	111	101	109
321	**Sabour Shree (RP)**	124	108	116	117	111	105	108	101	104	101	111
322	32122	114	107	111	115	108	108	108	103	111	103	109
323	30439	115	92	104	100	100	87	94	85	100	85	97
324	**Swarna (RP)**	124	113	119	120	120	112	116	102	122	102	115
325	29069		89	89	107	98	83	91	80	113	80	91
326	32123	111	112	112	116	112	109	111		122		112
327	32124	117	111	114	123	128	122	125	116	104	116	120
328	**Swarna Sub 1 (RP &NC)**	125	111	118	124	119	111	115		113		118
329	32125	117	102	110	111	104	105	105	96	120	96	106
330	**Rajendra Sweta (RP)**	107	103	105	111	102	103	103	97	110	97	104
331	32126	107	102	105	109	101	100	101	98	122	98	103
332	32127	111	94	103	111	101	88	95	86	124	86	99
333	**CARI Dhan 5(RP)**	113	114	114	115	144	109	127	113	123	113	118
334	32128	125	114	120	118	147	112	130	119	111	119	123
335	32129	117	95	106	111	98	90	94	78	105	78	98
336	32130	106	121	114	118	147	120	134	114	114	114	121
337	**Pooja (RP)**	119	120	120	118	98	122	110	114	117	114	115
338	32131	119	118	119	116	143	120	132	103	114	103	120
339	Local Check	114	116	115	117	119	106	113	104	114	104	113
Exp. Mean		**119**	**113**	**116**	**115**	**120**	**109**	**115**	**105**	**114**	**105**	**114**

Table No. 3.3 (Contd.): Days to 50 % Flowering of entries in AVT-1 RSL *Kharif*, 2023

Entry No	IET No	Zone IV				Zone IV(2)	Zone VII			Zone VII(3)	Overall(11)
		AS		AS(1)	TP(1)		KA			KA(3)	
		TTB	KMJ@	mean	LMB	mean	PNP	SRS	KMT	mean	mean
301	30367	124	121	124	123	124	118	110	110	113	119
302	31244	124	108	124	109	117	117	112	107	112	114
303	30423	115	107	115	100	108	105	113	104	107	115
304	31204	108	97	108	94	101	105	92	112	103	104
305	31207	127	107	127		127	124	116	102	114	116
306	31245	133	121	133	125	129	120	125	118	121	125
307	31215	128	122	128	107	118	106	105	101	104	116
308	31220	119	108	119	112	116	117	113	113	114	115
309	31237	108	99	108	80	94	106	103	102	104	104
310	31242	118	123	118	107	113	106	103	98	102	111
311	31246	118	111	118	106	112	104	101	101	102	111
312	31250	117	111	117	102	110	109	108	98	105	112
313	**CR Dhan 801 (Yield check)**	108	110	108	100	104	110	111	109	110	109
314	31253	126	109	126	120	123	121	119	104	115	119
315	**Zonal Check**	125	110	125	121	123	109	117	130	119	120
316	30409(R)	127	113	127	121	124	112	112	110	111	121
317	**Gayatri (RP)**	124	114	124	81	103	123	122	122	122	121
318	30410(R)	127	116	127	116	122	109	123	102	111	118
319	**Sarala (RP)**	126	121	126	118	122	108	123	103	111	118
320	32121	110	93	110	85	98	105	103	106	104	106
321	**Sabour Shree (RP)**	112	98	112	104	108	108	105	127	113	111
322	32122	113	100	113	129	121	108	105	124	112	112
323	30439	105	93	105	80	93	100	95	131	109	99
324	Swarna (RP)	125	117	125	120	123	115	116	107	112	116
325	29069	104	92	104	72	88	98	87	124	103	94
326	32123	118	101	118	96	107	112	109	123	115	112
327	32124	116	102	116	102	109	111	109	128	116	117
328	**Swarna Sub 1 (RP &NC)**	119	101	119	106	113	114	110	129	117	117
329	32125	106	91	106	99	103	101	104	104	103	105
330	**Rajendra Sweta (RP)**	106	101	106	95	101	102	105	120	109	105
331	32126	105	100	105	111	108	100	104	119	108	105
332	32127	106	99	106	96	101	100	95	119	105	101
333	**CARI Dhan 5(RP)**	124	123	124	79	102	110	110	111	110	113
334	32128	124	116	124	74	99	108	109	117	111	115
335	32129	105	98	105	69	87	101	95	110	102	97
336	32130	116	107	116	111	114	108	116	124	116	118
337	**Pooja (RP)**	114	106	114	81	98	107	116	114	112	111
338	32131	111	105	111	102	107	112	116		114	116
339	Local Check	124	110	124	99	112	106	117	106	110	112
Exp. Mean		**117**	**107**	**117**	**101**	**110**	**109**	**109**	**113**	**110**	**112**

Table No. 3.4. Plant Height of entries in AVT-1 RSL *Kharif*, 2023

Entry No	IET No	Zone III										ZoneIII(6)
		OD		OD(2)	WB(1)	BI		BI(2)	UP		UP(1)	
		CTK	BBN	mean	CHN	SBR	BKG	mean	GGT	MSD@	mean	mean
301	30367	91	120	105	125	103	100	101	97	115	97	106
302	31244	116	126	121	119	118	102	110	109	92	109	115
303	30423	122	133	128	124	125	120	122	106	87	106	122
304	31204	111	122	117	125	130	129	130	99	108	99	119
305	31207	110	108	109	107	113	109	111	102	97	102	108
306	31245	104	99	101	104				107	106	107	103
307	31215	97	98	98	102	95	96	96	76	88	76	94
308	31220	103	103	103	105	113	104	108	96	83	96	104
309	31237	102	115	108	114	120	124	122	96	91	96	112
310	31242	110	108	109	112	111	106	108	96	104	96	107
311	31246	98	95	97	110	103	105	104	87	118	87	100
312	31250	115	112	114	125	126	127	126	104	106	104	118
313	**CR Dhan 801 (Yield check)**	96	98	97	107	92	106	99	109	97	109	101
314	31253	99	130	115	119	113	106	109	97	109	97	111
315	**Zonal Check**	101	115	108	116	103	95	99	85	93	85	103
316	30409(R)	106	120	113	115	114	94	104	92	89	92	107
317	**Gayatri (RP)**	97	112	104	111	100	95	98	89	88	89	101
318	30410(R)	111	110	110	123				91	96	91	109
319	**Sarala (RP)**	103	110	107	107				85	96	85	101
320	32121	112	132	122	125	131	134	132	91	107	91	121
321	**Sabour Shree (RP)**	100	122	111	103	112	123	117	93	110	93	109
322	32122	120	128	124	112	125	134	129	100	89	100	120
323	30439	89	107	98	101	103	110	107	95	93	95	101
324	**Swarna (RP)**	91	103	97	103	88	87	87	86	85	86	93
325	29069	.	110	110	103	124	116	120	101	107	101	111
326	32123	119	100	110	122	91	94	92	.	78	.	105
327	32124	94	98	96	101	92	95	94	71	87	71	92
328	**Swarna Sub 1 (RP &NC)**	92	94	93	102	88	85	86	.	71	.	92
329	32125	84	92	88	99	102	102	102	89	101	89	95
330	**Rajendra Sweta (RP)**	68	90	79	103	91	93	92	76	75	76	87
331	32126	78	90	84	97	91	91	91	71	103	71	86
332	32127	89	100	94	105	115	126	121	91	92	91	104
333	**CARI Dhan 5(RP)**	114	120	117	122	122	115	119	98	92	98	115
334	32128	108	112	110	113	111	112	112	81	85	81	106
335	32129	96	118	107	80	121	117	119	101	79	101	105
336	32130	101	122	111	122	114	115	115	95	78	95	111
337	**Pooja (RP)**	101	110	106	115	104	97	100	89	96	89	103
338	32131	83	112	97	118	111	114	112	94	86	94	105
339	Local Check	115	125	120	101	113	111	112	100	81	100	111
Exp Mean		**101**	**111**	**106**	**111**	**117**	**108**	**109**	**93**	**94**	**93**	**105**

Table No. 3.4 (Contd.): Plant Height of entries in AVT-1 RSL *Kharif* 2023

Entry No	IET No	Zone IV				Zone IV(2)	Zone VII			Zone VII(3)	Overall(11)
		AS		AS(1)	TP(1)		KA			KA(3)	
		TTB	KMJ@	mean	LMB	mean	PNP	SRS	KMT	mean	mean
301	30367	92	114	92	99	95	78	105	94	93	100
302	31244	119	139	119	112	116	89	106	107	101	111
303	30423	131	149	131	127	129	94	121	104	106	119
304	31204	118	128	118	119	118	80	92	94	89	111
305	31207	96	126	96	.	96	74	92	106	91	102
306	31245	96	116	96	101	98	77	98	75	83	96
307	31215	98	113	98	90	94	75	90	84	83	91
308	31220	112	120	112	112	112	74	95	93	87	101
309	31237	108	130	108	101	105	91	107	116	105	109
310	31242	111	132	111	115	113	82	98	119	99	106
311	31246	110	116	110	106	108	73	92	122	96	100
312	31250	111	128	111	110	111	88	110	126	108	114
313	**CR Dhan 801 (Yield check)**	95	112	95	102	99	76	95	85	85	96
314	31253	108	128	108	94	101	80	107	94	94	104
315	**Zonal Check**	108	132	108	104	106	73	98	78	83	98
316	30409(R)	109	130	109	91	100	72	92	98	87	100
317	**Gayatri (RP)**	98	105	98	91	94	71	91	90	84	95
318	30410(R)	105	128	105	100	102	84	95	85	88	100
319	**Sarala (RP)**	105	114	105	100	102	81	96	101	93	99
320	32121	117	143	117	107	112	83	102	89	91	111
321	**Sabour Shree (RP)**	112	123	112	92	102	77	92	86	85	101
322	32122	116	146	116	111	114	88	100	101	96	112
323	30439	98	115	98	92	95	66	85	123	91	97
324	**Swarna (RP)**	90	107	90	78	84	70	75	74	73	86
325	29069	113	126	113	106	109	90	103	70	88	104
326	32123	97	105	97	88	92	62	79	91	77	94
327	32124	87	95	87	83	85	67	83	122	91	90
328	**Swarna Sub 1 (RP &NC)**	95	104	95	88	92	65	81	78	74	87
329	32125	87	102	87	115	101	55	83	82	73	90
330	**Rajendra Sweta (RP)**	94	99	94	79	86	60	82	89	77	84
331	32126	105	98	105	98	102	58	83	86	76	86
332	32127	103	119	103	95	99	76	101	95	91	100
333	**CARI Dhan 5(RP)**	119	129	119	115	117	88	117	89	98	111
334	32128	106	120	106	79	92	76	109	89	91	100
335	32129	103	123	103	77	90	80	109	104	98	101
336	32130	114	124	114	99	106	71	95	114	93	105
337	**Pooja (RP)**	104	112	104	109	107	68	84	80	77	96
338	32131	112	127	112	102	107	77	92	.	85	101
339	Local Check	115	117	115	110	112	91	109	105	102	109
Exp Mean		**106**	**120**	**106**	**100**	**103**	**76**	**96**	**96**	**89**	**100**

Table No. 3.5: No. of Panicles/m2 of entries in AVT-1 RSL *Kharif*, 2023

Entry No	IET No	Zone III										ZoneII I(6)
		OD		OD(2)	WB(1)	BI		BI(2)	UP		UP(1)	
		CTK	BBN	mean	CHN	SBR	BKG	mean	GGT	MSD@	mean	mean
301	30367	273	320	297	363	406	404	405	95	232	95	310
302	31244	235	295	265	231	267	401	334	85	185	85	252
303	30423	121	210	166	319	252	392	322	91	263	91	231
304	31204	289	251	270	374	263	393	328	98	223	98	278
305	31207	258	234	246	352	300	365	333	111	256	111	270
306	31245	221	205	213	517				91	273	91	259
307	31215	257	261	259	506	287	377	332	94	224	94	297
308	31220	173	236	205	374	307	378	343	90	217	90	260
309	31237	276	221	249	297	288	382	335	93	229	93	260
310	31242	259	224	242	308	272	385	329	94	267	94	257
311	31246	290	252	271	352	221	410	316	103	284	103	271
312	31250	226	261	244	308	314	352	333	94	252	94	259
313	**CR Dhan 801 (Yield check)**	258	218	238	473	302	374	338	104	260	104	288
314	31253	266	249	258	396	341	382	362	107	249	107	290
315	**Zonal Check**	255	263	259	407	335	373	354	98	195	98	289
316	30409(R)	225	253	239	528	332	372	352	92	236	92	300
317	**Gayatri (RP)**	167	281	224	506	208	371	290	96	266	96	272
318	30410(R)	205	294	250	429	-	-	-	93	234	93	255
319	**Sarala (RP)**	218	220	219	374	-	-	-	99	187	99	228
320	32121	257	254	256	341	260	367	314	93	255	93	262
321	**Sabour Shree (RP)**	257	229	243	451	262	364	313	92	283	92	276
322	32122	275	249	262	341	295	360	328	96	263	96	269
323	30439	279	262	271	308	233	363	298	105	223	105	258
324	**Swarna (RP)**	270	248	259	330	289	423	356	114	243	114	279
325	29069		178	178	440	185	387	286	94	256	94	257
326	32123	259	223	241	330	314	372	343		242		300
327	32124	257	268	263	462	344	384	364	88	285	88	301
328	**Swarna Sub 1 (RP &NC)**	263	236	250	352	323	390	357		194		313
329	32125	256	246	251	407	257	352	305	92	192	92	268
330	**Rajendra Sweta (RP)**	260	268	264	374	253	383	318	89	276	89	271
331	32126	264	248	256	396	250	323	287	93	272	93	262
332	32127	253	216	235	374	290	353	322	99	243	99	264
333	**CARI Dhan 5(RP)**	214	267	241	451	287	382	335	102	242	102	284
334	32128	276	271	274	330	292	387	340	91	254	91	275
335	32129	265	293	279	440	276	341	309	94	254	94	285
336	32130	271	268	270	594	303	439	371	104	240	104	330

337	Pooja (RP)	263	291	277	440	376	376	376	109	254	109	309
338	32131	269	321	295	484	274	388	331	105	261	105	307
339	Local Check	269	277	273	308	361	366	364	101	243	101	280
Exp. Mean		**249**	**253**	**250**	**394**	**289**	**378**	**334**	**97**	**244**	**97**	**276**

Table No. 3.5(Contd.): No. of Panicles/m2 of entries in AVT-1 RSL *Kharif*, 2023

Entry No	IET No	Zone IV				Zone IV(2)	Zone VII			Zone VII(3)	Overall(11)
		AS		AS(1)	TP(1)		KA			KA(3)	
		TTB	KMJ @	mean	LMB	mean	PNP	SRS	KMT	mean	mean
301	30367	271	252	271	283	277	232	358	333	308	303
302	31244	244	239	244	292	268	196	292	271	253	255
303	30423	241	288	241	317	279	201	330	192	241	242
304	31204	253	253	253	242	248	226	281	199	235	261
305	31207	257	287	257		257	232	391	271	298	277
306	31245	260	294	260	317	289	266	330	305	300	279
307	31215	247	265	247	317	282	241	368	279	296	294
308	31220	285	259	285	300	293	224	281	225	243	261
309	31237	258	248	258	292	275	203	375	178	252	260
310	31242	276	261	276	400	338	224	403	180	269	275
311	31246	252	248	252	400	326	224	462	217	301	289
312	31250	257	256	257	383	320	234	335	200	256	269
313	**CR Dhan 801 (Yield check)**	277	265	277	292	285	260	396	347	334	300
314	31253	239	258	239	317	278	239	347	262	283	286
315	**Zonal Check**	242	250	242	308	275	284	380	267	310	292
316	30409(R)	257	297	257	392	325	286	396	146	276	298
317	**Gayatri (RP)**	277	258	277	275	276	307	423	212	314	284
318	30410(R)	267	271	267	383	325	286	386	245	306	288
319	**Sarala (RP)**	281	270	281	317	299	262	406	275	314	272
320	32121	254	283	254	292	273	211	375	216	267	265
321	**Sabour Shree (RP)**	280	249	280	292	286	230	370	224	275	277
322	32122	245	295	245	292	269	243	403	160	269	269
323	30439	272	235	272	225	249	262	375	288	308	270
324	**Swarna (RP)**	257	283	257	317	287	303	396	295	331	295
325	29069	249	240	249	250	250	231	291	271	264	258
326	32123	262	247	262	375	319	301	423	217	314	308
327	32124	264	246	264	375	320	292	375	289	319	309
328	**Swarna Sub 1 (RP &NC)**	283	291	283	342	313	303	401	278	327	317
329	32125	250	242	250	283	267	324	375	282	327	284
330	**Rajendra Sweta (RP)**	261	232	261	358	310	301	324	249	291	284
331	32126	263	244	263	317	290	297	408	253	319	283

332	32127	264	243	264	400	332	226	330	219	258	275
333	**CARI Dhan 5(RP)**	237	260	237	300	269	234	390	236	287	282
334	32128	247	255	247	333	290	275	424	306	335	294
335	32129	244	236	244	300	272	213	385	282	293	285
336	32130	244	269	244	308	276	318	358	227	301	312
337	**Pooja (RP)**	234	269	234	300	267	273	413	200	295	298
338	32131	261	279	261	317	289	272	434		353	313
339	Local Check	235	253	235	375	305	186	375	232	264	280
Exp. Mean		**258**	**261**	**258**	**320**	**288**	**254**	**373**	**245**	**292**	**284**

Table No. 3.6 Grain Quality characteristics of entries in AVT 1-RSL, *Kharif*, 2023 done at NRRI, Cuttack

Entry No.	IET No	Hull %	Mill%	HRR%	Moist%	Chalkiness	KL(mm)	KB(mm)	L/B	GT	ASV	WU ml/100g	VER	ER	KLAC/mm	Amy %	GC (mm)
301	30367	76	66.5	57.5	12.1	VOC	5.31	2.11	2.52	MS	3	105	3.75	1.77	9.4	22.35	49
302	31244	77.5	67	60.5	12.9	VOC	5.5	2.11	2.61	MS	4	80	3.75	1.78	9.8	22.72	47
303	30423	75	65	55	12.7	VOC	6.13	2.05	2.99	LS	3	110	4	1.81	11.1	20.47	47
304	31204	76	66	59	12.3	VOC	5.25	2.05	2.56	MS	4	90	3.75	1.75	9.2	22.35	50
305	31207	76	65	57	12.3	VOC	6.17	2.01	3.07	LS	4	135	4	1.85	11.4	21.6	52
306	31245	75	65	53.5	12.1	VOC	5.57	2.1	2.65	MS	3	90	3.75	1.74	9.7	20.92	48
307	31215	77	67.5	61.5	13	VOC	5.19	2.13	2.44	SB	3	110	4	1.81	9.4	20.65	44
308	31220	76	65.5	58.5	12.8	VOC	4.95	2.15	2.30	SB	3	75	3.75	1.72	8.5	21.82	49
309	31237	76	66	60.5	13.1	VOC	6.11	2.11	2.90	LB	4	80	4	1.83	11.2	23.02	40
310	31242	75	65.5	58	12.3	VOC	5.8	2.05	2.83	MS	4	100	4	1.78	10.3	21.22	53
311	31246	77	67	59.5	12.2	VOC	5.23	2.14	2.44	SB	4	95	3.75	1.82	9.5	20.62	51
312	31250	76.5	65.5	51.5	12	VOC	6.12	2.03	3.01	LS	5	130	4	1.80	11	21.67	43
313	**CR Dhan 801 (YC)**	75	65	55	12.4	VOC	5.37	2.14	2.51	MS	3	110	3.75	1.79	9.6	22.2	51
314	31253	77.5	67.5	52	12.1	VOC	5.39	2.11	2.55	MS	5	130	3.75	1.78	9.6	20.32	45
315	**Zonal Check**	76.5	66	57	12.9	VOC	6.1	2.04	2.99	LB	4	90	4	1.90	11.6	20.1	46
316	30409(R)	75.5	66	55	13	VOC	5.07	2.06	2.46	SB	3	125	3.75	1.89	9.6	22.57	42
317	**Gayatri (RP)**	76	66.5	58	12.6	VOC	4.99	2.33	2.14	SB	4	105	3.75	1.72	8.6	21.75	53
318	30410(R)	77.5	67.5	61	12.3	VOC	5.75	2.04	2.82	MS	4	120	3.75	1.83	10.5	22.5	50
319	**Sarala (RP)**	77.5	67	65.5	12.4	VOC	5.71	2.04	2.80	MS	4	135	4	1.89	10.8	20.92	48
320	32121	77	67.5	62.5	13	Ab	5.4	2.1	2.57	MS	3	135	3.75	1.94	10.5	19.57	44
321	**Sabour Shree (RP)**	77.5	67	59.5	12.7	VOC	5.51	2.19	2.52	MS	4	105	4	1.92	10.6	19.42	50
322	32122	76.5	66	63	12.5	VOC	5.42	2.15	2.52	MS	4	150	3.75	1.90	10.3	20.77	57
323	30439	76.5	66.5	64.5	12.3	VOC	5.21	2.29	2.28	SB	5	120	3.75	1.80	9.4	21.22	50
324	**Swarna (RP)**	78	68	66	13	OC	5.28	2.14	2.47	SB	3	155	3.75	1.78	9.4	21.82	49
325	29069																

326	32123	76	66	54.5	12.5	VOC	5.81	2.31	2.52	MS	4	90	4	1.91	11.1	20.17	42
327	32124	77	67	64	12.6	VOC	5.28	2.14	2.47	SB	5	120	3.75	1.78	9.4	20.92	48
328	**Swarna Sub 1 (RP & NC)**	76.5	66.5	64.5	12.3	VOC	5.3	2.25	2.36	SB	3	120	3.75	1.91	10.1	20.4	43
329	32125	76	66.5	64.5	12.7	VOC	5.34	2.16	2.47	SB	3	105	3.75	1.76	9.4	21	40
330	**Rajendra Sweta (RP)**	77.5	67.5	64.5	12.2	VOC	5.09	1.65	3.08	SS	5	150	3.75	1.83	9.3	20.17	49
331	32126	78	68	65	12.4	VOC	5.19	1.63	3.18	SS	4	100	3.75	1.81	9.4	21.82	43
332	32127	76	66	63	12.8	VOC	5.19	2.24	2.32	SB	3	90	3.75	1.77	9.2	21.67	46
333	**CARI Dhan 5(RP)**	79	68.5	46	12.3	VOC	5.35	2.4	2.23	SB	4	130	4	1.98	10.6	20.02	55
334	32128	78	67.5	65	12.5	VOC	5.46	2.11	2.59	MS	3	95	3.75	1.85	10.1	22.42	41
335	32129	78	67.5	60.5	12.3	VOC	5.38	2.26	2.38	SB	3	150	4	1.88	10.1	21.22	48
336	32130	77	67	65	12.6	VOC	5.69	2.28	2.50	MS	3	100	4	2.02	11.5	20.47	50
337	**Pooja (RP)**	76.5	65.5	53.5	12.8	VOC	5.32	2.14	2.49	SB	3	130	3.75	1.99	10.6	21.3	47
338	32131	76.5	66	59.5	12.1	Ab	5.28	2.14	2.47	SB	3	135	3.75	1.89	10	20.77	53
339	Local Check	76.5	66	58.5	12.6	Ab	5.27	2.23	2.36	SB	3	135	4	2.01	10.6	20.47	51

HULL: Hulling (%); MILL: Milling (%); HRR: Head Rice Recovery (%); KL: Kernel Length(mm); KB: Kernel Breadth(mm); L/B: Length and breadth ratio; Grain Chalk: Grain Chalkiness; VOC: Very occasionally present; A: Absent ASV: Alkali Spreading Value; AC: Amylose Content(%); GC: Gel Consistency; LB: Long Bold; SB:Short Bold; LS: Long Slender; MS: Medium Slender; SS: Short Slender, WU: water uptake, KLAC: kernel length after cooking

INITIAL VARIETY TRIAL-RAINFED SHALLOW LOWLAND (IVT-RSL)

Locations: 15 **Test Entries: 55**

Checks: Swarna-*Sub1* (National), Zonal checks: Pooja (Eastern), Bahadur (North Eastern), Savitri (Southern) and Local Check

The trial was constituted by 55 test entries and four checks *viz.,* National (Swarna *Sub1*), Zonal (Pooja, Bahadur, Savitri), yield (CR Dhan 801) and local checks. The trial was sent to 15 locations; however, data was received from most of the locations except Arundhutinagar (flood damage). It was observed that direct seeded method of planting was followed at Ghaghraghat center. The CV% at different locations was within acceptable limits except for Ghaghraghat (2.96) and Karimganj (2.8), hence data of these locations were not included in the analysis. Thus data from 12 locations were considered for analysis. The data pertaining to yield, days to 50% flowering, plant height and number of panicles/m2 are presented in Tables 11.8 to 11.1. The experimental mean grain yield of the locations ranged from 3024 kg/ha (Ponnampet) to 9387 kg/ha (Bankura).

The **North Eastern region (Zone IV)** was represented by two locations (Titabar and Lembuchera) spread across two states *viz.* Assam and Tripura. The mean grain yield of the entries in Zone IV varied from 1265 kg/ha (IET 32176) to 7320 kg/ha (IET 32146), days to 50% flowering ranged from 71 days (IET 32157) to 147 days (IET 32176), plant height ranged from 79 cm (IET 32157) to 131 cm (IET 32143) and mean panicles/m2 varied from 207 (IET 32155) to 317 (IET 32175). Among the checks, Zonal check (Bahadur) recorded highest grain yield of 6276 kg/ha with 114 days to 50% flowering. Among the test entries, IET 32146 (7320 kg/ha) with 102 days to 50% flowering, IET 32134 (7264 kg/ha) with 95 days to 50% flowering recorded significant yield superiority over the best check (BVC + CD at 5%). Therefore, these two entries (IET 32146 and IET 32134) are promoted to AVT-1 under Zone IV.

The **Southern region (Zone VII)** was represented by three locations; Ponnampet, Srisirsi and Kumta, which are spread across Karnataka State. The mean grain yield of the entries in Zone VII varied from 2853 kg/ha (IET 32179) to 5843 kg/ha (IET 32175), days to 50% flowering ranged from 101 days (IET 32183) to 128 days (IET 32176), plant height ranged from 76 cm (IET 32156) to 118 cm (IET 32150) and mean panicles/m2 varied from 228 (IET 32150) to 333 (IET 32151). Among the checks, National check (Swarna Sub1) recorded highest grain yield of 4287 kg/ha with 119 days to 50% flowering. Among the test entries, IET 32175 (5843 kg/ha) with 120 days to 50% flowering, IET 32176 (5378 kg/ha) with 128 days to 50% flowering, IET 32150 (5271 kg/ha) with 108 days to 50% flowering and IET32147 (5154 kg/ha) with 119 days to 50% flowering recorded significant yield superiority over the best check (BVC + CD at 5%). Therefore, these three entries (IET 32175, IET 32176, IET 32150 and IET 32147) are promoted to AVT-1 under Zone VII.

No entry was found superior in Zone III and Overall basis.

Zonal performance of promising entries in IVT-RSL, 2023

Entry No.	IET No./Designation	Grain Yield (Kg/ha) FD		Remarks
		Zone IV	Zone VII	
415	**IET 32146** CN 2163-101-4-1-1	7320 102		**Promoted for Z-IV based on the mean FD: 118 over all basis.**
403	**IET 32134** NDR 2022-6-4	7264 95		**Promoted for Z-IV based on the mean FD: 108 overall basis.**
448	**IET 32175** OR 2437-16		5843 120	**Promoted for Z-VII**
449	**IET 32176** CIARI Dhan 10 (ANR 40)		5378 128	**Promoted for Z-VII**
419	**IET 32150** RP Bio 4919-NSR 67		5271 108	**Promoted for Z-VII**
416	**IET 32147** TTB 2010-27		5154 119	**Promoted for Z-VII**
Swarna*Sub1*(NC)		4359 118	4287 119	
Zonal check(ZC)		**6276** **114**	3775 117	
Local check (LC)		5686 111	**4097** **118**	
CD (at 5%)		**903**	**807**	

IET 32146 (CN 2163-101-4-1-1) derived from OLS 181 X Shatabdi possess long bold grain type and recorded grain yield of 7320 kg/ha (Zone-IV) with 102 days to 50% flowering. The entry recorded yield superiority over the best check in Zone IV. Hence, the test entry IET 32146 is promoted to AVT-1 for Z-IV based on the mean FD: 118 over all basis.

IET 32134 (NDR 2022-6-4) derived from NDR 8002 / NDR 9730018 possess long bold grain type and recorded grain yield of 7264 kg/ha (Zone-IV) with 95 days to 50% flowering. The entry recorded yield superiority over the best check in Zone IV. Hence, the test entry IET 32134 is promoted to AVT-1 based on the mean FD: 108 overall basis.

IET 32175 (OR 2437-16) derived from Indravati / MTU 0165 possess medium bold grain type and recorded grain yield of 5843 kg/ha (Zone-VII) with 120 days to 50% flowering. The entry recorded yield superiority over the best check in Zone VII. Hence, the test entry IET 32175 is promoted to AVT-1

IET 32176 (CIARI Dhan 10 (ANR 40) derived from HHZ 4-DT3-Y1-Y1 Selection from (GSR-RFLL) Nursery possess short bold grain type and recorded grain yield of 5378 kg/ha (Zone-VII) with 128 days to 50% flowering. The entry recorded yield superiority over the best check in Zone VII. Hence, the test entry IET 32176 is promoted to AVT-1

IET 32150 (RP Bio 4919-NSR 67) derived from KMR 3/*O. rufipogon* WR 120 possess long slender grain type and recorded grain yield of 5271 kg/ha (Zone-VII) with 108 days to 50%

flowering. The entry recorded yield superiority over the best check in Zone VII. Hence, the test entry IET 32150 is promoted to AVT-1

IET 32147 (TTB 2010-27) derived from IRGC 3764/Ranjit*4 possess medium slender grain type and recorded grain yield of 5154 kg/ha (Zone-VII) with 119 days to 50% flowering. The entry recorded yield superiority over the best check in Zone VII. Hence, the test entry IET 32147 is promoted to AVT-1

Considering yield advantage with respect to best check, the following entries are promoted to AVT- 1 RSL.

Promoted based on zonal mean basis:

- Zone IV- IETs 32146 and 32134
- Zone VII- IETs 32175, 32176, 32150 and 32147

Table 4.1: Composition of entries in Initial Variety Trial–Rainfed Shallow Lowland (IVT - RSL), *Kharif* 2023

Entry No.	IET No.	Designation	Cross combination	Grain Type
1st year of testing				
401	32132	RP 6460-C3-208	166S-Swarna/O. nivara//148S-Swarna/O.nivara	LS
402	32133	CR 2916-48-2-1-1	Tapaswini/IET 16952	MS
403	32134	NDR 2022-6-4	NDR 8002/NDR 9730018	LB
404	32135	CR 4314-1-1-1-1-2-1	CR 3755-1313-1-2-1-1/CR3561-5-1-1-1-1-1-3	MS
405	32136	CIARI Dhan 11 (ANR 47)	HHZ 21-SAL 13-Y1-Y1 Selection from (GSR-RFLL) Nursery	SB
406	32137	CR-3439-E-5-2-1-1-B-1-2	Naveen/CHETTIVIRIPPU (AC39394)	LS
407	32138	OR 2611-1	CRMS 32 A / Mahalaxmi	MS
408	32139	CR 4481-1-5-2-1-1	CR3783-3-2-1-1-1-1/CR4476-7-1-1-1-1-1	SB
409	32140	CR4480-2-1-1-1-1	CR4475-1-1-1-2-1-1/ CR 4476-7-1-1-1-1-1	LS
410	32141	RCPR 105- IR 96321-315-323-B-3-1-3	IR 91659:54-35//IR 81896-B-B-195/2*IR05F102	MS
411	32142	CN 2163-207-4-1-1	OLS 181/Shatabdi	MS
412	32143	CR 3993-514-17-18-1	CR 1009/*O.brachyantha*//CR 1009	MS
413	32144	TRC 23-34/TRC TNK 5830-B-B-9-3	Tripura Nirog x Khowai	LB
414	32145	CR 4199-2-B-1-2-B-2	Maudamani/CR Dhan 310	MS
415	32146	CN 2163-101-4-1-1	OLS 181XShatabdi	LB
416	32147	TTB 2010-27	IRGC 3764/Ranjit*4	MS
417	32148	CR 4484-21-4-2-1	Swarna / IR 121044-3-8-6	MS
418	32149	Pusa 2088-38-9-1-3	Pusa 3039-4-2/Pusa 1853-12-192	LS
419	32150	RP Bio 4919-NSR 67	KMR 3/O.rufipogon WR 120	LS
420	**Swarna Sub 1 (NC)**			
421	32151	CR4435-4-1-2-1-1-1	CR 3553 -9-2-1-1-1-1/CR 3510 -12-1-1-2-1-1	MB
422	32152	TRC-308	Gomati X Naveen	LS
423	32153	ORR 1816	(Swarna X CR 1018) X OR2763-7-1-2-1	MS
424	32154	CR 4493-1-1-1-1	Swarna sub1/ EC 491298	LB
425	32155	BRR-0148	RajendraMahsuri mutant	MS
426	32156	NDR 2022-1-2	NDR 9730015/SambhaMahsuri-Sub 1	MS
427	32157	RGL 7035 (MTU RM 428-1-1-1)	MTU1262/MTU 1075	Ms

Entry No.	IET No.	Designation	Cross combination	Grain Type
428	**CR Dhan 801 (check)**			
429	32158	CR 2667-9-6-4-3-2	Gayatri/AC 38599	MS
430	32159	RGL 7037 (RGL2034-56-4-1)	M0TU 1210/MTU1224./RP Bio 226	Ss
431	32160	CR-2845-S-B-B-4-1-1-4-2	Swarna Sub1/ SR 26B	MS
432	**Pooja (Eastern), Bahadur (North Eastern), Savitri (Southern)-- ZC**			
433	32161	CR 2916-30-1-1-1	Tapaswini/IET 16952	MS
434	32162	RCPR 106-IR 102796-14-77-2-1-2	IR 99622-306/IR 99620-228//IRRI 149	LS
435	32163	CR 4360-2-1-1-1-1	CR 3561-14-1-1-1-1-1/CR 3543-6-3-1-2-1-1	LB
436	32164	TRC 2023-8/ TRC TJTS 5421-B-B-3-10	Tripura Jala x Tripura Sarat	LS
437	32165	MTU 1408 (NIC 5-1-2B)	Swarna sub-1/MTU II1110-9-1-1-1/FL 478/AC39416A	MS
438	32166	CR 3993-113-58-13-1	CR 1009/*O.brachyantha*//CR 1009	SB
439	32167	CR4408-1-2-1-3-1	CR3516-10-1-1-1-1-1/CR3549-3-5-1-1-1	MS
440	32168	BRR-0150	Rajendra Mahsuri-1 / AD 09464	MS
441	32169	CR4433-4-1-1-2-1	CR 3564-1-1-3-1-1/CR3510-12-1-1--2-1-1	MS
442	32170	ORR 1817	IR 76561-AC-8-8 X Ranidhan	LS
443	31269(R)	CR 4436 -4-3-2-1-1-1	CR 3504-24-2-1-1-1-1/ CR 3549-1-2-1-2-1-1	MB
444	32171	CR-3466-L-1-5-2-1-B-1	IR64/FL478//IR-73931-40-1-2-3-2-22-1///Pratiksha	LS
445	32172	TTB 2010-65	IRGC 3764/Ranjit*4	MS
446	32173	TRC 2023-27/TRC GK 5726-B-B-3-23	Gomati X Khowai	LS
447	32174	CR 4485- 15-2-1-1	Naveen / Jasmine 85	LS
448	32175	OR 2437-16	Indravati / MTU 0165	MB
449	32176	CIARI Dhan 10 (ANR 40)	HHZ 4-DT3-Y1-Y1 Selection from (GSR-RFLL) Nursery	SB
450	32177	MSN-119	Tunga/CR-2711-76 (29-2-1-1-1-1-1-B)	MS
451	32178	BRR 2137	IR73907-753-2-3*Pratiksya	MS
452	32179	CR 4454-9-7-2-3-1	Ranidhan/CR Dhan 800//Swarna sub1	MS
453	32180	CR-4086-5-B-7-B-1-2	CR2814-1-S-1-6-3-2B-1/Binadhan 10	MB
454	32181	Pusa 2088-40-19-4-1	Pusa 3039-4-2/Pusa 1853-12-192	LS
455	32182	CR 4491-6-1-1-1-2-2	Swarna/MER 26 (CSSL Line of Oryzameridionalis)	SB
456	32183	LPR2201-IR15F1907	IR06N234/IRRI154//IR10F203	LS
457	32184	CR 4454-4-5-B-7-2-2	Ranidhan/CR Dhan 800//Swarna sub1	MS
458	32185	LPR2207-IR11T198	IRRI 149/IR 61920-3B-22-2-1 (NSIC RC 106)	LS
459	**Local Check**			

