PROGRESS REPORT 2022

Vol.1

VARIETAL IMPROVEMENT

All India Coordinated Research Project on Rice (AICRPR)

ICAR – Indian Institute of Rice Research
Rajendranagar, Hyderabad-500030, T.S., India;

ICAR – National Rice Research Institute
Cuttack-753 006, Odisha., India

&

ICAR – Indian Agricultural Research Institute
Pusa, New Delhi-110 012, India

Correct citation:

ICAR-Indian Institute of Rice Research, 2023
Progress Report, 2022, Vol.1, Varietal Improvement
All India Coordinated Research Project on Rice
ICAR-Indian Institute of Rice Research
Rajendranagar, Hyderabad – 500 030, T.S, India.

PREFACE

ICAR-Indian Institute of Rice Research (IIRR) is a premier rice research institute in India. 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 conducting and monitoring, data collection, compilation, analysis and documentation. ICAR-IIRR, ICAR-NRRI and ICAR-IARI have monitored the conduct of trials at the funded and voluntary centres in their respective ecologies both in virtual and physical mode. More than 300 scientists at 45 funded cooperating research centres and about 81 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 50 breeding and 4 hybrid trials conducted at various locations across the country during *Kharif,* 2022 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 Coloured Rice and Japonica Rice. Breeder seed production of 365 rice varieties with parental lines of two hybrids was organized at 52 locations as per the DAC indents. ICAR-IIRR also evaluated 73 candidate varieties along with hybrids, 13 Farmers Varieties and 2 extant varieties (VCKs) for DUS testing. 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.

(R.M. Sundaram)
Director

Contents of Progress Report

Name of the Trial	Page No.	
	Text	Table
ICAR-IIRR -- (IRRIGATED)		
SUMMARY	i-xvii	
IRRIGATED TRIALS		
Advance Variety Trial 2- Early Transplanted (AVT 2-E TP)	1.1	1.23
Advance Variety Trial 1- Early Transplanted (AVT 1-E TP)	1.8	1.32
Initial Variety Trial- Early Transplanted (IVT- E TP)	1.15	1.46
Advance Variety Trial 2 - Irrigated Mid Early (AVT 2 -IME)	1.66	1.81
Advance Variety Trial 1 - Irrigated Mid Early (AVT 1 -IME)	1.70	1.95
Initial Variety Trial- Irrigated Mid Early (IVT-IME)	1.77	1.111
Advance Variety Trial 2-Irrigated Medium (AVT 2 - IM)	1.134	1.151
Advance Variety Trial 1-Irrigated Medium (AVT 1 - IM)	1.141	1.164
Initial Variety Trial- Irrigated Medium (IVT - IM)	1.147	1.192
Advance Variety Trial 2 & 1- Late (AVT 2 & AVT 1- L)	1.214	1.227
Initial Variety Trial-Late (IVT-L)	1.224	1.239
Advance Variety Trial 1-Boro (AVT 1- Boro)	1.256	1.260
Initial Variety Trial – Boro (IVT-Boro)	1.259	1.266
HYBRID TRIALS		
Initial Hybrid Rice Trial – Early (IHRT-E)	1.277	1.284
Initial Hybrid Rice Trial- Mid Early (IHRT-ME)	1.279	1.293
Initial Hybrid Rice Trial – Medium (IHRT-M)	1.281	1.301
Initial Hybrid Rice Trial – Medium Slender (IHRT-MS)	1.282	1.310
AEROBIC TRIALS		
Advance Variety Trial 2 - Aerobic (AVT 2 - Aerob)	1.317	1.340
Advance Variety Trial 1- Aerobic (AVT 1 - Aerob)	1.330	1.347
Initial Variety Trial –Aerobic (IVT- Aerob)	1.336	1.358
MS GRAIN		
Advance Variety Trial 2 - Medium Slender (AVT 2 -MS)	1.372	1.381
Advance Variety Trial 1 - Medium Slender (AVT 1 -MS)	1.375	1.389
Initial Variety Trial – Medium Slender (IVT-MS)	1.377	1.401
BIOFORTIFICATION		
Advance Variety Trial & Initial Variety Trial- Biofortification (AVT & IVT-Biofort)	1.422	1.424
Special Trial under CRP-Biofortification (SPL.CRP-Biofort)	1.458	1.459
SALINE – ALKALINE TRIALS		
Advance Variety Trial – 2 Alkaline & Inland Saline Tolerant Variety Trial (AVT 2 - AL & ISTVT)	1.464	1.490
Advance Variety Trial – 1Alkaline & Inland Saline Tolerant Variety Trial (AVT 1 -AL& ISTVT)	1.476	1.498
Initial Variety Trial -Alkaline & Inland Saline Tolerant Variety Trial (IVT –AL & ISTVT)	1.483	1.508
Advance Variety Trial 2 & 1-Coastal Saline Tolerant Variety Trial (AVT 2&1-CSTVT)	1.517	1.523
Initial Variety Trial –Coastal Saline Tolerant Variety Trial (IVT – CSTVT)	1.520	1.527
HILLS TRIALS		
Advance Variety Trial-2 Early Hills (AVT 2- E H)	1.539	1.547
Advance Variety Trial-1 Early Hills (AVT 1- E H)	1.543	1.551