Table 4.2: Grain Yield (kg/ha) of entries in IVT-RSL, *Kharif* -2023

Entry No	IET No	Zone III															
		OD				OD(2)		WB(0)				BI				BI(2)	
		CTK		BBN		mean		CHN@		BNK@		SBR		BKG		mean	
401	32132	2329		4578		3454		5017		9258		2001		5082	7	3542	
402	32133	3023		4579		3801		6316	2	9728		5358		2793		4076	
403	32134	3505		4236		3871		6044	5	9667		4467		2864		3666	
404	32135	3694		3971		3833		4874		9137		4438		3924		4181	
405	32136	3227		6102		4665		5957	7	8561		5297		2454		3876	
406	32137	4011		4981		4496		4960		9531		2462		1847		2155	
407	32138	3937		4500		4219		5879		9258		3733		3159		3446	
408	32139	2944		8020	1 *	5482	2	5315		11061	3	4210		2847		3529	
409	32140	4230	7	4059		4145		4623		9833		5599	9	3683		4641	
410	32141	3996		5236		4616		4900		9182		4096		6126	2	5111	5
411	32142	3127		4853		3990		4959		9213		4338		2486		3412	
412	32143	3219		3765		3492		5216		9576		2890		2399		2645	
413	32144	2092		3971		3032		4612		8834		4786		2536		3661	
414	32145	3142		3716		3429		4926		8152		3443		2651		3047	
415	32146	3242		4922		4082		5495		10515	5	4630				4630	
416	32147	2147		6255	4.5	4201		5217		9394		4279		5104	6	4692	
417	32148	3074		6422	2	4748		4624		9622		6577	4	3913		5245	3
418	32149	3093		3794		3444		5060		8152		3763		3678		3721	
419	32150	2573		4883		3728		5201		8985		5707	8	3656		4682	
420	Swarna Sub 1 (NC)	2357		5177		3767		5128		9061		2105		4487		3296	
421	32151	3650		4902		4276		5269		8940		5444		2727		4086	
422	32152	3702		5000		4351		5094		8531		2072		3552		2812	
423	32153	3544		6049		4797	10	6333	1	9288		5774	7	3661		4718	
424	32154	2186		5412		3799		5301		8288		3213		4306		3760	

425	32155	5139	2	6108	10	5624	1 *	5010		11106	2	6744	3	2935		4840	
426	32156	1852		4118		2985		4755		8637		3517		3907		3712	
427	32157	3866		6187	8	5027	7	5900		8607		5139		4699		4919	10
428	CR Dhan 801 (check	4263	6	4922		4593		5043		9273		5160		4749	10	4955	9
429	32158	1737		4834		3286				9743		5228				5228	4
430	32159	3080		5216		4148		5735		9970	9.5	4229		5874	4	5052	7
431	32160	4509	4	4912		4711		5250		9516		4173		3317		3745	
432	Czonal Check	3790		6255	4.5	5023	8	4708		11303	1	5331		3372		4352	
433	32161	3274		5167		4221		5447		9516		5829	5	3312		4571	
434	32162	1779		3226		2503		5339		9258		1989		2846		2418	
435	32163	1796		4775		3286		5716		10652	4	2892		2459		2676	
436	32164	3103		4932		4018		5977	6	8728		4113		2935		3524	
437	32165	3116		4961		4039		5815		10243	7	4733		3399		4066	
438	32166	3276		5853		4565		5671		9500		7537	1	2640		5089	6
439	32167	3643		5500		4572		5810		9652		2935		2530		2733	
440	32168	3773		5814		4794		5712		10137	8	5789	6	3497		4643	
441	32169	5360	1 *	5216		5288	3	5310		9546		3978		3284		3631	
442	32170	4211	9	6235	6	5223	4	6161	4	8939		5490	10	3421		4456	
443	31269(R)	4176	10	6196	7	5186	5	5230		10394	6	4224		3530		3877	
444	32171	2256		3725		2991		4965		8606		2194		1929		2062	
445	32172	3157		5294		4226		5221		8652		3896		3951		3924	
446	32173	2411		4942		3677		5242		9970	9.5	2839		2826		2833	
447	32174	2047		4863		3455		5908	10	9364		5331		2508		3920	
448	32175	4298	5	4902		4600		4959		9546		4657		3000		3829	
449	32176	2965		3922		3444		4954		9015							
450	32177	4222	8	6128	9	5175	6	5187		8985		3876		4962	8	4419	
451	32178	2630		6353	3	4492		5876		9728		4861		4066		4464	
452	32179	2421		5118		3770		4825		9819		4183		5913	3	5048	8

453	32180	2530		5588		4059		5110		8546		3968		2847		3408	
454	32181	2444		4951		3698		4993		9455		4372		4869	9	4621	
455	32182	4905	3	3955		4430		6184	3	9546		4468		6634	1	5551	2
456	32183	3218		5265		4242		5946	9	9258		5012		3470		4241	
457	32184	2128		4951		3540		4929		9228		3922		3869		3896	
458	32185	2596		4196		3396		5950	8	8925		2744		3607		3176	
459	Local Check	3729		5961		4845	9	5666		8743		7084	2	5708	5	6396	1
Exp. Mean		**3215.77**		**5083.2**		**4149.49**		**5358.78**		**9387.36**		**4363.89**		**3621.22**		**4015.1**	
F Value		5.54(p<0.0001)S		17.29(p<0.0001)S		12.82(p<0.0001)S		1.51(p<0.0604)NS		1.07(p<0.3997)NS		17.40(p<0.0001)S		10.04(p<0.0001)S		13.08(p<0.0001)S	
CD		**1041.99**		**605.01**		**540.29**		**1077.82**		**1892.37**		**867.04**		**976.83**		**692.69**	
CV%		16.19		5.95		6.5		10.04		10.07		9.92		13.46		8.62	
D/S		21.06.2023		27.06.23				28.06.23		22.06.2023		6/21/2023		6/21/2023			
D/P		07.08.2023		28.07.23				08.08.23		29.08.2023		7/12/2023		7/21/2023			
Local Check name		SUMIT		Kalinga Dhan 1502				Sujala(IET 20235)		Sampriti		Rajendra Mahsuri-1		Sabour Shree			

Table 4.2(contd.): Grain Yield (kg/ha) of entries in IVT-RSL, *Kharif* -2023

Entry No	IET No	Zone III				Zone III (4)		Zone IV								Zone IV (2)	
		UP(0)						AS				AS(1)		TP(1)			
		GG@		MSD@		mean		TTB		KMJ@		mean		LMB		mean	
401	32132	4355	2	5738	5	3498		3392		4693		3392		3188		3290	
402	32133	3624		4309		3938		7458	1 *	4373		7458	1 *	4925		6192	10
403	32134	3856		4435		3768		6902	2 *	4455		6902	2 *	7625	3	7264	2 *
404	32135	4122	10.5	3571		4007		5503		5703	9	5503		4425		4964	
405	32136	3723		5332		4270		2973		5881	7	2973		4338		3656	
406	32137	4189	4			3325		4196		6178	3.5	4196		4450		4323	
407	32138	3757		4927		3832		5423		6000	5	5423		4775		5099	
408	32139	3391				4505		6275	9	5198		6275	9	4438		5357	
409	32140	3391		5572		4393		4347		4218		4347		4375		4361	
410	32141	3790		4688		4864	6	5692		4218		5692		4963		5328	
411	32142	3557		4788		3701		5928		4515		5928		4150		5039	
412	32143			4189		3068		4236		4633		4236		1838		3037	
413	32144	3524		5719	8	3346		5320		5049		5320		5738		5529	
414	32145	4156	6.5	4947		3238		4740		4633		4740		5263		5002	
415	32146	3989		4455		4265		5702		5049		5702		8938	1 *	7320	1 *
416	32147	4422	1			4446		3788		5584		3788		4225		4007	
417	32148	4122	10.5	3591		4997	3	5253		4574		5253		3938		4596	
418	32149	4289	3	4508		3582		4794		4901		4794		4413		4604	
419	32150	3856		5572		4205		6392	8	6660	1	6392	8	4413		5403	
420	**Swarna Sub 1 (NC)**	3491		4788		3532		5542		6571	2	5542		3175		4359	
421	32151	3790		5027		4181		6465	7	4574		6465	7	3988		5227	
422	32152	3757		4382		3582		4349		4990		4349		4575		4462	
423	32153	3391		5033		4757		5894		4693		5894		4113		5004	
424	32154	4089		5612	10	3779		6549	5	3964		6549	5	7238	6	6894	3
425	32155	3457		4754		5232	2	6571	4	4812		6571	4	6338		6455	6
426	32156	3424		5253		3349		3516		4396		3516		6188		4852	
427	32157	3457				4973	5			4990				4100		4100	
428	**CR Dhan 801 (check**	3391		4030		4774	10	5942		4396		5942		6438	10	6190	
429	32158	3391				3933				5525				5400		5400	
430	32159	3424		4289		4600		4113		4693		4113		7775	2	5944	
431	32160	3391		5313		4228		5863		5346		5863		4288		5076	
432	**Zonal Check**	4056		3384		4687		5077		5703	9	5077		7475	5	6276	8
433	32161	4156	6.5	4508		4396		6499	6	5346		6499	6	4338		5419	

434	32162	3790		4329		2460		3445		4936		3445		3513		3479	
435	32163	3457		4528		2981		6054		5643		6054		3375		4715	
436	32164	3989		5566		3771		4691		5109		4691		3925		4308	
437	32165	4156	6.5	3159		4052				5560				4063		4063	
438	32166	3358		5093		4827	8	6035		4990		6035		7100	7	6568	5
439	32167	3624		4076		3652		5452		4693		5452		3125		4289	
440	32168	4123	9	3025		4718		5000		5703	9	5000		6225		5613	
441	32169	4156	6.5	5725	6.5	4460		5197		4770		5197		4050		4624	
442	32170	3457		5918	2.5	4839	7	5711		4752		5711		7588	4	6650	4
443	31269(R)	3989				4532		6617	3	5287		6617	3	5975		6296	7
444	32171	3391		6177	1	2526		4182		4812		4182		3700		3941	
445	32172	3757		5632	9	4075		5158		5955	6	5158		3813		4486	
446	32173	3657				3255		5756		4931		5756		3850		4803	
447	32174	3657				3687		3938		4990		3938		3963		3951	
448	32175	3391		5785	4	4214		6132	10	5109		6132	10	6338		6235	9
449	32176			2700		3444		1265		5525		1265				1265	
450	32177	3324				4797	9	4471		4693		4471		4563		4517	
451	32178	3590		5326		4478		5365		4574		5365		4275		4820	
452	32179	3225		4754		4409		4935		5168		4935		6375		5655	
453	32180	3258		4455		3733		5229		4931		5229		5063		5146	
454	32181	3225		4262		4159		5423		6178	3.5	5423		6475	9	5949	
455	32182	3291		5918	2.5	4991	4	5702		4871		5702		5375		5539	
456	32183	3258		5725	6.5	4241		5376		5109		5376		5963		5670	
457	32184	3723		5053		3718		4398		5584		4398		4488		4443	
458	32185	3324				3286		4315		5608		4315		4250		4283	
459	**Local Check**	3524		5087		5621	1	4784		4990		4784		6588	8	5686	
Exp. Mean		**3692.19**		**4795.84**		**4070.41**		**5166.29**		**5101.07**		**5166.29**		**4997.41**		**5033.81**	
F Value		18.66(p<0.0001)S		26.83(p<0.0001)S		16.83(p<0.0001)S		11.81(p<0.0001)S		33.44(p<0.0001)S		11.81(p<0.0001)S		9.05(p<0.0001)S		11.56(p<0.0001)S	
CD		**218.69**		**447.4**		**456**		**912.18**		**285.92**		**912.18**		**1330.78**		**902.67**	
CV%		2.96		4.64		5.6		8.81		2.8		8.81		13.3		8.96	
D/S		6/28/2023		10.07.2023				7/15/2023		08.07.2023				7/12/2023			
D/P		Direct Seeded		15.08.2023				8/10/2023		11.08.2023				8/2/2023			
Local Check name		Sambha sub1		Sambha Mahsuri-Sub 1				Ranjit Sub 1		Ranjit				Gomati			

Table 4.2: (contd.): Grain Yield (kg/ha) of entries in IVT-RSL, *Kharif* -2023

Entry No	IET No	Zone VII						Zone VII(3)		Overall (9)	
		KA						KA(3)			
		PNP		SRS		KMT		mean		mean	
401	32132	2043		1955		4854		2951		3269	
402	32133	2876		4594	9	6556		4675		4685	
403	32134	3381		3082		6556		4340		4735	
404	32135	2810		3003		7229	8	4347		4333	
405	32136	2629		1417		6115		3387		3839	
406	32137	3829	8	2994		4990		3938		3751	
407	32138	2648		3829		7231	7	4569		4359	
408	32139	3476		4644	7	5891		4670		4749	
409	32140	3438		4083		6556		4692		4486	
410	32141	2348		2154		7031		3844		4627	
411	32142	2905		4253		6878		4679		4324	
412	32143	2014		3227		4535		3259		3125	
413	32144	1262		3779		6089		3710		3953	
414	32145	2953		4266		6958		4726	10	4126	
415	32146	1981		3635		4909		3508		4745	
416	32147	2758		6260	2 *	6444		5154	4 *	4584	
417	32148	2753		3681		2727		3054		4260	
418	32149	2367		4506		6289		4387		4077	
419	32150	4410	3	4995	6	6408		5271	3 *	4826	8
420	**Swarna Sub 1 (NC)**	3272		3728		5861		4287		3967	
421	32151	2248		2617		7256	5	4040		4366	
422	32152	3034		2749		6661		4148		3966	
423	32153	3743	10	3437		6499		4560		4746	
424	32154	2786		2525		7249	6	4187		4607	
425	32155	2590		4247		4217		3685		4988	4
426	32156	2100		2847		5952		3633		3777	
427	32157	2624		4255		7315	4	4731	9	4773	10
428	**CR Dhan 801 (check**	2929		2603		4890		3474		4655	
429	32158			3281		5968		4625		4408	
430	32159	2810		3449		4319		3526		4541	
431	32160	2934		3713		6668		4438		4486	
432	**Zonal Check**	3067		4352		3905		3775		4736	
433	32161	1791		3349		6562		3901		4458	
434	32162	2634		1553		7206	9	3798		3132	
435	32163	3005		2044		7505	3	4185		3767	

436	32164	2629		4213		8027	2 *	4956	7	4285	
437	32165	3219		2866		5568		3884		3991	
438	32166	3514		3714		5776		4335		5049	3
439	32167	3229		3886		5914		4343		4024	
440	32168	3991	6	3911		6248		4717		4916	5
441	32169	3729		4519	10	6915		5054	5	4694	
442	32170	4196	4	1605		4830		3544		4810	9
443	31269(R)	3524		3837		4503		3955		4731	
444	32171	3658		758		6990		3802		3266	
445	32172	2638		5698	3 *	3763		4033		4152	
446	32173	1981		2861		6163		3668		3737	
447	32174	3753	9	4168		5721		4547		4032	
448	32175	4562	2	7060	1 *	5907		5843	1 *	5206	1
449	32176	1905		5482	4 *	8746	1 *	5378	2 *	4048	
450	32177	4162	5	4635	8	5928		4908	8	4772	
451	32178	3105		3594		6244		4314		4499	
452	32179	2400		1716		4442		2853		4167	
453	32180	3291		3802		6275		4456		4288	
454	32181	2572		5232	5 *	7119	10	4974	6	4829	7
455	32182	2948		3749		6497		4398		4915	6
456	32183	3505		3390		6863		4586		4674	
457	32184	3438		3461		3540		3480		3799	
458	32185	3957	7	1886		3690		3178		3471	
459	**Local Check**	5048	1	1972		5271		4097		5127	2
Exp. Mean		**3023.9**		**3544.36**		**5986.76**		**4194.05**		**4333.88**	
F Value		5.18(p<0.0001)S		18.29(p<0.0001)S		3.52(p<0.0001)S		4.90(p<0.0001)S		12.62(p<0.0001)S	
CD		**925.13**		**797.29**		**1820.28**		**807.17**		**401.02**	
CV%		15.28		11.24		15.19		9.61		4.62	
D/S		7/14/2023		6/17/2023		19.07.2023					
D/P		8/27/2023		7/7/2023		27.08.2023					
Local Check name		Tunga		ASHA		PSB_68					

Table 4.3: Days to 50% flowering of entries in IVT-RSL, *Kharif* -2023

Entry No	IET No	Zone III										Zone III (4)
		OD		OD(2)	WB(0)		BI		BI(2)	UP(0)		
		CTK	BBN	mean	CHN@	BNK@	SBR	BKG	mean	GGT@	MSD@	mean
401	32132	112	111	112	111	120	107	100	104	107	98	108
402	32133	126	122	124	117	124	117	122	120	122	125	122
403	32134	118	112	115	115	125	113	115	114	110	111	115
404	32135	127	117	122	116	121	112	113	113	105	128	117
405	32136	107	100	104	108	127	93	100	97	95	113	100
406	32137	108	111	110	110	126	99	100	100	94		105
407	32138	148	126	137	121	124	146	141	144	123	125	140
408	32139	130	117	124	120	124	119	120	120	118	129	122
409	32140	117	113	115	115	126	114	115	115	104	113	115
410	32141	125	116	121	115	127	111	114	113	111	127	117
411	32142	127	119	123	119	125	148	140	144	126	113	134
412	32143	146	129	138	124	126	143	140	142		114	140
413	32144	119	113	116	113	128	111	144	128	108	117	122
414	32145	129	120	125	129	127	130	134	132	123	124	128
415	32146	128	121	125	122	126	151		151	128	110	133
416	32147	141	129	135	120	125	120	138	129	125		132
417	32148	142	122	132	122	128	145	128	137	120	125	134
418	32149	132	117	125	121	126	112	116	114	106	129	119
419	32150	126	118	122	115	126	114	113	114	101	116	118
420	**Swarna Sub 1 (NC)**	132	121	127	121	126	153	115	134	124	118	130
421	32151	118	112	115	109	128	111	104	108	107	106	111
422	32152	109	104	107	108	122	92	102	97	90	95	102
423	32153	129	114	122	118	126	119	115	117	123	113	119
424	32154	117	112	115	107	118	146	103	125	94	128	120
425	32155	126	118	122	120	119	148	125	137	119	127	129
426	32156	109	102	106	113	119	113	111	112	105	108	109
427	32157	119	128	124	126	116	128	141	135	136	129	129
428	**CR Dhan 801 (check**	122	117	120	114	124	112	114	113	106	108	116
429	32158	123	131	127		123	148		148	135		134
430	32159	140	130	135	123	123	160	135	148	138	113	141
431	32160	130	120	125	124	118	158	141	150	123	125	137
432	**Zonal Check**	128	123	126	123	125	163	146	155	136	113	140
433	32161	140	122	131	121	126	145	125	135	123	111	133
434	32162	108	100	104	110	120	96	104	100	90	127	102

435	32163	130	117	124	123	119	145	118	132	111	128	128
436	32164	130	120	125	118	124	121	116	119	113	98	122
437	32165	129	120	125	122	126	120	123	122	136	117	123
438	32166	114	105	110	119	125	111	109	110	105	125	110
439	32167	125	115	120	115	123	115	118	117	119	113	118
440	32168	126	113	120	119	127	119	123	121	117	120	120
441	32169	117	112	115	118	128	119	115	117	102	98	116
442	32170	124	116	120	116	127	117	114	116	104	114	118
443	31269(R)	128	115	122	118	119	111	115	113	113	127	117
444	32171	110	107	109	107	116	91	80	86	88	108	97
445	32172	146	110	128	121	119	130	100	115	133	98	122
446	32173	124	114	119	115	114	112	113	113	105	129	116
447	32174	140	116	128	124	118	123	127	125	139	129	127
448	32175	138	119	129	124	115	141	122	132	140	115	130
449	32176	140	131	136	94	115					128	136
450	32177	149	115	132	125	119	147	128	138	135	127	135
451	32178	121	113	117	116	121	112	115	114	105	108	115
452	32179	125	127	126	119	124	119	116	118	140	116	122
453	32180	121	110	116	116	120	99	102	101	93	121	108
454	32181	120	120	120	120	120	121	118	120	106	126	120
455	32182	117	114	116	118	127	112	111	112	109	101	114
456	32183	113	105	109	115	125	105	102	104	105	113	106
457	32184	120	117	119	122	123	113	132	123	106	122	121
458	32185	110	100	105	115	123	92	104	98	104	129	102
459	**Local Check**	130	124	127	115	122	127	116	122	119	117	124
Exp. Mean		**125**	**116**	**121**	**117**	**123**	**122**	**118**	**120**	**114**	**117**	**121**

Table 4.3: (contd.) Days to 50% flowering of entries in IVT-RSL, *Kharif* -2023

Entry No	IET No	Zone IV				Zone IV (2)	Zone VII			Zone VII(3)	Overall (9)
		AS		AS(1)	TP(1)		KA			KA(3)	
		TTB	KMJ@	mean	LMB	mean	PNP	SRS	KMT	mean	mean
401	32132	103	93	103	70	87	106	112	115	111	104
402	32133	127	111	127	87	107	121	118	108	116	116
403	32134	108	103	108	81	95	109	111	108	109	108
404	32135	108	106	108	104	106	120	123	114	119	115
405	32136	102	91	102	93	98	101	110	117	109	103
406	32137	105	100	105	94	100	107	100	114	107	104
407	32138	124	98	124	106	115	122	123	116	120	128
408	32139	113	113	113	104	109	110	112	108	110	115
409	32140	107	107	107	103	105	113	112	108	111	111
410	32141	110	109	110	100	105	110	112	118	113	113
411	32142	111	107	111	106	109	100	118	113	110	120
412	32143	132	99	132	117	125	134	130	115	126	132
413	32144	107	103	107	111	109	106	100	114	107	114
414	32145	118	113	118	103	111	103	118	104	108	118
415	32146	114	113	114	89	102	108	121	114	114	118
416	32147	128	103	128	96	112	123	122	111	119	123
417	32148	123	104	123	109	116	122	118	110	117	124
418	32149	113	110	113	102	108	110	111	115	112	114
419	32150	117	97	117	99	108	110	112	102	108	112
420	**Swarna Sub 1 (NC)**	126	98	126	109	118	118	129	109	119	124
421	32151	106	103	106	101	104	98	98	117	104	107
422	32152	101	89	101	95	98	99	98	121	106	102
423	32153	116	105	116	90	103	104	109	113	109	112
424	32154	109	129	109	96	103	106	109	118	111	113
425	32155	117	89	117	93	105	107	109	110	109	117
426	32156	105	101	105	101	103	105	111	115	110	108
427	32157		104		71	71	113	121	116	117	117
428	**CR Dhan 801 (check**	113	111	113	117	115	110	115	99	108	113
429	32158		103		112	112		136	110	123	127
430	32159	133	102	133	116	125	114	118	102	111	128
431	32160	109	111	109	105	107	105	117	115	112	122
432	**Zonal Check**	122	131	122	106	114	112	129	110	117	127
433	32161	117	106	117	116	117	110	121	116	116	124
434	32162	101	85	101	73	87	99	96	116	104	99

435	32163	113	124	113	95	104	103	105	113	107	115
436	32164	126	126	126	112	119	120	123	122	122	121
437	32165		119		114	114	121	129	126	125	123
438	32166	107	95	107	94	101	104	105	113	107	107
439	32167	113	107	113	112	113	115	116	105	112	115
440	32168	130	106	130	115	123	107	112	107	109	117
441	32169	107	98	107	96	102	106	112	115	111	111
442	32170	129	104	129	96	113	105	110	106	107	113
443	31269(R)	112	105	112	95	104	106	108	111	108	111
444	32171	101	87	101	92	97	105	98	104	102	99
445	32172	128	136	128	121	125	126	122	103	117	121
446	32173	119	122	119	119	119	115	100	115	110	115
447	32174	127	129	127	121	124	125	123	107	118	123
448	32175	123	136	123	118	121	127	123	109	120	124
449	32176	147	137	147		147	134	135	115	128	134
450	32177	133	133	133	120	127	120	122	110	117	127
451	32178	120	104	120	88	104	106	105	98	103	109
452	32179	129	112	129	103	116	118	112	108	113	117
453	32180	105	97	105	93	99	109	100	111	107	106
454	32181	118	127	118	87	103	111	112	111	111	113
455	32182	107	112	107	94	101	119	112	104	112	110
456	32183	102	105	102	86	94	103	102	99	101	102
457	32184	121	123	121	101	111	113	112	104	110	115
458	32185	104	96	104	109	107	101	96	111	103	103
459	**Local Check**	123	127	123	99	111	112	135	108	118	119
Exp. Mean		**116**	**109**	**116**	**101**	**108**	**111**	**114**	**111**	**111**	**115**

Table 4.4: Plant height (cm) of entries in IVT-RSL, *Kharif* -2023

Entry No	Entry No	Zone III										Zone III (4)
		OD		OD(2)	WB(0)		BI		BI(2)	UP(0)		
		CTK	BBN	mean	CHN@	BNK@	SBR	BKG	mean	GGT@	MSD@	mean
401	32132	100	96	98	101	83	109	123	116	92	89	107
402	32133	105	110	108	120	101	131	104	118	87	89	113
403	32134	112	100	106	122	108	129	126	127	104	85	117
404	32135	106	100	103	104	109	117	99	108	83	67	105
405	32136	92	95	94	101	82	104	110	107	91	75	100
406	32137	111	125	118	115	112	136	164	150	115	.	134
407	32138	115	112	114	107	103	145	108	127	114	77	120
408	32139	117	122	120	119	115	141	103	122	93	100	121
409	32140	108	115	112	122	124	141	140	140	97	82	126
410	32141	100	100	100	108	144	110	123	116	85	86	108
411	32142	118	123	121	139	115	160	122	141	127	124	131
412	32143	121	132	127	154	116	161	136	148	.	76	137
413	32144	104	115	110	106	113	131	116	124	99	76	117
414	32145	108	112	110	124	109	130	122	126	104	79	118
415	32146	103	82	93	95	73	99	.	99	80	78	95
416	32147	113	118	116	128	92	139	118	128	116	.	122
417	32148	102	90	96	105	83	113	107	110	101	90	103
418	32149	104	92	98	111	90	111	126	119	101	91	108
419	32150	131	131	131	112	140	166	155	161	115	110	146
420	**Swarna Sub 1 (NC)**	99	100	100	97	82	122	102	112	80	124	106
421	32151	113	115	114	124	106	139	135	137	92	87	125
422	32152	106	116	111	113	95	121	118	119	104	70	115
423	32153	115	115	115	113	108	125	133	129	102	90	122
424	32154	108	118	113	128	123	127	138	132	123	103	123
425	32155	102	105	104	112	104	120	112	116	97	82	110
426	32156	105	92	99	99	83	114	106	110	90	86	104
427	32157	104	112	108	112	92	124	99	112	113	69	110
428	**CR Dhan 801 (check**	90	95	93	108	89	120	128	124	95	75	108
429	32158	108	122	115	.	103	106	.	106	103	.	112
430	32159	104	100	102	104	114	117	99	108	91	72	105
431	32160	110	102	106	123	97	128	110	119	106	96	113
432	**Zonal Check**	105	112	109	76	72	122	89	106	88	73	107

433	32161	112	108	110	120	112	126	131	129	99	82	119
434	32162	113	100	107	74	102	122	123	122	118	73	114
435	32163	116	120	118	133	113	135	129	132	129	100	125
436	32164	118	122	120	124	108	150	131	140	119	84	130
437	32165	101	100	101	106	93	113	106	110	89	73	105
438	32166	115	122	119	113	109	124	124	124	83	88	121
439	32167	114	114	114	117	104	160	124	142	98	98	128
440	32168	104	110	107	109	98	119	122	121	99	71	114
441	32169	121	130	126	121	123	139	122	131	103	103	128
442	32170	115	132	124	126	116	135	141	138	112	86	131
443	31269(R)	112	125	119	119	111	130	132	131	102	120	125
444	32171	89	120	105	105	114	138	126	132	110	90	118
445	32172	100	110	105	110	107	131	119	125	106	89	115
446	32173	121	125	123	119	133	161	158	160	129	83	141
447	32174	102	117	110	115	84	123	111	117	86	74	113
448	32175	109	130	120	125	106	150	117	134	108	82	127
449	32176	103	98	101	101	83	.	.	.	.	92	101
450	32177	109	124	117	138	113	149	125	137	121	81	127
451	32178	111	105	108	125	104	142	107	124	114	98	116
452	32179	112	82	97	102	93	115	134	124	74	77	111
453	32180	121	128	125	122	133	156	158	157	131	78	141
454	32181	101	105	103	112	93	115	107	111	100	74	107
455	32182	105	110	108	107	102	124	123	124	101	83	116
456	32183	95	110	103	104	81	117	126	121	96	75	112
457	32184	112	132	122	122	123	159	124	142	117	92	132
458	32185	93	105	99	101	100	100	109	105	75	78	102
459	**Local Check**	113	112	113	121	109	120	111	116	83	86	114
Exp. Mean		**108**	**111**	**110**	**114**	**104**	**130**	**122**	**125**	**102**	**86**	**117**

Table 4.4: (Contd.): Plant height (cm) of entries in IVT-RSL, *Kharif* -2023

Entry No	Entry No	Zone IV				Zone IV (2)	Zone VII			Zone VII(3)	Overall (9)
		AS		AS(1)	TP(1)		KA			KA 3)	
		TTB	KMJ@	mean	LMB	mean	PNP	SRS	KMT	mean	mean
401	32132	102	113	102	67	84	65	89	103	86	95
402	32133	113	125	113	95	104	60	83	110	84	101
403	32134	119	130	119	122	121	91	94	110	98	111
404	32135	101	108	101	85	93	65	76	107	83	95
405	32136	96	100	96	86	91	74	82	94	83	93
406	32137	113	122	113	121	117	98	100	96	98	118
407	32138	116	123	116	92	104	82	103	118	101	110
408	32139	119	140	119	103	111	89	103	111	101	112
409	32140	122	136	122	99	110	81	97	110	96	112
410	32141	102	120	102	95	98	75	82	120	92	101
411	32142	126	145	126	113	120	96	124	108	109	121
412	32143	136	146	136	127	131	118	123	81	107	126
413	32144	123	120	123	103	113	76	91	130	99	110
414	32145	116	122	116	95	106	65	94	108	89	106
415	32146	94	96	94	112	103	61	80	109	83	92
416	32147	114	124	114	73	94	78	108	106	97	107
417	32148	97	111	97	99	98	63	84	86	77	93
418	32149	103	120	103	79	91	66	95	105	88	98
419	32150	122	106	122	83	102	120	138	97	118	127
420	**Swarna Sub 1 (NC)**	112	116	112	140	126	63	103	108	91	106
421	32151	116	141	116	82	99	78	102	95	91	108
422	32152	112	123	112	124	118	82	101	117	100	111
423	32153	114	121	114	110	112	79	92	102	91	110
424	32154	112	123	112	110	111	84	99	123	102	113
425	32155	105	108	105	114	110	71	85	107	88	102
426	32156	88	83	88	115	102	57	78	94	76	94
427	32157	.	115	.	79	79	72	103	114	96	101
428	**CR Dhan 801 (check**	102	113	102	117	110	72	83	113	89	102
429	32158	.	122	.	106	106	.	105	90	97	106
430	32159	103	108	103	96	99	70	93	90	84	97
431	32160	113	119	113	95	104	75	90	102	89	103

432	**Zonal Check**	112	124	112	103	108	69	89	84	81	98
433	32161	113	132	113	108	110	63	78	110	84	105
434	32162	110	119	110	87	99	81	85	106	91	103
435	32163	125	107	125	113	119	89	106	109	101	116
436	32164	122	130	122	124	123	93	102	110	102	119
437	32165	.	106	.	81	81	69	74	106	83	94
438	32166	118	134	118	97	107	76	87	100	88	107
439	32167	121	130	121	115	118	89	94	111	98	116
440	32168	105	136	105	94	99	77	92	102	90	103
441	32169	119	138	119	104	112	93	110	107	103	116
442	32170	119	134	119	114	117	90	113	98	100	117
443	31269(R)	113	126	113	99	106	70	94	107	90	109
444	32171	117	129	117	142	129	96	104	110	103	116
445	32172	113	115	113	99	106	72	109	105	95	106
446	32173	131	81	131	121	126	94	138	85	105	126
447	32174	96	109	96	84	90	71	96	122	96	102
448	32175	126	123	126	104	115	89	108	109	102	116
449	32176	96	108	96	.	96	60	96	109	88	94
450	32177	124	141	124	120	122	98	118	106	107	119
451	32178	120	130	120	110	115	86	122	92	100	110
452	32179	94	111	94	86	90	64	89	95	83	97
453	32180	130	147	130	106	118	102	134	105	114	127
454	32181	103	110	103	95	99	67	102	105	91	100
455	32182	107	63	107	105	106	77	104	122	101	109
456	32183	119	111	119	103	111	85	98	105	96	106
457	32184	121	83	121	120	121	86	108	106	100	119
458	32185	102	109	102	84	93	76	84	113	91	96
459	**Local Check**	114	126	114	102	108	100	94	110	101	108
Exp. Mean		**113**	**119**	**113**	**103**	**107**	**79**	**98**	**105**	**94**	**107**

Table 4.5: Panicle/m^2 of entries in IVT-RSL, *Kharif* -2023

Entry No	IET No	Zone III										Zone III (4)
		OD		OD(2)	WB(0)		BI		BI(2)	UP(0)		
		CTK	BBN	mean	CHN@	BNK@	SBR	BKG	mean	GGT@	MSD@	mean
401	32132	257	308	283	314	451	334	382	358	149	280	320
402	32133	291	222	257	330	286	259	366	313	135	273	285
403	32134	264	219	242	314	385	268	302	285	139	230	263
404	32135	256	312	284	347	417	341	377	359	150	232	322
405	32136	291	274	283	314	375	292	388	340	131	265	311
406	32137	287	261	274	347	368	263	425	344	116		309
407	32138	288	230	259	314	435	229	319	274	137	253	267
408	32139	297	211	254	314	451	321	354	338	134		296
409	32140	321	233	277	429	413	282	350	316	130	266	297
410	32141	248	280	264	297	237	253	335	294	138	240	279
411	32142	340	303	322	297	281	430	275	353	121	260	337
412	32143	317	261	289	347	462	245	275	260		242	275
413	32144	304	307	306	363	395	302	403	353	123	263	329
414	32145	350	271	311	429	369	367	355	361	141	266	336
415	32146	309	218	264	363	319	275		275	137	266	267
416	32147	297	294	296	314	418	280	373	327	154		311
417	32148	304	273	289	413	339	303	328	316	143	227	302
418	32149	274	220	247	347	451	291	342	317	141	258	282
419	32150	311	279	295	347	413	229	367	298	129	287	297
420	Swarna Sub 1 (NC)	301	329	315	380	308	290	342	316	125	260	316
421	32151	330	339	335	363	385	245	426	336	133	261	335
422	32152	310	307	309	363	322	293	396	345	133	258	327
423	32153	349	245	297	314	390	320	357	339	129	230	318
424	32154	251	254	253	363	467	238	282	260	139	253	256
425	32155	266	313	290	380	330	283	288	286	121	257	288
426	32156	331	286	309	446	424	301	319	310	116	278	309
427	32157	307	256	282	281	490	269	322	296	108		289
428	CR Dhan 801 (check	274	323	299	363	391	308	342	325	109	250	312
429	32158	284	258	271		435	285		285	119		276
430	32159	284	259	272	578	462	225	353	289	125	239	280
431	32160	267	198	233	446	356	290	348	319	116	283	276

432	Zonal Check	373	268	321	363	345	350	305	328	137	212	324
433	32161	363	228	296	330	380	265	278	272	138	230	284
434	32162	327	248	288	446	407	294	353	324	127	272	306
435	32163	346	280	313	347	423	333	278	306	119	254	309
436	32164	296	264	280	446	330	279	381	330	115	282	305
437	32165	286	300	293	380	473	336	292	314	136	239	304
438	32166	308	329	319	297	406	320	384	352	124	258	335
439	32167	281	271	276	330	226	255	308	282	127	249	279
440	32168	314	282	298	413	407	288	369	329	133	252	313
441	32169	330	256	293	347	369	265	394	330	140	292	311
442	32170	346	299	323	396	336	342	359	351	131	239	337
443	31269(R)	291	292	292	446	440	304	354	329	123		310
444	32171	332	275	304	413	451	238	320	279	124	291	291
445	32172	317	318	318	413	352	316	374	345	131	253	331
446	32173	286	250	268	330	373	264	399	332	127		300
447	32174	283	269	276	446	361	290	317	304	125		290
448	32175	334	303	319	363	333	339	425	382	94	288	350
449	32176	386	273	330	578	349					192	330
450	32177	263	309	286	380	462	278	320	299	122		293
451	32178	281	300	291	396	446	274	352	313	133	286	302
452	32179	320	325	323	314	457	318	387	353	120	253	338
453	32180	327	322	325	380	440	249	393	321	115	266	323
454	32181	304	266	285	347	435	379	342	361	120	237	323
455	32182	231	268	250	281	368	220	391	306	121	288	278
456	32183	344	229	287	363	336	329	356	343	123	284	315
457	32184	315	316	316	396	358	238	354	296	130	281	306
458	32185	268	279	274	495	270	290	429	360	121		317
459	Local Check	311	222	267	380	407	400	366	383	136	260	325
Exp. Mean		**303**	**274**	**289**	**373**	**386**	**292**	**351**	**320**	**128**	**258**	**305**

Table 4.5: (Contd.): Panicle/m^2 of entries in IVT-RSL, *Kharif* -2023

Entry No	IET No	Zone IV				Zone IV (2)	Zone VII			Zone VII(3)	Overall (9)
		AS		AS(1)	TP(1)		KA			KA(3)	
		TTB	KMJ@	mean	LMB	mean	PNP	SRS	KMT	mean	mean
401	32132	289	261	289	250	270	285	404	277	322	310
402	32133	222	219	222	250	236	285	226	260	257	265
403	32134	287	248	287	213	250	243	261	260	255	257
404	32135	261	284	261	225	243	275	220	263	253	281
405	32136	191	292	191	263	227	256	239	269	255	274
406	32137	242	307	242	225	234	263	296	249	269	279
407	32138	301	298	301	250	276	266	276	287	276	272
408	32139	309	289	309	213	261	282	378	219	293	287
409	32140	280	234	280	200	240	311	385	260	319	291
410	32141	236	235	236	250	243	269	220	253	247	260
411	32142	291	251	291	213	252	320	375	279	325	314
412	32143	272	258	272	213	243	250	286	229	255	261
413	32144	281	281	281	200	241	253	305	215	258	286
414	32145	258	258	258	263	261	278	292	255	275	299
415	32146	301	281	301	313	307	282	296	231	270	278
416	32147	284	282	284	188	236	285	380	223	296	289
417	32148	281	254	281	188	235	304	347	251	301	287
418	32149	304	272	304	200	252	268	409	262	313	286
419	32150	281	325	281	188	235	234	210	241	228	260
420	**Swarna Sub 1 (NC)**	305	310	305	238	272	265	334	235	278	293
421	32151	297	254	297	275	286	301	416	282	333	323
422	32152	306	278	306	200	253	266	365	295	309	304
423	32153	303	261	303	225	264	260	363	248	290	297
424	32154	293	198	293	150	222	224	314	202	247	245
425	32155	314	268	314	100	207	259	370	234	288	270
426	32156	267	245	267	213	240	358	368	250	325	299
427	32157		278		300	300	231	338	276	282	287
428	**CR Dhan 801 (check**	248	245	248	163	206	305	358	219	294	282
429	32158		288		275	275		324	253	289	280
430	32159	300	261	300	263	282	266	345	261	291	284
431	32160	277	279	277	288	283	285	332	263	293	283
432	**Zonal Check**	302	288	302	325	314	311	391	231	311	317

433	32161	305	279	305	250	278	256	330	273	286	283
434	32162	279	275	279	225	252	234	338	216	263	279
435	32163	312	295	312	263	288	247	442	213	301	302
436	32164	274	284	274	250	262	237	352	239	276	286
437	32165		291		300	300	310	249	238	266	289
438	32166	287	278	287	275	281	298	370	252	307	314
439	32167	284	261	284	213	249	244	269	308	274	270
440	32168	289	279	289	275	282	272	248	233	251	286
441	32169	239	265	239	200	220	202	271	230	234	265
442	32170	286	264	286	263	275	240	339	216	265	299
443	31269(R)	290	294	290	263	277	276	395	260	310	303
444	32171	259	267	259	313	286	237	284	271	264	281
445	32172	275	291	275	225	250	246	334	221	267	292
446	32173	264	274	264	163	214	279	327	265	290	277
447	32174	268	278	268	288	278	266	310	222	266	279
448	32175	296	284	296	338	317	278	325	230	278	319
449	32176	299	307	299		299	323	375	251	316	318
450	32177	299	261	299	275	287	269	380	230	293	291
451	32178	278	254	278	225	252	323	334	281	313	294
452	32179	290	287	290	263	277	256	355	248	286	307
453	32180	270	274	270	300	285	282	334	212	276	299
454	32181	297	302	297	225	261	324	403	231	319	308
455	32182	254	271	254	188	221	246	277	275	266	261
456	32183	318	284	318	313	316	291	296	192	260	296
457	32184	301	292	301	263	282	278	292	352	307	301
458	32185	227	293	227	300	264	291	292	236	273	290
459	**Local Check**	260	278	260	300	280	281	335	260	292	304
Exp. Mean		**280**	**273**	**280**	**242**	**262**	**273**	**326**	**249**	**283**	**288**

ADVANCE VARIETY TRIAL 1- SEMI DEEP WATER (AVT 1-SDW)

Locations:10 **Test Entries:12**

Checks: CR Dhan 506 (National), CR Dhan 510 (Eastern, North Eastern Zonal), MTU 1172 (Southern zonal), Varshadhan (RP Check) and Local Check

The trial was constituted with 12 entries including 08 test entries and four checks viz., CR Dhan 506 (National check), CR Dhan 510 (Eastern and North Eastern Zonal check), MTU 1172 (Southern Zonal Check), Varshadhan (Recurrent parent check) and Local Checks. All the test entries were in the second year of testing. The trial was sent to 10 locations and data was received from all the locations. However, data consideration of different locations is presented in Table.

Data consideration of different testing locations

SN	Centers	Data consideration
1	Kumta	Non-availability of water regime and adaptability parameters
2	Masodha	Failed to maintain the required water depth.
3	Cuttack	Lack of significant difference among the test entries
4	Chinsura	Lack of significant difference among the test entries
5	Canning	Low experimental mean yield (<2000Kg/ha)
6	Ghaghraghat	Rejected due to low CV (<5%).
7	Karimganj	Rejected due to low CV (<5%).
8	Bhubaneswar	Data considered for analysis
9	Titabar	Data considered for analysis
10	Maruteru	Data considered for analysis

Overall mean yield of entries varied from 3884 kg/ha (IET 31264) to 6209 kg/ha (Zonal Check). Mean days to 50% flowering ranged from 124 days (IET 29031) to 134 days (IET 31258); plant height ranged from 113 cm (IET 31279) to 149 cm (Varshadhan (RP)); mean panicles/m2 ranged from 264 (IET 29026) to 327 (IET 31270). The data pertaining to yield, days to 50% flowering, plant height, no. of panicles/m^2 and qualities are presented in Tables 5.2 to5.6.

In Zone III, only one entry (IET 31258) performed significantly superior than the best check (Zonal Check). In zone IV and zone VII, none of the entries showed significantly superior performance than the best checks.

Identification of superior genotypes in SDW trial:

IET 31258 (MTU-1387 (MTU 2244-39-20-4) derived from a cross between MTU 1064/Swarna sub-1//MTU 1064 possesses short bold grains with 120 cm plant height and 136 days to 50% flowering. On Overall yield basis, it did not show superior performance than the best check. However, it ranked 1st in zone III (6089 kg/ ha) with significantly superior performance than the best check (Zonal Check). It also ranked 1st in Odisha. The entry recorded HRR (58.0 %), intermediate ASV (4.0) and AC (24.1%) for grain quality parameters. The entry recorded better seedling survival, desirable phenotypic acceptability and low grain shattering. Hence, the entry is promoted to AVT-2-SDW in zone III for third year of testing.

Zonal Performance of promising entries in AVT 1-SDW *Kharif* 2023

Entry No	IET No/ Designation/ Cross	Zone III (1)	Remarks
		Mean GY(Kg/ha) DFF PH (cm)	
501	**IET 31258** MTU-1387 (MTU 2244-39-20-4) MTU 1064/Swarna sub-1//MTU 1064	6089* 136 120	Promoted for Zone III
CR Dhan 506 (NC)		2900 133 115	
Zonal Check		**4712** **136** **107**	
Local Check		4703 126 122	
CD		**460.79**	

Performance of NIL lines (IET 29031 and IET 29026):

The SDW trial included two near isogeneic lines (NILs) of Varshadhan viz., IET 29031 and IET 29026, in 2nd year of testing. The yield performance of these lines was compared with that of the recurrent parent, Varshadhan. In the year 2022 both the entries perform at per yield with recurrent parent, Varshadhan and in the second year 2023 both the entries showed significantly lower yield than the recurrent parent, Varshadhan in AVT-1-SDW trial. The submergence tolerance performance of these entries were also tested under Advanced Varietal Trial 1-NIL (Submergence) (AVT-1-NIL-SUB) during kharif 2023. The entries (IET 29031 and IET 29026) were found superior for submergence tolerance over the recurrent parent in terms of survival percentage. However, the grain yield of the NILs entries IETs 29031 and 29026 in 2023 compared to 2022 was reduced by 50% and more than 20% in RP, Varshadhan. Thue, both NILs evaluation may be repeated for next year to understand the consistency in the performance of the NILs.

Yield performance of NIL lines in AVT-1-SDW during *kharif* 2022 and 2023

IET No	Odisha (2022)	Odisha (2023)	Mean (kg/ ha)
29031	5020	2488	3754
29026	4972	2425	3699
Varshadhan (RP)	4364	3601	3983
CD	770.30	460.79	

Seedling Survival percentage of NIL entries in AVT-1 NIL- SUB over their recurrent parent under submergence stress condition, kharif, 2022 & *Kharif* 2023

2022

Recurrent Parent	NIL-IET no.	NIL-Seedling Survival (%)						RP- Seedling Survival (%)						
		CTK	BKG@	MSD@	MTU@	KRK	Mean	CTK	BKG@	MSD@	MTU@	KRK	Mean	% Over RP
Varshadhan	29031	83	70	81	89.4	89	86	55	90	89	77	56	55.5	54.95
	29026	79	80	79	85.6	93	86	55	90	89	77	56	55.5	54.95
	29032	77	80	93	78.3	92.7	84.85	55	90	89	77	56	55.5	52.88

2023

RecurrentParent	**NIL-IETno.**	**NIL-SeedlingSurvival(%)**						**RP-SeedlingSurvival(%)**							
		BKG	**KRK**	**MTU@**	**MSD@**	**SBR**	**Mean**	**BKG**	**KRK**	**MTU@**	**MSD@**	**SBR**	**Mean**	**% Over RP**	**% Over SC**
Varshadhan	29031	84	82.3	64.5	81	100	83.15	44	53.96	72.5	78	17	48.98	69.76	161.81
	29026	74	87.98	70.5	86	75	80.99	44	53.96	72.5	78	17	48.98	65.35	155.01
Swarna(Sensitive check)		28	35.52	55.23	-	30	31.76								

Entries Promoted

- **The entry IET 31258 is promoted to AVT-2 SDW for in Zone III.**
- **The NILs entries IET 29031 and IET 29026 to be repeated.**

Details of water regime (cm) at different centers in AVT-1- SDW, *Kharif* 2023

Location	Week	June	July	August	September	October	November
Bhubaneswar	1st			5	20	30	45
	2nd			5	25	35	45
	3rd			10	20	40	45
	4th		5	10	25	40	50
Canning	1st		30.6	40.6	52.3	50	30.2
	2nd		34.9	48.1	51.2	45.3	18.5
	3rd	10.5	37.4	45.5	53	40.1	16.4
	4th	25.2	42.5	51.2	46.2	35.2	
Chinsura	1st			10	40	60	30
	2nd			20	55	50	20
	3rd			30	60	35	15
	4th			30	60	30	
Ghaghraghat	1st			8	65	60	
	2nd			27	82	52	
	3rd			45	71	20	
	4th			56	61	8	
Karimganj	1st	52	40	42	15	18	12
	2nd	51	36	38	14	16	10
	3rd	50	30	34	13	13	9
	4th	50	28	32	10	12	9
Maruteru	1st				40	60	30
	2nd				40	50	30
	3rd				40	40	40
	4th			30	60	40	30
Masodha	1st			25	35	12	
	2nd			10	40	10	
	3rd			8	25	6	
	4th			12	10		
NRRI, Cuttack	1st			30	60	60	40
	2nd			40	60	60	35
	3rd		10	50	55	50	25
	4th		20	55	55	45	10
Titabar	1st			16	42	65	24
	2nd			22	55	53	22
	3rd			25	44	34	19
	4th			30	62	39	15
	5th			33	60	29	9

Adaptability Parameters of entries in AVT 1-SDW, *Kharif-2023*

Entry No.	IET No.	Kneeing Ability Score (1-5)							
		BBN	CNG	CHN	GGT	KMJ	MTU	NRRI	TTB
501	31258	3		1	3		5		
502	31259	3		3	3		3		
503	CR Dhan 506 (NC)	3		1	1		5		
504	31264	5		3	3		5		
505	31267	5		1	3		1		
506	Zonal Check	5		1	3		1		
507	31270	3		1	1		3		
508	31279	3		1	3		1		
509	29031	5		3	1		5		
510	29026	3		3	3		3		
511	Varshadhan (RP)	3		3	1		3		
512 (LC)	Local Check	5		1	3		3		

(Contd.) Adaptability Parameters of entries in AVT-1-SDW, *Kharif* 2023

Entry No.	IET No.	Grain Shattering Score (1-9)							
		BBN	CNG	CHN	GGT	KMJ	MTU	NRRI	TTB
501	31258	1		5	3	5	3	5	3
502	31259	3		5	3	5	5	5	1
503	CR Dhan 506 (NC)	3		5	3	3	5	5	3
504	31264	5		5	3	5	3	5	3
505	31267	3		5	3	3	5	5	1
506	Zonal Check	1		3	3	5	5	5	5
507	31270	5		3	3	3	5	5	3
508	31279	1		5	3	5	5	5	5
509	29031	5		5	3	3	5	5	3
510	29026	7		3	5	5	7	5	3
511	Varshadhan (RP)	7		5	5	3	3	5	
512(LC)	Local Check	3		5	3	3	5	5	1

(Contd.) Adaptability Parameters of entries in AVT-1-SDW, *Kharif* 2023

Entry No.	IET No.	Phenotypic Acceptability Score (1-9)							
		BBN	CNG	CHN	GGT	KMJ	MTU	NRRI	TTB
501	31258	1		3	3	3	3	3	5
502	31259	5		1	3	3	3	3	3
503	CR Dhan 506 (NC)	5		1	3	1	3	5	3
504	31264	5		1	3	3	3	3	3
505	31267	3		3	5 (very late)	1	3	5	3
506	Zonal Check	3		3	5 (very late)	3	1	5	7
507	31270	5		1	3	1	3	3	3
508	31279	1		1	1	3	1	7	3
509	29031	7		1	3	1	3	3	3
510	29026	7		1	5	3	7	3	3
511	Varshadhan (RP)	5		1	5	1	5	3	
512(LC)	Local Check	3		3	3	1	3	3	3

(Contd.) Adaptability Parameters of entries in AVT-1-SDW, *Kharif* 2023

Entry No.	IET No.	Seedling Survival (%)							
		BBN	CNG	CHN	GGT	KMJ	MTU	NRRI	TTB
501	31258	3	41.96	85	100	100	88.62	94	
502	31259	3	59.41	85	100	100	91.17	92	
503	CR Dhan 506 (NC)	5	97.65	80	97	100	92.32	85	
504	31264	5	49.41	85	100	100	92.37	90	
505	31267	5	19.80	90	99	100	88.47	87	
506	Zonal Check	5	40.39	85	95	100	85.18	86	
507	31270	7	45.10	80	95	100	90.74	90	
508	31279	1	31.57	90	100	100	90.33	75	
509	29031	7	100.00	85	99	100	89.00	91	
510	29026	7	100.00	80	95	100	90.51	92	
511	Varshadhan (RP)	5	100.00	80	95	100	88.25	91	
512(LC)	Local Check	3	100.00	95	100	100	89.94	89	

(Contd.) Adaptability Parameters of entries in AVT-1-SDW, *Kharif* 2023

Entry No.	IET No.	Elongation Ability (Score 1-9)							
		BBN	CNG	CHN	GGT	KMJ	MTU	NRRI	TTB
501	31258	3		3	3		3		
502	31259	3		3	3		3		
503	CR Dhan 506 (NC)	5		1	1		3		
504	31264	5		3	3		5		
505	31267	7		3	3		3		
506	Zonal Check	7		1	3		5		
507	31270	5		3	1		3		
508	31279	3		3	3		3		
509	29031	7		1	1		3		
510	29026	5		1	3		3		
511	Varshadhan (RP)	5		1	1		3		
512(LC)	Local Check	3		3	1		3		

Table No. 5.1: Composition of entries in Advance Variety Trial 1-Semi Deep Water (AVT 1-SDW), *Kharif* 2023

Entry No.	IET No.	Designation	Cross combination	Grain Type
2nd Year of testing:				
501	31258	MTU-1387 (MTU 2244-39-20-4)	MTU 1064/Swarna sub-1//MTU 1064	MS
502	31259	TTB 1272-6	Ranjit/Choilahi/IRGC 1797	MS
503	**CR Dhan 506 (NC)**			
504	31264	OR 2766-1	Savitri / CRLC899	MS
505	31267	MTU-1389 (MTU 2481-14-1-1-1)	Samba sub/MTU 1061// Swarna sub1	MS
506	**Zonal Check** [CR Dhan 510 (Eastern and North Eastern), MTU 1172 (Southern)]			
507	31270	TTB 1048-60-6	IRGC 25239/Ranjit	MS
508	31279	MTU-1388 (MTU 2527-22-1-1-1)	PLA1100/IR85956-23-1-5	LS
NIL entries (2nd year of testing)				
509	29031	CR 2538-42-17-32-3-2	Varshadhan*3/IR49830-7	LB
510	29026	CR 2538-42-17-32-3-3	Varshadhan*3/IR49830-7	LB
511	Varshadhan (RP)			LB
512	**Local Check**			

Table No. 5.2: Grain Yield (Kg/ha) of entries in AVT-1 SDW *Kharif* 2023

Entry No	IET NO	Zone III												Zone III (1)	
		OD				OD (1)		WB (0)				UP (0)			
		CTK@		BBN		mean		CHN@		CNG@		GGT@		mean	
501	31258	4459	1	6089	1*	6089	1*	6578	2	481	10	2605	1	6089	1*
502	31259	4314	2	3835	6	3835	6	6340	4	1454	6	2305	3	3835	6
503	**CR Dhan 506 (NC)**	3421		2900	10	2900	10	5123		2157	5	2250	4	2900	10
504	31264	3906	7	3520	9	3520	9	6285	5	774	8	2141	7	3520	9
505	31267	3768	9	4699	5	4699	5	5344	10	351		1923	9	4699	5
506	**Zonal Check**	3706	10	4712	3	4712	3	5687	7	713	9	1855	10	4712	3
507	31270	4235	3	3535	8	3535	8	6481	3	828	7	2128	8	3535	8
508	31279	3188		5144	2	5144	2	6698	1	416		2182	6	5144	2
509	29031	3978	5	2488		2488		5445	9	2305	3	2209	5	2488	
510	29026	4218	4	2425		2425		5684	8	2178	4	1827		2425	
511	**Varshadhan (RP)**	3934	6	3601	7	3601	7	6151	6	2931	2	1718		3601	7
512	Local Check	3823	8	4703	4	4703	4	5189		3125	1	2455	2	4703	4
Exp. Mean		**3912.42**		**3970.81**		**3970.81**		**5917.11**		**1476.08**		**2133.22**		**3970.81**	
F value		**1.05 (p<0.4406) NS**		**50.69 (p<0.0001) S**		**50.69 (p<0.0001) S**		**1.25 (p<0.3157) NS**		**18.88 (p<0.0001) S**		**31.02 (p<0.0001) S**		**50.69 (p<0.0001) S**	
CD		**1057.43**		**460.79**		**460.79**		**1492.25**		**685.8**		**138.9**		**460.79**	
CV%		15.96		6.85		6.85		14.89		27.44		3.85		6.85	
D/S		19.06.2023		26.06.23				26.06.23		28.06.2023		24-06-2023			
D/P		21.07.2023		04.08.23				05.08.23		01.08.2023		Direct seeded			
Local Check Name		CR DHAN-508		Upahar				Rajdeep (IET 17713)		Amal-mana		NDGR-201			

Table No. 5.2(contd.): Grain Yield (Kg/ha) of entries in AVT-1 SDW *Kharif* 2023

Entry No	IET NO	Zone IV				Zone IV (1)		Zone VII (1)		Overall (3)	
		AS				AS (1)		AP (1)			
		TTB		KMJ@		mean		MTU		mean	
501	31258	3524	10	4918	7	3524	10	7626	1	5746	3
502	31259	3947	8	4598	9	3947	8	6744	8	4842	
503	**CR Dhan 506 (NC)**	7537	1	5682	3	7537	1	7044	7	5827	2
504	31264	2982		4190		2982		5150		3884	
505	31267	3603	9	5062	6	3603	9	7326	5	5209	9
506	**Zonal Check**	6570	4	4469	10	6570	4	7344	4	6209	1
507	31270	3988	7	5798	2	3988	7	7587	2	5037	10
508	31279	3514		4214		3514		7418	3	5359	6
509	29031	6783	2	6036	1	6783	2	6527	10	5266	8
510	29026	6255	5	4902	8	6255	5	7175	6	5285	7
511	**Varshadhan (RP)**	6703	3	5465	4	6703	3	6543	9	5616	4
512	Local Check	5993	6	5100	5	5993	6	5587		5428	5
Exp. Mean		**5116.64**		**5036.06**		**5116.64**		**6839.33**		**5308.93**	
F Value		**43.76 (p<0.0001) S**		**623.58 (p<0.0001) S**		**43.76 (p<0.0001) S**		**5.03 (p<0.0006) S**		**11.40 (p<0.0001) S**	
CD		**731.26**		**71.9**		**731.26**		**1025.97**		**504.84**	
CV%		8.44		0.84		8.44		8.86		5.62	
D/S		05-07-2023		22.07.2023				18.07.2023			
D/P		02-08-2023		21.08.2023				28.08.2023			
Local Check Name		Dhansiri		Ranjit				MTU 1140			

Entry No.	IET No.	Zone III						Zone III (1)	Zone IV		Zone IV(1)	Zone VII(1)	Overall (3)
		OD		OD(1)	WB(0)		UP(0)		AS		AS(1)	AP(1)	
		CTK@	BBN	mean	CHN@	CNG@	GGT@	mean	TTB	KMJ@	mean	MTU	mean
501	31258	140	136	136	128	128	141	136	145	112	145	120	134
502	31259	129	123	123	116	121	124	123	143	114	143	121	129
503	**CR Dhan 506 (NC)**	135	133	133	135	128	139	133	131	110	131	121	128
504	31264	131	123	123	116	125	123	123	138	112	138	123	128
505	31267	141	137	137	129	127	142	137	144	114	144	113	131
506	**Zonal Check**	131	136	136	131	130	144	136	128	110	128	120	128
507	31270	130	123	123	118	118	124	123	129	111	129	123	125
508	31279	140	131	131	126	126	126	131	143	113	143	122	132
509	29031	140	127	127	131	132	127	127	130	109	130	115	124
510	29026	140	133	133	135	124	140	133	131	110	131	115	126
511	**Varshadhan (RP)**	138	133	133	133	130	141	133	133	109	133	117	128
512	Local Check	131	126	126	128	114	109	126	127	109	127	118	124
Exp. Mean		**136**	**130**	**130**	**127**	**125**	**132**	**130**	**135**	**111**	**135**	**119**	**128**

Table No.5.4: Plant Height of Entries in AVT 1-SDW *Kharif* -2023

Entry No	IET No.	Zone III						Zone III(1)	Zone IV		Zone IV(1)	Zone VII(1)	Overall (3)
		OD		OD(1)	WB(0)		UP(0)		AS		AS(1)	AP(1)	
		CTK@	BBN	mean	CHN@	CNG@	GGT@	mean	TTB	KMJ@	mean	MTU	mean
501	31258	120	120	120	119	97	107	120	94	100	94	131	115
502	31259	136	112	112	130	107	131	112	114	127	114	144	123
503	**CR Dhan 506 (NC)**	158	115	115	137	104	125	115	104	100	104	143	121
504	31264	127	110	110	136	99	116	110	123	105	123	133	122
505	31267	119	108	108	114	95	104	108	115	96	115	144	122
506	**Zonal Check**	132	107	107	114	92	121	107	116	100	116	128	117
507	31270	126	122	122	130	106	114	122	126	108	126	160	136
508	31279	125	110	110	117	93	120	110	101	105	101	129	113
509	29031	174	155	155	154	121	140	155	128	136	128	174	152
510	29026	173	145	145	161	111	147	145	144	136	144	143	144
511	**Varshadhan (RP)**	170	150	150	160	116	145	150	144	104	144	154	149
512	Local Check	144	122	122	106	146	118	122	130	104	130	134	129
Exp. Mean		**142**	**123**	**123**	**132**	**107**	**124**	**123**	**120**	**110**	**120**	**143**	**129**

Table No. 5.5: Number of Panicles/m2 of entries in AVT-1 SDW *Kharif* -2023

Entry No	IET No.	Zone III						Zone III(1)	Zone IV		Zone IV(1)	Zone VII(1)	Overall(3)
		OD		OD(1)	WB(0)		UP(0)		AS		AS(1)	AP(1)	
		CTK@	BBN	mean	CHN@	CNG@	GGT@	mean	TTB	KMJ@	mean	MTU	mean
501	31258	313	347	347	352	229	114	347	274	275	274	306	309
502	31259	335	320	320	242	308	104	320	277	271	277	279	292
503	**CR Dhan 506 (NC)**	251	218	218	253	355	98	218	276	288	276	339	278
504	31264	208	304	304	330	257	96	304	279	260	279	299	294
505	31267	227	237	237	440	191	89	237	254	278	254	306	266
506	**Zonal Check**	270	250	250	308	294	93	250	252	263	252	398	300
507	31270	260	403	403	319	294	95	403	268	294	268	309	327
508	31279	289	283	283	275	257	99	283	252	255	252	318	284
509	29031	284	280	280	374	369	101	280	265	299	265	260	268
510	29026	230	217	217	308	331	85	217	290	275	290	286	264
511	**Varshadhan (RP)**	239	293	293	308	359	83	293	277	283	277	283	284
512	Local Check	261	325	325	352	369	107	325	283	272	283	327	312
Exp. Mean		**264**	**290**	**290**	**322**	**301**	**97**	**290**	**271**	**276**	**271**	**309**	**290**

Table No. 5.6: Grain Quality characteristics of entries in AVT-1 SDW, *Kharif*- 2023 conducted at ICAR-NRRI, Cuttack

Entry No.	IET No	Hull %	Mill%	HRR%	Moist%	Chalkiness	KL (mm)	KB (mm)	L/B	GT	ASV	WU ml/100g	VER	ER	KLAC/ mm	Amy %	GC (mm)
501	31258	72	62	58	12.1	VOC	4.2	1.8	2.33	SB	4	120	3.75	2.38	10	24.1	48
502	31259	74	63	57	12.3	VOC	4.6	2.1	2.19	SB	5	130	3.75	1.96	9	23.1	47
503	**CR Dhan 506 (NC)**	71	61	57	12.4	VOC	4.7	2.1	2.24	SB	3	90	3.75	1.70	8	20	52
504	31264	70	64	56	12.5	VOC	4.8	1.8	2.67	MS	4	110	3.75	2.08	10	21.2	52
505	31267	73	63	59	12.6	VOC	4.5	2	2.25	SB	4	130	3.75	2.22	10	22.5	51
506	**Zonal Check**	71	62	55	12.4	VOC	5.1	1.9	2.68	MS	4	120	3.75	2.16	11	23.2	55
507	31270	72	60	56	12.3	VOC	5.2	1.9	2.74	MS	5	90	3.75	1.92	10	21.2	56
508	31279	70	61	58	12.5	VOC	4.8	1.8	2.67	MS	5	100	3.75	1.88	9	24.2	49
509	29031	69	65	57	12.7	VOC	4.8	2.1	2.29	SB	5	120	3.75	1.67	8	23.1	53
510	29026	64	62	54	12.3	VOC	5.1	2.1	2.43	SB	4	120	3.75	1.76	9	21.3	51
511	**Varshadhan (RP)**	67	62	55	12.8	VOC	5.1	1.8	2.83	MS	5	90	4	1.96	10	22.1	52
512	Local Check	71	63	58	12	VOC	4.5	2.1	2.14	SB	4	120	3.75	2.00	9	21.3	51

HULL: Hulling (%); MILL: Milling (%); HRR: Head Rice Recovery (%); KL: Kernel Length(mm); KB: Kernel Breadth(mm); L/B: Length and breadth ratio; Grain Chalk: Grain Chalkiness; VOC: Very occasionally present; A: Absent ASV: Alkali Spreading Value; AC: Amylose Content (%); GC: Gel Consistency; LB: Long Bold; SB:Short Bold; LS: Long Slender; MS: Medium Slender; SS: Short Slender.

INITIAL VARIET Y TRIAL-SEMI DEEP WATER (IVT-SDW)

Locations: 10 **Test Entries: 27**

Checks: **CR Dhan 506 –National check;**

CR Dhan 510(Eastern & North Eastern) and MTU 1172 (Southern) – Zonal check;

Mrunalini (BB), Amal-mana (CNG), Rajdeep (IET 17713) (CHN), NDGR - 201(GGT), Ranjit (KMJ), Karikagga (KMT), MTU 1140 (MTU), NDR9930111(MSD), CR Dhan 508 (CTC), Dhansir (TTB)-Local check

The IVT-SDW trial comprised of twenty-seven entries and three checks, CR Dhan 506 (National Check), CR Dhan 510 (Eastern and North Eastern-Zonal Check), MTU 1172 (Southern-Zonal Check) and local checks. The trial was conducted at ten locations under three different zones. The locations included Bhubaneswar, Canning, Chinsura, Ghagraghat, Masodha and Cuttack in Zone-III, Karimganj, and Titabar in Zone-IV, Kumta and Maruteru in Zone-VII.

Water table data during the crop growth period was not reported from Kumta while the prescribed water table was not maintained at Masodah. Hence, these two locations were not considered for analysis. Details of water depth (cm) maintained at different centers in IVT-SDW, kharif-2023, during the crop growth period is presented in following table. As per the guidelines, water level of 50 cm or more needs to be maintained for at least a month during the crop growth period for fulfilling the criteria of SDW trial.

Details of water regime (cm) at different centers in IVT-SDW, *Kharif*-2023:

Location	Week	June	July	August	September	October	November
Bhubaneswar	1st	-	-	5	20	30	45
	2nd	-	-	5	25	35	45
	3rd	-	-	10	20	40	45
	4th	-	5	10	25	40	50
Canning	1st	-	30.6	40.6	52.3	50	30.2
	2nd	-	34.9	48.1	51.2	45.3	18.5
	3rd	10.5	37.4	45.5	53	40.1	16.4
	4th	25.2	42.5	51.2	46.2	35.2	-
Chinsura	1st	-	-	30	40	60	30
	2nd	-	-	25	55	50	20
	3rd	-	-	35	60	35	15
	4th	-	10	30	60	30	-
Ghaghraghat	1st	-	-	8	65	60	-
	2nd	-	-	27	82	52	-
	3rd	-	-	45	71	20	-
	4th	-	-	56	61	8	-
Karimganj	1st	52	40	42	15	18	12
	2nd	51	36	38	14	16	10
	3rd	50	30	34	13	13	9
	4th	50	28	32	10	12	9
Maruteru	1st	-	-	-	40	60	30
	2nd	-	-	-	40	50	3
	3rd	-	-	-	40	40	40
	4th	-	-	30	60	40	30

Masodha	1st	-	-	25	35	12	-
	2nd	-	-	10	40	10	-
	3rd	-	-	8	25	6	-
	4th	-	-	12	10	-	-
Cuttack	1st	-	-	35	55	55	25
	2nd	-	-	40	60	50	20
	3rd	-	15	45	65	40	15
	4th	-	20	50	55	35	5
Titabar	1st	-	-	24	48	69	30
	2nd	-	-	32	65	62	20
	3rd	-	-	38	61	45	16
	4th	-	15	40	67	53	12
	5th	-	23	41	60	42	10

Data on yield, days to 50% flowering, plant height and no. of panicles/m^2 were received from all the ten test locations. Due to low CV value (<5%) data from Ghagraghat (4.05%) and Karimganj (4.43%), were not included for analysis. Overall, data from six out of ten trial locations were included for analysis and are presented in tables 6.2 to 6.5 Data for adaptability parameters includidng, seedling survival %, elongation ability score, kneeing ability score, grain shattering score and phenotypic acceptability score are presented as follows.