Name of the Trial	Page No.	
	Text	Table
Initial Variety Trial- Early Hills (IVT – E H)	1.545	1.554
Advance Variety Trial-2 Medium Hills (AVT 2 –M H)	1.559	1.568
Advance Variety Trial-1 Medium Hills (AVT 1 –M H)	1.562	1.572
Initial Variety Trial-Medium Hills (IVT – M H)	1.566	1.577
Initial Variety Trial- Upland Hills – (IVT – U H)	1.581	1.582
JAPONICA		
Initial Variety Trial-Japonica (IVT-J)	1.585	1.586
AROMATIC SHORT GRAIN TRIALS		
Initial Variety Trial – Aromatic Short Grain (IVT- ASG)	1.587	1.589
PHOSPHORUS & NITROGEN TOLERANCE		
Advance Variety Trial 2 & 1- Low Phosphorus Tolerance (AVT 2&1-LPT)	1.599	1.603
Initial Variety Trial -Low Phosphorus Tolerance (IVT-LPT)	1.601	1.610
Advance Variety Trial 1-Low Nitrogen Tolerance (AVT 1-LNT)	1.617	1.622
Initial Variety Trial – Low Nitrogen Tolerance (IVT-LNT)	1.618	1.629
COLOURED RICE		
Coloured Rice Pilot Trial	1.636	1.637
ICAR-NRRI -- (RAINFED)		
UPLAND TRIALS		
Advance Variety Trial 1-Early Direct Seeded (AVT 1-E DS)	1.640	1.660
Initial Variety Trail- Early Direct Seeded (IVT-E DS)	1.677	1.684
LOW LAND TRIALS		
Advance Variety Trial 1- Rainfed Shallow Lowland (AVT 1-RSL)	1.696	1.699
Initial Variety Trial- Rainfed Shallow Lowland (IVT-RSL)	1.706	1.709
Advance Variety Trial 1-Semi Deep Water (AVT 1-SDW)	1.721	1.727
Initial Variety Trail- Semi Deep Water (IVT-SDW)	1.733	1.739
Initial Variety Trial- Deep Water (IVT-DW)	1.744	1.748
NEAR ISOGENIC LINES		
Advance Variety Trial 1- Near Isogenic Lines- Submergence (AVT 1-NIL–SUB)	1.751	1.755
Advance Variety Trial 1- Near Isogenic Lines- Drought (AVT 1-NIL-DRT)	1.757	1.760
ICAR-IARI — (BASMATI)		
BASMATI TRIALS		
Initial Variety Trial- Basmati (IVT – BT)	1.763	1.767
APPENDICES		
Monitoring Report	1.784	
Cooperating centers / breeders	1.803	
Weather data	1.819	
Breeder Seed Production	1.829	
Trials sent and data received	1.839	
Insect Pests and Diseases reaction	1.844	
Abbreviations	1.855	
Acknowledgement	1.856	

SUMMARY

All India Coordinated Rice Improvement Project (AICRIP) 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 to enhance rice production. ICAR-Indian Institute of Rice Research (IIRR) under Irrigated ecology, ICAR-National Rice Research Institute (NRRI) under rainfed ecology and ICAR-Indian Agricultural Research Institute (IARI) of basmati, coordinate and conduct these trials. A total of 54 trials (50 varietal trials and 4 hybrid rice trials) were conducted in 1182 experiments (1043 varietal and 139 hybrid rice) at 124 locations (43 funded, 81voluntary centres) in 26 states and 4 union Territories across seven zones of the country during 2022 which is the 58th year of AICRIP testing. Hybrid rice experiments were conducted by 10 private seed companies. The 54 trials were constituted with 1495 entries (1176 varietal and 82 hybrid rice) including 237 checks. The overall data receipt was 80.66% of which 87.55% and 71.93% data was received from funded and voluntary centres respectively. The Rice AICRIP testing program is structured into a three-tier system of Initial Variety Trial, Advance Variety Trial-1 and Advance Variety Trial-2 so as to identify the best yielding lines across zones in rice growing ecologies. The primary research objective in the unfavourable rainfed lowland is to develop long duration and submergence/drought tolerant high yielding varieties. Major emphasis was laid on identifying the best lines combining high yield with superior grain quality, resistance to diseases and insect pests in irrigated ecology following conventional and heterosis breeding methods.

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 short grain 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. 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 2022

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		AVT 1-SDW	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	AVT 2-IM	AVT1–IM	IVT-IM	IHRT-M
Late	AVT 2-Late	AVT1–Late	IVT–Late	
Boro		AVT 1-Boro	IVT-Boro	
Basmati			IVT-BT	
Aromatic short grain			IVT-ASG	
Saline alkaline	AVT 2-AL&ISTVT	AVT 1-AL & ISTVT	IVT-AL & ISTVT	
	AVT 2-CSTVT	AVT 1-CSTVT	IVT-CSTVT	
Hills	AVT2-E(H)	AVT1-E (H)	IVT-E(H)	
	AVT 2-M (H)	AVT1-M (H)	IVT-M(H)	
			IVT-U(H)	
Japonica			IVT-J	
Aerobic	AVT 2-Aerob	AVT1-Aerobic	IVT-Aerobic	
Medium Slender Grain	AVT 2-MS	AVT 1-MS	IVT-MS	IHRT-MS
Bio-fortification	AVT 2-Biofort		IVT-Biofort	
Special CRP-Biofortificatioon	Special CRP-Biofortificatioon			
Low Phosphorus	AVT 2-LPT	AVT 1-LPT	IVT-LPT	
Low Nitrogen		AVT 1-LNT	IVT-LNT	
Coloured Rice	Coloured Rice Pilot Trial			
Near Isogenic Lines-Submergence		AVT-NIL (Sub)		
Near Isogenic Lines-Drought		AVT-NIL (Drt)		