Adaptability Parameters of entries in IVT-SDW, *Kharif*-2023

Entry No.	IET No.	Seedling survival (%)						Elongation Ability (Score 1-9)					
		BBN	CNG	CHN	MTU	CTC	TTB	BBN	CNG	CHN	MTU	CTC	TTB
601	32186	7	15.3	15				7		3			
602	32187	5	66.9	85	92.17	75		7		3	5		
603	32188	5	82.7	85	92.17	69		5		3	7		
604	32189	5	49.2	80	89.72	77		5		5	3		
605	32190	3	98.4	85	88.4	80		5		1	5		
606	32191	5	53.9	90	86.7	76		3		3	7		
607	32192	5	100.0	85	85.38	66		3		1	7		
608	32193	7	90.2	80	90.61	65		3		1	7		
609	32194	7	83.1	90	79.11	92		3		3	3		
610	**CR Dhan 506 (NC)**	5	100.0	85	94.53	79		5		1	5		
611	32195	5	68.6	80	89.21	68		3		3	7		
612	32196	3	61.2	80	94.53	78		7		3	7		
613	32197	1	100.0	85	93.36	71		3		3	7		
614	32198	1	96.1	75	92.37	89		3		3	3		
615	32199	5	83.5	75	94.28	91		5		3	3		
616	32200	5	100.0	80	91.84	89		5		3	7		
617	32201	7	72.9	85	89.8	66		5		3	5		
618	**Zonal Check**	3	100.0	90	90.7	95		3		3	7		
619	32202	3	100.0	85	89.65	79		3		3	3		
620	32203	5	100.0	95	94.38	96		7		1	3		
621	32204	7	100.0	95		90		7		3			
622	32205	5	100.0	85	91.72	77		3		1	7		
623	32206	3	74.1	90	91	78		3		3	7		
624	32207	5	75.7	85	92.62	72		7		3	5		
625	32208	7	82.0	90	91.97	77		7		3	7		
626	32209	3	97.3	85	92.67	82		7		3	7		
627	32210	3	100.0	93	92.61	80		7		3	7		
628	32211	5	100.0	80	91.72	74		3		1	7		
629	32212	5	94.1	20				3		3			
630 (LC)	**Local check**	1	100.0	95	89.56	88		5		3			

(Contd.): Adaptability Parameters of entries in IVT-SDW, *Kharif*-2023

Entry No.	IET No.	Kneeing Ability Score (1-5)						Grain Shattering Score (1-9)						Phenotypic Acceptibility Score (1-9)					
		BBN	CNG	CHN	MTU	CTC	TTB	BBN	CNG	CHN	MTU	CTC	TTB	BBN	CNG	CHN	MTU	CTC	TTB
601	32186	5		1				5		5				7		7			
602	32187	5		1	3			7		5	5			5		3	5	7	
603	32188	5		1	3			5		5	5			5		5	5	7	
604	32189	5		3	3			5		5	3			7		5	5	7	
605	32190	3		3	3			3		5	3			1		1	3	7	
606	32191	5		3	3			3		3	3			5		5	5	7	
607	32192	5		3	5			3		5	5			5		3	7	7	
608	32193	5		3	3			5		5	3			5		1	3	7	
609	32194	5		3	5			7		3	5			7		1	5	3	
610	**CR Dhan 506 (NC)**	3		3	5			5		5	3			7		5	5	7	
611	32195	3		3	5			3		5	3			3		3	7	7	
612	32196	3		3	3			3		5	3			3		3	3	7	
613	32197	3		1	3			1		5	3			1		3	3	7	
614	32198	3		1	1			1		5	3			1		3	3	5	
615	32199	5		5	5			3		3	3			3		5	5	5	
616	32200	3		1	3			3		5	3			7		1	3	5	
617	32201	3		5	3			7		3	3			7		5	5	7	
618	**Zonal Check**	5		3	5			7		5	3			3		3	5	3	
619	32202	5		5	3			3		3	5			3		5	5	7	
620	32203	5		1	3			3		5	3			5		1	5	3	
621	32204	5		1				5		5				3		3		5	
622	32205	3		3	5			3		5	3			5		1	5	7	
623	32206	3		5	5			1		5	3			1		5	5	7	
624	32207	3		3	5			3		7	3			3		5	7	7	
625	32208	5		3	5			3		5	5			3		5	5	7	
626	32209	5		3	3			5		5	3			7		3	5	7	
627	32210	5		3	5			5		5	3			5		3	5	7	
628	32211	5		3	5			7		5	3			5		3	7	7	
629	32212	5		1				7		5				5		3			
630 (LC)	**Local check**	3		1				3		5	3			3		3	3	5	

Performance of test entries on overall basis:

The experimental mean for grain yield was recorded to be 4218.8kg/ha, while the mean grain yield of entries varied from 2159kg/ha (IET 32186) to 5357kg/ha (IET 32203). Plant height of the entries varied from 99cm (IET 32201) to 168cm (IET 32211) with the overall mean plant height of 130cm for the trial. Days to 50% flowering ranged from 95 days in case of IET 32186 to 139 days in case of IET 32204 with overall mean value of 120days. For no. of panicles/m^2, the values ranged from 278 panicles/m^2 (IET 32188) to 475 panicles/m^2 (IET 32212), with the overall mean of 312 panicles/m^2 for the trial. Zonal check was found to be the best performer among the varietal checks, with mean yield of 4955kg/ha, mean plant height of 125cm, 133 days to 50% flowering and 298 panicles/m^2 and hence, considered for comparison of test entries on overall performance basis. Four entries recorded higher yield than the best varietal check (Zonal check mean), however, the performance of none of the entries was found to be significantly superior to the best varietal check (BVC + CD). Therefore, on overall performance basis, none of the entries are promoted to 2nd year testing.

Performance of promising entries in IVT-SDW, *Kharif*-2023:

Sl. No.	Designation/Cross combination	IET No.	GT	ZoneVII(1)		Remarks
				GY(kg/ha)/ FD/PH (cm)	% over BVC	
1	**MTU 1424 (MTU 2433-1-3-1)**	32198	MS	7552 120 132	18.20	Promoted
2	**NDR 2022-10-4**	32196	MB	7549 114 155	18.16	Promoted
3	**CR 2667-4-1-2-2-1**	32193	MS	7492 115 156	17.26	Promoted
CR Dhan 506(NC)			-	5238 115 150	-	-
Zonal Check			-	6389 125 130	-	-
Local check			-	4953 115 118	-	-
CD(0.05)			-	970.36	-	-
BVC+CD(0.05)			-	7,359.36	-	-

Performance of test entries in Zone III:

Data was received from five different locations including Bhubaneswar and Cuttack in Odisha, Chinsura and Canning in West Bengal and Ghagraghat in Uttar Pradesh. Due to low CV (<5%), data from Ghagraghat was not considered for analysis. Mean yield for the zone was recorded as 3664.5kg/ha, mean value for days to 50% flowering was 120days, mean plant height value130cm and the mean value for panicles/m^2 was 320.Yield for the zone ranged from 2159kg/ha (IET 32186) to 5012kg/ha (IET 32203), days to 50% flowering ranged from 95 days (IET 32186) to 134 days(IET 32204), plant height ranged from99cm (IET 32201) to173cm (IET 32211) while panicle/m^2 ranged from 263 (IET 32188) to 475 (IET 32212). Among all the three checks, the zonal check CR Dhan 510, performed as the best varietal check with mean yield of 4534kg/ha, mean height of 126cm, days to 50% flowering as 132days and mean value for panicle/m^2 as 310. Three entries, IET 32197, IET 32198 and IET 32203 performed better than the best varietal check; however, the performance was not significantly superior to the best varietal check, for any of the test entries. Therefore, none of the entries are promoted for 2nd year testing in the zone.

Performance of test entries in Zone IV:

Data was received from two locations, Titabar and Karimganj in Assam. However, CV was lesser than 5% for Karimganj and therefore, the data was not considered for further analysis. Yield for the zone was recorded as 5200.06kg/ha, value for days to 50% flowering was 138days, plant height was 124cm and the value for panicles/m^2 was 254. Yield for the zone ranged from 3603kg/ha (IET 32188) to 6166kg/ha (IET 32194), days to 50% flowering ranged from 126 days (IET 32189) to 158days (IET 32204), plant height ranged from 90cm (IET 32201) to 161cm (IET 32211) while panicle/m^2 ranged from 221 (IET 32204) to 312(IET 3219).National check CR Dhan 506 performed as the best varietal check with mean yield of 5370kg/ha, mean height of 139cm, days to 50% flowering as 142days and mean value for panicle/m^2 as 243. Twelve entries performed better than the best varietal check, however, none of them could perform significantly superior to the best check variety (Performance <BVC+CD). Therefore, noneof the entries are promoted for 2nd year testing in the zone.

Performance of test entries in Zone VII:

Data was received from Kumta and Maruteru. Data from Kumta was not considered for analysis as water level data during crop growth period was not reported and analysis was done based on Maruteru data only. Yield for the zone was recorded as 5902.21kg/ha, value for days to 50% flowering was 111days, mean plant height was 141cm and the mean value for panicles/m^2 was 326. Yield for the zone ranged from 4475kg/ha (IET 32208) to 7552kg/ha (IET 32198), days to 50% flowering ranged from 91 days (IET 32189) to 127days (IET 32218), plant height ranged from 112cm (IET 32201) to 162cm (IET 32200) while panicle/m^2 ranged from 278 (IET 32200) to 389 (IET 32201). The zonal check MTU 1172 was the best varietal check, with mean yield of 6389kg/ha, mean plant height of 130cm, days to 50% flowering as 125days with mean value for panicle/m^2 as 310. However, days to 50% flowering data for local check (MTU 1140) and national check (CR Dhan 506) was considered for promotion of entries.Ten entries performed better than the best varietal check. Performance of three test entries, IET 32198, IET 32196 and IET 32193 was found to be significantly superior over the best varietal check (Performance > BVC+CD). **Therefore, the entries are promoted for 2nd year testing in the zone.**

Characteristic features of the test entries that performed significantly superior over the best varietal check and are promoted for 2nd year testing in the zone are as follows:

IET 32198 (MTU 1424 (MTU 2433-1-3-1)): The entry has been developed from the cross MTU 1061/MTU 1121 and has medium slender grain type. It recorded a plant height of 132cm with 120days to 50% flowering and 324panicles/m^2. The mean yield of the entry is 7552kg/ha and it ranked first in yield in Zone VII, performing significantly superior over the best varietal check (the zonal check MTU1172). The culture recorded 18.20% yield advantage over the best varietal check in the zone. Therefore, the entry is promoted to 2nd year testing under SDW in Zone VII. The entry was ranked second highest in yield in Zone III, however the performance was not significantly higher than the best varietal check CR Dhan 510 (zonal check for Zone III).

IET 32196 (NDR 2022-10-4): The entry has been derived from the cross NDR 8029/Sarjoo 52 and has medium bold grain type. It has recorded a plant height of 155cm with 114days to 50% flowering and 317panicles/m^2. The mean yield of the entry is 7549kg/ha and it ranked second in yield under Zone VII. The performance was significantly superior over the best varietal check (the zonal check MTU1172). The culture recorded 18.16% yield advantage over the best varietal check in the zone. Therefore, the entry is promoted to 2nd year testing under SDW in Zone VII.

IET 32193 (CR 2667-4-1-2-2-1): The entry was developed from the cross Gayatri/AC 38599 and has medium slender type grain. It recorded a plant height of 156cm with 115days to 50% flowering and 317panicles/m^2.The test entry recorded a mean yield of 7492kg/ha and is the third highest performer for yield in Zone VII. The performance was found to be significantly superior over the best varietal check (the zonal check MTU1172) and it recorded an yield advantage of 17.26% over the best varietal check in the zone. The entry is therefore, promoted to 2nd year testing under SDW in Zone VII.

In IVT-SDW, 27 test entries were evaluated, out of which three entries namely IET 32198, IET 32196 and IET 32193 achieved requisite yield superiority based on 5% CD value over the best check and has desirable plant type, hence, promoted to 2nd year of testing under Zone VII.

- Overall mean basis: Nil
- Promoted in zone III: Nil
- Promoted in zone IV: Nil
- Promoted in zone VII: **IETs 32198, 32196 and 32193**.

Table No.6.1: Composition of entries in Initial Variety Trial–Semi Deep Water (IVT-SDW) *Kharif* -2023:

Entry No.	IET No.	Designation	Cross combination	Grain Type
601	32186	RP Bio 4919-NSR 53-1	KMR 3/O.rufipogon WR 120	LS
602	32187	NDR 2022-10-6	NDR 40032/Swarna-Sub 1	MB
603	32188	MTU 1422 (MTU 2481-14-1-1-1)	Samba sub/MTU 1061	MS
604	32189	CRU-BCKV-15(15-Sw/Sa-17-8-5-5)	SwarnaXSashi	MB
605	32190	RGL 7038 (MTU RM428-53-1-1)	MTU 1262/MTU 1075	SS
606	32191	CR 3993-151-5-3	CR 1009/O.brachyantha//CR 1009	SB
607	32192	CN 2164-54-3-1-1	Shatabdi/KMR3	LB
608	32193	CR 2667-4-1-2-2-1	Gayatri/AC 38599	MS
609	32194	TTB 2013-33	IRGC 1972/Ranjit/C105-TTB L-23/Ranjit	SB
610	**CR Dhan 506 (NC)**			
611	32195	CR-2839-1-5-B-1-5-1-B-9-1-1-1-2	Swarna/ FL 496	LS
612	32196	NDR 2022-10-4	NDR 8029/Sarjoo 52	MB
613	32197	OR 2765	Prachi /CN 0139-9	MB
614	32198	MTU 1424 (MTU 2433-1-3-1)	MTU 1061/MTU 1121	MS
615	32199	CR 4378-2-1-1-6	Dandi/EC 491288	SB
616	32200	TTB 2010-56	IRGC 3764/Ranjit*4	LB
617	32201	RP Bio 4918-NPK 24	Swarna/O.nivara	MS
618	**CR Dhan 510 (Eastern & North Eastern) and MTU 1172 (Southern) (ZC)**			
619	32202	CR 4492-3-1-1-1	CR 3856-44-22-2-1-11-5/ Moti Gold	LB
620	32203	MALI-4	BR-23/Swarna sub-1	MS
621	32204	MTU 1423 (MTU 2527-22-1-1-1)	PLA 1100/IR85956-23-1-5	MS
622	32205	CN 2164-21-3-1-1	Shatabdi/KMR3	LB
623	32206	CR 2889-208-11-17	Apo/CR 143-2-2	MS
624	32207	NDR 2022-8-2	NDR 9930111/Sarjoo 52	MB
625	32208	CR 3993-133-15-8	CR 1009/*O.brachyantha*//CR 1009	SB
626	32209	CR-3478-M-11-B-1-2	MTU1010/KORGUT//IR64/FL478///IR-73931-40-1-2-3-2-22-1	MS
627	32210	OR 2606-1	CRMS 31 A / Manika	MS
628	32211	CSRC(D) 12-8-12-1	Pankaj/Najani	LS
629	32212	CR 2667-8-5-3-2-1	Gayatri/AC 38599	MS
630	**Local check: Mrunalini (BB), Amal-mana (CNG), Rajdeep (IET 17713) (CHN), NDGR -201(GGT), Ranjit (KMJ), Karikagga (KMT), MTU 1140 (MTU), NDR9930111(MSD), CR Dhan 508 (CTC), Dhansir (TTB)**			

Table 6.2: Grain Yield (kg/ha) of IVT-SDW *Kharif*-2023

Entry No.	IET No.	Zone III												Zone III(4)		Zone IV				Zone IV(1)		Zone VII(1)		Overall(6)	
		OD				OD(2)		WB				WB(2)		UP(0)				AS				AS(1)		AP(1)			
		CTK		BBN		mean		CHN		CNG		mean		GGT@		mean		TTB		KMJ@		mean		MTU		mean	
601	32186			2569		Chi		3711		197		1954		2593		2159				6463	8					2159	
602	32187	2452		4109		3281		6357	5	1591		3974		2970	8.5	3627		4882		5077		4882		5438		4138	
603	32188	2303		4372		3338		5929		3144		4537		2571		3937		3603		6160		3603		5383		4122	
604	32189	2626		1885		2256		4818		553		2686		2704		2471		6053	2	3980		6053	2	7333	4	3878	
605	32190	3120	9	5105	3	4113	4	5990		3454		4722	9	2505		4417	6	5440	10	6437	10	5440	10	6704	8	4969	4
606	32191	2477		3163		2820		4349		527		2438		2438		2629		5962	3	4120		5962	3	6406	10	3814	
607	32192	2151		3533		2842		4452		3698	8	4075		3169	3.5	3459		5723	5	3543		5723	5	4674		4039	
608	32193	1852		3020		2436		4148		3165		3657		3103	5.5	3046		5381		6527	6	5381		7492	3 *	4176	
609	32194	4005	3	2735		3370		6427	4	3044		4736	8	2571		4053	9	6166	1	5573		6166	1	5955		4722	6
610	**CR Dhan 506 (NC)**	2730		2759		2745		6183	9	3396		4790	6	3169	3.5	3767		5370		5639		5370		5238		4279	
611	32195	2212		4642	7	3427		6102		983		3543		2438		3485		5035		3758		5035		5329		4051	
612	32196	2885		4004		3445		6240	7	1521		3881		2505		3663		4879		5706		4879		7549	2 *	4513	8
613	32197	2204		6003	1 *	4104	5	6120	10	4133	4	5127	3	2460		4615	3	5764	4	6347		5764	4	6748	6	5162	3
614	32198	3673	5	5928	2 *	4801	1	5908		3643	10	4776	7	2749		4788	2	5139		6483	7	5139		7552	1 *	5307	2
615	32199	3765	4	4076		3921	7	5450		843		3147		3059	7	3534		4715		5600		4715		6813	5	4277	
616	32200	3455	7	2189		2822		6046		4164	3	5105	4	3302	1	3964	10	4992		3310		4992		6547	9	4566	7
617	32201	2206		2150		2178		4522		678		2600		2638		2389		4956		5720		4956		5433		3324	
618	**Zonal Check**	4138	2	4882	4	4510	2	6272	6	2843		4558	10	2483		4534	4	5203		5355		5203		6389		4955	5
619	32202	2845		4685	6	3765	10	4479		3674	9	4077		2483		3921		5601	6	6543	4	5601	6	5535		4470	
620	32203	4377	1	4090		4234	3	6744	1	4837	1	5791	1 *	2394		5012	1	5385		6529	5	5385		6710	7	5357	1
621	32204	3512	6	4615	8	4064	6	6684	2	3003		4844	5	2815	10	4454	5	4092		6650	1	4092				4381	
622	32205	2687		3174		2931		4385		4537	2	4461		3103	5.5	3696		4881		6440	9	4881		4739		4067	
623	32206	2866		4866	5	3866	9	4064		873		2469		2970	8.5	3167		5589	7	5962		5589	7	5370		3938	
624	32207	2348		4608	9	3478		4875		1376		3126		2527		3302		5322		4203		5322		5859		4065	
625	32208	2637		4310		3474		6226	8	1600		3913		2593		3693		5456	9	4197		5456	9	4475		4117	
626	32209	2956	10	2670		2813		5852		2308		4080		2638		3447		5485	8	3643		5485	8	5108		4063	
627	32210	2758		3683		3221		6543	3	4029	5	5286	2	3280	2	4253	7	5337		5812		5337		4705		4509	9
628	32211	2318		3131		2725		3823		3741	7	3782		2438		3253		4079		6609	3	4079		4923		3669	
629	32212			3441		3441		3996		1558		2777		2571		2998				5372						2998	
630	**Local check**	3374	8	4423	10	3899	8	5083		3927	6	4505		2505		4202	8	5112		6623	2	5112		4953		4479	10
Exp. Mean		**2890.36**		**3827.36**		**3362.68**		**5392.66**		**2568**		**3980.57**		**2724.84**		**3664.5**		**5200.06**		**5479.42**		**5200.06**		**5902.21**		**4218.8**	
F value		7.46(p<0.0001)S		28.76(p<0.0001)S		17.50(p<0.0001)S		7.63(p<0.0001)S		9.93(p<0.0001)S		7.97(p<0.0001)S		20.52(p<0.0001)S		13.40(p<0.0001)S		3.70(p<0.0001)S		61.66(p<0.0001)S		3.70(p<0.0001)S		8.05(p<0.0001)S		14.73(p<0.0001)S	
CD		**690.88**		**567.52**		**454.58**		**1007.51**		**1188.26**		**888.42**		**180.19**		**514.65**		**860.1**		**397**		**860.1**		**970.36**		**416.72**	
CV%		14.6		9.07		8.27		11.43		27.47		13.44		4.05		8.51		10.1		4.43		10.1		10.03		5.99	
D/S		19.06.2023		26.06.23				26.06.23		22.06.2023				25-06-2023				30-06-2023		30.06.2023				18.07.2023			
D/P		21.07.2023		04.08.23				29.07.23		27.07.2023				Direct Seeded				25-07-2023		30.07.2023				28.08.2023			
Local Check Name		CR DHAN 508		Mrunalini				Rajdeep		Amal-mana				NDGR-201				Dhansiri		Ranjit				MTU 1140			

Table 6.3: Days to 50% Flowering of IVT-SDW *Kharif*-2023

Entry No	IET NO	Zone III							Zone III(4)	Zone IV		Zone IV(1)	Zone VII(1)	Overall(6)
		OD		OD(2)	WB		WB(2)	UP(0)		AS		AS(1)	AP(1)	
		CTK	BBN	mean	CHN	CNG	mean	GGT@	mean	TTB	KMJ@	mean	MTU	mean
601	32186		90	90	90	106	98	87	95		121			95
602	32187	110	109	110	107	112	110	101	110	134	111	134	101	112
603	32188	136	130	133	130	139	135	141	134	155	127	155	127	136
604	32189	105	96	101	90	114	102	87	101	126	113	126	91	104
605	32190	126	126	126	120	120	120	127	123	155	120	155	122	128
606	32191	111	106	109	103	108	106	102	107	128	113	128	98	109
607	32192	126	125	126	128	125	127	126	126	130	115	130	105	123
608	32193	88	130	109	131	118	125	137	117	141	125	141	115	121
609	32194	126	125	126	110	115	113	119	119	145	122	145	124	124
610	**CR Dhan 506 (NC)**	135	131	133	119	128	124	138	128	142	131	142	115	128
611	32195	110	101	106	88	112	100	89	103	127	114	127	101	107
612	32196	109	111	110	106	113	110	101	110	139	115	139	114	115
613	32197	136	132	134	134	120	127	142	131	146	118	146	116	131
614	32198	127	124	126	117	117	117	123	121	147	112	147	120	125
615	32199	105	105	105	101	107	104	99	105	129	125	129	105	109
616	32200	127	131	129	116	119	118	122	123	146	126	146	121	127
617	32201	122	115	119	112	109	111	111	115	139	125	139	104	117
618	**Zonal Check**	133	134	134	136	126	131	142	132	141	120	141	125	133
619	32202	121	109	115	107	119	113	105	114	136	124	136	118	118
620	32203	133	127	130	126	133	130	138	130	137	133	137	107	127
621	32204	141	134	138	128	134	131	131	134	158	122	158		139
622	32205	127	123	125	127	123	125	128	125	135	128	135	105	123

623	32206	110	108	109	103	111	107	102	108	130	124	130	103	111
624	32207	121	104	113	102	120	111	100	112	132	119	132	107	114
625	32208	111	105	108	103	110	107	100	107	129	116	129	106	111
626	32209	110	111	111	103	112	108	99	109	130	113	130	107	112
627	32210	132	127	130	132	134	133	141	131	146	115	146	115	131
628	32211	128	123	126	125	119	122	125	124	130	123	130	108	122
629	32212		132	132	94	116	105	139	114		119			114
630	**Local check**	132	119	126	128	120	124	104	125	134	126	134	115	125
Exp. Mean		**121**	**118**	**119**	**115**	**119**	**117**	**117**	**118**	**138**	**121**	**138**	**111**	**120**

Table 6.4: Plant Height (cm) of IVT-SDW *Kharif*-2023

Entry No	IET NO	Zone III							Zone III(4)	Zone IV		Zone IV(1)	Zone VII(1)	Overall(6)
		OD		OD(2)	WB		WB(2)	UP(0)		AS		AS(1)	AP(1)	
		CTK	BBN	mean	CHN	CNG	mean	GGT@	mean	TTB	KMJ@	mean	MTU	mean
601	32186	.	130	130	125	74	99	123	110	.	141	.	.	110
602	32187	122	97	110	107	114	110	119	110	108	128	108	129	113
603	32188	126	100	113	112	111	112	102	112	108	116	108	118	113
604	32189	133	146	140	106	96	101	132	120	119	128	119	135	122
605	32190	124	102	113	143	130	137	123	125	114	126	114	138	125
606	32191	131	110	121	113	109	111	123	116	119	118	119	129	118
607	32192	153	148	151	171	171	171	145	161	147	167	147	152	157
608	32193	166	110	138	121	136	128	140	133	139	158	139	156	138
609	32194	141	103	122	143	130	137	127	129	122	138	122	156	133
610	**CR Dhan 506 (NC)**	159	110	135	147	136	142	131	138	139	162	139	150	140
611	32195	136	122	129	125	112	118	126	124	124	140	124	140	126
612	32196	120	117	119	114	118	116	130	117	116	141	116	155	123
613	32197	155	120	138	112	127	119	125	128	129	130	129	153	133
614	32198	123	110	117	115	120	118	102	117	105	133	105	132	118
615	32199	125	127	126	125	111	118	139	122	119	119	119	141	125
616	32200	141	125	133	123	131	127	127	130	121	135	121	162	134
617	32201	100	98	99	102	95	98	94	99	90	143	90	112	99
618	**Zonal Check**	128	120	124	135	121	128	109	126	118	103	118	130	125
619	32202	138	124	131	115	148	132	128	131	127	131	127	140	132
620	32203	138	115	127	147	136	142	120	134	134	147	134	148	136
621	32204	121	110	116	112	125	118	123	117	109	146	109	.	115
622	32205	155	142	149	177	170	174	143	161	149	119	149	154	158
623	32206	129	110	120	127	109	118	131	119	123	171	123	151	125
624	32207	135	124	130	111	113	112	128	121	124	133	124	146	126
625	32208	124	119	122	115	123	119	120	120	123	129	123	132	123
626	32209	139	132	136	151	124	138	131	137	124	126	124	140	135

627	32210	137	110	124	142	128	135	115	129	111	132	111	125	126
628	32211	182	149	166	194	168	181	156	173	161	129	161	156	168
629	32212	.	140	140	189	156	173	132	162	.	168	.	.	162
630	**Local check**	128	120	124	106	161	133	124	129	141	127	141	118	129
Exp. Mean		**136**	**120**	**128**	**131**	**127**	**129**	**126**	**128**	**124**	**136**	**124**	**141**	**130**

Table 6.5: No. of Panicles in sqm of IVT-SDW *Kharif*-2023

Entry No.	IET No.	Zone III							Zone III(4)	Zone IV		Zone IV(1)	Zone VII(1)	Overall(6)
		OD		OD(2)	WB		WB(2)	UP(0)		AS		AS(1)	AP(1)	
		CTK	BBN	mean	CHN	CNG	mean	GGT@	mean	TTB	KMJ@	mean	MTU	mean
601	32186		286	286	363	336	350	92	328		264			328
602	32187	260	339	300	352	299	326	125	313	262	266	262	304	303
603	32188	203	247	225	286	317	302	93	263	267	298	267	349	278
604	32189	320	312	316	275	317	296	109	306	247	308	247	306	296
605	32190	285	229	257	374	359	367	105	312	235	240	235	327	302
606	32191	306	301	304	352	317	335	110	319	258	259	258	322	309
607	32192	223	264	244	374	359	367	127	305	312	285	312	321	309
608	32193	299	260	280	407	327	367	125	323	224	276	224	317	306
609	32194	306	215	261	220	373	297	112	279	284	291	284	279	280
610	**CR Dhan 506 (NC)**	258	218	238	528	345	437	119	337	243	290	243	327	320
611	32195	318	316	317	308	322	315	99	316	245	286	245	368	313
612	32196	220	330	275	330	336	333	97	304	281	292	281	317	302
613	32197	285	229	257	407	355	381	105	319	269	289	269	361	318
614	32198	261	340	301	363	359	361	108	331	260	247	260	324	318
615	32199	206	336	271	286	322	304	119	288	234	285	234	291	279
616	32200	322	288	305	440	350	395	125	350	245	299	245	278	321
617	32201	190	322	256	550	313	432	97	344	236	232	236	389	333
618	**Zonal Check**	246	287	267	341	364	353	90	310	241	319	241	310	298
619	32202	212	270	241	385	383	384	103	313	266	330	266	346	310
620	32203	256	210	233	352	341	347	109	290	249	286	249	357	294
621	32204	252	314	283	308	317	313	117	298	221	266	221		282
622	32205	284	294	289	440	350	395	128	342	261	249	261	312	324
623	32206	297	320	309	275	285	280	117	294	254	250	254	312	291
624	32207	263	341	302	352	350	351	114	327	271	272	271	343	320
625	32208	319	324	322	308	280	294	120	308	247	262	247	332	302
626	32209	264	283	274	429	317	373	123	323	279	266	279	375	325
627	32210	298	309	304	396	369	383	89	343	228	261	228	317	320
628	32211	300	273	287	385	378	382	97	334	259	274	259	306	317
629	32212		257	257	693	476	585	90	475		263			475
630	**Local check**	258	236	247	385	373	379	115	313	238	290	238	321	302
Exp. Mean		**268**	**285**	**277**	**375**	**340**	**362**	**109**	**320**	**254**	**276**	**254**	**326**	**312**

INITIALVARIETYTRIAL–DEEPWATER(IVT-DW)

Locations : 4 **Test Entries: 5**

Checks : CR Dhan 500 (National check), CR Dhan 502 (Zonal check) and local check **Table:7.1**

Initial varietal trial for deep water condition (IVT-DW) was constituted with 5 test entries and 3 checks (Trial no. 7). All the 5 test entries were in first year of testing. The trial was sent to 4 locations for evaluation and the data was received from all 4 locations. However, data received from Kumta was rejected as there is mismatch between the number of entries sent and data received. In all the 3 locations, the recommended water level (>75cm for one month) was maintained. The Data of Ghagraghat trial was not considered because of low CV. Hence, the data from two locations only (Cuttack and Chinsurah) were considered for selection of promising entry. The information related to adaptability parameters such as seedling survival (%), submergence tolerance (%), elongation ability score, kneeing ability score, grain shattering score and phenotypic acceptability score were considered to assess the performances.

The data on yield, days to 50% flowering, plant height and number of panicles/m^2 of test entries in initial varietal trial for deep water conducted during kharif 2023 is provided in Tables 7.2-7.5

On overall basis, the experimental mean yield ranged from 3910 kg/ha (IET 32216) to 5136 kg/ha (IET 32214) and days to 50% floweringfrom114 days (IET32214) to 148days (ZC CR Dhan 502) among test entries. The plant height of test entries ranged from 112 cm (IET 32213) to 166cm (ZC, CR Dhan 502) and number of panicles/m^2 ranged from 226 (IET 32216) to 304(IE T32217).

The test entry IET 32217, performed significantly better than the best check in Odisha.But performance of all these entries on the overall basis in Zone III was not promising considering the best varietal check (BVC + CD).

Entries promoted to AVT-1

- Nil

Details of water regime (in cm) at different centre's in IVT -DW, *kharif*-2023

Location	Week	June	July	August	September	October	November
Chinsura	1st			10	40	100	10
	2nd			15	65	60	
	3rd			20	82	40	
	4th		10	30	90	25	
Ghaghraghat	1st			21	90	49	
	2nd			42	101	21	
	3rd			60	81	11	
	4th			76	52	4	
NRRI, Cuttack	1st			30	15	60	40
	2nd			40	50	55	40
	3rd			60	55	50	30
	4th		15	60	60	50	10

Adaptability Parameters of entries in IVT -DW, *Kharif*-2023

Entry No.	IET No.	Seedling Survival (%)		
		CHN	GGT	NRRI
701	32213	90	90	90
702	32214	92	92	85
703	**CR Dhan 500(NC)**	95	92	92
704	32215	97	96	89
705	32216	96	90	89
706	**CR Dhan 502 (ZC)**	97	90	95
707	32217	95	90	88
708(LC)	**Local Check**	96	95	91

Adaptability Parameters of entries in IVT -DW, *Kharif*-2023

Entry No.	IET No.	Elongation Ability (Score 1-9)		
		CHN	GGT	NRRI
701	32213	5	3	5
702	32214	5	3	5
703	**CR Dhan 500(NC)**	3	3	3
704	32215	5	3	5
705	32216	5	3	5
706	**CR Dhan 502 (ZC)**	7	5	3
707	32217	3	3	5
708(LC)	**Local Check**	5	1	5

Adaptability Parameters of entries in IVT -DW, *Kharif*-2023

Entry No.	IET No.	Kneeing Ability Score (1-5)		
		CHN	GGT	NRRI
701	32213	5	3	5
702	32214	3	3	5
703	**CR Dhan 500(NC)**	3	3	5
704	32215	3	3	5
705	32216	3	5	5
706	**CR Dhan 502 (ZC)**	3	5	5
707	32217	3	3	5
708(LC)	**Local Check**	3	3	5

Adaptability Parameters of entries in IVT -DW, *Kharif*-2023

Entry No.	IET No.	Grain Shattering Score (1-9)		
		CHN	GGT	NRRI
701	32213	3	3	5
702	32214	3	3	5
703	**CR Dhan 500(NC)**	3	3	5
704	32215	3	3	7
705	32216	3	3	5
706	**CR Dhan 502 (ZC)**	3		5
707	32217	3	3	5
708(LC)	**Local Check**	3	3	5

Adaptability Parameters of entries in IVT -DW, *Kharif*-2023

Entry No.	IET No.	Phenotypic Acceptability Score (1-9)		
		CHN	GGT	NRRI
701	32213	5	5	5
702	32214	5	3	5
703	**CR Dhan 500(NC)**	3	5	3
704	32215	5	3	5
705	32216	3	5	5
706	**CR Dhan 502 (ZC)**	5	9	5
707	32217	5	3	5
708(LC)	**Local Check**	5	3	5

Trial no. 7.1. Composition of entries in Initial Variety Trial-Deep Water (IVT-DW), *Kharif* 2023

Entry No.	IET No.	Designation	Cross combination	Grain Type
1st year of testing				
701	32213	NDR2022-12-8	NDR 30030/NDR 359	MB
702	32214	CR 3993-15-17-4	CR 1009/*O.brachyantha*//CR 1009	SB
703	**CR Dhan 500(NC)**			
704	32215	NDGR-713	IR 498307 X Gayatri-GHP-4	MS
705	32216	CR 3993-514-14-2	CR 1009/*O.brachyantha*//CR 1009	MS
706	**CR Dhan 502 (ZC)**			
707	32217	CR 3993-133-11-58-3-1	CR 1009/*O.brachyantha*//CR 1009	SB
708	**Local Check**			

TableNo.7.2. GrainYield (Kg/ha) of entries in IVT-DW, *Kharif*2023

Entry No.	IET No.	Zone III						Zone III (2)		Overall (2)	
		OD(1)		WB(1)		UP(0)					
		CTK		CHN		GGT@		mean		mean	
701	32213	4848	2	5365	3	3424	2 *	5107	2	5107	2
702	32214	4620	3	5651	1	2760	7	5136	1	5136	1
703	**CR Dhan 500(NC)**	4545	4	5511	2	2926	6	5028	4	5028	4
704	32215	3707	7	5086	4	3457	1 *	4397	5	4397	5
705	32216	3418	8	4401	6	3224	4	3910	8	3910	8
706	**CR Dhan 502 (ZC)**	3908	5	3922	8			3915	7	3915	7
707	32217	5054	1 *	5013	5	3324	3 *	5034	3	5034	3
708	Local Check	3774	6	4141	7	3125	5	3958	6	3958	6
Exp. Mean		**4234.13**		**4886.09**		**3177.11**		**4560.11**		**4560.11**	
F Value		17.57(p<0.0001)S		3.81(p<0.0080)S		29.95(p<0.0001)S		11.68(p<0.0001)S		11.68(p<0.0001)S	
CD		**424.15**		**983.2**		**140.69**		**493.68**		**493.68**	
CV%		6.81		13.68		2.98		7.36		7.36	
D/S		15-06-2023		26.06.2023		23-06-2023					
D/P		27-07-2023		01.08.2023		Direct seeded					
Local Check Name		CR Dhan 508		SABITA		NDGR 702 (Jal Bhawani)					

TableNo.7.3.Days to 50% flowering of entries in IVT-DW,*Kharif*2023

Entry No.	IET NO	Zone III			Zone III (2)	Overall (2)
		OD(1)	WB(1)	UP(0)		
		CTK	CHN	GGT@	mean	mean
701	32213	124	130	124	127	127
702	32214	116	111	98	114	114
703	CR Dhan 500(NC)	135	124	126	130	130
704	32215	129	123	101	126	126
705	32216	113	116	88	115	115
706	CR Dhan 502 (ZC)	164	132		148	148
707	32217	115	121	97	118	118
708	Local Check	144	125	110	135	135
Exp. Mean		130	123	106	126	126

TableNo.7.4:Plant height of entries in IVT-DW, *Kharif* 2023

Entry No.	IET NO	Zone III			Zone III (2)	Overall (2)
		OD(1)	WB(1)	UP(0)		
		CTK	CHN	GGT@	mean	mean
701	32213	118	106	125	112	112
702	32214	132	106	130	119	119
703	CR Dhan 500(NC)	161	146	151	154	154
704	32215	137	111	133	124	124
705	32216	150	139	148	145	145
706	CR Dhan 502 (ZC)	177	156	.	166	166
707	32217	127	109	128	118	118
708	Local Check	151	141	133	146	146
Exp. Mean		144	127	135	136	136

TableNo.7.5: No. of Panicles/m^{2}ofentriesinIVT-DW,*Kharif*2023

Entry No.	IET No.	Zone III			Zone III (2)	Overall (2)
		OD(1)	WB(1)	UP(0)		
		CTK	CHN	GGT@	mean	mean
701	32213	339	256	139	298	298
702	32214	310	223	132	267	267
703	CR Dhan 500(NC)	309	256	134	283	283
704	32215	261	297	137	279	279
705	32216	203	248	136	226	226
706	CR Dhan 502 (ZC)	304	215		260	260
707	32217	352	256	135	304	304
708	Local Check	277	215	134	246	246
Exp. Mean		294	245	135	270	270

INITIAL VARIETY TRIAL- DIRECT SEEDED RAINFED SHALLOW LOWLAND (IVT –RSL DS)

Locations: 04 **Entries: 19**
Checks: NC 1: Swarna sub-1
ZC: Pooja (Eastern), Bahadur (North Eastern), Savitri (Southern)and Local checks

The Initial Variety Pilot Trial- Direct seeded Rainfed Shallow Lowland (IVT –RSL-DSR)was constituted for the first time during 58th ARGM in 2023, with the objective of identifying entries suitable for direct seeded rice in lowlands in general and Rainfed Shallow lowland in particular. Direct Seeded Rice (DSR) solves several potential problems of modern agriculture. It reduces water use by avoiding the need for continuous flooding, and thereby conserving this valuable resource. Moreover, manual labour savings are also substantial since DS eradicates the labour-intensive transplanting of seedlings.