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, Larnoo, Bandipore, Badarvah (6)
Himachal Pradesh	Malan (1)	Palampur, Dhaulakhan, Sundernagar, Bajaura, Bhertin (5)
Uttarakhand		ICAR-Almora, Bageshwar, (2)
North Eastern Hills		
Manipur	Wangbal (1)	Imphal-CAU (1)
Nagaland	Kohima (1)	ICAR- Mezdiphema, (1)
Sikkim		ICAR-Gangtok (1)
Meghalaya	Upper Shillong (1)	ICAR-Umiam, CAU-Umiam (2)
Southern Hills		
Karnataka	Ponnampet (1)	Sirsi (1)
Tamil Nadu		Gudaluru (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), , Jind, Rohtak, ,Anjanitel,Kurukshetra, Panipat (6)
Uttar Pradesh	Nagina, Kanpur (2)	
Jammu & Kashmir	Chatha (R.S. Pura) (1)	
Rajasthan	Kota (1)	
ZONE III – EASTERN		
Orissa	Jeypore, Chiplima (2)	Bhubaneswar, NRRI (Cuttack), Ranital (3)
Bihar	Bikramganj (Dhangain), Pusa (2)	Patna- ICAR, Sabour(2)
Jharkhand	Ranchi (1)	Hazaribagh (1)
West Bengal	Bankura, Chinsurah (2)	ICAR-Canning, Gosaba, Pundibari, Chakdha, Hathwara , Malda (6)
Uttar Pradesh	Masodha ,Ghaghraghat, Varanasi (3)	ICAR-Lucknow, BEDF-Modipuram, Gautam Budha Nagar, Gorakhpur, SVPUAT, Meerut (4)
ZONE IV – NORTH EASTERN		
Assam	Titabar (1)	ICAR-Gerua, Karimganj, Shillongani (3)
Manipur	Wangbal (1)	ICAR-Lamphalpat, (1)
Tripura	Arundhutinagar (1)	ICAR-Lembucherra (1)
Nagaland		Nagaland Univ-Mezdiphema
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, (6),
Gujarat	Nawagam, Navsari (2)	Derol, Vyra, Danti, Dabhoi, Baruch (5)
Goa		ICAR-Goa (1)
ZONE VII - SOUTHERN		
Andaman & Nicobar		ICAR-Port Blair (1)
Andhra Pradesh	Maruteru (1)	Ragolu, Bapatla, Machilipatnam, Nellore, (4)
Telangana	Rajendranagar, Warangal (2)	ICAR-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**	**87**

IRRIGATED ECOSYSTEM

AVT2-ETP

- IET 28959 (PHI 20101) is promising for Uttarakhand, Uttar Pradesh, Bihar, Odisha, Chhattisgarh, Maharashtra and Gujarat
- IET 28950 (HRI-207) is promising for the states of Bihar, Odisha, Jharkhand, Chhattisgarh and Maharashtra.
- IET 28960 (RRX-848) is found promising for Haryana, Odisha, Bihar, Jharkhand, Chhattisgarh and Gujarat.
- IET 28954 (KAVERI-7299) is found promising for Haryana, Bihar and Uttar Pradesh
- IET 28964 (VNR-227) is found promising for the states of Odisha, Jharkhand and Maharashtra.
- IET 29177 (ORJ-1317-RP5530-23-1) is found promising for the states of Kerala, Bihar, Chhattisgarh and Maharashtra.
- IET 29142(JGL 35085) is found promising for Haryana, Rajasthan, Gujarat and Bihar.

AVT 1-E TP

Advance variety trial - Early Transplanted (AVT-1- E- TP) was constituted with 25 test entries and 4 checks namely CO-51 (National check), PR 124 (Northern), Narendra 97 (Eastern), Luit (North Eastern), Sahbhagidhan (Central & Western), MTU 1153 (Southern) as Zonal checks, US 314 (Hybrid check) and a local check. The trial was sent to 36 locations in zone I-VI, while test entries 25 plus 3 NILs and 1 recurrent parent along with checks are tested in 15 locations in zone-VII.

- On overall mean basis the following entries are promoted: IET 29947, IET 29940, IET 29939, IET 29694, IET 29689, IET 29692, IET 28123, IET 29691, IET 29690 and IET 29696.
- Zone-II: IET 29700, IET 29694, IET 29691 and IET 29690.
- Zone-III: IET 29947, IET 29940, IET 29939, IET 29694, IET 29689, IET 29692, IET 28123, IET 29691, IET 29690 and IET 29696.
- Zone V: IET No. 29940, IET 29975, IET 29939, IET 29694, IET 29689, IET 29692, IET 28123, IET 29691, IET 29690 and IET 2969,
- Zone VI: IET 29694, IET 29689, IET 28965, IET 28123, IET 29691, IET 29690 and IET 29696
- Zone VII: IET 2969 and IET 29696

IVT-E TP

List of the entries promoted in IVT-E TP

Overall : IET Nos. 30657, 30642, 30641, 30656, 30669, 30636, 30690, 30689, 30679, 30638, 30639 and 30680**.**

Zone II : IET Nos. 30656, 30639, 30642, 30679, 30660, 30657, 30641, 30674 and 30673.

Zone III : IET Nos. 30657, 30641, 30662, 30651, 30638, 30652 and 30642.

Zone IV : IET Nos. 30692, 30691, 30686, 30677, 30659, 30679, 30645, 30684, 30636, 30637, 30635, 30640, 30642, 30643, 30644, 30646, 30647, 30649, 30653, 30656, 30657, 30658, 30660, 30661, 30667, 30668, 30669, 30671, 30672, 30673, 30674, 30676, 30680, 30681, 30683, 30685, 30687, 30688, 30689, 30690 and 30694.

Zone V : None

Zone VII : IET Nos. 30642, 30641, 30690, 30669 and 30636.

Depending on the durations, the following entries can be shifted to IVT-IME& IM

On Overall basis IET 30692**.**
Zone III IETs 30685 and 30692.
Zone VI IET 30692.
Zone VII IET 30692.

AVT2-IME

- IET 28506 (CR 3849-2-1-2-1-2) is promising only for a single state, Odisha
- IET 29235 (PNPK 7106) is promising for Andhra Pradesh, Telangana, Chhattisgarh, Haryana and Maharashtra.
- IET 29238 (ORJ 1351) (TP 30600) didn't show consistent yield advantage over the BVC in any state, hence discontinued.
- IET 29246 (HRK 16-35) is promising only for a single state, Maharashtra.
- IET 29236 (CR 3580-3-1-1-1-1-1-2) is promising for Odisha and Gujarat.
- IET 28982 (RRX-809) is promising only for a single state, Maharashtra.

AVT1-IME

Considering the required significant yield advantage over BVC in case of varietal entries and over BVC and HC in case of hybrid entries and also based on grain quality parameters, five hybrid entries, IETs 29738, 29734, 29726, 29708 and 29717 and five varietal entries, IETs 29820, 29808, 29822, 29188 and 29304 are promoted to the third year of testing.

Considering similarity with the recurrent parent and target trait improvement, two NIL entries in the background of Naveen, IETs 30282 and 29203 with BPH resistance are promoted to second year of testing

IVT-IME

List of the entries promoted in IVT-IME

Overall: None
Zone II: IET 30742, IET 30704, IET 30736, IET 30730, IET 30062, IET 30708, IET 30735
Zone III: IET 30756
Zone IV: IET 30213, 30719,30752, 30736, 30742, 30705, 30707, 30708, 29976, 30740,
Zone V: None
Zone VI: None
Zone VII: None

AVT 2 -IM

AVT-2-IM trial constituted with 19 entries which includes 7 are hybrid entries and 8 are varietal entries and 4 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) and a local check (LC).

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

- IET 28489, a varietal entry is considered promising for the states of Chhattisgarh and Bihar.
- IET 29268, a varietal entry is considered promising for the state of Odisha only.
- IET 27908, a varietal entry is considered promising for the state of Telangana only.
- IET 29001, a hybrid entry is considered promising for the state of Andhra Pradesh only.
- IET 28997, a hybrid entry is considered promising for the state of Punjab only.

AVT 1-IM

- AVT-1-IM trial consisted of 44 entries which include 25 varietal test entries, 7 hybrid entries, 5 Near Isogenic lines, 3 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: IET 29743 (II, III, V and VII), IET 29741 (III), IET 29833 (III, VI and VII) and IET 28523 (III).

IVT-IM

List of entries promoted for the AVT IM

Overall: IET 30819
Zone II: **IET** 30772
Zone III: IETs 30771, 30772, 30790 and 30762
Zone IV: IETs 30794, 30798

Entries Proposed for Shift to IME

IET 30804 and IET 30771.

AVT 2 & AVT 1-L

The trial consisting of 23 test entries and checks were evaluated at 28 locations across different zones under irrigated late ecology.

Of the three test entries in AVT1, two entries IETs 29935 and 29349 in Zone V while IET 29891 in Zone V, VI, VII were promoted to AVT2 irrigated late ecology.

Of three test entries in AVT2, IET 29349 (R 2284-52-114-1) found promising in zone V for the state of Chhattisgarh in irrigated late ecology.

IVT-L

IVT-Late trial constituting 64 entries (59 test entries and 5 checks) were sent to 44 locations. Swarna served as national check, while NDR 8002 in Eastern and Central, Ranjeet in North Eastern, Salivahana in Western and Pushyami in Southern as zonal checks, PA6444 as hybrid check, and local checks were included.

Entries promoted- IET Nos. promoted from Zone III- 30882, 30869; from Zone IV- 30835, 30871, 30860, 30868, 30851, 30888,30841,30846; from Zone VI- 30844, 30864 and from Zone VII 30877.

Entries shifted to other trails: IET Nos.30871, 30860, 30851, 30841,30864 are shifted to other trial due to DFF ≥119 days and 30877, 30888 due to DFF ≤ 105 days.

IET Nos. 30882 (Zone III), 30864, 30844 (Zone VI) showed significant higher yield in respective zones and overall performance.

BORO

AVT1-BORO

The AVT-1 Boro trial was constituted with 12 test entries of which 3 entries are in third year of testing and 9 entries are in the second year of testing and four checks viz., Gautam (National), IR 64 (Zonal), Rajalaxmi and Local check, andconducted at 11 locations.

Based on the overall mean and zonal performance the following three entries which are in third year of testing are promoted and recommended for the states of Odisha, West Bengal, and UP in Zone III and Assam and Tripura in Zone IV.

Overall: IET 28849 and IET 28849.