The trial consisted of nineteen entries including five checks (three different checks in three zones). Swarna Sub1was used as National check, whereas Pooja, Bahadur and Savitri were used as zonal checks in eastern, north eastern and Southern zones, respectively. Remaining sixteen entries were new nominations. The trial was sent to five locations: four in zone III and one in Zone IV. All the five locations conducted the trial. However, thedata were accepted from fourcentres, viz., Cuttack, Jeypore, Masoda and Titabar.The trial was not accepted by the monitoring team in Chinsura. The CV of the experiments ranged from 6.27 (Cuttack) to 15.34 (Jeypore). Experimental mean varied from 3183kg/ha at Jeypore to 3971 kg/ha at Titabar. Overall mean yield of the entries varied from 2137 kg/ha (IET 32232) to 4783 kg/ha (IET 32223), Days to 50% flowering varies from 94 days (IET 32228) to 113 days (Swarna sub 1(NC). Plant height varies from 85.47 cm (Swarna sub 1(NC) to 114.80 (IET 32220) and no of panicles varies from 258 (IET 32225) to 311 (IET 32221).

Performance of the entries in IVT –RSL-DSR, *Kharif* 2023 in Overall basis and Zone-III

IET No./Designation/ Cross combination	GY/ FD/ GT	Yield adv. (%) over NC/ZC/LC of Sig. Sup. entries	Superior to check	Increase over the best check	
				State	
			3 checks	Rank/Yield	% BC, HC
Overall					
IET 32223	**4783** **106** **LB**	37.52 49.33 14.89	LC	OD-1	14.89
Zone-III					
IET 32223	5259 112 LB	82.28 86.68 19.95	LC	OD-1	19.95

NC-National check, ZC- Zonal check, LC-Local check, HC-Hybrid check, GY: Grain yield (Kg/ha), FD: Days to 50% flowering, GT: Grain type

On overall basis as well as in Zone III only one entry qualified for promotion as per the table 8.1. IET 32223 derived from the cross of Lalat/IR 36 with 5259 kg/ha mean yield, 112 days to 50% flowering and long bold grains was found to be significantly superior with 82.28, 86.68 and 19.95% % yield advantage over the National, Zonal and local checks, respectively. It yielded 6070 kg/ha at Jeypore and ranked first in Odisha with 19.95% yield

advantage over the best check, i.e., local check. No other entry could record superior performance compared to best check.

In Zone IV none of the entries could perform superior statistically in comparison to best checks.

Overally, IET 32223 was the only entry found promising.

Table No.8.1: Composition of entries in Initial Variety Pilot Trial–Direct seeded Rainfed Shallow Lowland (IVT –RSL-DSR), *Kharif* 2023

Entry No.	IET No.	Designation	Cross combination	Grain Type
1st year of testing				
801	32218	CR 3564-4-2-1-1-2	Vijetha / N 22	MB
802	32219	Rewa 11-67		LS
803	32220	BD 31	BPT5204 X Doddiga	Med
804	32221	CR 4354-3-1-1-1-1	CR 3549-11-2-1-1-1/CR3511-3-4-1-1-1-1	MB
805	32222	NDR 2023-BARC-7	Mutant line of BARC	LS
806	**Swarna Sub 1 (NC)**			
807	32223	CR 3494-1-2-1-2-1-1-3	Lalat /IR 36	LB
808	32224	NDR 2023-2-4	NDR 8002/ NDR 9730018/ /NDR 9830144	LS
809	32225	CR 3993-514-2-L-2-18-2	CR 1009/O.brachyantha//CR 1009	MS
810	32226	AAU-TTB-Dhan-32	APMS 6B/Piolee	MS
811	32227	CR 4357-1-1-1-1-1-1	CR 3522-1-2-1-1-1-1-1-2/ CR 3497-7-1-3-2-2-1	MS
812	32228	JNPT 581-64	MTU 1010 X NPT 13-01 X IR 64	MS
813	**Pooja (Eastern), Bahadur (North Eastern), Savitri (Southern)-- ZC**			
814	32229	CR 3549-1-3-1-1-1-1	ADT 43/Annapurna	MB
815	32230	SRS 09 BA-14	BPT 5204/A-67	SB
816	32231	CR 4486-1-13-1-1	CR3494-2-1-1-1-1-1/ CR 3522-1-2-1-1-1	LB
817	32232	Rewa 3-3-1		LS
818	32233	CR 2906-253-56-L-11-3	IR 20/Dandi	MS
819	**Local Check**			

Table No.8.2 : Grain Yield (kg/ha) of IVT-RSL DS *Kharif*-2023

Entry No	IET No	Zone III								Zone III(2)		Zone IV			Overall (3)
		OD				OD(2)		UP(0)				AS(1)			
		CTK		JYP		mean		MSD@		mean		TTB			mean
801	32218	4367	5	4176	5	4272	5	3876	6	4272	5	3537		4027	6
802	32219	2508		1899		2204		3219		2204		3830		2746	
803	32220	3001		2612		2807		3604	9	2807		3467		3027	
804	32221	3182		3670	7	3426	8	4222	5	3426	8	4274	6	3709	8
805	32222	3449	9	1628		2539		3405		2539		2364		2480	
806	**Swarna Sub 1 (NC)**	3948	8	1821		2885		4229	4	2885		4666	3	3478	
807	32223	4448	2	6070	1 *	5259	1 *	4369	3	5259	1 *	3831		4783	1 *
808	32224	3293		1638		2466		2400		2466		4725	2	3219	
809	32225	3386		3101		3244		4382	2	3244				3244	
810	32226	4393	4	2379		3386	10	3817	7	3386	10	4043	9	3605	
811	32227	3409	10	3393	9	3401	9	4429	1	3401	9	4303	5	3702	9
812	32228	4566	1	4358	4	4462	3	3338		4462	3	4124	8	4349	2
813	**Zonal Check**	3336		2298		2817		2400		2817		3974	10	3203	
814	32229	3374		3993	6	3684	7	2347		3684	7	4607	4	3991	7
815	32230	4282	6	4878	2	4580	2	3305		4580	2	3051		4070	5
816	32231	3102		3628	8	3365		3591	10	3365		4199	7	3643	10
817	32232	3209		1064		2137		1736		2137				2137	
818	32233	4428	3	3140	10	3784	6	2474		3784	6	4789	1	4119	4
819	**Local Check**	4034	7	4734	3	4384	4	3784	8	4384	4	3722		4163	3
Exp. Mean		**3668.89**		**3183.26**		**3426.42**		**3416.92**		**3426.42**		**3970.94**			**3562.89**
F Value		14.02(p<0.0001)S		22.14(p<0.0001)S		11.25(p<0.0001)S		63.38(p<0.0001)S				9.20(p<0.0001)S			13.93(p<0.0001)S
CD		**483.53**		**808.67**		**860.83**		**301.22**		**860.83**		**599.92**			**563.62**
CV%		6.27		15.34		15.59		4.2		15.59		9.08			9.64
D/S		10.06.2023		22.07.23				15.07.2023				29.07.2023			
Local Check name		CR Dhan 412		Hasanta				IR 64-Sub 1				Numali			

Table No. 8.3 : Days to 50% Flowering of IVT-RSL DS *Kharif*-2023

Entry No	IET No	Zone III				ZoneIII(2)	Zone IV	Overall(3)
		OD		OD(2)	UP(0)		AS(1)	
		CTK	JYP	mean	MSD@	mean	TTB	mean
801	32218	114	117	116	102	116	105	112
802	32219	98	97	98	98	98	96	97
803	32220	111	112	112	90	112	99	107
804	32221	107	112	110	80	110	96	105
805	32222	89	107	98	78	98	97	98
806	**Swarna Sub 1 (NC)**	114	123	119	90	119	103	113
807	32223	106	117	112	82	112	95	106
808	32224	112	105	109	102	109	93	103
809	32225	129	136	133	82	133		133
810	32226	101	115	108	76	108	98	105
811	32227	102	122	112	82	112	101	108
812	32228	93	116	105	83	105	73	94
813	**Zonal Check**	105	114	110	94	110	105	108
814	32229	93	115	104	88	104	93	100
815	32230	114	116	115	79	115	95	108
816	32231	98	110	104	83	104	95	101
817	32232	104	104	104	91	104		104
818	32233	113	118	116	92	116	97	109
819	**Local Check**	126	122	124	86	124	104	117
Exp. Mean		**107**	**115**	**112**	**87**	**112**	**97**	**107**

Table No.8.4 : Plant Height(cm) of IVT-RSL DS *Kharif*-2023

Entry No.	IET No.	Zone III				Zone III(2)	Zone IV(1)	Overall(3)
		OD		OD(2)	UP(0)		AS(1)	
		CTK	JYP	mean	MSD@	mean	TTB	mean
801	32218	107.00	79.07	93.03	86.00	93.03	80.33	88.80
802	32219	111.00	81.93	96.47	79.00	96.47	83.83	92.26
803	32220	115.00	107.93	111.47	81.00	111.47	121.47	114.80
804	32221	109.00	85.73	97.37	84.00	97.37	83.07	92.60
805	32222	112.00	87.20	99.60	75.00	99.60	81.93	93.71
806	**Swarna Sub 1 (NC)**	117.00	64.40	90.70	81.00	90.70	75.00	85.47
807	32223	114.00	88.53	101.27	76.00	101.27	96.47	99.67
808	32224	105.00	92.13	98.57	87.00	98.57	129.13	108.76
809	32225	101.00	104.40	102.70	76.00	102.70		102.70
810	32226	109.00	76.13	92.57	81.00	92.57	86.13	90.42
811	32227	113.00	93.67	103.33	103.00	103.33	85.60	97.42
812	32228	110.00	95.93	102.97	82.00	102.97	99.00	101.64
813	**Zonal Check**	107.00	77.47	92.23	96.00	92.23	90.13	91.53
814	32229	103.00	78.27	90.63	99.00	90.63	89.60	90.29
815	32230	112.00	110.53	111.27	78.00	111.27	85.67	102.73
816	32231	109.00	78.40	93.70	81.00	93.70	101.87	96.42
817	32232	113.00	68.07	90.53	92.00	90.53		90.53
818	32233	110.00	94.13	102.07	84.00	102.07	96.87	100.33
819	**Local Check**	106.00	88.87	97.43	78.00	97.43	88.53	94.47
Exp. Mean		**110**	**87**	**98**	**84**	**98**	**93**	**97**

Table No.8.5 : No. of Panicles in sqm of IVT-RSL DS *Kharif*-2023

Entry No.	IET No.	Zone III				Zone III (2)	Zone IV(1)	Overall(3)
				OD(2)	UP(0)		AS(1)	
		CTK	JYP	mean	MSD@	mean	TTB	mean
801	32218	263	345	304	224	304	257	288
802	32219	268	262	265	204	265	292	274
803	32220	282	299	291	222	291	259	280
804	32221	265	400	333	237	333	268	311
805	32222	276	286	281	206	281	276	279
806	**Swarna Sub 1 (NC)**	250	354	302	235	302	276	293
807	32223	255	317	286	230	286	272	281
808	32224	273	250	262	199	262	293	272
809	32225	259	257	258	237	258		258
810	32226	257	346	302	228	302	255	286
811	32227	273	326	300	213	300	245	281
812	32228	265	295	280	212	280	257	272
813	**Zonal Check**	274	348	311	188	311	290	304
814	32229	273	429	351	202	351	279	327
815	32230	280	360	320	222	320	272	304
816	32231	270	230	250	239	250	282	261
817	32232	248	279	264	154	264		264
818	32233	255	355	305	204	305	272	294
819	**Local Check**	261	277	269	222	269	283	274
Exp. Mean		**266**	**317**	**291.26**	**214**	**291.26**	**272**	**284.37**

ADVANCE VARIETY TRIAL 1- NIL (SUBMERGENCE)

(AVT 1-NIL SUB)

Locations : 07 **Test Entries: 24**

Entries : NILs: 15; RPs: 08; Sensitive Check: 01

Checks/ Recurrent/ Donor Parents : Sarala, Gayatri, ADT 39, Varshadhan, Rajendra Sweta, Improved Samba Mahsuri, Sabour Shree, Swarna sub1 (RP); Swarna (Sensitive Check)

This trial includes 15 NILs along with their respective recurrent parents (8). The IETs 29031 and 29026 were sister lines from the cross Varshadhan*3/IR 49830-7 and were in the fourth year of testing as repeat entries. The NILs IET 30410 from the cross Sarala * 3 /IR 49830-7 and IET 30409 from the cross Gayatri*3/IR49830-7 were in third year of testing. The entries IETs 30697 and 30695 from the cross ADT 39*4/ Swarna Sub-1 were in second year of testing. The NILs derived from Rajendra Sweta (IETs 32125 and 32126), Improved Samba Mahsuri (IETs 32059, 32058 and 32061), Sabour Shree (IETs 32121 and 32122) and Swarna Sub 1 (IETs 32124 and 32123) were in the first year of testing. The data pertaining to yield, days to 50% flowering, plant height, panicles/m^2 are presented in Tables 63.2 to 63.5.

Yield performance of entries under normal condition:

The entries of AVT1-NIL-Submergence were tested for their yield performance under normal condition in the trials of their respective ecologies of the states for which the recurrent parents were gazette notified.

Trait verification:

The trial was sent to seven locations. The trial conducted at Cuttack was rejected by the monitoring team, whereas data from Kumta was not considered in the analysis as there is mismatch between the number of entries sent and data received. The data from Maruteru was not considered due to very high percentage of seedling survival of the sensitive check (Swarna), which indicates that submergence stress was not adequate. The data from Sabour and Masodha were not considered as CV% was not within the acceptable limits (5-30%). Hence, data from Bikramganj and Karaikal centers were considered for analysis.

Based on mean yield under submergence stress condition, the NIL IET 30409 performed significantly better than their recurrent parent Gayatri. All the two NILs of ADT 39 (IETs 30697 and 30695), Varshadhan (IETs 29031 and 29026) and Sabour Shree (IETs 32121 and 32122) were also found to be significantly superior to their respective recurrent parents, ADT 39, Varshadhan and Sabour Shree with respect to yield under submergence stress condition. The NIL derived from Improved Samba Mahsuri (IET 32061) was also found significantly superior to the recurrent parent for grain yield.

The NILs derived from Sarala (IET 30410), Rajendra Sweta (IETs 32125, 32126), Improved Samba Mahsuri (IET 32058) and Swarna sub 1 (IETs 32124 and 32123) performed at par with recurrent parent for yield under submergence. As IET 32124 and IET 32123 were Swarna sub1 NILs introgressed with herbicide tolerance gene, the purpose of testing these two

genotypes were to check the effect of Sub1 gene only. In this context, both these entries were found superior to Swarna and were at per with Swarna Sub 1.

The NIL derived from Improved Samba Mahsuri (IET 32059) did not germinated in any of the centres except Masodha.

With respect to mean seedling survival percentage under submergence stress, all the tested NILs derived from Sarala, Gayatri, ADT 39, Varshadhan, Rajendra Sweta, Improved Samba Mahsuri and Sabour Shree, performed better than their respective recurrent parents. The NILs derived from Swarna Sub 1 (IET 32124 and 32123) were found significantly superior than sensitive check (Swarna) for seedling survival percentage and at par with the recurrent parent, Swarna Sub 1 (resistant check).

Grain yield (Kg/ha) of NIL entries in AVT-1 NIL- SUB along with their recurrent parents under submergence stress condition, *kharif*, 2023

IET No.	BKG	SBR@	MSD@	MTU@	KRK	Mean
30410 (Sarala-NIL)	4531	-	5483	4012	1582	3057
Sarala (RP)	**3041**	**717**	**4596**	**-**	**2042**	**2542**
30409 (Gayatri -NIL)	4466	201	5344	5401	4213	4340*
Gayatri (RP)	**1264**	**-**	**5366**	**3627**	**1680**	**1472**
30697 (ADT 39 -NIL)	4338	2438	4174	5941	4573	4456*
30695 (ADT 39 -NIL)	5678	1752	4575	5208	4262	4970*
ADT 39 (RP)	**2604**	**176**	**5821**	**-**	**1930**	**2267**
29031 (Varshadhan -NIL)	4595	697	4967	5941	3942	4269*
29026 (Varshadhan -NIL)	4655	1075	5529	5517	3392	4024*
Varshadhan (RP)	**3135**	**104**	**4853**	**5737**	**1428**	**2282**
32125 (Rajendra Sweta -NIL)	3286	1282	4372	4321	3808	3547
32126 (Rajendra Sweta -NIL)	3021	1501	5278	5926	3542	3282
Rajendra Sweta (RP)	**3280**	**139**	**5257**	**4398**	**3300**	**3290**
32059 (Improved Samba Mahsuri -NIL)	-	-	5417	-	-	-
32058 (Improved Samba Mahsuri -NIL)	4354	1366	5813	4514	1250	2802
32061(Improved Samba Mahsuri -NIL)	4225	836	5540	4938	3492	3859*
Improved Samba Mahsuri (RP)	**3097**	**247**	**5819**	**-**	**1487**	**2292**
32121 (Sabour Shree -NIL)	4482	908	5322	3665	4150	4316*
32122 (Sabour Shree -NIL)	4508	870	5559	5841	3125	3817*
Sabour Shree (RP)	**4943**	**92**	**6080**	**3549**	**1367**	**3155**
32124 (Swarna sub-1 -NIL)	5175	1544	5955	3742	3942	4559
32123 (Swarna sub-1 -NIL)	5680	1533	4211	5131	3550	4615
Swarna sub-1 (RP)	**5736**	**1900**	**4894**	**5779**	**3850**	**4793**
Swarna (Sensitive check)	2519	64	-	3588	1082	1801
Exp. Mean	**3858.89**	**856.79**	**5227.16**	**4207.8**	**2912.46**	**3325**
CD	**1038.91**	**697.9**	**280.72**	**881.05**	**679.78**	**626.83**

*Significantly ($p<0.05$) superior over the recurrent parent

@Not considered for analysis due to high seedling survival under submergence stress or un acceptable CV%

Seedling Survival percentage of NIL entries in AVT-1 NIL- SUB over their recurrent parents under submergence stress condition, *kharif*, 2023

Recurrent Parent	NIL-IET No.	NIL-Seedling Survival (%)						RP-Seedling Survival (%)						% over recurrent parent	% over susceptible check
		BKG	KRK	MTU@	MSD@	SBR	Mean	BKG	KRK	MTU@	MSD@	SBR	Mean		
Sarala	30410	61	49.45	67.2	86	-	**55.23**	34	45.47	-	81	-	**39.74**	38.98	73.88
Gayatri	30409	72	77.41	65.2	85	-	**74.71**	52	49.18	55.6	89	-	**50.59**	47.67	135.22
ADT 39	30697	55	90.67	60.2	81	100	**72.84**	28	40.51	-	85	-	**34.26**	112.63	129.33
	30695	86	89.15	58.6	84	100	**87.58**	28	40.51	-	85	-		155.66	175.74
Varshadhan	29031	84	82.3	64.5	81	100	**83.15**	44	53.96	72.5	78	17	**48.98**	69.76	161.81
	29026	74	87.98	70.5	86	75	**80.99**	44	53.96	72.5	78	17		65.35	155.01
Rajendra Sweta	32125	68	84.29	58.2	77	90	**76.15**	42	84.46	54.3	82	20	**63.23**	20.43	139.75
	32126	78	82.15	75	91	70	**80.08**	42	84.46	54.3	82	20		26.64	152.13
Improved Samba Mahsuri	32059	-	-	-	81	-	**-**	52	45.72	-	89	50	**48.86**	-	-
	32058	82	49.01	60.33	84	85	**65.51**	52	45.72	-	89	50		34.07	106.25
	32061	85	88.6	65.23	86	60	**86.80**	52	45.72	-	89	50		77.65	173.30
Sabour Shree	32121	88	83.91	53.2	82	75	**85.96**	58	51.08	50	86	15	**54.54**	57.60	170.64
	32122	82	83.85	62.33	84	100	**82.93**	58	51.08	50	86	15		52.04	161.10
Swarna sub-1	32124	88	87.9	56.5	92	100	**87.95**	90	79.9	64.5	79	100	**84.95**	3.53	176.92*
	32123	82	84.58	60	79	100	**83.29**	90	79.9	64.5	79	100		-1.95	162.25**
Swarna (Sensitive check)		**28**	**35.52**	**55.23**	**-**	**30**	**31.76**	**28**	**35.52**	**55.23**	**-**	**30**	**31.76**		

* & ** The % superiority over recurrent parent and % superiority over susceptible check should be same in case of IET 32124 and IET 32123 as the recurrent parent should be considered as Swarna in these cases.

Overall performance of NILs those are in the second year of testing in AVT 1-NIL-Sub

IET No./ Designation/Cross combination of NIL	Grain Yield under submergence condition																							
	2020						2021						2022						2023					
	CTK		MTU		MEAN		CTK		MTU		MEAN		CTK		KRK		MEAN		BKG		KRK		MEAN	
	NIL	RP	NIL	RP	NIL	RP	NIL	RP	NIL	RP	NIL	RP	NIL	RP	NIL	RP	NIL	RP	NIL	RP	NIL	RP	NIL	RP
IET 30410(CR2532-9-21-35-3) Sarala*3/IR49830-7							3460	1789	6957	7267	5209*	4528	3121	2632	2306	2347	2713	2489	4531	3041	1582	2042	3057	2542
IET 30409(CR2531-72-6-19-3) Gayatri*3/IR49830-7							4233	1229	7000	7737	5617*	4483	2252	2892	3264	2389	2758	2640	4466	1264	4213	1680	4340*	1472
IET 30697 (KR 19011) ADT 39*4/Swarna sub-1													2402	3022	4097*	2403	3249*	2713	4338	2604	4573	1930	4456*	2267
IET 30695 (KR19015) ADT 39*3/Swarna sub-1													2438	3022	4264*	2403	3351*	2713	5678	2604	4262	1930	4970*	2267
IET 29031(CR 2538-42-17-32-3-2) Varshadhan*3/IR49830-7	3409	252	3198	3198	3304*	1725	4635	1137	8557	6807	6596*	3972	4049	2508	3139	2403	3594*	2455	4595	3135	3942	1428	4269*	2282
IET 29026(CR2538-42-17-32-3-3) Varshadhan*3/IR49830-7	3259	252	4427	3198	3843*	1725	3827	1137	8023	6807	5925*	3972	3192	2508	3819	2403	3506*	2455	4655	3135	3392	1428	4024*	2282
Exp.Mean	**1781.67**		**3462.6**		**2622.13**		**2804.02**		**6369.56**		**4586.79**		**2704.6**		**3136**		**2920.3**		**3858.89**		**2912.46**		**3325**	
CD	**429.96**		**481.62**		**322.41**		**1022.33**		**1027.31**		**610.76**		**754.83**		**504**		**443.74**		**1038.91**		**679.78**		**626.83**	

*Significantly ($p<0.05$) superior over the recurrent parent

Summary of two years performance of entries found promising in AVT-1 NIL-Submergence

The NIL derived from Sarala (IET 30410) performed significantly better for grain yield than the recurrent parent in 2021. The yield was higher than recurrent parent in 2022 and 2023, but not significant superior, thus at par with recurrent parent for yield. The seedling survival percentage under submergence was better than its recurrent parent in all the three years, 2021 (10.52%), 2022 (20.20%) and 2023 (38.99%).

The NIL derived from Gayatri (IET 30409) performed significantly better than the recurrent parent in 2021 and 2023. In 2022, it recorded better yield performance than recurrent parent, but not significant superior, thus at par with the recurrent parent for yield. It performed better than its recurrent parent Gayatri with regard to seedling survival percentage under submergence condition in 2021 (56.16%), 2022 (53.97%) and 2023 (47.67%).

The NILs derived from ADT 39 (IET 30697 and IET 30695) were in the second year of testing in 2023 and they performed significantly better than the recurrent parent with regard to yield and seedling survival under submergence stress over the years. IET 30697 (KR 19011) derived from the cross ADT 39*4/Swarna sub-1 performed significantly better than the recurrent parent ADT 39 in 2022 and 2023 with respect to yield under submergence stress. The seedling survival percentage under submergence condition was higher than its recurrent parent in 2022 (60.80%) and 2023 (112.63%). IET 30695 (KR19015) derived from the cross ADT 39*3/Swarna sub-1 performed significantly better than the recurrent parent ADT 39 in 2022 and 2023 with respect to yield under submergence stress. The seedling survival percentage under submergence condition was higher than its recurrent parent in 2022 (62.50%) and 2023 (155.66%).

IET 29031(CR 2538-42-17-32-3-2) and IET 29026 (CR 2538-42-17-32-3-3) derived from the cross Varshadhan*3/IR 49830-7 were in the fourth year of testing in 2023. All the two NILs derived from Varshadhan performed significantly better than the recurrent parent with regard to yield and seedling survival under submergence stress over the years.

IET 29031 performed significantly better than the recurrent parent Varshadhan in all the four years (2020, 2021, 2022 and 2023) with respect to yield under submergence stress. It also performed better than its recurrent parent Varshadhan with regard to seedling survival percentage under submergence condition in 2020 (6.14%), 2021 (56.14%), 2022 (54.95%) and 2023 (69.76%).

IET 29026 also performed significantly better than the recurrent parent Varshadhan in all the four years (2020, 2021, 2022 and 2023) with respect to yield under submergence stress. It also performed better than its recurrent parent Varshadhan with regard to seedling survival percentage under submergence condition in 2020(2.82%), 2021(53.43%), 2022 (54.95%) and 2023 (65.35%).

Thus the NILs derived from Sarala, Gayatri, ADT 39 and Varshdhan were found promising and submergence trait is verified.

Overall performance in seedling survival percentage of NILs those are in the second year of testing in AVT 1-NIL-Sub

IET No./ Designation/ Cross combination	Year	Seedling Survival (%) under submergence condition		
		RP survival	NIL survival	% over RP
IET 30410 (CR 2532-9-21-35-3) Sarala*3/IR49830-7	2023	BKG 34 KRK 45.47 Overall 39.74	BKG 61 KRK 49.45 Overall 55.23	BKG 79.41 KRK 8.75 Overall 38.98
	2022	CTK 58 KRK 50.61 Overall 54.3	CTK 72 KRK 58.54 Overall 65.27	CTK 39.62 KRK 67.98 Overall 53.97
	2021	CTK 30 MTU 87.8 Overall 58.9	CTK 45 MTU85.2 Overall 65.1	CTK 50.0 MTU-2.98 Overall 10.52
IET 30409 (CR2531-72-6-19-3) Gayatri*3/IR49830-7	2023	BKG 52 KRK 49.18 Overall 50.59	BKG 72 KRK 77.41 Overall 74.71	BKG 38.46 KRK 57.40 Overall 47.67
	2022	CTK 53 KRK 54.28 Overall 53.64	CTK 74 KRK9 1.18 Overall 82.59	CTK 39.62 KRK 67.98 Overall 53.97
	2021	CTK 33 MTU 70.8 Overall 51.9	CTK 92 MTU 68.1 Overall 80.05	CTK 178.78 MTU-3.81 Overall 56.16
IET 30697 (KR 19011) ADT 39*4/Swarna sub-1	2023	BKG 28 KRK 40.51 Overall 34.26	BKG 55 KRK 90.67 Overall 72.84	BKG 96.43 KRK 123.82 Overall 129.33
	2022	CTK 44 KRK 51.26 Overall 47.63	CTK 59 KRK 94.18 Overall 76.59	CTK 34.09 KRK 83.73 Overall 60.80
IET 30695 (KR19015) ADT 39*3/Swarna sub-1	2023	BKG 28 KRK 40.51 Overall 34.26	BKG 86 KRK 89.15 Overall 87.58	BKG 207.14 KRK 120.07 Overall 175.74
	2022	CTK 44 KRK 51.26 Overall 47.63	CTK 61 KRK 93.80 Overall 77.40	CTK 38.64 KRK 82.98 Overall 62.50
IET 29026 (CR 2538-42-17-32-3-3) Varshadhan*3/IR49830-7	2023	BKG 44 KRK 53.96 Overall 48.98	BKG 74 KRK 87.98 Overall 80.99	BKG 68.18 KRK 63.04 Overall 65.35
	2022	CTK 55 KRK56 Overall 55.5	CTK 83 KRK 89 Overall 86	CTK 50.9 KRK 58.93 Overall 54.95
	2021	CTK 30 MTU 87.9 Overall 58.95	CTK 95 MTU 85.9 Overall 90.45	CTK 216.66 MTU-2.27 Overall 53.43
	2020	CTK 5 MTU 97.8 Overall 51.4	CTK 60 MTU 45.7 Overall 52.85	CTK1100 MTU-53.27 Overall 2.82
IET 29031 (CR 2538-42-17-32-3-2) Varshadhan*3/IR49830-7	2023	BKG 44 KRK 53.96 Overall 48.98	BKG 84 KRK 82.30 Overall 83.15	BKG 90.90 KRK 53.96 Overall 65.35
	2022	CTK 55 KRK56 Overall 55.5	CTK 83 KRK 89 Overall 86	CTK 50.9 KRK 58.93 Overall 54.95
	2021	CTK 30 MTU 87.9 Overall 58.95	CTK 98 MTU 86.1 Overall 92.05	CTK 226.66 MTU- 2.04 Overall 56.14
	2020	CTK 5 MTU 97.8 Overall 51.4	CTK 62.22 MTU 46.9 Overall 54.56	CTK1144.4 MTU-52.04 Overall 6.14

Table No. 63.1: Composition of entries in Advance Variety Trial 1- Near Isogenic Lines - Submergence (AVT 1-NIL SUB), *kharif* , 2023.

Entry No.	IET No.	Designation	Cross combination	Grain Type
2nd Year of testing:				
6301	30410	CR 2532-9-21-35-3	Sarala*3/IR49830-7	MS
6302	**Sarala (RP)**			
6303	30409	CR2531-72-6-19-3	Gayatri*3/IR49830-7	SB
6304	**Gayatri(RP)**			
6305	30697	KR 19011	ADT 39*4/Swarna sub-1	MS
6306	**ADT 39(RP)**			
6307	30695	KR19015	ADT 39*3/Swarna sub-1	MS
6308	29031	CR 2538-42-17-32-3-3	Varshadhan*3/IR49830-7	LB
6309	**Varshadhan (RP)**			
6310	29026	CR 2538-42-17-32-3-2	Varshadhan*3/IR49830-7	LB
1st year of testing				
6311	32125	BRR 0257	Rajendrasweta X Swarna sub-1	MS
6312	**Rajendra Sweta (RP)**			
6313	32126	BRR 0256	Rajendrasweta X Swarna sub-1	MS
6314	32059	RP 6746-RMS 4-52-77-81	Improved Samba Mahsuri*2// /Swarna sub 1/APO	MS
6315	**Improved Samba Mahsuri (RP)**			
6316	32058	RP 6745-RMS 3-25-94-22	Improved Samba Mahsuri*2// /Swarna sub 1	MS
6317	32061	RP 6744-RMS -1-23-65-83	Improved Samba Mahsuri*2//Rpbiopatho-1/Swarna sub 1	MS
6318	32121	BRR 0263	Sabour Shree X Swarna sub-1	MS
6319	**Sabour Shree (RP)**			
6320	32122	BRR 0266	Sabour Shree X Swarna sub-1	MS
6321	32124	CR 4430-13-19-1-1	Swarna Sub 1*4 / Robin	MS
6322	**Swarna sub-1 (RP)**			
6323	32123	CR 4430-1-3-2-1	Swarna Sub 1*4 / Robin	MS
6324	**Swarna (Sensitive check)**			

Table No. 63.2: Grain Yield (Kg/ha) of entries in AVT-1 NIL SUB *Kharif* 2023

Entry No	IET No.	Zone III										Zone VII						Zone VII (1) Mean		Overall (2) Mean	
		BI				BI (1) Mean		UP (0)		Zone III (1) Mean		AP(0)		PUD(1)							
		BKG		SBR@				MSD@				MTU@		KRK							
6301	30410	4531	8 *			4531	8 *	5483		4531	8 *	4012		1582				1582		3057	*
6302	**Sarala (RP)**	3041		717		3041		4596		3041				2042	*			2042	*	2542	*
6303	30409	4466	*	201		4466	*	5344		4466	*	5401		4213	3 *			4213	3 *	4340	5 *
6304	**Gayatri (RP)**	1264				1264		5366		1264		3627		1680				1680		1472	
6305	30697	4338	*	2438		4338	*	4174		4338	*	5941		4573	1 *			4573	1 *	4456	4 *
6306	**ADT 39 (RP)**	2604		176		2604		5821		2604				1930	*			1930	*	2267	
6307	30695	5678	3 *	1752		5678	3 *	4575		5678	3 *	5208		4262	2 *			4262	2 *	4970	0 *
6308	29031	4595	7 *	697		4595	7 *	4967		4595	7 *	5941		3942	5.5 *			3942	5.5 *	4269	7 *
6309	Varshadhan	3135		104		3135		4853		3135		5737		1428				1428		2282	
6310	29026	4655	6 *	1075		4655	6 *	5529		4655	6 *	5517		3392	*			3392	*	4024	8 *
6311	32125	3286		1282		3286		4372		3286		4321		3808	8 *			3808	8 *	3547	*
6312	**Rajendra Sweta (RP)**	3280		139		3280		5257		3280		4398		3300	*			3300	*	3290	*
6313	32126	3021		1501		3021		5278		3021		5926		3542	10 *			3542	10 *	3282	*
6314	32059							5417													
6315	**Improved Samba Mahsuri (RP)**	3097		247		3097		5819		3097				1487				1487		2292	
6316	32058	4354	*	1366		4354	*	5813		4354	*	4514		1250				1250		2802	*
6317	32061	4225	*	836		4225	*	5540		4225	*	4938		3492	*			3492	*	3859	9 *
6318	32121	4482	10 *	908		4482	10 *	5322		4482	10 *	3665		4150	4 *			4150	4 *	4316	6 *
6319	**Sabour Shree (RP)**	4943	5 *	92		4943	5 *	6080		4943	5 *	3549		1367				1367		3155	*
6320	32122	4508	9 *	870		4508	9 *	5559		4508	9 *	5841		3125	*			3125	*	3817	10 *
6321	32124	5175	4 *	1544		5175	4 *	5955		5175	4 *	3742		3942	5.5 *			3942	5.5 *	4559	3 *
6322	**Swarna sub-1 (RP)**	5736	1 *	1900		5736	1 *	4894		5736	1 *	5779		3850	7 *			3850	7 *	4793	1 *
6323	32123	5680	2 *	1533		5680	2 *	4211		5680	2 *	5131		3550	9 *			3550	9 *	4615	2 *
6324	**Swarna (Sensitive check)**	2519		64		2519				2519		3588		1082				1082		1801	
Exp. Mean		**3858.89**		**856.79**		**3858.89**		**5227.16**		**3858.89**		**4207.8**		**2912.46**				**2912.46**		**3325**	
F Value		15.18 (p<0.0001) S		9.09 (p<0.0001) S		15.18 (p<0.0001) S		31.70 (p<0.0001) S		15.18 (p<0.0001) S		40.76 (p<0.0001) S		24.71 (p<0.0001) S				24.71 (p<0.0001) S		32.14 (p<0.0001) S	
CD		**1038.91**		**697.9**		**1038.91**		**280.72**		**1038.91**		**881.05**		**679.78**				**679.78**		**626.83**	
CV%		16.36		49.36		16.36		3.26		16.36		12.67		14.18				14.18		11.46	
D/S		02-07-2023		10-07-2023				09.07.2023				18.07.2023		09-12-2023							
D/P		03-08-2023		12-08-2023				11.08.2023				30.08.2023		26-10-2023							