Zone III: IET 28840

Entries promoted to AVT2

Zone IV: IET 29624

IVT-BORO

IVT – Boro Trial was constituted with 40 test entries and four checks. The 40 test entries include 38 varietal and two hybrid test entries, and four checks include IR 64 (National), Gautam (Zonal), Rajalakshmi (Hybrid) and Local Check.The trial was sent to 11 locations in Zone III and Zone IV.

Based on the significant superior performance in Zone IV the following entries are promoted to AVT1

Zone IV: **IET 30467** and **IET 30465**

HYBRID RICE

During Kharif 2022, totally 82 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 (2022)

Name of the Hybrid	IET No.	DFF	Promising in
IHRT-E			
RRX-3276	30555	91	Overall
LG-90204	30570	91	Overall
KAVERI 7374	30565	92	Overall
IHRT-ME			
HRI-216	30577	97	Overall
RNC-0752	30578	98	Overall
RALLIS-21304	30575	100	Overall
IHRT-M			
RNE-0456	30603	102	Overall
PHI-22109	30620	98	Overall
ADVRH-191788	30602	100	Overall
IHRT-MS			
RALLI-20609	30623	98	Overall
CRHR-168	30629	105	Zone III
HRI-215	30622	100	Zone IV

List of public sector institute nominated hybrids (2022)

S.No.	Public sector	Number of hybrids nominated
1	ICAR-IIRR, Hyderabad	6
2	ICAR-NRRI, Cuttack	6
3	IGKV, Raipur	2
4	JNKV, Jabalpur	2
5	RARS, Karjat	2
6	RRC PJTSAU, R Nagar	2
7	ZARS, Mandya	1
8	TNAU, Coimbatore	1
9	ICAR-IARI, New Delhi	1
10	RARS, Jagityal	1
	Total	**24**

AEROBIC

AVT 2-AEROB

Based on consistent yield superiority for a period of 3 years of testing (2020 to 2022), eightpromising entries were identified for different states and zonesas mentioned below.

- IET 29411 is promising for Haryana (zone II), Bihar (zone III) and Gujarat (zone VI).
- IET 29409is promising forHaryana (zone II) and Bihar (zone III)**.**
- IET 29421is promising forGujarat (zone VI)
- IET 29412 and IET 29422 are promising forChattisgarh (zone V)
- IET 29430 is promising for Haryana (zone II) and Bihar (zone III)
- IET 29415 are promising for Gujarat (zone VI) and Odisha state (zone III).
- IET 29436 is promising for Gujarat (zone VI) and Haryana (zone II)
- IET 29424 of Odisha (zone III), Gujarat (zone VI) and Haryana (zone II).

AVT 1-AEROB

Thirtyone test entries and four checks were evaluated in Zone II, III, IV, V, VI and VII in AVT-1 under aerobic conditions. The following entries were promoted to AVT-2- Aerobic trial.

Overall mean: IETs 30008, 30023, 30032, 30051, 30024, 30028 and 30004
Zone II: IETs 30034, 30008, 30023 and 30051
Zone III: IETs 30028, 30023, 30051, 30032, 30004, 30008, 30024, 30029
Zone VI: IET 30005 (Hybrid)
Zone VII: IET 30021

IVT-AEROB

IVT-Aerobic trial was constituted with 64 test entries and four checks evaluated in Zone II, III, IV, V, VI and VII. The following entries were promoted on the basis of overall and zonal mean to AVT-1 (Aerobic) trial,

Overall mean: IETs 30919 (H), 30932, 30911, 30917, 30935, 30910, 30912, 30895, 30929, 30904, 30902, 30907, 30939
Zone-II: IETs 30911, 30917, 30910, 30912, 30902, 30904, 30939, 30890, 30897
Zone III: IETs 30919 (H), 30932, 30910, 30911, 30935, 30912, 30895, 30902, 30907, 30892 (H), 30936 (H), 30917, 30934, 30893, 30933, 30927, 30901, 30925, 30906, 30938, 30918, 30928
ZoneV: IETs30919, 30932, 30911, 30912, 30929, 30897, 30936, 30927, 30942 (H), 30937, 30894

MEDIUM SLENDER GRAIN

AVT 2-MS

Performance of Entries in AVT2 MS:

- **IET 29523 –** promising inChhattisgarh
- **IET 29536** – promising in Maharashtra

AVT1-MS

List of entries promoted to AVT 2 MS:

- **Overall basis:** IET 30083
- **Zone VII:** IET 30083, IET 30078 and IET 30107

IVT-MS

A set of 59 test entries were evaluated at 43 locations across 5 zones (Zone III, IV, V, VI and VII) and the following entries were promoted to 2nd year of testing (AVT-1-MS)

Over all IETs 30989, 30957, 30961 and 31002

Zone IV IETs 31001, 30957 and 30966

Zone V IET 30959

Zone VI IETs 30957, 30989, 30961, 30978, 30949, 30981, 30958, 30969 and 30959

BIOFORTIFICATION

AVT & IVT-BIOFORT

The following entries have been promoted to AVT 1 Biofort based on yield advantage and zinc content:

Overall: IET 31004

Zone VII: IET 31004, IET 31027, and IET 31031

SPL.CRP-BIOFORT

To fix the benchmark levels for grain zinc, 50 test entries comprising released rice varieties were evaluated across 7 locations during Kharif 2022. Grain yield data from only one location was suitable for analysis. Grain Zn data from three locations was suitable for analysis. WAAS AMMI biplot analysis of three locations for grain zinc content has classified 15 entries to be stable for high grain zinc (Mean 22.58 ppm).