Table No. 63.3: Days to 50% flowering of entries in AVT-1 NIL SUB *Kharif* 2023

Entry No.	IET No.	Zone III				ZoneIII(1)	Zone VII		ZoneVII(1)	Overall (2)
		BI		BI (1)	UP(0)		AP(0)	PUD(1)		
		BKG	SBR @	Mean	MSD @	Mean	MTU@	KRK	Mean	Mean
6301	30410	135		135	123	135	125	95	95	115
6302	**Sarala (RP)**	134	130	134	120	134		96	96	115
6303	30409	138	143	138	122	138	127	104	104	121
6304	**Gayatri(RP)**	139		139	122	139	113	105	105	122
6305	30697	130	122	130	126	130	126	99	99	115
6306	**ADT 39(RP)**	134	129	134	124	134		101	101	118
6307	30695	131	124	131	123	131	126	99	99	115
6308	29031	135	126	135	122	135	129	97	97	116
6309	Varshadhan	137	126	137	126	137	114	97	97	117
6310	29026	139	122	139	125	139	117	97	97	118
6311	32125	120	107	120	125	120	117	99	99	110
6312	**Rajendra Sweta (RP)**	121	121	121	122	121	121	97	97	109
6313	32126	114	122	114	115	114	114	100	100	107
6314	32059				116					
6315	**Improved Samba Mahsuri (RP)**	120	124	120	116	120		98	98	109
6316	32058	119	122	119	123	119	117	98	98	109
6317	32061	120	127	120	116	120	129	97	97	109
6318	32121	119	120	119	116	119	113	96	96	108
6319	**Sabour Shree (RP)**	118	125	118	101	118	121	98	98	108
6320	32122	121	123	121	112	121	119	99	99	110
6321	32124	134	127	134	116	134	122	94	94	114
6322	**Swarna sub-1 (RP)**	136	130	136	115	136	126	97	97	117
6323	32123	134	126	134	116	134	129	104	104	119
6324	**Swarna (Sensitive check)**	138	127	138		138	125	107	107	123
Exp. Mean		**129**	**124**	**129**	**119**	**129**	**122**	**99**	**99**	**114**

Table No. 63.4 : Plant height of entries in AVT-1 NIL SUB *Kharif* 2023

Entry No.	IET No.	Zone III				Zone III (1)	Zone VII		ZoneVII(1)	Overall (2)
		BI		BI (1)	UP(0)		AP(0)	PUD(1)		
		BKG	SBR@	Mean	MSD@	Mean	MTU@	KRK	Mean	Mean
6301	30410	90.66		90.66	85.00	90.66	120.50	104.33	104.33	97.50
6302	**Sarala (RP)**	90.83	62.00	90.83	89.00	90.83		109.00	109.00	99.92
6303	30409	89.66	63.00	89.66	86.00	89.66	127.00	116.17	116.17	102.91
6304	**Gayatri(RP)**	85.83		85.83	120.00	85.83	132.50	115.00	115.00	100.42
6305	30697	83.83	69.33	83.83	79.00	83.83	122.60	93.00	93.00	88.42
6306	**ADT 39(RP)**	84.16	68.00	84.16	82.00	84.16		99.33	99.33	91.75
6307	30695	77.16	59.00	77.16	71.00	77.16	127.60	97.67	97.67	87.41
6308	29031	113.50	108.33	113.50	109.00	113.50	130.00	123.33	123.33	118.42
6309	Varshadhan	104.83	95.33	104.83	86.00	104.83	114.00	129.33	129.33	117.08
6310	29026	117.83	108.67	117.83	78.00	117.83	116.50	110.67	110.67	114.25
6311	32125	63.00	57.67	63.00	72.00	63.00	118.50	49.67	49.67	56.33
6312	**Rajendra Sweta (RP)**	67.00	51.33	67.00	99.00	67.00	122.50	67.33	67.33	67.17
6313	32126	63.00	51.67	63.00	76.00	63.00	114.50	51.33	51.33	57.17
6314	32059				76.00					
6315	**Improved Samba Mahsuri (RP)**	76.33	68.00	76.33	70.00	76.33		79.33	79.33	77.83
6316	32058	72.50	67.00	72.50	75.00	72.50	116.50	90.67	90.67	81.58
6317	32061	77.83	63.00	77.83	102.00	77.83	128.67	94.33	94.33	86.08
6318	32121	104.66	94.33	104.66	82.00	104.66	120.65	109.00	109.00	106.83
6319	**Sabour Shree (RP)**	95.50	69.50	95.50	72.00	95.50	124.50	103.00	103.00	99.25
6320	32122	110.00	92.67	110.00	120.00	110.00	116.50	117.67	117.67	113.83
6321	32124	77.50	67.00	77.50	89.00	77.50	118.65	100.33	100.33	88.92
6322	**Swarna sub-1 (RP)**	84.50	63.33	84.50	68.00	84.50	116.20	92.33	92.33	88.42
6323	32123	76.16	64.33	76.16	72.00	76.16	122.45	93.67	93.67	84.91
6324	**Swarna (Sensitive check)**	76.00	55.00	76.00		76.00	120.54	108.00	108.00	92.00
Exp Mean		**86**	**71**	**86**	**85**	**86**	**122**	**98**	**98**	**92**

Table No. 63.5: No of Panicle/m^2 of entries in AVT-1 NIL SUB *Kharif* 2023

Entry No.	IET No.	Zone III			Zone III (1)	Zone VII		Zone VII (1)	Overall (2)
		BI		UP (0)		AP (0)	PUD(1)		
		BKG	BI (1)	MSD@	Mean	MTU@	KRK	Mean	Mean
6301	30410	386	386	254	386	244	252	252	319
6302	**Sarala (RP)**	374	374	243	374		214	214	294
6303	30409	299	299	254	299	284	382	382	341
6304	**Gayatri(RP)**	359	359	264	359	251	210	210	285
6305	30697	284	284	220	284	218	396	396	340
6306	**ADT 39(RP)**	223	223	261	223		195	195	209
6307	30695	369	369	252	369	228	377	377	373
6308	29031	297	297	252	297	259	413	413	355
6309	Varshadhan	295	295	225	295	270	212	212	254
6310	29026	276	276	232	276	220	362	362	319
6311	32125	276	276	230	276	207	349	349	313
6312	**Rajendra Sweta (RP)**	295	295	256	295	198	360	360	328
6313	32126	281	281	256	281	250	344	344	313
6314	32059			252					
6315	**Improved Samba Mahsuri (RP)**	329	329	275	329		228	228	279
6316	32058	309	309	265	309	205	257	257	283
6317	32061	279	279	255	279	244	347	347	313
6318	32121	309	309	242	309	230	341	341	325
6319	**Sabour Shree (RP)**	289	289	256	289	197	187	187	238
6320	32122	266	266	257	266	215	347	347	307
6321	32124	271	271	282	271	197	362	362	317
6322	**Swarna sub-1 (RP)**	289	289	224	289	252	390	390	340
6323	32123	264	264	227	264	237	355	355	310
6324	**Swarna (Sensitive check)**	279	279		279	232	220	220	250
Exp. Mean		**300**	**300**	**249**	**300**	**232**	**309**	**309**	**304**

ADVANCE VARIETY TRIAL 1-NEAR ISOGENIC LINES-DROUGHT (AVT1-NIL-DRT)

Locations: 09 **Test Entries: 04**

Checks: **IR64 –** Sensitive Check; **Sahbhagidhan –** Tolerant Check; **Vandana –** National Check; **MTU 1010:** HYV Check.

Recurrent Parents: IR64, Swarna and Improved Samba Mahsuri

Advance variety trial 1-NIL (drought) was conducted across nine locations (three zones: Zone III, V and VII) to evaluate the performance of 04 nominated drought tolerant near isogenic lines (NILs) in comparison to the three recurrent parents (RP), one sensitive check cum recurrent parent (IR 64), one tolerant check (Sahbhagidhan) along with one high yielding Check (MTU 1010) during *Kharif* season, 2023. Yield trials for the NIL entries along with its recurrent parents were conducted in the trials of respective ecologies for which those are notified. The details have been provided in Table no. 6.1.

Data of four centers (Ranchi, Raipur, Coimbatore and Mugad) were not considered due to high CV, high grain yield of sensitive check IR64, excessively high yield in genotypes and/or inconsistent scoring of tolerant and susceptible checks. Data from five centers (Cuttack, Jeypore, Bikramganj, Hazaribagh and Rewa) were considered for further analysis as criteria for selection of locations met in those cases. F-value was also significant at all five locations and hence the data were considered for pooled analysis. The criteria considered to accept or reject trial locations have been represented in following table.

Status of AVT-NIL-DRT trial in *Kharif* 2023

Sl. No.	Center Name	Condition of Drought Stress	Remarks
1	Cuttack, Odisha	Proper drought stress condition was recorded. The drought score and yield levels for all susceptible genotypes as well the tolerant check as per the standards required (details attached). Trial conducted in rain-out-shelter.	Data considered for analysis.
2	Jeypore, Odisha	Low yield recorded in sensitive check and susceptible recurrent parents. CV within acceptable range. Drought tolerance score of checks and RP as per standards.	Data considered for analysis.
3.	Bikramganj, Bihar	Low yield recorded in sensitive check and susceptible recurrent parents. CV within acceptable range. Drought tolerance score of checks within acceptable limit.	Data considered for analysis.
4.	Hazaribagh, Jharkhand	Low yield recorded in sensitive check and susceptible recurrent parents. CV within acceptable range. Drought tolerance score of checks and RP as per standards.	Data considered for analysis.

5.	Rewa, Madhya Pradesh	Low yield recorded in sensitive check and susceptible recurrent parents. CV within acceptable range. Drought tolerance score of checks and RP as per standards.	Data considered for analysis.
6.	Ranchi, Jharkhand	The mean yield of sensitive check higher than trial average and tolerant check.	Data not considered for analysis.
7.	Raipur, Chhattisgarh	CV (55.18%) is higher than acceptable limit	Data not considered for analysis.
8.	Coimbatore, Tamilnadu	The drought score of sensitive check, high yielding check, NIL entries and sensitive recurrent parents are '3'. Score of tolerant check is '5'.	Data not considered for analysis.
9.	Mugad, Karnataka	Yield is too high in many genotypes to consider drought stress. The drought score and other parameters not provided.	Data not considered for analysis.

Drought condition related parameters (early seedling vigour and uniformity) at different test locations

Entry No.	IET No	Early seedling vigour and uniformity (1-5)								
		BKJ	CBT	HZB	JYP	MDG	NRRI	RPR	RCI	REW
6401	Vandana (NC)	2	-	-	1	-	-	-	-	-
6402	31286	5	-	-	3	-	-	-	-	-
6403	IR 64 (RP &Sensitive Check)	5	-	-	5	-	-	-	-	-
6404	Swarna(RP)	4	-	-	7	-	-	-	-	-
6405	29069	1	-	-	3	-	-	-	-	-
6406	Sahbhagidhan (Resistant Check)	1	-	-	3	-	-	-	-	-
6407	30439	4	-	-	5	-	-	-	-	-
6408	Improved Samba Mahsuri (RP)	3	-	-	7	-	-	-	-	-
6409	32059	NG	-	-	NG	-	-	-	-	-
6410	MTU 1010 (check)	3	-	-	3	-	-	-	-	-

Drought condition related parameters (total maturity period) at different test locations

Entry No.	IET No	Total maturity period(days)								
		BKJ	CBT	HZB	JYP	MDG	NRRI	RPR	RCI	REW
6401	Vandana (NC)	119	-	117	125	-	130.00	123.67	-	-
6402	31286	118	-	118	117	-	111.00	116.33	-	-
6403	IR 64 (RP &Sensitive Check)	120	-	133	116	-	100.00	122.00	-	-
6404	Swarna(RP)	145	-	138	124	-	0.00	132.00	-	-
6405	29069	126	-	113	120	-	105.00	133.33	-	-
6406	Sahbhagidhan (Resistant Check)	115	-	109	116	-	94.00	120.00	-	-
6407	30439	120	-	112	123	-	108.00	127.00	-	-
6408	Improved Samba Mahsuri (RP)	138	-	121	128	-	118.00	137.33	-	-
6409	32059	NG	-	115	NG	-	NG	NG	-	-
6410	MTU 1010 (check)	120	-	115	124	-	99.00	121.50	-	-

Drought condition related parameters (drought tolerance scores) at different test locations

Entry No.	IET No	Drought tolerance scores (0-9 scores)								
		BKJ	CBT	HZB	JYP	MDG	NRRI	RPR	RCI	REW
6401	Vandana (NC)	3	3	1	3	-	5.00	-	-	-
6402	31286	5	3	5	3	-	9.00	-	-	-
6403	IR 64 (RP &Sensitive Check)	7	3	7	5	-	9.00	-	-	-
6404	Swarna(RP)	7	3	7	7	-	NF	-	-	-
6405	29069	3	3	3	3	-	7.00	-	-	-
6406	Sahbhagidhan (Resistant Check)	5	5	3	3	-	7.00	-	-	-
6407	30439	7	3	5	5	-	7.00	-	-	-
6408	Improved Samba Mahsuri (RP)	9	3	5	7	-	7.00	-	-	-
6409	32059	NG	3	3	NG	-	NG	-	-	-
6410	MTU 1010 (check)	5	3	5	7	-	9.00	-	-	-

Drought condition related parameters (leaf rolling scores) at different test locations

Entry No.	IET No	Leaf rolling scores								
		BKJ	**CBT**	**HZB**	**JYP**	**MDG**	**NRRI**	**RPR**	**RCI**	**REW**
6401	Vandana (NC)	3	3	-	3	-	0.00	9	-	5
6402	31286	5	3	-	5	-	5.00	7	-	3
6403	IR 64 (RP &Sensitive Check)	7	3	-	3	-	3.00	9	-	3
6404	Swarna(RP)	7	3	-	7	-	5.00	9	-	5
6405	29069	3	3	-	5	-	3.00	7	-	7
6406	Sahbhagidhan (Resistant Check)	3	3	-	5	-	3.00	7	-	7
6407	30439	7	3	-	3	-	3.00	7	-	7
6408	Improved Samba Mahsuri (RP)	7	3	-	7	-	3.00	7	-	5
6409	32059	NG	3	-	NG	-	NG	NG	-	5
6410	MTU 1010 (check)	3	3	-	5	-	5.00	7	-	7

Drought condition related parameters (leaf tip drying) at different test locations

Entry No.	IET No	Leaf tip drying								
		BKJ	**CBT**	**HZB**	**JYP**	**MDG**	**NRRI**	**RPR**	**RCI**	**REW**
6401	Vandana (NC)	5	3	-	3	-	-	3	-	7
6402	31286	5	3	-	3	-	-	1	-	3
6403	IR 64 (RP &Sensitive Check)	7	3	-	7	-	-	3	-	5
6404	Swarna(RP)	7	3	-	7	-	-	3	-	7
6405	29069	3	3	-	5	-	-	1	-	7
6406	Sahbhagidhan (Resistant Check)	3	5	-	5	-	-	1	-	5
6407	30439	5	3	-	5	-	-	0	-	3
6408	Improved Samba Mahsuri (RP)	9	3	-	7	-	-	0	-	7
6409	32059	NG	3	-	NG	-	-	NG	-	7
6410	MTU 1010 (check)	5	3	-	7	-	-	3	-	7

Drought condition related parameters (recovery after rains during drought) at different test locations

Entry No.	IET No	Recovery after rains during drought								
		BKJ	**CBT**	**HZB**	**JYP**	**MDG**	**NRRI**	**RPR**	**RCI**	**REW**
6401	Vandana (NC)	2	-	-	5	-	-	-	-	-
6402	31286	2	-	-	5	-	-	-	-	-
6403	IR 64 (RP &Sensitive Check)	4	-	-	7	-	-	-	-	-
6404	Swarna(RP)	5	-	-	7	-	-	-	-	-
6405	29069	1	-	-	3	-	-	-	-	-
6406	Sahbhagidhan (Resistant Check)	3	-	-	3	-	-	-	-	-
6407	30439	3	-	-	7	-	-	-	-	-
6408	Improved Samba Mahsuri (RP)	5	-	-	7	-	-	-	-	-
6409	32059	NG	-	-	NG	-	-	-	-	-
6410	MTU 1010 (check)	2	-	-	7	-	-	-	-	-

Trait verification of NIL entries:

Overall basis: Based on overall mean performance across all zones (Zone-III and Zone-V), the NIL entries of recurrent parents IR64 and Swarna showed superior performance. The mean grain yield of IET 31286 (2480 Kg/ha) was significantly superior to its recurrent parent IR64 (1571 Kg/ha). The mean grain yield of both IET 29069 (2847 Kg/ha) and IET 30439 (2515 Kg/ha) were superior compared with their recurrent parent Swarna (1528 Kg/ha). However, the flowering of both the entries were much earlier compared to its recurrent parent Swarna (DFF, Swarna: 109 days, IET 29069: 91 days and IET 30439: 88 days). The NIL entry of Improved Samba Mahsuri (IET 32059) showed at par performance as compared to its recurrent parent. At Zone-III, mean grain yield of all the entries were superior compared to their recurrent parent except IET 32059. Only single location data is available for IET 32059 in Zone-III (Hazaribagh) where its performance was at-par with its RP. The RP germinated at all locations. Hence, performance of IET 32059 can't be considered as superior. At Zone-V, the mean grain yield of IET 31286 was significantly superior to its recurrent parent IR64. Similarly, the mean grain yield of both IET 29069 and IET 30439 were superior compared with their recurrent parent Swarna.

Performance of entry in second year of testing:

Only one NIL entry (IET31286) with IR64 as recurrent parent was tested for second year. During both the years (2022 & 2023), the entry showed superior performance over the recurrent parent.

Table No.6.1: Composition of entries in Advance Variety Trial 1- Near Isogenic Lines-Drought (AVT 1-NIL DRT), *Kharif* 2023

Entry No.	IET No.	Designation	Cross combination	Grain Type
2nd Year of testing:				
6401	**Vandana (NC)**			
6402	31286	CRR744-74-41-B	IR64*3/IR 81896-B-B-195	LS
6403	**IR 64 (RP &Sensitive Check)**			
1st year of testing				
6404	**Swarna (RP)**			
6405	29069	R-RF-120	Swarna / IR 90019-17-159-B/Swarna/Swarna/Swarna	SB
6406	**Sahbhagidhan (Tolerant Check)**			
6407	30439	R-RF-156	Swarna*3/ IR 90019-17-159-B	SB
6408	**Improved Samba Mahsuri (RP)**			
6409	32059	RP 6746-RMS 4-52-77-81	Improved Samba Mahsuri*2// /Swarna sub 1/APO	MS
6410	**MTU 1010 (check)**			

Table No.6.2 Grain yield (Kg/ha) of entries vis-à-vis their recurrent parents under AVT-NIL-Drt trial during *Kharif* 2023

Entry No	IET No	Zone III														Zone III (4)	
		OD				OD (2)		BI (1)		JH				JH (1)			
		CKT		JYP		mean		BKG		RCI@		HZB		mean		mean	
6401	**Vandana (NC)**	3421	1	2482	1	2952	1	4779	2	1600	10	5219	1	5219	1	3975	2
6402	31286	217	7	2193	2	1205	6	4017	5	2862	5	3535	5	3535	5	2491*	7
6403	IR 64 (RP &Sensitive Check)	0		1911	7	956	7	3359	7	3662	3	1717	10	1717	10	1747	10
6404	**Swarna (RP)**	0		1607	8	804	9	3322	8	3502	4	2390	9	2390	9	1830	9
6405	29069	2264*	3	2022	4	2143	2	5241	1	2720	9	4040	2	4040	2	3392*	3
6406	**Sahbhagidhan (Tolerant Check)**	850	5	2044	3	1447	4	4642	3	2738	8	3905	4	3905	4	2860	4
6407	30439	2300*	2	1931	6	2116	3	3834	6	2773	6	3353	7	3353	7	2855*	5
6408	**Improved Samba Mahsuri (RP)**	468	6	1259	9	864	8	3254	9	2756	7	3501	6	3501	6	2121	8
6409	32059	NG		NG				NG		4622	1	4006#	3	4006	3	4006#&	1
6410	**MTU 1010 (check)**	885	4	1986	5	1436	5	4534	4	4178	2	3198	8	3198	8	2651	6
Exp. Mean		**1156.04**		**1937.11**		**1546.57**		**4109.19**		**3141.37**		**3486.63**		**3486.63**		**2792.66**	
F Value		159.23 (p<0.0001)S		10.18 (p<0.0001) S		95.35 (p<0.0001) S		4.04 (p<0.0085) S		12.48 (p<0.0001) S		23.95 (p<0.0001)S		23.95 (p<0.0001) S		45.23 (p<0.0067) S	
CD		**341.73**		**324.41**		**221.38**		**1080.25**		**728.14**		**579.2**		**579.2**		**355.15**	
CV%		16.62		9.68		8.27		15.19		13.51		9.68		9.68		7.41	
D/S		07.07.2023		25.07.23				02-07-2023		04.07.2023		22-07-2023					
D/P								03-08-2023		24.08.2023		09-08-2023					

@ Data not considered

* Significantly superior over respective RP; # At -par with respective RP, &Data is based on one location only

Table No.6.2 (Contd.): Grain yield (Kg/ha) of entries vis-à-vis their recurrent parents under AVT-NIL-Drt trial during *Kharif* 2023

Entry No	IET No	Zone V				Zone V(1)		Zone VII(0)				Overall	
		CG(0)		MP(1)				TN(0)		KA(0)			
		RPR@		REW		mean		CBT@		MGD@		Mean	
6401	**Vandana (NC)**	1675	1	780	7	780	7	1513	3	3872	8	3336	1
6402	31286	0		2439*	2	2439*	2	1704	1	3100	9	2480*	6
6403	**IR 64 (RP &Sensitive Check)**	0		870	6	870	6	1175	8	4699	5	1571	9
6404	**Swarna (RP)**	0		319	9	319	9	1371	5	5556	4	1528	10
6405	29069	1192	4	668*	8	668*	8	1322	6	6974	1 *	2847*	2
6406	**Sahbhagidhan (Resistant Check)**	283		2510	1	2510*	1	1588	2	4463	6	2790	3
6407	30439	1313	3	1159*	5	1159	5	1385	4	6097	3 *	2515*	5
6408	**Improved Samba Mahsuri (RP)**	1441	2	1192	4	1192	4	1240	7	4405	7	1935	8
6409	32059	0		213$	10	213	10	898	10	6545	2 *	2110#	7
6410	**MTU 1010 (check)**	0		2029	3	2029	3	1055	9	2991	10	2526	4
Exp. Mean		**590.4**		**1217.83**		**1217.83**		**1324.9**		**4870.33**		**2363.89**	
F Value		22.47 (p<0.0067) S		114.06 (p<0.0067) S		114.06 (p<0.0067) S		5.71 (p<0.0009) S		18.48 (p<0.0009) S		40.35 (p<0.0009) S	
CD		**613.43**		**231.98**		**231.98**		**304.12**		**957.78**		**270.13**	
CV%		55.18		11.1		11.1		13.38		11.46		6.66	
D/S		03.07.2023		10-07-2023				31.07.2023		18.08.23			
D/P		29.07.2023		16-08-2023						Drill Sown			

@ Data not considered

* Significantly superior over respective RP; # At -par with respective RP, $Significantly inferior over respective RP.

Two years (2022 & 2023) performance of NILs entries which are in second year of testing in AVT1-NIL- DRT

Year	Entry No.	IET No./Designation (Cross combination)	Yield (Kg/ha)	Difference with RP (Kg/ha)	DFF	Remarks
2022	6406	IET31286 (CRR744-74-41-B) (IR64*3/IR 81896-B-B-195)	1346*	408.00	86	Significant yield superiority over recurrent parent.
	6407	IR 64 (RP)	938		94	
CD Value (5%) (Kg/ha)			341.43			
2023	6402	IET31286 (CRR744-74-41-B) (IR64*3/IR 81896-B-B-195)	2480*	909.00	80	Significant yield superiority over recurrent parent.
	6403	IR 64 (RP)	1571		82	
CD Value (5%) (Kg/ha)			270.13			

Table No. 6.3 : Days to 50% Flowering of AVT 1-NIL DRT *Kharif*-2023

Entry No	IET No	Zone III							Zone III (4)	Zone V		Zone V (1)	Zone VII(0)		Overall (5)
		OD		OD(2)	BI(1)	JH		JH(1)		CG(0)	MP(1)		TN(0)	KA(0)	
		CKT	JYP	mean	BKG	RCI@	HZB	mean	mean	RPR@	REW	mean	CBT@	MGD@	mean
6401	**Vandana (NC)**	73	94	84	87	84	87	87	85	89	101	101	89	85	88
6402	31286	76	87	82	86	70	88	88	84	81	92	92	72	91	86
6403	**IR 64 (RP &Sensitive Check)**	65	87	76	90	74	103	103	86	87	123	123	77	79	94
6404	**Swarna(RP)**		94	94	119	115	108	108	107	97	111	111	91	86	108
6405	29069	70	90	80	96	74	83	83	85	88	115	115	73	73	91
6406	**Sahbhagidhan (Resistant Check)**	59	86	73	87	70	79	79	78	85	101	101	70	80	82
6407	30439	73	93	83	93	87	82	82	85	92	101	101	82	68	88
6408	**Improved Samba Mahsuri (RP)**	83	97	90	109	112	91	91	95	102	96	96	90	83	95
6409	32059					107	85	85	85		122	122	75	92	104
6410	**MTU 1010 (check)**	64	93	79	88	106	85	85	83	87	123	123	75	80	91
Exp. Mean		**70**	**91**	**82**	**95**	**90**	**89**	**89**	**87**	**89**	**109**	**109**	**80**	**82**	**93**

Table No.6.4 : Plant height (cm) of AVT 1-NIL DRT *Kharif*-2023

Entry No	IET NO	Zone III							Zone III (4)	Zone V		Zone V (1)	Zone VII(0)		Overall (5)
		OD		OD(2)	BI(1)	JH		JH(1)		CG(0)	MP(1)		TN(0)	KA(0)	
		CTK	JYP	mean	BKG	RCI@	HZB	mean	mean	RPR@	REW	mean	CBT@	MGD@	mean
6401	**Vandana (NC)**	85.60	68.53	77.07	95.22	50.00	86.89	50.00	84.06	93.87	91.00	92.43	110.33	73.59	85.45
6402	31286	82.77	69.60	76.18	94.66	56.00	88.00	56.00	83.76	63.13	83.00	73.07	94.47	63.45	83.61
6403	**IR 64 (RP &Sensitive Check)**	72.50	70.40	71.45	96.77	52.00	102.56	52.00	85.56	61.67	86.50	74.08	97.12	60.74	85.75
6404	**Swarna(RP)**	63.77	62.93	63.35	71.33	48.00	108.00	48.00	76.51	.	74.00	74.00	88.87	81.94	76.01
6405	29069	101.73	97.47	99.60	105.77	69.00	83.78	69.00	97.19	104.53	82.50	93.52	122.57	90.65	94.25
6406	**Sahbhagidhan (Resistant Check)**	88.13	94.53	91.33	86.55	57.00	79.00	57.00	87.05	76.93	85.00	80.97	123.47	63.89	86.64
6407	30439	68.37	66.67	67.52	92.11	60.00	82.33	60.00	77.37	90.27	72.00	81.13	93.60	84.24	76.30
6408	**Improved Samba Mahsuri (RP)**	74.60	63.53	69.07	84.11	56.00	90.89	56.00	78.28	89.67	71.50	80.58	79.13	76.52	76.93
6409	32059	.	.	.	.	57.00	85.33	57.00	85.33	.	67.00	67.00	107.97	95.62	76.17
6410	**MTU 1010 (check)**	81.47	82.67	82.07	88.66	63.00	84.89	63.00	84.42	65.27	85.00	75.13	121.03	70.54	84.54
Exp Mean		**80**	**75**	**78**	**91**	**57**	**89**	**57**	**84**	**81**	**80**	**79**	**104**	**76**	**83**

Table No.6.5 : No. of Panicles in sqm of AVT 1-NIL DRT *Kharif*-2023

Entry No	IET No	Zone III							Zone III (4)	Zone V		Zone V (1)	Zone VII(0)		Overall (5)
		OD		OD(2)	BI(1)	JH		JH(1)		CG(0)	MP(1)		TN(0)	KA(0)	
		CKT	JYP	mean	BKG	RCI@	HZB	mean	mean	RPR@	REW	mean	CBT@	MGD@	mean
6401	**Vandana (NC)**	241	317	279	347	68	351	351	314	262	165	165	277	238	284
6402	31286	192	310	251	313	121	286	286	275	109	221	221	265	277	264
6403	**IR 64 (RP &Sensitive Check)**	153	262	208	309	139	208	208	233	118	252	252	267	205	237
6404	**Swarna(RP)**		344	344	298	106	250	250	297		250	250	268	220	286
6405	29069	172	240	206	354	65	227	227	248	182	243	243	262	243	247
6406	**Sahbhagidhan (Resistant Check)**	241	183	212	353	55	241	241	255	173	293	293	277	186	262
6407	30439	281	279	280	356	100	246	246	291	188	243	243	270	245	281
6408	**Improved Samba Mahsuri (RP)**	97	228	163	366	139	267	267	240	229	244	244	265	221	240
6409	32059					124	257	257	257		177	177	203	290	217
6410	**MTU 1010 (check)**	197	226	212	285	116	212	212	230	65	229	229	308	185	230
Exp. Mean		**197**	**265**	**239**	**331**	**103**	**255**	**255**	**264**	**173**	**232**	**232**	**266**	**231**	**255**

AICRIP –

Basmati Varietal Improvement

Trials Report

Kharif 2023

INITIAL VARIETY TRIAL – BASMATI (IVT- BT)

Locations: 11 **Test Entries: 30**

Checks and Recurrent Parents: **Pusa Basmati 1 (YC)**
Pusa Basmati1121 (YC & QC)
Taraori Basmati (QC)
Pusa RH 10 (HC)
Local Check
Ranbir Basmati (RP)
Pusa Basmati 1509 (RP)

The entries nominated under IVT-BT (15 varietal entries and 1 hybrid entry), AVT1-BT (2 entries), AVT1-NIL (4 entries) and AVT2-NIL (1 entry) were evaluated in a combined trial of IVT-BT (Table 18.1). The trial constituted of 30 entries of which 15 varietal entries and 1 hybrid entry in IVT-BT; 2 entries in AVT1-BT; 4 entries in AVT1-NIL; 1 entry in AVT2-NIL; two recurrent parents namely, Ranbir Basmati, and Pusa Basmati 1509; five checks namely, Pusa Basmati 1 (Yield Check), Pusa Basmati 1121 (Yield and Quality Check), Taraori Basmati (Quality Check), Pusa RH10 (Hybrid Check) and a Local Check. Trial was conducted at 11 locations in the GI region earmarked for Basmati rice cultivation. However, data from only 6 locations namely, New Delhi, Rauni, Kaul, Karnal, Modipuram (BEDF) and Chatha was considered for further analysis as the data from Pant Nagar was not considered due to their low experimental mean and high CV; and data from Ludhiana, Gurdaspur, Kapurthala and Nagina was not considered due to low experimental mean.

Experimental mean of the locations ranged from 4593 kg/ha at Kaul to 6340 kg/ha at ICAR-IARI, New Delhi, while CV ranged from 5.5% at Karnal to 9.9 % at Chatha. The mean days to 50% flowering ranged from 91.4 days (Modipuram) to 101 days (Ludhiana). The mean plant height of the entries ranged from 101.6 cm (Karnal) to 119.5 cm (New Delhi), while mean panicles/ m^2 ranged from 238 (Pant Nagar) to 529 (New Delhi). Among the checks, hybrid check, Pusa RH 10 registered 6428 kg/ha yield with 2^{nd} rank based on overall mean. The data on yield, days to 50% flowering, plant height, number of panicles/m^2, quality and panel test are presented in tables 18.2, 18.3, 18.4, 18.5, 18.6 to 18.9 and 18.10 to 18.11 respectively. The details of the performance of the entries are elaborated below.

Performance of entries in IVT-BT

Out of 15 varietal test entries tested in IVT-BT, 13 entries showed yield performance significantly superior to the best varietal check. Two entries IET 31289 and IET 31295 were significantly inferior to the best varietal check. Therefore, these two entries do not qualify for promotion to next year of testing.

The entry, IET 31290 (PAU 8484-111-1-1(RYT4078) showed yield performance significantly superior over best varietal check Pusa Basmati 1121, it has HRR of 59.05%, kernel length of 7.93 mm, kernel length after cooking of 16.39 mm, elongation ratio of 1.96 with intermediate amylose content (22.95%). **Therefore, this entry is promoted to AVT1-BT**.

The entry, IET 31291 (UPR 4636-18-2-1-1) was significantly superior to best varietal check, Pusa Basmati 1121 for yield. It possessed intermediate amylose content (23.72%) and KLAC of 12.48 mm. However, elongation ratio was 1.68 which is lower than that of the required elongation ratio of 1.7. **As the difference between observed elongation ratio is marginally lower than that of the minimum elongation ratio standard of Basmati rice, it is given a benefit of doubt and promoted to second year of testing (AVT1-BT)**.

The entry, IET 30548 (SJR 123-2-1) exhibited significantly superior yield performance over best varietal check. It possessed kernel length after cooking of 12.55 mm with an elongation ratio of 1.69. However, it possessed higher amylose content of 25.49. Therefore, **this entry, IET 30548 do not qualify for promotion to next year of testing**.

The entries, IET 31292 (CSR301-16-BT-208) and IET 31294 (Pusa 3067-16-10-6) performed significantly superior for yield over best varietal check. IET31292 possessed high HRR (62.63%), KLAC of 1.74 mm and amylose content of 24.23%; IET 31294 possessed HRR (53.47%), KLAC of 17.5 mm and amylose content of 24.04%. Based on yield and quality parameters, **both these entries, IET 31292 and IET 31924 have been promoted to second year of testing (AVT1-BT)**.

IET 31293 is the only hybrid entry which yielded significantly superior to both the best varietal check Pusa Basmati 1121 and hybrid check Pusa RH 10. Further, this hybrid possessed kernel length after cooking of 15.13 mm with intermediate amylose content. **Based on yield and quality parameters, this hybrid has been promoted to AVT1-BT**.

The entry, IET 31296 yielded significantly superior to the best varietal check. However, this entry possessed **low kernel length after cooking (11.33mm), low elongation ratio (1.61) with high amylose content of 27.49**. Therefore, this entry is not promoted for second year of testing.

The entries, IET 31297 (Pusa 3076-12-1-2-9) and IET 31299 (PAU 7842-13-2-1 (RYT 4087)performed significantly superior for yield over best varietal check. IET 31297 possessed superior quality parameters such as KLAC (17.73 mm), ER (2.01) and intermediate amylose content (23.71). The entry, IET 31299 also possessed superior quality parameters such as KLAC (17.03 mm), ER (2.08) and intermediate amylose content (23.44%). Therefore, both the **entries (IET 31297, IET31299) have been promoted to second year of testing**.

The entries, IET 31298 (UPR 4635-15-1-1-1) and IET 31300 (CSR-YET 73) yielded significantly superior to the best varietal check Pusa Basmati 1121. Further, the entry IET 31298 possessed KLAC of 13.73 mm, ER of 1.81 with intermediate amylose content of 23.83%. Similarly, entry IET 31300 possessed KLAC of 13.24 mm, ER of 1.76 with intermediate amylose content (23.97%). Therefore, **both IET 31298 and IET 31300 have been promoted to second year of testing**.

The entries, IET 31301 (Pusa 3067-16-10-5) and IET 31303 (Pusa 3083-17-8-3-13-1-17) yielded significantly superior to the best varietal check. Further, both the entries had extra-long slender grains with intermediate amylose content. Therefore, both the entries, IET 31301 and **IET31303 have been promoted to second year of testing (AVT-2).**

The entry IET31302 (CSR 30116-ST-153) yielded significant to Pusa Basmati 1121 and possessed KLAC of 13.25 mm, ER of 1.77. However, at IARI it has been recorded as non-aromatic while, at BEDF, it has been recorded as mild scented. Therefore, as a benefit of doubt, **IET31302 has been promoted for second year of testing**.