SALINE & ALKALINE

AVT-2 (AL&ISTVT): Among the 7 entries, the following entries recorded the required yield advantage over the best check, and were found to be promising in the final year of testing

Alkaline Stress

- **On overall basis (3rd Year testing):** IETs 27807 and 29361
- **Zone II (3rd Year testing):** IET Nos. 29354, 29360, 29361, 29358, 27807 (R), 29365 and 29353
- **Zone III (3rd Year testing):** IETs. 29361, 29360, 29353, 29365, 27807 (R) and 29358
- **Zone VII: Nil**

Inland Saline Stress

- **Overall Basis:**IETs. 29360, 29365, 27807 (R) and 29353

Based on three year of performance (2019-2022)

- IET 29365, IET 29361 and IET 29354 is found promising in Haryana state only.

- IET 27807 is found promising for Haryana and Puducherry under alkaline conditions.

AVT-1 (AL&ISTVT): Among the 9 entries including two hybrid entries and two NILs, the following NILs recorded the yield advantage over the recurrent parent Pusa 44 with trait saltol identification, and were promoted to third year of testing:

Alkaline Stress

- **Overall:** NILs IETs 30827 and 30830
- **Zone II:** IETs 30164 and 30165,NILs IETs 30827 and 30830
- **Zone III:** IETs 30176, 30165, 30164, 30162 and 30178

Inland Saline Stress

- **Overall:** NILs IETs 30827 and 30830
- **Zone II:** NILs IETs 30827 and 30830
- **Zone VII:** NILs IETs 30827 and 30830
-

Therefore, the constitution for AVT2 (AL &ISTVT):

- **IET Nos. 30162, 30164, 30165, 30176, 30178, 30827 and 30830**

IVT (AL&ISTVT)

Among the 18 entries including one hybrid entry, the following entries recorded the required yield advantage over the best check and were promoted to second year of testing in AL& ISTVT:

Alkaline Stress

- **Zone II: IET Nos.** 31055, 31048, 31054, 31051, 31044, 31050, 31042, 31053

Inland Saline Stress

- **Overall Inland Salinity:** IET 31050
- **Zone II under Inland Salinity:** IET nos.31055, 31050

Therefore, the constitution for AVT (AL & ISTVT):

- **IET Nos. 31042, 31044, 31048, 31050, 31051, 31053, 31054 and 31055**

COASTAL SALINE

AVT 2&1-CSTVT

Among the **9** test entries, three entries (IET nos. 30200, 30201 & 30207) are in the second year of testing and one entry (IET 27847) is a repeat entry.

Entries in final year of testing

- IET 27847 (IIRRH 115): IET 27847 was repeated in CSTVT during 2022 for testing at more locations. However, the data from Z-VII due to severe stress level, while in Z-III, low stress level across the locations data was not included in the analysis. Discontinued

Entries promoted to second year of testing in CSTVT

- **Overall: IET** 30201
- **Zone VI: IET** 30201

IVT-CSTVT

Among the 25 test entries the following entries recorded the required yield advantage over the best check and with desirable quality are promoted to second year of testing in **AVT1-CSTVT**

- **Overall: IET Nos.**31067
- **Zone VI: IET Nos.**31067

HILLS

AVT - 2- E (H)

- The AVT-2 E (H) trial was constituted with seven test entries of third year of testing and 3 checks *i.e.*, Vivekdhan 86 (National), Shalimar Rice 3 (Zonal) and local check. The trial was sent to 17 locations while it was conducted at 12 locations.

- In third year of testing, five test entries **IETs 28890(27%), 28895(18%), 28882(16%), 28883(15%) and 28206R (6%)** recorded required grain yield advantage of >5% over the best check at medium northern elevations.

- Based on three-year performance of test entries, **IET 28206 (Uttarkhand)**, **IET 28883 (Uttarkhand and Himachal Pradesh)** and **IET 28895 (of Uttarkhand and Himachal Pradesh)** showed consistent yield significance over the best check and hence found promising in medium northern elevations.

AVT - 1- E (H)

- The AVT-1-E (H) trial was constituted with 12 test entries of second year of testing and 3 checks (Vivekdhan 86 (National), Shalimar Rice 3 (Zonal) and local check) under low norther (two locations), medium northern (three locations) and in high elevations (three locations). However, none of the test recorded required grain yield advantage of >5% over the best check across all three elevations, hence none is promoted to third year of testing in early hills trial

IVT- E (H)

- IVT-E (H) trial was constituted with 21 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, none of the entries recorded superior yield over the best check, hence none is promoted.

AVT 2-M (H)

- AVT 2 – M (H) trial was constituted with a total of 8 entries including 4 test entries (third year of testing) and 4 checks. None of the test entries out yielded best check under low norther and medium northern regions. Two entries, IET 28217 and IET 28224 yielded superior to best check under high northern elevation. But HRR of both

IET 28217 and IET 28224 was 37.5% and 43.9% respectively; hence both the entries are discontinued. Threeyear performance of entries revealed that IET 28907 is found promising only for the state of Manipur. The entry IET 28222 discontinued due to inconsistent yield performance.

AVT1-M (H)

- The trial was constituted with 8 test entries and 4 checks, 2 NILs, one recurrent parent (K-343) and two donor parents (DHMAS and RML-22) and tested in 11 locations. Only one entry,IET 29654 has shown yield superiority over best check under low northern region, but exhibited high amylose content. Hence this entry also not got promoted. NILs IET 30503 exhibited moderate resistance for leaf blast in comparison with recurrent parent. This entry also produced on par yield with recurrent parent under low and medium northern region. Hence the NIL IET 30503 got promoted to 2nd year of testing.