Overall performance of entries promoted from IVT-BT *Kharif* 2023

Sl. No.	IET No/ Designation/ Cross Combination	GY	FD	Grain Type	Yield over best check (%)	Performance rank (%) increase over best check		
						State	Yield	% over BC
1	IET 31290, PAU 8484-111-1-1 (RYT4078), PB1509/PB5//PB1509*2	6091	93	ELS	46.0	DE PU HA UP JK	6799 6768 6275 6350 4080	14.91 18.05 68.08 41.11 32.25
2	IET 31291, UPR 4636-18-2-1-1, PSD17/UPR3375-8-1-1	5741	95	LS	37.6	DE PU HA UP JK	7210 6320 5195 5950 4575	21.85 10.25 39.15 32.22 48.30
3	IET 31292, CSR301-16-BT-208, PB1121/CSR26	5682	97	LS	36.2	DE PU	7661 5848	29.47 2.01

						HA UP JK	6168 5245 3000	65.22 16.56 -2.76
4	IET 31294, Pusa 3067-16-10-6, PB 1121// Pusa6A/Pusa 1705-86	4860	110	ELS	16.5	DE PU HA UP JK	6071 4479 3593 5450 5975	2.59 -21.88 -3.75 21.11 93.68
5	IET 31297, Pusa 3076-12-1-2-9, PB1509//Pusa1568/Pusa1609	5263	106	ELS	26.1	DE PU HA UP JK	6801 5158 4358 6400 4500	14.94 -10.03 16.74 42.22 45.87
6	IET 31299, PAU 7842-13-2-1 (RYT 4087), PB1718/Pusa 1601-105-46-1-1	5207	106	ELS	24.8	DE PU HA UP JK	6253 5357 4715 5950 4250	5.67 -6.55 26.29 32.22 37.76
7	IET 31298, UPR 4635-15-1-1-1, PSD17/UPR3951-1-3-1	5370	95	ELS	28.7	DE PU HA UP JK	6314 5591 5083 5300 4850	6.70 -2.47 36.16 17.78 57.21
8	IET 31300, CSR-YET 73, PB1/CSR46	5786	93	ELS	38.7	DE PU HA UP JK	6220 6145 6063 5400 4825	5.12 7.19 62.41 20.00 56.40
9	IET 31301, Pusa 3067-16-10-5, PB1121//Pusa6A/Pusa 1705-86	4653	109	ELS	11.5	DE PU HA UP JK	6074 4433 3680 5400 4650	2.64 -22.67 -1.43 20.00 50.73
10	IET31302, CSR 30116-ST-153, PB1121/CSR27	5862	94	LS	40.5	DE PU HA UP JK	7439 5120 5693 5100 6125	25.72 -10.68 52.50 13.33 98.54
11	IET 31303, Pusa 3083-17-8-3-13-1-17, Pusa 1851/PB1121// Pusa1568/Pusa 1790	4667	112	LS	11.9	DE PU HA UP JK	6083 5804 3183 6350 3400	2.80 1.24 -14.73 41.11 10.21

Sl. No.	**IET No/ Designation/ Cross Combination**	**GY**	**FD**	**Grain Type**	**Yield over best check (%)**	**Performance rank (%) increase over best check**		
						State	**Yield**	**% over BC**
1	IET 31293, Shaan, F301A/98R	7236	91	ELS	73.4	DE PU HA UP JK	8613 7665 6228 8050 6630	18.68 10.94 -3.06 16.67 42.58

Performance of entries in AVT1-BT

Two entries namely, IET 30533 and IET 30535 were tested in AVT1-BT. Both the entries were found significantly superior to the best varietal check, Pusa Basmati 1121. The entry, IET 30533 (HKR-17-422) possessed KL of 7.41 mm, KLAC of 13.33 mm, ER of 1.72 with intermediate amylose content. Based on yield and quality parameters, **IET30533 has been promoted to AVT2-BT**. The entry, IET 30535 (CSR BT-252-19) possessed KL of 7.26 mm, KLAC of 13.98 mm and ER of 1.86. However, this entry has been recorded MS at IARI, but it has been recorded to be non-scented at BEDF. As a benefit of doubt, this entry has been promoted to AVT2-BT.

IET No/ Designation/ Cross Combination	Trial	GY	FD	Grain Type	Yield over best check (%)	Performance rank (%) increase over best check		
						State	Yield	% over BC
IET 30533 (HKR17-422) HKR98-476/CSR30	IVT-BT	5310	92	LS	31.7	DE PU HA UP	5951 5177 6155 4740	35.9 55.8 74.6 3.7
	AVT1-BT	6277	91	ELS	50.46	DE PU HA UP JK	6513 7073 5900 6300 5975	10.0 23.0 58.0 40.0 94.0
IET 30535 (CSRBT-252-19) Pusa Sugandh 5/CSR10	IVT-BT	5547	102	LS	37.6	DE PU HA UP	6081 5038 6453 5091	38.9 51.6 83.1 11.4
	AVT1-BT	6108	101	LS	46.40	DE PU HA UP JK	8409 5920 5763 6850 3945	42.0 3.0 54.0 52.0 28.0

Performance of AVT1-NILs entries

Near Isogenic Lines for blast resistance

Two NIL entries in the genetic background of Ranbir Basmati namely, IET 31304 and IET 31305 derived from the cross Ranbir Basmati*3/PB1637 and possesses *Pi9* gene for blast resistance. These two NILs were evaluated for yield under regular Basmati trial. These NILs along with the recurrent (Ranbir Basmati) were also tested under AVT1-NILs (Patho) trial for verification of the target trait, blast resistance.

The entry, IET 31304 exhibited significant yield superiority over the recurrent parent at Chatha location of Jammu & Kashmir, which is a notified location for Ranbir Basmati. However, this entry flowered in 103 days at his location which is 18 days delayed as compared to its recurrent parent (85 days). This entry showed highly resistance reaction to blast with blast score of 1, while its recurrent parent Ranbir Basmati was recorded to possess highly susceptible reaction with blast score of 9 at IARI location. It possessed KL of 6.8 mm and ER of 1.77. However, KLAC for this entry was recorded to be 11.78 mm. Although, the KLAC is on par with its recurrent parent, Ranbir Basmati (11.65 mm), it is lower to the notified Basmati standards. **Overall, due to 18 days delay in flowering at Chatha location and poor KLAC, this entry is not promoted to AVT2-NIL**.

The entry, IET 31305 exhibited significant yield inferiority over the recurrent parent at Chatha location of Jammu & Kashmir, which is a notified location for Ranbir Basmati. Further the entry also showed 13 days delay in DFF at this location compared to the recurrent parent (85 days). Although, this entry exhibited highly resistant reaction to blast as compared to its recurrent parent Ranbir Basmati, based on poor yield and delayed flowering , **IET 31305 is not promoted to AVT2-NIL**.

Near Isogenic Lines for bacterial blight, blast and bakanae resistance

Two entries namely, IET 31306 and IET 31307 in the background of Pusa Basmati 1509 were evaluated for yield and grain quality in regular Basmati trial and for testing bacterial blight, blast and bakanae resistance, a separate trial under NSN was conducted in hot spot regions of the Basmati GI locations.

The entry IET 31306 (Pusa 3136-12-10-46-14) possessing genes *xa13, Xa21, Xa38, Pi9, Pib, qBK1.1* and *qBK1.2* exhibited on par yield performance with its recurrent parent, Pusa Basmati 1509. It possessed HRR of 43.09%, KL of 7.57, KLAC of 16.78 mm, ER of 2.05 with intermediate amylose content. Based on screening for bacterial blight and Ludhiana and Pant Nagar, it was found resistant to bacterial blight with average disease score of 4 as against to its recurrent parent Pusa Basmati 1509 which was susceptible with average score of 6. It was also resistant to blast disease with score of 1 as compared to susceptible reaction of 9 exhibited by its recurrent parent Pusa Basmati 1509. However, it displayed 50% disease incidence to bakanae which was similar to its recurrent parent when evaluated at IARI, New Delhi. Therefore, this entry (IET 31306) has been dropped.

The entry IET 31307 (Pusa 3136-49-2-105-19) possessing genes *xa13, Xa21, Xa38, Pi9, Pib, qBK1.1* and *qBK1.2* exhibited on par yield performance with its recurrent parent Pusa Basmati 1509. It possessed HRR of 47.78%, KL of 8.11 mm, KLAC of 16.88 mm, ER of 2.05 with intermediate amylose content. Based on screening for bacterial blight and Ludhiana and Pant Nagar, it was found resistant to bacterial blight with average disease score of as against to its recurrent parent, Pusa Basmati 1509 which was susceptible with average score of 6. It was also resistant to blast disease with score of 2 as compared to susceptible reaction of 9 exhibited by its recurrent parent, Pusa Basmati 1509. It displayed 33.4% superiority for resistance to bakanae as compared to its recurrent parent when evaluated at IARI, New Delhi. Therefore, **IET 31307 is promoted to AVT2-NIL**.

Performance of blast NILs during *Kharif* 2023

S. No.	IET No	Recurrent Parent (RP) and Gene	Overall			Notified location of RP (Jammu &Kashmir)					Remarks
			RP yield	NIL yield	CD (0.05)	RP yield	NIL yield	CD (0.05)	RP DFF (days)	NIL DFF (days)	
1	31304	Ranbir Basmati and *Pi9*	3312	4218#	290	4175	5850#	932	85	103	TRAIT VERIFIED (SI-1) Performance of the NIL on par with recurrent parent but delayed flowering by 18 days and quality not meeting the Basmati rice standards. **DROPPED**
2	31305	Ranbir Basmati and *Pi9*	3312	3414$	290	4175	3150	932	85	99	TRAIT VERIFIED (SI-2) Performance of the NIL significantly inferior to the recurrent parent. **DROPPED**

significantly superior to RP, $ on par with RP

Performance of the bacterial blight, blast and bakanae NIL entries during *Kharif* 2023

	Recurrent parent	**IET31306**	**IET31307**
	Pusa Basmati 1509	**Pusa 3136-49-2-105-19**	**Pusa 3136-49-2-105-19**
Genes	**-**	*xa13, Xa21, Xa38, Pi9, Pib, qBK1.1* and *qBK1.2*	*xa13, Xa21, Xa38, Pi9, Pib, qBK1.1* and *qBK1.2*
Overall Yield Performance (kg/ha)	5469	5702	5516
CD (0.05)	290		
Bacterial blight score	6	4	4
Blast score	9	1	2
% reduction of bakanae incidence as compared to recurrent parent	-	0	33.4%
Remarks		**Dropped**	**Promoted**

Performance of AVT2-NIL entries

One entry namely, IET 30553 (Pusa 3057-9-69-37-160-9-185-1) derived from the cross, Pusa Basmati 1509*4/ Pusa 1342 possessing genes *qBK1.1* and *qBK1.2* for *bakanae* resistance was evaluated in AVT2-NIL. It exhibited on par performance with its recurrent parent, Pusa Basmati 1509 during both AVT1-NIL and AVT2-NIL trials. For *bakanae* disease, it was found resistant with per cent disease reduction of 72.0% during Kharif 2022 and 45.5% during Kharif 2023 as compared to its recurrent parent, Pusa Basmati 1509 (RP). Quality wise it is similar to its recurrent parent. Based on two years of testing for yield, quality as well as bakanae disease resistance**, the entry IET 30553 has been found promising**.

Trial and Year	**IET No**	**Recurrent Parent (RP) and QTL**	**Overall**			**Trait verification – % reduction of *Bakanae disease incidence as compared to RP***		**Remarks**
			RP yield	**NIL yield**	**CD (0.05)**	**NIL (%)**	**Trait verified**	
AVT1-NIL 2022	30553	Pusa 3057-9-69-37-160-9-185-1 (*qBK1.1* and *qBK1.2*)	4378	4788	575	72.0%	Yes	**Resistant to bakanae,** yield performance on-par with RP. (9.4% yield superiority over RP)
AVT2-NIL 2023			5469	5954	295	45.5 %	Yes	**Resistant to bakanae,** yield and quality performance on-par with RP

Table 18.1: Composition of entries in IVT-BT, AVT1-BT, AVT1-NIL, AVT2-NIL during *Kharif* 2023

S. No.	Entry No.	IET	Designation	Cross combination	Grain
IVT-BT					
1	1801	31289	SJBR-121-05	Ranbir Basmati/ Pb. Basmati 4	LS
2	1802	31290	PAU 8484-111-1-1 (RYT4078)	PB1509/PB5//PB1509*2	ELS
3	1803	31291	UPR 4636-18-2-1-1	PSD17/UPR3375-8-1-1	LS
4	1804	30548	SJR 123-2-1 (Repeat Entry)	Ranbir Basmati / Pusa 2517-2-51-1/ Pusa 2511	LS
5	1805	31292	CSR301-16-BT-208	PB1121/CSR26	LS
6	1806	31293	Shaan	F301A/98R	ELS
7	1807	31294	Pusa 3067-16-10-6	PB 1121// Pusa6A/Pusa 1705-86	ELS
8	1808	**Pusa Basmati 1121 (Y&QC)**			ELS
9	1809	31295	SJBR-121-11	Ranbir Basmati/ Pb. Basmati 4	LS
10	1810	31296	CSR BT-252-146	CSR30/CSR36	LS
11	1811	31297	Pusa 3076-12-1-2-9	PB1509//Pusa1568/Pusa1609	ELS
12	1812	31298	UPR 4635-15-1-1-1	PSD17/UPR3951-1-3-1	ELS
13	1813	31299	PAU 7842-13-2-1 (RYT 4087)	PB1718/Pusa 1601-105-46-1-1	ELS
14	1814	31300	CSR-YET 73	PB1/CSR46	LS
15	1815	**Pusa Basmati 1 (YC)**			LS
16	1816	31301	Pusa 3067-16-10-5	PB1121//Pusa6A/Pusa 1705-86	ELS
17	1817	31302	CSR 301-16-ST-153	PB1121/CSR27	LS
18	1818	31303	Pusa 3083-17-8-3-13-1-17	Pusa 1851/PB1121//Pusa1568/Pusa 1790	ELS
AVT1-BT					
19	1819	30533	HKR-17-422	HKR98-476/CSR30	LS
20	1820	30535	CSR BT-252-19	PS5/CSR10	LS
AVT1-NIL					
21	1821	31304	BB-3	Ranbir Basmati*3/PB1637	LS
22	1822	31305	BB-4	Ranbir Basmati*3/PB1637	LS
23	1823	**Recurrent Parent**		Ranbir Basmati	LS
24	1824	Pusa RH-10 (Hybrid Check)			
25	1825	31306	Pusa 3136-12-10-46-14		LS
26	1826	31307	Pusa 3136-49-2-105-19		LS
27	1827	**Recurrent Parent**		Pusa Basmati 1509	LS
AVT2-NIL					
28	1828	30553	Pusa 3057-9-69-37-160-9-185-1	Pusa Basmati 1509*4/ Pusa 1342	ELS
29	1829	**Taraori Basmati (QC)**			ELS
30	1830	Local Check (any notified Basmati variety)			ELS

Table 18.2: Grain Yield of entries in IVT- BT, Kharif 2023

Entry No.	IET No.	ND (1)		UK	PUN					PUN (1)	
		IARI		@PANT	@LDH	RUN		@GDP	@KPT	Mean	
1801	31289	4625		471	2390	3605		3036	2376	3605	
1802	31290	6799	# 11	863	4430	6768	# 4	4573	4628	6768	# 4
1803	31291	7210	# 7	820	4485	6320		3889	4235	6320	
1804	30548	6790	# 12	935	3430	4736		4804	3802	4736	
1805	31292	7661	# 4	807	5375	5848		5046	3970	5848	
1806	31293	8613	#* 1	1370	5550	7665	# 1	5211	4366	7665	# 1
1807	31294	6071		418	3675	4479		3690	3632	4479	
1808	Pusa Basmati 1121 (Y & QC)	5917		778	3385	4151		3851	3564	4151	
1809	31295	5587		921	2695	3855		2882	2982	3855	
1810	31296	7775	# 3	1644	2735	5857		3913	2995	5857	
1811	31297	6801	# 10	423	1700	5158		3712	3285	5158	
1812	31298	6314		1248	3925	5591		3874	3966	5591	
1813	31299	6253		507	1675	5357		4642	4011	5357	
1814	31300	6220		976	4160	6145		3824	4354	6145	
1815	Pusa Basmati 1 (YC)	5426		720	3870	5733		2832	3802	5733	
1816	31301	6074		302	4655	4433		3755	4024	4433	
1817	31302	7439	# 5	1198	4495	5120		4028	3240	5120	
1818	31303	6083		340	2295	5804		3728	3994	5804	
1819	30533	6513		778	5620	7073	# 2	4393	4151	7073	# 2
1820	30535	8409	# 2	622	5585	5920		4477	5118	5920	
1821	31304	4843		1031	2945	3938		3013	2891	3938	
1822	31305	4332		983	3570	3399		3916	2949	3399	
1823	Ranbir Basmati (RP)	3988		565	1685	2889		2575	2080	2889	
1824	Pusa RH-10 (Hybrid Check)	7257	# 6	985	4395	6909	# 3	4074	3155	6909	# 3
1825	31306	6602		1182	3990	5830		4843	3757	5830	
1826	31307	5737		1273	4795	6264		4108	3604	6264	
1827	Pusa Basmati 1509 (RP)	6535		843	4290	6226		3870	3596	6226	
1828	30553	6938	# 9	989	4790	5939		4158	3672	5939	
1829	Taraori Basmati (QC)	4398		347	1550	4005		3167	2755	4005	
1830	Local Check	6986	# 8	1408	4480	6046		4804	4207	6046	
Exp. Mean		6340		858	3754	5369		3956	3638	5369	
CD (0.05)		734		681	433	666		410	702	666	
CV		5.7		38.8	5.6	6.1		5.1	9.4	6.1	
Sowing Date		19.06.2023			22.06.2023	21.06.2023		28.06.2023	10.06.2023		
Planting Date		16.07.2023			22.07.2023	21.07.2023		22.07.2023	11.07.2023		
Local Check		Pusa Basmati 1692			Punjab Basmati 7	Punjab Basmati 7		Punjab Basmati 7	Punjab Basmati 7		

superiority over best check, * superiority over hybrid check

Table 18.2 (contd…): Grain Yield of entries in IVT- BT during Kharif 2023

Entry No.	IET No.	HR				HR (2)		UP			UP (1)	
		KAR		KUL		Mean		MDP (BDF)		@NGN	Mean	
1801	31289	3810		3200		3505		3900		3400	3900	
1802	31290	6000	#8	6550	#1	6275	#2	6350	#6	3575	6350	#6
1803	31291	4540		5850	#6	5195	#13	5950	#11	4000	5950	#11
1804	30548	6527	#2	4700	#13	5613	#9	5200	#21	3100	5200	#21
1805	31292	6287	#4	6050	#5	6168	#4	5245	#20	4200	5245	#20
1806	31293	6257	#5	6200	#3	6228	#3	8050	#*1	4700	8050	#*1
1807	31294	3737		3450		3593		5450	#16	4345	5450	#16
1808	Pusa Basmati 1121 (Y & QC)	4217		3250		3733		4500		2200	4500	
1809	31295	3370		3800		3585		4850		3095	4850	
1810	31296	6230	#6	4600	#17	5415	#11	6250	#9	2940	6250	#9
1811	31297	4017		4700	#15	4358	#18	6400	#5	2100	6400	#5
1812	31298	5067	#15	5100	#11	5083	#16	5300	#19	2550	5300	#19
1813	31299	4530		4900	#12	4715	#17	5950	#12	3735	5950	#12
1814	31300	6377	#3	5750	#7	6063	#5	5400	#17	3990	5400	#17
1815	Pusa Basmati 1 (YC)	3560		2700		3130		3800		4300	3800	
1816	31301	3560		3800		3680		5400	#18	2250	5400	#18
1817	31302	5737	#13	5650	#8	5693	#8	5100		2900	5100	
1818	31303	3617		2750		3183		6350	#7	2050	6350	#7
1819	30533	5650	#14	6150	#4	5900	#6	6300	#8	2475	6300	#8
1820	30535	6027	#7	5500	#9	5763	#7	6850	#3	3350	6850	#3
1821	31304	3530		3950	#20	3740		3200		3025	3200	
1822	31305	3277		3500		3388		2825		3465	2825	
1823	Ranbir Basmati (RP)	3520		2250		2885		3050		3300	3050	
1824	Pusa RH-10 (Hybrid Check)	6650	#1	6200	#2	6425	#1	6900	#2	5150	6900	#2
1825	31306	5780	#12	4550	#19	5165	#15	5900	#13	4175	5900	#13
1826	31307	5820	#10	4550	#18	5185	#14	5750	#14	3600	5750	#14
1827	Pusa Basmati 1509 (RP)	5830	#9	4700	#14	5265	#12	5600	#15	4225	5600	#15
1828	30553	5800	#11	5250	#10	5525	#10	6600	#4	4995	6600	#4
1829	Taraori Basmati (QC)	3577		3550		3563		4600		2425	4600	
1830	Local Check	3317		4650	#16	3983		6200	#10	3950	6200	#10
Exp. Mean		4874		4593				5441		3452		
CD (0.05)		435		590		474		684		528		
CV		5.5		6.3		7.1		6.2		7.5		
Sowing Date		24.06.2023						25.06.2023		26.06.2023		
Planting Date		21.07.2023						25.07.2023		18.07.2023		
Local Check		CSR 30						PB1509		PB1847		

superiority over best check, * superiority over hybrid check

Table 18.2 (*contd...*): Grain Yield of entries in IVT-BT during *Kharif* 2023

Entry No.	IET No.	J&K		Overall (6)		DFF (days)	PH (cm)	Panicles/m2
		CHT		Mean				
1801	31289	4750	#13	3982		92	124.9	350
1802	31290	4080	#22	6091	#6	93	105.9	341
1803	31291	4575	#16	5741	#10	95	113.7	314
1804	30548	4250	#19	5367	#16	91	114.0	333
1805	31292	3000		5682	#12	97	122.4	316
1806	31293	6630	#*2	7236	#*1	91	114.3	334
1807	31294	5975	#4	4860	#20	110	97.9	339
1808	Pusa Basmati 1121 (Y & QC)	3000		4172		106	109.2	345
1809	31295	3125		4098		90	114.2	324
1810	31296	6875	#1	6264	#4	91	108.1	351
1811	31297	4500	#17	5263	#18	106	123.9	331
1812	31298	4850	#10	5370	#15	95	104.0	323
1813	31299	4250	#20	5207	#19	106	115.2	346
1814	31300	4825	#11	5786	#9	93	109.5	339
1815	Pusa Basmati 1 (YC)	3085		4051		105	105.0	310
1816	31301	4650	#14	4653	#22	109	96.3	334
1817	31302	6125	#3	5862	#8	94	119.5	304
1818	31303	3400		4667	#21	112	106.0	322
1819	30533	5975	#5	6277	#3	91	109.2	322
1820	30535	3945		6108	#5	101	103.0	306
1821	31304	5850	#6	4218		97	120.2	314
1822	31305	3150		3414		97	123.3	317
1823	Ranbir Basmati (RP)	4175	#21	3312		85	141.4	307
1824	Pusa RH-10 (Hybrid Check)	4650	#15	6428	#2	90	106.6	347
1825	31306	5550	#7	5702	#11	85	102.2	333
1826	31307	4975	#9	5516	#13	86	103.3	350
1827	Pusa Basmati 1509 (RP)	3925		5469	#14	88	100.0	315
1828	30553	5200	#8	5954	#7	89	99.8	338
1829	Taraori Basmati (QC)	4300	#18	4072		109	137.1	318
1830	Local Check	4800	#12	5333	#17	97	112.5	335
Exp. Mean		4615		5205				
CD (0.05)		932		290				
CV		9.88		6.9				
Sowing Date		21.06.2023						
Planting Date		14.07.2023						
Local Check		Jammu Basmati 129						

superiority over best check, * superiority over hybrid check

Table No. 18.3: Days to 50% flowering (DFF) of entries in IVT-BT during *Kharif* 2023

Entry No.	IET No.	IARI	PANT	LDH	RUN	GDP	KPT	KAR	KUL	MDP(BDF)	NGN	CHT	Overall Mean
1801	31289	89	92	102	93	92	95	84	89	89	94	93	92
1802	31290	96	93	102	93	97	93	88	90	85	94	92	93
1803	31291	94	93	95	103	100	100	92	87	93	92	93	95
1804	30548	90	89	94	92	91	96	92	86	86	95	93	91
1805	31292	98	96	103	93	100	103	99	92	94	97	95	97
1806	31293	89	88	96	92	95	97	91	86	88	92	93	91
1807	31294	108	115	109	111	114	109	113	107	103	106	111	110
1808	Pusa Basmati 1121 (Y & QC)	107	108	110	102	108	109	107	102	98	110	105	106
1809	31295	85	92	97	88	88	91	94	80	82	94	99	90
1810	31296	86	89	102	91	92	93	96	84	87	90	91	91
1811	31297	109	113	115	105	114	86	107	105	105	100	107	106
1812	31298	90	96	94	98	98	97	96	89	97	93	100	95
1813	31299	107	112	115	98	113	109	102	102	102	107	107	106
1814	31300	89	96	91	90	100	96	93	86	92	92	97	93
1815	Pusa Basmati 1 (YC)	103	110	108	105	110	108	99	103	99	104	104	105
1816	31301	108	116	114	106	114	109	107	104	104	115	109	109
1817	31302	92	97	99	92	94	97	94	90	89	95	93	94
1818	31303	114	117	116	112	117	101	113	111	107	113	111	112
1819	30533	90	91	98	92	91	95	94	88	89	91	88	91
1820	30535	103	96	102	103	105	99	99	99	95	100	107	101
1821	31304	94	94	104	95	101	100	93	93	93	96	103	97
1822	31305	93	96	104	94	102	100	96	95	93	100	99	97
1823	Ranbir Basmati (RP)	79	87	91	86	85	88	90	80	79	85	85	85
1824	Pusa RH-10 (Hybrid Check)	89	87	93	89	90	95	96	86	87	91	89	90
1825	31306	84	80	92	86	85	88	90	80	80	82	87	85
1826	31307	86	79	91	87	87	88	92	82	81	83	87	86
1827	Pusa Basmati 1509 (RP)	87	85	93	90	88	91	93	84	84	84	88	88
1828	30553	89	85	92	90	89	91	93	84	85	94	88	89
1829	Taraori Basmati (QC)	116	111	113	103	116	109	104	104	103	107	108	109
1830	Local Check	90	90	101	103	101	100	115	104	82	93	93	97
Exp Mean		95.1	96.1	101.0	96.0	99.1	97.6	97.4	92.2	91.4	96.2	96.8	
CD (0.05)		0.00	8.33	2.61	0.73	0.75	2.99	8.13	1.57	2.28	0.79	0.65	
CV		0.0	4.2	1.3	0.4	0.4	1.5	4.1	0.8	1.2	0.4	0.3	

Table 18.4: Plant height (cm) of entries in IVT-BT during *Kharif* 2023

Entry No.	IET No.	IARI	PANT	LDH	RUN	GDP	KPT	KAR	KUL	MDP(BDF)	NGN	CHT	Overall Mean
1801	31289	137.2	113.0	118.0	122.7	116.9	116.9	126.4	141.2	141.1	121.4	119.0	124.9
1802	31290	108.2	112.0	100.0	110.1	100.7	100.7	87.4	117.9	112.3	112.0	103.2	105.9
1803	31291	126.0	120.0	104.5	120.7	107.5	102.5	93.0	127.7	120.2	115.4	113.4	113.7
1804	30548	122.2	121.5	112.5	113.3	107.6	107.6	107.0	110.4	115.5	119.0	117.9	114.0
1805	31292	131.1	126.5	112.5	108.5	115.5	115.5	114.4	134.8	128.7	139.2	119.4	122.4
1806	31293	123.6	124.0	105.0	112.0	107.7	107.7	105.2	124.4	120.6	122.8	104.2	114.3
1807	31294	106.4	93.5	89.0	106.7	99.2	99.2	80.2	95.0	99.7	119.6	88.6	97.9
1808	Pusa Basmati 1121 (Y & QC)	123.6	112.0	109.0	113.2	106.4	106.4	96.8	116.5	123.2	102.0	92.0	109.2
1809	31295	114.3	123.0	105.5	105.2	116.5	116.5	99.6	126.1	120.1	121.4	107.6	114.2
1810	31296	112.0	109.5	102.0	114.6	105.3	105.3	92.2	111.2	109.2	129.2	98.5	108.1
1811	31297	122.1	133.5	122.5	123.8	110.8	110.8	112.0	132.9	140.7	129.1	124.5	123.9
1812	31298	115.0	105.0	99.0	104.4	98.3	98.3	97.2	116.1	108.9	106.8	94.9	104.0
1813	31299	124.9	115.0	110.0	116.1	107.6	107.6	102.0	125.1	120.7	122.6	115.2	115.2
1814	31300	113.6	106.0	108.0	115.8	102.9	102.9	100.0	114.1	112.5	119.0	109.7	109.5
1815	Pusa Basmati 1 (YC)	114.3	113.5	99.0	107.4	100.3	100.3	93.0	102.7	111.1	119.6	94.2	105.0
1816	31301	106.8	100.0	87.5	106.0	95.8	95.8	85.4	97.9	95.6	100.2	88.8	96.3
1817	31302	128.2	132.5	117.0	113.0	113.1	113.1	110.4	125.3	125.8	123.4	113.0	119.5
1818	31303	122.1	108.5	105.0	114.2	101.4	101.4	97.4	105.5	109.6	103.0	98.2	106.0
1819	30533	110.9	118.5	105.5	111.4	108.1	108.1	96.0	111.8	117.2	111.6	102.2	109.2
1820	30535	109.5	126.0	89.5	112.7	99.7	99.7	89.0	104.0	107.3	100.8	95.3	103.0
1821	31304	135.7	99.5	112.5	130.0	110.3	110.3	107.4	134.2	134.0	130.6	117.6	120.2
1822	31305	140.0	133.0	119.0	125.0	111.4	111.4	111.6	131.3	135.1	126.2	112.5	123.3
1823	Ranbir Basmati (RP)	159.7	153.5	131.5	126.5	138.5	148.2	138.4	139.3	153.6	129.4	137.1	141.4
1824	Pusa RH-10 (Hybrid Check)	112.2	115.0	103.0	107.3	107.6	107.6	98.8	113.9	114.9	108.8	83.0	106.6
1825	31306	101.4	101.0	99.5	105.9	101.5	101.5	87.6	105.5	113.6	103.0	103.7	102.2
1826	31307	104.9	103.5	100.5	109.2	98.1	98.1	85.2	106.1	111.2	105.2	113.9	103.3
1827	Pusa Basmati 1509 (RP)	101.6	101.0	98.0	101.0	103.2	103.2	90.8	103.2	104.8	100.8	92.0	100.0
1828	30553	101.3	102.5	93.0	115.1	97.2	97.2	91.4	102.8	97.9	102.4	97.4	99.8
1829	Taraori Basmati (QC)	149.5	141.0	130.5	140.4	131.3	131.3	131.2	142.7	152.0	126.4	131.8	137.1
1830	Local Check	107.2	119.0	110.0	115.0	103.8	103.8	121.8	117.6	106.6	119.0	113.8	112.5
Exp. Mean		119.5	116.1	106.6	114.2	107.5	107.6	101.6	117.9	118.8	116.3	106.8	

Table No. 18.5: Panicles/m^2 of entries in IVT-BT during *Kharif* 2022

Entry No.	IET No.	IARI	PANT	LDH	RUN	GDP	KPT	KAR	KUL	MDP(BDF)	NGN	CHT	Overall Mean
1801	31289	744.6	240	360	387	420	376	329	349	337	207	495	350
1802	31290	462.4	249	317	391	320	327	443	338	272	368	383	341
1803	31291	598.4	209	304	327	313	297	384	311	295	273	430	314
1804	30548	401.2	211	291	278	288	340	555	354	267	276	480	334
1805	31292	302.6	207	317	362	303	317	491	300	233	274	359	316
1806	31293	431.8	258	320	297	383	353	486	329	284	223	405	334
1807	31294	581.4	238	344	352	363	310	323	397	332	337	397	339
1808	Pusa Basmati 1121 (Y & QC)	635.8	249	373	346	395	419	347	393	277	306	342	345
1809	31295	618.8	232	327	312	338	389	296	321	355	298	369	324
1810	31296	561	286	337	294	370	370	475	298	289	292	499	351
1811	31297	435.2	276	317	344	358	347	342	306	290	211	524	331
1812	31298	459	220	330	331	325	389	384	290	269	250	440	323
1813	31299	506.6	214	340	340	350	389	374	338	332	342	438	346
1814	31300	513.4	241	340	325	300	389	523	358	262	271	378	339
1815	Pusa Basmati 1 (YC)	554.2	221	340	337	330	347	306	341	231	331	320	310
1816	31301	693.6	215	384	372	415	380	302	373	348	213	340	334
1817	31302	289	214	278	350	280	284	389	346	219	206	471	304
1818	31303	506.6	221	357	340	365	380	319	351	309	283	295	322
1819	30533	408	211	347	370	315	257	384	341	289	333	375	322
1820	30535	445.4	269	284	298	318	297	459	284	259	241	358	306
1821	31304	639.2	221	327	306	358	290	291	322	267	315	449	314
1822	31305	601.8	216	357	334	370	337	273	337	332	314	301	317
1823	Ranbir Basmati (RP)	697	255	350	250	358	347	286	327	318	224	361	307
1824	Pusa RH-10 (Hybrid Check)	418.2	214	340	334	325	366	571	353	285	319	365	347
1825	31306	513.4	262	320	295	310	347	405	291	360	309	433	333
1826	31307	523.6	219	337	336	393	343	422	351	332	311	454	350
1827	Pusa Basmati 1509 (RP)	550.8	282	317	316	268	343	427	332	343	242	282	315
1828	30553	598.4	286	347	375	323	370	405	358	338	219	361	338
1829	Taraori Basmati (QC)	646	262	327	320	365	323	318	293	304	293	372	318
1830	Local Check	527	245	383	332	430	366	284	346	292	308	364	335
Exp Mean		529	238	333	332	345	346	386	334	297	279	395	
CD (0.05)		131	18.5	NS	62.7	48.0	66.2	42.5	26.5	80.2	23.2	43.9	
CV		12.1	3.8	8.9	9.2	6.8	9.3	5.4	3.9	13.2	4.1	5.4	

Table 18.6. Summary of the grain quality characteristics of entries in Initial Varietal Trial - Basmati (IVT BT) conducted at ICAR-IARI, New Delhi and analyzed at IARI, New Delhi during Kharif 2023

Entry No	IET No	Hull %	Mill %	HRR	KL (mm)	KB (mm)	L/B	Grain type
1801	31289	81.59	74.11	45.15	6.56	1.55	4.23	**MS**
1802	31290	80.45	75.23	61.68	8.10	1.65	4.92	ELS
1803	31291	80.91	74.57	51.51	7.12	1.61	4.42	LS
1804	30548	81.59	76.56	63.23	7.03	1.65	4.27	LS
1805	31292	80.34	75.12	62.93	6.95	1.72	4.05	LS
1806	31293	81.82	75.68	54.55	7.93	1.66	4.78	ELS
1807	31294	80.00	74.13	50.13	7.83	1.65	4.76	ELS
1808	Pusa Basmati 1121 (Y & QC)	78.86	73.21	54.55	8.23	1.66	4.96	ELS
1809	31295	77.50	70.65	51.93	6.65	1.60	4.16	LS
1810	31296	79.55	72.25	46.80	6.75	1.63	4.14	LS
1811	31297	80.00	74.40	57.07	8.50	1.65	5.15	ELS
1812	31298	80.11	73.84	49.80	7.45	1.43	5.21	ELS
1813	31299	79.89	74.29	58.98	8.10	1.68	4.82	ELS
1814	31300	76.14	69.79	46.57	7.35	1.58	4.65	ELS
1815	Pusa Basmati 1 (YC)	77.95	72.50	53.27	7.43	1.63	4.56	ELS
1816	31301	80.11	74.77	55.28	7.68	1.66	4.63	ELS
1817	31302	80.82	75.43	59.54	7.05	1.80	3.92	LS
1818	31303	80.11	75.04	60.35	7.32	1.60	4.59	LS
1819	30533	80.68	75.98	61.86	7.60	1.60	4.76	ELS
1820	30535	81.48	76.45	63.01	7.18	1.75	4.10	LS
1821	31304	82.39	77.58	59.04	6.60	1.55	4.27	LS
1822	31305	82.95	77.42	51.85	6.53	1.58	4.13	LS
1823	Ranbir Basmati (RP)	80.68	70.60	39.00	6.40	1.65	3.89	LS
1824	Pusa RH-10 (Hybrid Check)	83.30	78.44	61.92	7.28	1.68	4.33	LS
1825	31306	78.86	71.63	34.44	8.05	1.63	4.94	ELS
1826	31307	79.32	73.77	44.02	8.15	1.66	4.91	ELS
1827	Pusa Basmati 1509 (RP)	79.09	73.03	41.79	7.98	1.66	4.81	ELS
1828	30553	80.23	75.15	55.89	8.28	1.66	4.99	ELS
1829	Taraori Basmati (QC)	81.59	76.70	64.86	6.93	1.63	4.25	LS
1830	Local Check (PB1692)	79.66	75.15	55.50	8.52	1.66	5.13	ELS