IVT-M (H)

- A total of 15 entries were tested across 20 locations. Among the 15 entries on overall basis test entry IET 30518 performed significant superiority over best check. Similarly, in High elevation hills two entries IET 30513 and IET 30506 expressed significant yield superiority over best check.

IVT-U (H)

- IVT-U (H) trial was constituted with 12 test entries of first year of testing and 4 checks (Sukaradhan-1 (National), Vivekdhan 154 and Vivekdhan 158 (Zonal) and local check) under low, medium and high elevations. Among the entries in first year of testing, none of the entries recorded superior yield over the best check, hence none is promoted.

IVT-J

- IVT-J trial was constituted with 4 test entries and 4 checks (Bhrigudhan, Varundhan, Shalimar Rice-5 and local check). Among the test entries none of the entries recorded superior yield over the best check, hence none is promoted.

AROMATIC SHORT GRAIN

IVT-ASG: In IVT-ASG, 23 test entries and 5 checks were evaluated across 32 locations. On overall mean yield basis none of the entries had required yield advantage. In Zone II, IET 30213 showed required yield advantage. Similarly, in Zone III IET 30223 and IET 29386, in Zone IV IET 30209 and in Zone V IET 30223 had sufficient yield gain over best varietal check including CD value at 5% level of significance. Pertaining to quality parameters, due to head rice recovery, absence of aroma and suitable grain type, none of the entries were qualified for next level of testing.

PHOSPHORUS & NITROGEN

AVT 2&1-LPT

Total of 15 test entries were evaluated in AVT2&1-LPT trial. Out of 15 entries, one entry was in third year of testing, 11 were in second year testing, and three entries were NILs for

Pup 1 QTL for first year of evaluation. Both the test entries and checks were evaluated under 0% and 50% recommended dose of Phosphorus fertilizer at seven and eight locations respectively. By considering the performance of entries at P 0 and P 50% at zonal level and over all, a total of seven entries Viz., IETs 29549, 30240, 30252, 30235, 30233, 30230 and 30242 are promoted to third year of testing. The entry IET 28821 in third of testing was found to be promising for the states of Karnataka and Telangana in Zone VII**.** None of the NIL entries were found superior to their respective recurrent parents. Hence 3 NILs in the trial are discontinued.

IVT-LPT

Total of 21 test entries in the first year of testing along with checks were evaluated under 0% and 50% recommended dose of Phosphorus fertilizer at seven and eight locations respectively. By considering the performance of entries at P 0 and P 50%, a total of 13entries Viz., IETs 31100, 31096, 31097, 31098, 31101, 31102, 31103, 31105, 31106, 31108, 31110, 31112 and 31115 are promoted to second year of testing.

AVT1-LNT

Total of 12 test entries which were in second year of testing were evaluated in AVT 1-LNT trial. Both the test entries and checks were evaluated under 0% and 50% recommended dose of Nitrogen fertilizer at eight locations. By considering the performance of entries at N 0 and N 50% at zonal level and over all, a total of 6 entries viz., IETs 29578, 29577, 30270, 30261, 29581 and 30273 are promoted to second year of testing in AVT 1 LNT.

IVT-LNT

Total of 19 test in the first year of testing and checks were evaluated under 0% and 50% recommended dose of nitrogen fertilizer at seven and six locations respectively.

Based on zonal and overall basis, 14 test entries namely IETs 31117, 31118, 31119, 31120, 31124, 31126, 31127, 31128, 31129, 31130, 31131, 31132, 31134 and 31135 recorded significant yield advantage over the best check under low nitrogen condition, hence these test entries were promoted to second year of testing**.**

COLOURED RICE

COLOURED RICES PILOT TRIAL

A coloured rice pilot trial consisting of a total of 21 test entries, including three checks, Chakho Poireiton, black rice variety from Manipur as national check, Sahyadri Kempumukthi, red rice variety from Karnataka as observational check and a local check, and three Near Isogenic lines in the genetic background of Chakho Poireiton as well as 15 other colored varietal entries from various regions of India, was initiated. Out of 18 test entries, six entries viz., IET's 31139, 31141, 31142, 31145, 31150 and 31151 showed significant yield superiority over the check Chakho Poireiton in Zone VI. Hence these entries are promoted to next year of testing.

RAINFED UPLAND

AVT-1-EDS and IVT-EDS trials were conducted with 17 and 50 test entries, respectively in upland direct seeded condition.

AVT 1- E DS:

Among 17 test entries 1 entry was in the 3rd year of testing and 4 were NIL entries. Trials were conducted in 16 locations distributed in Zone III, V, VI and VII.

Promotion of entries to AVT-2-EDS under severe drought conditions

- On overall basis: IET29036(R), IET 30351 and IET 30328
- In zone III: IET 30351
- In zone V: IET 29036(R), IET 30238, IET 30351, IET 30330, IET 30334, IET 29038(R) and IET 30336

Promotion of entries to AVT-2-EDS under moderate drought conditions

- Overall basis: IETs 29036 (R) and 29052(R)
- In zone III: IETs 29052(R), 29036(R), 30334, 30336, 30332and30328
- In zone VI: IET 30330

Promotion of NIL entries

NIL-DRT

- **IET 28834 (R) and IET 28835 (R),** NIL with drought tolerance is promising for the states of **Jharkhand and Bihar**.