Table 18.6. (Contd…) Summary of the grain quality characteristics of entries in Initial Varietal Trial - Basmati (IVT BT) conducted at ICAR-IARI, New Delhi and analyzed at IARI, New Delhi during Kharif 2023

Entry No	IET No	Grain Chalk	VER	WU (ml)	KLAC	ER	ASV	AC %	GC	Aroma
1801	31289	P	5.83	325.00	10.83	1.65	5	25.39	27.50	MS
1802	31290	A	4.75	105.00	14.53	1.79	7	22.07	24.50	MS
1803	31291	OC	6.33	67.50	11.36	1.60	7	24.19	25.50	MS
1804	30548	OC	4.86	190.00	10.85	1.54	7	27.95	35.50	MS
1805	31292	VOC	4.86	157.50	11.33	1.63	7	24.63	36.50	MS
1806	31293	VOC	4.57	102.50	12.95	1.63	7	24.59	25.00	MS
1807	31294	OC	4.50	117.50	16.50	2.11	7	24.27	28.50	MS
1808	Pusa Basmati 1121 (Y & QC)	VOC	5.43	157.50	17.45	2.12	7	25.43	23.50	MS
1809	31295	P	5.71	310.00	11.80	1.77	5	25.19	25.50	MS
1810	31296	VOC	5.73	102.50	9.50	1.41	7	29.67	26.50	NS
1811	31297	VOC	5.43	142.50	16.60	1.95	7	23.27	37.50	MS
1812	31298	P	5.43	157.50	13.05	1.75	7	23.67	40.00	MS
1813	31299	P	5.14	152.50	16.40	2.03	7	24.99	39.50	SS
1814	31300	P	4.50	142.50	11.68	1.59	7	22.99	32.00	MS
1815	Pusa Basmati 1 (YC)	OC	4.75	150.00	14.32	1.93	7	24.81	27.50	MS
1816	31301	OC	6.33	112.50	17.05	2.22	7	23.71	31.50	SS
1817	31302	P	4.50	150.00	11.60	1.65	7	24.31	25.50	NS
1818	31303	OC	5.43	142.50	15.95	2.18	7	24.91	26.00	MS
1819	30533	OC	5.67	122.50	12.65	1.66	7	24.63	33.50	MS
1820	30535	OC	6.00	307.50	12.20	1.70	5	24.75	42.00	MS
1821	31304	OC	6.33	127.50	11.65	1.77	7	23.19	33.50	MS
1822	31305	OC	6.33	125.00	11.08	1.70	7	21.99	30.00	MS
1823	Ranbir Basmati (RP)	P	5.71	257.50	11.20	1.75	5	20.07	31.50	MS
1824	Pusa RH-10 (Hybrid Check)	OC	4.95	72.50	12.18	1.67	7	22.75	44.50	MS
1825	31306	P	5.43	140.00	16.15	2.01	6	22.71	25.50	MS
1826	31307	P	5.14	122.50	15.67	1.92	6	21.51	27.00	MS
1827	Pusa Basmati 1509 (RP)	OC	4.86	112.50	15.85	1.99	7	23.59	31.00	MS
1828	30553	VOC	6.00	117.50	16.63	2.01	7	24.59	24.50	MS
1829	Taraori Basmati (QC)	A	5.67	217.50	12.90	1.86	7	24.83	26.00	SS
1830	Local Check (PB1692)	OC	6.00	92.50	16.70	1.96	7	25.07	25.00	MS

Table 18.7. Summary of the grain quality characteristics of entries in Initial Varietal Trial - Basmati (IVT BT) conducted at ICAR-IARI, New Delhi and analyzed at BEDF, Modipuram during Kharif 2023

Entry No.	IET No	Hull %	Mill %	HRR	KL (mm)	KB (mm)	L/B	Grain type	Grain Chalk
1801	31289	78.07	69.10	51.67	6.71	1.72	3.90	LS	VOC
1802	31290	77.00	74.53	57.96	8.56	1.96	4.37	ELS	VOC
1803	31291	78.10	71.83	49.80	7.71	1.76	4.38	LS	OC
1804	30548	80.25	75.28	62.20	7.74	1.95	3.97	LS	VOC
1805	31292	78.80	77.07	63.47	7.60	2.04	3.73	LS	VOC
1806	31293	80.53	78.08	56.48	8.49	1.93	4.40	ELS	VOC
1807	31294	78.05	74.15	50.78	8.42	2.01	4.19	ELS	OC
1808	Pusa Basmati 1121 (Y & QC)	76.77	74.81	54.56	8.85	2.00	4.43	ELS	VOC
1809	31295	75.26	67.99	51.07	6.95	1.86	3.74	LS	VOC
1810	31296	80.90	76.30	56.54	7.27	1.92	3.79	LS	VOC
1811	31297	78.15	74.73	55.47	9.14	2.00	4.57	ELS	VOC
1812	31298	77.39	72.46	50.05	7.72	1.69	4.57	ELS	VOC
1813	31299	77.46	73.81	53.97	8.30	2.03	4.09	ELS	VOC
1814	31300	72.94	65.12	46.19	7.68	1.79	4.29	ELS	VOC
1815	Pusa Basmati 1 (YC)	75.92	69.38	48.51	7.59	1.78	4.26	ELS	VOC
1816	31301	78.38	75.11	49.72	8.20	1.96	4.18	ELS	OC
1817	31302	78.48	77.18	60.48	7.86	2.11	3.73	ELS	OC
1818	31303	77.30	71.90	49.04	8.11	1.78	4.56	ELS	VOC
1819	30533	78.16	75.75	60.51	7.88	1.87	4.21	ELS	VOC
1820	30535	79.68	78.60	64.04	7.78	2.11	3.69	LS	VOC
1821	31304	80.86	78.32	50.76	6.74	1.70	3.96	LS	VOC
1822	31305	80.45	79.72	52.46	6.85	1.68	4.08	LS	VOC
1823	Ranbir Basmati (RP)	77.52	70.27	45.01	6.51	1.72	3.78	LS	VOC
1824	Pusa RH-10 (Hybrid Check)	80.96	74.17	61.84	7.31	1.87	3.91	LS	VOC
1825	31306	75.96	67.75	40.83	8.30	1.86	4.46	ELS	OC
1826	31307	75.52	68.29	48.06	8.33	1.89	4.41	ELS	VOC
1827	Pusa Basmati 1509 (RP)	76.68	70.43	44.17	8.30	1.90	4.37	ELS	VOC
1828	30553	77.82	74.55	49.76	8.57	1.95	4.39	ELS	VOC
1829	Taraori Basmati (QC)	79.01	77.08	61.05	7.47	1.86	4.02	LS	A
1830	Local Check (PB1692)	77.69	74.79	56.76	8.55	1.97	4.34	ELS	VOC

Table 18.7 (*contd...*): Summary of the grain quality characteristics of entries in Initial Varietal Trial - Basmati (IVT BT) conducted at ICAR-IARI, New Delhi and analyzed at BEDF, Modipuram during Kharif 2023

Entry No.	IET No	VER	WU (ml)	KLAC	ER	ASV	AC %	GC	Aroma
1801	31289	4.69	145	10.55	1.57	2.91	24.62	77.5	SS
1802	31290	5.57	390	18.25	2.13	6.83	24.58	25	MS
1803	31291	5.02	425	13.6	1.76	7	23.93	57	NS
1804	30548	5.36	325	14.25	1.84	7	22.96	30	MS
1805	31292	4.69	340	14	1.84	6.91	24.01	25	MS
1806	31293	5.5	375	17.3	2.04	6.58	21.9	27.5	SS
1807	31294	5.57	370	18.5	2.2	7	22.8	25	MS
1808	Pusa Basmati 1121 (Y & QC)	5.09	365	19.8	2.24	7	22.23	57.5	MS
1809	31295	5	130	13.15	1.89	2.67	24.58	57.5	MS
1810	31296	5.16	375	13.15	1.81	7	27.74	57.5	MS
1811	31297	5.5	370	18.85	2.06	7	24.9	45	MS
1812	31298	5.5	405	14.4	1.87	7	26.83	56	MS
1813	31299	5.36	325	17.65	2.13	7	23.94	55	SS
1814	31300	5.57	370	14.8	1.93	6.41	24.94	52.5	MS
1815	Pusa Basmati 1 (YC)	5.43	385	15.4	2.03	7	23.54	60	MS
1816	31301	5.57	395	17.7	2.16	6.91	24.78	50	MS
1817	31302	5.36	355	14.9	1.9	6.91	23.74	32.5	MS
1818	31303	5.43	380	16.6	2.05	7	24.38	60	MS
1819	30533	5.29	340	14	1.78	7	24.18	41	MS
1820	30535	5.02	80	15.75	2.02	2.91	24.94	59	NS
1821	31304	5.16	330	11.9	1.77	7	22.88	59	MS
1822	31305	5.43	335	12.3	1.8	7	21.88	51	SS
1823	Ranbir Basmati (RP)	4.75	210	12.1	1.86	4.25	20.4	57.5	MS
1824	Pusa RH-10 (Hybrid Check)	5.36	385	13.3	1.82	6.5	20.4	27.5	SS
1825	31306	5.57	385	17.4	2.1	6.25	21	46	SS
1826	31307	4.82	345	18.1	2.17	6.33	20.24	52.5	MS
1827	Pusa Basmati 1509 (RP)	5.64	350	17.7	2.13	6.41	22.24	47.5	NS
1828	30553	5.43	345	18.75	2.19	7	23.96	27.5	SS
1829	Taraori Basmati (QC)	4.82	290	15	2.01	4.91	20.8	31	SS
1830	Local Check (PB1692)	5.16	375	18.5	2.16	7	20.36	57.5	MS

Table 18.8: Summary of the grain quality characteristics of entries in Initial Varietal Trial - Basmati (IVT BT) conducted at ICAR-IARI, New Delhi and analyzed at ICAR-NRRI, Cuttack during Kharif 2023.

Entry No.	IET No	Hull %	Mill %	HRR %	Chalk	KL (mm)	KB (mm)	L/B	Grain Type
1801	31289	75.00	66.00	53.00	A	8.17	1.35	6.06	LS
1802	31290	76.00	68.50	57.50	A	7.14	1.45	4.93	LS
1803	31291	75.50	61.00	51.00	A	6.61	1.29	5.12	LS
1804	30548	77.50	66.00	55.00	A	6.37	1.25	5.10	LS
1805	31292	76.50	66.00	61.50	A	6.05	1.29	4.69	LS
1806	31293	75.00	63.00	56.50	A	6.91	1.16	5.95	LS
1807	31294	76.00	68.50	59.50	A	6.80	1.22	5.59	LS
1808	Pusa Basmati 1121 (Y & QC)	74.50	65.50	53.50	A	7.73	1.14	6.78	LS
1809	31295	77.50	61.50	53.00	A	8.52	1.21	7.07	LS
1810	31296	79.50	69.50	59.00	A	6.36	1.11	5.76	LS
1811	31297	76.50	63.00	55.00	A	6.61	1.22	5.44	LS
1812	31298	79.50	65.00	58.50	A	6.68	1.22	5.48	LS
1813	31299	78.00	68.50	54.50	A	6.83	1.38	4.95	LS
1814	31300	76.00	67.00	58.50	A	6.69	1.24	5.41	LS
1815	Pusa Basmati 1 (YC)	77.50	66.50	51.00	A	7.25	1.20	6.06	LS
1816	31301	78.50	69.00	56.00	A	6.53	1.21	5.42	LS
1817	31302	74.00	63.00	54.00	A	6.26	1.08	5.83	LS
1818	31303	74.50	65.00	55.50	A	7.43	1.14	6.52	LS
1819	30533	76.50	65.50	51.50	A	6.74	1.38	4.88	LS
1820	30535	79.00	67.50	52.50	A	6.82	1.65	4.13	LS
1821	31304	75.50	66.00	58.50	A	7.29	1.19	6.12	LS
1822	31305	75.00	61.00	54.50	A	7.39	1.12	6.60	LS
1823	Ranbir Basmati (RP)	78.00	64.50	53.50	A	5.52	1.12	4.95	LS
1824	Pusa RH-10 (Hybrid Check)	77.00	68.50	56.50	A	5.83	1.13	5.18	LS
1825	31306	77.00	64.00	54.00	A	6.35	1.14	5.60	LS
1826	31307	78.00	65.50	55.50	A	7.84	1.14	6.91	LS
1827	Pusa Basmati 1509 (RP)	78.00	63.50	51.00	A	7.70	1.14	6.76	LS
1828	30553	75.00	64.50	55.50	A	7.86	1.16	6.77	LS
1829	Taraori Basmati (QC)	74.00	65.50	57.00	A	7.87	1.26	6.24	LS
1830	Local Check (PB1692)	76.00	64.00	58.00	A	7.77	1.30	5.97	LS

Table 18.8 (*contd...*): Summary of the grain quality characteristics of entries in Initial Varietal Trial - Basmati (IVT BT) conducted at ICAR-IARI, New Delhi and analyzed at ICAR-NRRI, Cuttack during Kharif 2023.

Entry No.	IET No	ASV	WU (ml)	VER	ER@	KLAC (mm)@	AC %	GC (mm)
1801	31289	5.00	155.00	4.00	1.22	10.00	22.80	41.00
1802	31290	5.00	125.00	4.00	1.40	10.00	22.20	43.50
1803	31291	6.00	145.00	3.75	1.44	9.50	23.05	47.00
1804	30548	4.00	125.00	3.75	1.49	9.50	25.55	40.00
1805	31292	6.00	145.00	4.00	1.82	11.00	24.05	42.50
1806	31293	6.00	115.00	3.75	1.45	10.00	23.85	46.00
1807	31294	3.50	110.00	3.75	1.40	9.50	25.05	43.50
1808	Pusa Basmati 1121 (Y & QC)	4.50	185.00	4.00	1.29	10.00	23.95	45.00
1809	31295	5.00	145.00	4.00	1.29	11.00	22.40	46.50
1810	31296	6.00	135.00	3.75	1.49	9.50	25.05	43.50
1811	31297	4.00	107.50	3.75	1.44	9.50	22.95	43.00
1812	31298	4.00	92.50	3.75	1.35	9.00	21.00	51.50
1813	31299	3.00	80.00	4.00	1.46	10.00	21.40	47.50
1814	31300	3.00	115.00	4.00	1.50	10.00	23.50	47.50
1815	Pusa Basmati 1 (YC)	6.00	125.00	4.00	1.52	11.00	22.00	48.50
1816	31301	4.00	85.00	4.00	1.53	10.00	21.90	49.50
1817	31302	6.00	180.00	4.00	1.60	10.00	21.50	48.00
1818	31303	6.00	145.00	4.00	1.62	12.00	22.28	45.00
1819	30533	5.00	140.00	4.00	1.48	10.00	20.30	46.50
1820	30535	5.00	90.00	4.00	1.47	10.00	21.90	45.00
1821	31304	7.00	167.50	4.00	1.37	10.00	21.76	48.00
1822	31305	6.00	160.00	4.00	1.49	11.00	20.98	45.50
1823	Ranbir Basmati (RP)	7.00	110.00	3.75	1.63	9.00	20.98	47.50
1824	Pusa RH-10 (Hybrid Check)	6.00	102.50	3.75	1.54	9.00	21.91	47.50
1825	31306	3.50	137.50	3.75	1.42	9.00	21.11	46.00
1826	31307	6.00	117.50	4.00	1.40	11.00	20.90	47.00
1827	Pusa Basmati 1509 (RP)	7.00	137.50	4.00	1.43	11.00	22.11	47.50
1828	30553	6.00	127.50	4.00	1.53	12.00	19.83	42.00
1829	Taraori Basmati (QC)	6.00	95.00	4.00	1.40	11.00	21.94	44.50
1830	Local Check (PB1692)	5.00	145.00	4.00	1.48	11.50	25.10	47.50

@ data not considered

Table 18.9: Panel Test Scores of entries in Initial Varietal Trial - Basmati (IVT BT) conducted at ICAR-IARI, New Delhi during *Kharif* 2023

Entry No	IET No	Appearance	Cohesiveness	Tenderness on touching	Tenderness on Chewing	Taste	Aroma	Elongation	Overall Acceptability	Mean	Ranking
1801	31289	4.2	4.4	4.2	4.2	3.2	2.3	1.8	1.8	3.3	XI
1802	31290	4.4	4.2	3.8	3.8	3.0	2.7	2.4	2.2	3.3	XI
1803	31291	4.8	4.6	4.6	4.6	3.4	2.7	3.0	2.6	3.8	VII
1804	30548	3.8	4.2	3.8	3.6	2.8	3.5	1.8	1.4	3.1	XII
1805	31292	4.4	3.6	3.8	4.2	3.2	3.3	2.8	2.0	3.4	X
1806	31293	4.8	3.8	4.4	4.6	3.4	3.5	3.2	2.8	3.8	VII
1807	31294	4.0	4.6	4.4	4.5	4.0	3.8	4.2	3.4	4.1	V
1808	Pusa Basmati 1121 (Y & QC)	4.0	4.8	4.4	4.3	4.0	3.8	4.4	3.2	4.1	V
1809	31295	4.0	4.6	4.0	4.0	2.8	3.5	2.4	1.8	3.4	X
1810	31296	4.8	4.8	2.8	2.8	2.3	2.8	1.8	1.2	2.9	XIII
1811	31297	4.4	4.8	4.2	4.3	4.0	3.8	5.0	4.2	4.3	III
1812	31298	4.8	4.4	4.6	4.5	2.8	3.3	2.8	2.8	3.7	VIII
1813	31299	4.4	5.0	5.0	5.0	4.7	3.8	4.6	4.4	4.6	I
1814	31300	3.6	4.6	4.6	4.5	2.7	3.0	2.2	2.0	3.4	X
1815	Pusa Basmati 1 (YC)	4.2	5.0	4.6	4.5	3.0	3.3	4.0	3.6	4.0	VI
1816	31301	4.2	4.4	5.0	4.8	3.3	3.3	4.0	3.2	4.0	VI
1817	31302	4.4	4.0	4.2	3.8	2.0	2.0	1.8	1.0	2.9	XIII
1818	31303	4.0	4.6	4.2	4.3	3.7	3.5	4.2	3.4	4.0	VI
1819	30533	4.3	4.0	4.3	4.7	4.0	3.3	3.7	3.3	4.0	VI
1820	30535	5.0	4.7	3.7	3.3	3.0	2.0	2.7	2.3	3.3	XI
1821	31304	4.0	4.3	4.0	4.7	3.0	3.0	2.3	1.7	3.4	X
1822	31305	4.0	4.7	4.3	5.0	3.3	3.0	2.7	2.0	3.6	IX
1823	Ranbir Basmati (RP)	4.0	3.0	4.7	4.3	2.7	3.0	2.0	1.3	3.1	XII
1824	Pusa RH-10 (Hybrid Check)	4.7	3.3	4.3	4.0	3.0	3.3	2.0	1.7	3.3	XI
1825	31306	4.8	4.5	4.8	5.0	4.0	3.7	4.5	4.0	4.4	II
1826	31307	4.5	4.5	4.8	5.0	4.3	3.7	4.5	4.3	4.4	II
1827	Pusa Basmati 1509 (RP)	4.3	4.8	4.8	4.8	4.0	3.7	4.8	4.0	4.4	II
1828	30553	4.8	4.8	4.5	4.5	3.5	3.7	4.0	4.3	4.2	IV
1829	Taraori Basmati (QC)	4.3	4.8	3.8	3.8	3.5	3.7	4.8	3.3	4.0	VI
1830	Local Check (PB1692)	4.8	4.5	4.0	4.0	3.8	3.7	4.8	4.0	4.2	IV

Table 18.10: Panel Test Scores of entries in Initial Varietal Trial - Basmati (IVT BT) conducted at BEDF, Modipuram during *Kharif* 2023

Entry No.	IET No.	Appearance	Cohesiveness	Tenderness on touching	Tenderness on chewing	Taste	Aroma	Elongation	Overall acceptability	Total	Mean	Rank
1801	31289	4.3	3.5	4.1	4.1	3.4	1.9	2.4	2.8	26.3	3.3	26
1802	31290	4.7	4.4	4.4	4.3	3.4	3.7	3.4	4.2	32.2	4.0	1
1803	31291	4.3	3.9	4.1	4.1	3.4	3.0	2.9	3.3	28.9	3.6	8
1804	30548	4.1	4.1	4.2	4.2	3.1	1.9	2.7	3.4	27.5	3.4	21
1805	31292	4.3	4.0	4.0	4.2	3.3	3.0	2.9	2.9	28.5	3.6	12
1806	31293	4.0	4.0	4.1	4.0	3.4	3.1	2.8	3.5	28.8	3.6	10
1807	31294	4.0	3.8	4.0	4.0	3.1	3.2	2.7	3.1	27.7	3.5	18
1808	Pusa Basmati 1121 (Y & QC)	4.0	4.1	4.1	4.2	2.9	3.4	3.0	3.3	28.9	3.6	9
1809	31295	4.1	4.1	4.0	4.1	3.4	2.1	3.0	3.1	27.8	3.5	17
1810	31296	4.0	4.0	4.0	4.0	3.4	2.7	2.8	3.0	27.6	3.5	19
1811	31297	4.1	4.1	4.0	4.1	2.7	2.5	2.8	3.4	27.6	3.4	20
1812	31298	4.2	4.3	4.3	4.0	2.8	2.8	3.4	3.7	29.4	3.7	7
1813	31299	4.5	4.2	4.2	4.1	3.2	3.1	3.6	4.2	31.0	3.9	3
1814	31300	4.0	3.6	3.8	3.9	3.4	1.9	2.9	2.8	26.1	3.3	27
1815	Pusa Basmati 1 (YC)	3.9	3.6	3.7	4.0	3.0	1.7	2.5	2.7	25.0	3.1	29
1816	31301	4.1	4.0	4.1	3.7	3.0	2.1	3.1	3.9	27.9	3.5	14
1817	31302	4.3	3.9	4.0	4.1	3.0	2.6	2.8	3.4	28.0	3.5	13
1818	31303	3.8	3.8	3.9	3.8	3.0	2.1	2.2	2.8	25.2	3.2	28
1819	30533	4.1	3.4	3.8	3.9	2.7	1.7	2.6	2.9	24.9	3.1	30
1820	30535	4.4	4.1	4.3	4.2	2.6	3.5	2.7	3.0	28.6	3.6	11
1821	31304	4.1	4.1	4.0	4.1	3.0	2.4	3.1	3.1	27.9	3.5	15
1822	31305	4.5	4.2	4.3	4.4	2.4	2.8	3.6	4.3	30.4	3.8	6
1823	Ranbir Basmati (RP)	4.1	3.9	4.0	4.1	3.3	1.9	2.9	3.1	27.1	3.4	23
1824	Pusa RH-10 (Hybrid Check)	4.2	4.1	4.1	4.0	2.5	2.1	3.0	2.9	26.8	3.3	25
1825	31306	4.1	3.8	4.0	4.0	3.0	3.1	3.0	3.0	27.9	3.5	16
1826	31307	3.9	4.0	4.0	4.1	2.7	1.7	3.1	4.0	27.4	3.4	22
1827	Pusa Basmati 1509 (RP)	4.6	4.6	4.2	4.0	2.6	3.4	3.3	4.3	30.8	3.8	5
1828	30553	3.9	3.9	4.0	4.1	3.4	2.0	2.7	3.1	27.0	3.4	24
1829	Taraori Basmati (QC)	4.5	4.2	4.3	4.3	2.7	3.6	3.5	4.2	31.2	3.9	2
1830	Local Check (PB1692)	4.4	4.2	4.2	4.1	3.8	2.8	3.4	4.3	31.0	3.9	4

Trials Sent and Data Receipt

Funded Locations – 2023

Region	State	Location	Trials Sent	Data receipt	Failed/
Zone 1-Hills	Himachal Pradesh	Malan	6	5	
	Jammu Kashmir	Khudwani	4	4	
	Meghalaya	Upper Shillong	4	3	
	Manipur	Wangbal	3	3	
Zone II-Northern	Uttarakhand	Pantnagar	11	9	
	Punjab	Ludhiana	17	11	
	Haryana	Kaul	14	11	
	Uttar Pradesh	Nagina	12	12	
		Kanpur	7	7	
	Jammu & Kashmir	Chatha	7	6	
	Rajasthan	Kota	5	5	
Zone III-Eastern	Odisha	Jeypore	19	19	
		Chiplima	15	9	
	Bihar	Bikramganj (Patna)	19	19	
		Pusa	14	14	
	Jharkhand	Ranchi	22	21	
	West Bengal	Chinsurah	19	12	
		Bankura	8	6	
	Uttar Pradesh	Masodha	23	23	
		Varanasi	14	13	
Zone IV-North Eastern	Assam	Titabar	20	16	
	Tripura	Arundhutinagar	14	5	
Zone V- Central	Madhya Pradesh	Rewa	9	8	
	Chhattisgarh	Raipur	21	21	
		Jagadalpur	16	16	
	Maharashtra	Sakoli	10	10	
Zone VI- Western	Maharashtra	Karjat	23	23	
	Gujarat	Nawagam	15	14	
		Navsari	22	22	
Zone VII-Southern	Andhra Pradesh	Maruteru	22	22	
	Telangana	Rajendranagar	12	12	
		Warangal	13	13	
	Tamil Nadu	Aduthurai	19	18	
		Coimbatore	14	14	
	Kerala	Moncompu	9	9	
		Pattambi	17	17	
	Karnataka	Mandya	23	23	
		Mugad	20	17	
		Brahmavar	14	12	
		Ponnampet	3	3	
		Gangavati	17	16	
	Puducherry	Kurumbapet	14	9	
		Total	**590**	**532**	

Voluntary Locations-2023

Region	State	Location	Trials Sent	Data receipt	Failed
Zone 1-Hills	Jammu & Kashmir	Rajouri	3	3	
		Pombay (Khudwani)	3	3	
		Wadura (Khudwani)	3	3	
		Bandipore	1	0	
		Larnoo	3	3	
		Badarwah	3	0	
	Himachal Pradesh	Palampur	1	1	
		Sundernagar	4	1	
		Bajaura	3	2	
		Dhaulakaun	4	4	
		Bhertin	1	0	
	Uttarakhand	Almora-ICAR	6	5	
		Bageswar (Almora)	1	1	
	Meghalaya	Umiam-ICAR	3	3	
		Umiam-CAU	4	3	
	Manipur	Lamphelpat-ICAR	4	2	
		ImphaL-CAU	3	0	
	Sikkim	Gangtok-ICAR	2	2	
	Nagaland	Mediziphema -ICAR	1	1	
		Nagaland University, Mediziphema	3	1	
Zone II-North Western	Haryana	Karnal (CSSRI)	10	8	
		Kurukshetra (CSSRI)	3	3	
		Panipat (CSSRI)	3	3	
		Anjanteli	3	3	
		Rohtak	3	3	
	New Delhi	ICAR-IARI	2	0	
Zone III-Eastern	Odisha	Bhubaneswar	11	8	
		ICAR-NRRI (Cuttack)	30	28	
		Ranital	2	0	
	Bihar	Patna-ICAR	6	6	
		Sabour	14	13	
	Jharkhand	Hazaribagh-ICAR	6	2	
	West Bengal	Pundibari	6	3	
		Canning-ICAR	1	1	
		Hathwara	8	8	
		Malda	13	11	
		Gosaba	1	1	
	Uttar Pradesh	Lucknow-ICAR	3	0	
		Gautam Budha Nagar	3	3	
		Gorakhpur	4	4	
Zone IV- North Eastern	Assam	Gerua-ICAR	14	11	
	Tripura	Lembucherra-ICAR	19	19	
Zone V- Central	Madhya Pradesh	Waraseoni	7	4	
		Jabalpur	11	11	
	Chhattisgarh	Bilaspur	10	5	

Region	State	Location	Trials Sent	Data receipt	Failed
		Ambikapur	7	6	
	Maharashtra	Sindewahi	14	14	
Zone VI- Western	Maharashtra	Panvel	1	1	
		Shirgaon	7	4	
		Vadagaon	11	5	
		Phondaghat	2	2	
		Parbhani	3	3	
		Radhanagari	9	9	
	Gujarat	Derol	6	3	
		Dabhoi	6	1	
		Vyara	12	12	
		Baruch (CSSRI)	1	0	
	Goa	Goa-ICAR	1	0	
Zone VII-Southern	Andhra Pradesh	Machilipatnam	1	0	Failed
		Ragolu	8	8	
		Bapatla	5	3	
		Nellore	4	4	
	Telangana	Kunaram	6	6	
		IIRR	8	6	
		Jagital	7	7	
		Rudrur	4	4	
		Kampasagar	14	7	
	Tamil Nadu	Trichy	3	0	
		Annamalainagar	3	3	
		Tirur	9	3	
		Gudaluru	3	3	
	Kerala	Vytilla	4	0	
	Karnataka	Sirsi	10	10	
		Kumta	1	0	
		Malagi	5	5	
	Puducherry	Karaikal	16	15	
		Kathalgere	6	0	
		Puducherry	17	4	
		Total	**463**	**344**	

Trials Sent and Data Receipt (Hybrid Rice)

Funded Locations – 2023

Region	State	Location	Trials Sent	Data receipt	Reasons for Failure of the Expt.
Zone 1-Hills	Himachal Pradesh	Malan	1	1	0
Zone II-Northern	Uttarakhand	Pantnagar	3	3	0
	Punjab	Ludhiana	3	3	0
	Haryana	Kaul	3	3	0
	Uttar Pradesh	Nagina	3	3	0
		Chiplima	1	1	0
	Bihar	Bikramganj (Patna)	3	3	0
	Jharkhand	Ranchi	4	4	0
	West Bengal	Chinsurah	4	4	0
	Uttar Pradesh	Masodha	4	4	0
		Varanasi	1	1	0
Zone IV-North Eastern	Assam	Titabar	4	4	0
	Tripura	Arundhutinagar	4	3	1
Zone V- Central	Chhattisgarh	Raipur	4	4	0
	Maharashtra	Sakoli	2	2	0
Zone VI- Western	Maharashtra	Karjat	4	4	0
	Gujarat	Nawagam	4	4	0
		Navsari	4	4	0
Zone VII-Southern	Andhra Pradesh	Maruteru	4	4	0
		Warangal	4	4	0
	Tamil Nadu	Aduthurai	2	2	0
		Coimbatore	4	4	0
	Karnataka	Mandya	4	4	0
		Brahmavar	2	2	0
		Total	**76**	**75**	**1**

Voluntary Locations-2023

Region	State	Location	Trials Sent	Data receipt	Failed
	New Delhi	ICAR-IARI	2	2	0
Zone III-Eastern	Odisha	ICAR-NRRI (Cuttack)	4	4	0
		Sabour	3	3	0
Zone V- Central	Madhya Pradesh	Waraseoni	4	4	0
		Jabalpur	4	4	0
	Maharashtra	Sindewahi	4	4	0
Zone VI- Western	Maharashtra	Shirgaon	2	2	0
		Vadagaon	1	1	0
		Phondaghat	2	2	0
		Radhanagari	2	2	0
		Dabhoi	4	4	0
Zone VII-Southern	Andra Pradesh	Ragolu	3	0	3
		Bapatla	1	1	0
	Telangana	IIRR	4	4	0
	Puducherry	Karaikal	2	2	0
		Total	**42**	**39**	**3**

Private Companies locations

Region	State	Location	Name of the seed company	Trials Sent	Data receipt	Failed
Eastern	Jharkhand	Ranchi	Bayer Bio-Science Pvt. Ltd.	4	4	0
Zone III-Eastern		Ranchi	Trimurthi Plant Sciences Pvt.	1	1	0
	Bihar	Biharsharif	Syngenta India Ltd	2	2	0
	Uttar Pradesh	Bareilly	Trimurthi Plant Sciences Pvt.	1	1	0
		Faizabad	Rasi Seeds	1	1	0
		Bareilly	Nuziveedu Seeds	1	1	0
	Bihar	Muzafferpur	Rasi Seeds	2	2	0
	West Bengal	Burdwan	PAN Seeds			
Zone V- Central	Chhattisgarh	Raipur	VNR Seeds Pvt. Ltd.	4	4	0
	Maharastra	Nagpur	Ankur Seeds, Nagpur	2	2	0
		Raipur	Rasi Seeds	2	2	0
		Total		**20**	**20**	**0**

ABBREVIATIONS

ABP	Ambikapur	JBP	Jabalpur	PDG	Phondaghat
ADT	Aduthurai	JDP	Jagadalpur	PLG	Palghar
ALG	Aligarh	JGL	Jagtial	PLM	Palampur
ALH	Allahabad	JND	Jind	PNB	Pundibhari
ALM	Allmora-ICAR	JRP	Jharanapani	PNP	Ponnampet
AML	Annamalainagar	JYP	Jeypore	PNT	Pantnagar
AMS	Ambasamudram	KBP	Kurumbapet	PNV	Panvel
ARD	Arundhutinagar	KHD	Khudwani	POB	Port Blair
BBN	Bhubaneswar	KJT	Karjat	PPT	Panipat
BDP	Bandipore	KLP	Kalimpong	PRK	Paramakudi
BGL	Bengaluru	KLS	Kolasib	PSA	Pusa
BGS	Bageshwar	KMP	Kampasagar	PTB	Pattambi
BJR	Bajaura	KNM	Kunaram	PTN	Patna
BKG	Bikramganj (Patna)	KNP	Kanpur	PTN	Patna-ICAR
BLP	Bilaspur	KOL	Kolkata	RCI	Ranchi
BNK	Bankura	KPT	Kapurthala	RDN	Radhanagari
BNS	Banswara	KRK	Karaikal	RDR	Rudrur
BPT	Bapatla	KRL	Karnal (CSSRI)	REW	Rewa
BRD	Bardoli	KTA	Kota	RGL	Ragolu
BRM	Brahmavar	KTG	Kathalgere	RHK	Rohtak
CBT	Coimbatore	KTR	Katrain	RJR	Rajouri
CHN	Chinsurah	KUK	Kurukshetra	RNG	Ranichouri
CHP	Chiplima	KUL	Kaul	RNR	Rajendranagar
CHT	Chatha	LCK	Lucknow	RPR	Raipur
CKD	Chakdha (Mohanpur)	LDN	Ludhiana	RUN	Rauni
CNG	Canning-ICAR	LGL	Langol	SBR	Sabour
CTK	NRRI-Cuttak (ICAR)	LMB	Lembucherra	SHL	Shalimar
CTP	Chintapalli	LPP	Lamphalpat	SHR	Shirgaon
DBI	Dabhoi	MDG	Mudigere	SKL	Sakoli
DNT	Danti	MDP	Modipuram	SND	Sindewahi
DRL	Derol	MGD	Mugad	SRS	Sirsi
DUK	Dhaulakhan	MJH	Majhera	SUN	Sundernagar
GBN	Gautam Buddha Nagar	MLN	Malan	TLJ	Tuljapur
GDL	Gudalur	MNC	Moncompu	TRR	Tirur
GDP	Gurdaspur	MND	Mandya	TRY	Trichy
GER	Gerua-ICAR	MPM	Machilipatnam	TTB	Titabar
GGT	Ghaghraghat	MSD	Masodha	UMM	Barapani (Umiam)
GNV	Gangavati	MTO	Motto	USG	Upper Shillong
GOA	Goa	MTU	Maruteru	VDG	Vadagaon
GRK	CRD-Gorakhpur	NGN	Nagina	VRN	Varanasi
GSB	Gosaba	NLP	North Lakhimpur	VTL	Vytilla
GTK	Gangtok	NLR	Nellore	VYR	Vyara
HTW	Hathwara	NND	Nandyal	WBL	Wangbal
HZB	Hazaribagh	NVS	Navsari	WDR	Wadura
IAR	IARI-New Delhi	NWG	Nawagam	WGL	Warangal
IGP	Igatpuri	PBN	Parbhani	WRS	Waraseoni
IMP	Imphal (CAU)	PBY	Pombay		

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