NIL HT:

- **IET 30437 and** IET **30438** performed significantly superior than the recurrent parent in **Jharkhand, hence found promising in 2nd year.**
- **Over the years IET 30438 is found promising for Odisha.**

IVT E DS:

Among 50 entries tested in 15 locations in 4 Zones (Zone III, V, VI, VII) the following entries are promoted to AVT-1-EDS

<u>Under drought across the zones</u>

- **IET 31177**

<u>On Zonal mean basis</u>

Severe drought condition

- **Zone-III : IET 31164, IET 31165, IET 31170, IET 31201, IET 31202 and IET 31203**

Moderate drought condition

- **Zone-III :IET 31177 and IET 31161**
- **Zone IV: IET 31165**

- **Zone V: IET 31193 and IET 31163**
- **Zone VI: IET 31185, IET 31157, IET 31192 and IET 31193**

Trait verification trial for drought tolerance (AVT-1-NIL-Drt) was also conducted in 5 locations with 6 test entries.

RAINFED LOWLAND ECOSYSTEM

During *Kharif* 2022, rainfed lowland trials were evaluated under rainfed shallow lowland (RSL), semi deep water (SDW) and deep water (DW) ecologies. A total of 104 test entries were evaluated along with suitable checks in five trials namely AVT1 -RSL **(6** test entries), IVT -RSL (51 test entries), AVT 1-SDW (7 test entries), IVT-SDW (30 test entries), IVT-DW (10 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: Of 6 test entries (3 inbreds, 3 NIL entries) across 2 zones (III, VII), only one entry (IET 30367) is found promising and promoted to AVT-2-RSL.

Promoted to AVT-2-RSL

- **IET30367** for Zone III

Promotion of NIL entries

- **Will be repeated in AVT-1-RSL trial : IET 30409 andIET 30410**

IVT-RSL: In IVT-RSL, 51 test entries were evaluated across 19 locations. The following entries are promoted to AVT-1-RSL.

Promoted on overall mean basis:

- **IETs 31250 and 31246**

Promoted entries based on zonal mean:

- **Zone III- IETs 31246, 31250 and 31237**
- **Zone IV- IETs 31242, 31207, 31253, 31244, 30423 (S) and 31220**
- **Zone V- IET 31250**
- **Zone VII- IETs IET 31204,31245 and 31215**

Semi Deep and Deep Water ecology

AVT 1-SDW: A total 7 test entries were tested over 10 locations in Zone III and Zone IV.

The following entries are found promising in AVT-2:

- **IET 29121-** Superior performance (in AVT-2) for UP (zone III) and Andhra Pradesh (Zone VII), needs Repeat for HRR.

- **IET 28296-** Superior performance (in AVT-2) for Bihar and Zone III
- **These two entries (IET 29121, IET 28296) are not consistent in performance over the years**

The following NIL entries are promoted to AVT-2 for 2nd year of testing:

- **IET 29031**, **IET 29026** and **IET 29032**

IVT-SDW: In IVT-SDW, out of 30 test entries evaluated in 10 location across three zones (Zones III, IV, VII), six entries namely IET 31258, IET 31259, IET 31264, IET 31267, IET 31270 and IET 31279 have achieved requisite yield superiority based on 5% CD value over the best check and desirable plant type, hence, promoted to second year of testing in AVT-1-SDW.

- Overall mean basis: IET 31259 and IET31270.
- Promoted in zone III: IET 31259, IET 31270 and IET 31264.
- Promoted in Zone-VII: IET 31258, IET 31267 and IET 31279.
- Entries shifted to RSL: IET 31269 (overall zone) and IET 31257 (Zone-III).

IVT-DW: Ten test entries were evaluated in 4 locations in Zone III.

Promising in AVT-2

- IET 26741 is promising for Uttar Pradesh

Promoted to AVT-2: Nil

Promoted to AVT-1: Nil

BASMATI

INITIAL VARIETY TRIAL – BASMATI (IVT- BT)

Initial Variety Trial-Basmati (IVT-BT) constituted of 29 entries including sixteen varietal test entries; two hybrid entries; and four Near Isogenic Lines (NILs). Out of 16 varietal test entries two entries showed superior yield performance over best varietal check and promoted to second year of testing in AVT1-BT: **IET 30533** and **IET 30535**

AVT1-NILs entries Near Isogenic Linesfor Bakanaeresistance: The entry 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, exhibited on par performance with its recurrent parent Pusa Basmati 1509. For bakanae disease, it was found resistant with disease reaction of 28.5% while the disease reaction of Pusa Basmati 1509 (RP) was 60%. Quality wise, it is similar to its recurrent parent. Hence, **IET 30553** has been promoted to the next stage of testing **(AVT2-NILs).**

PROGRESS REPORT

KHARIF 2022

VARIETAL IMPROVEMENT

AICRP on Rice

IRRIGATED TRIALS

ICAR-IIRR, HYDERABAD

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 (AICRIP) to enhance rice production. A total of 44 trials (40 varietal trials and 4 hybrid rice trials) were conducted in 1068 experiments (929 varietal and 139 hybrid rice) at 124 locations (43 funded, 81 voluntary centres) in 26 states and 4 union Territories across seven zones of the country during 2022 which is the 58th year of AICRIP testing. Hybrid rice experiments were also conducted by 10 private seed companies. The 44 trials were constituted with 1238 entries (972 varietal and 82 hybrid rice) including 184 checks. The overall data receipt was 80.09% of which 87.60% and 70.68% 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: 52 **Test Entries: 09**

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:1.1**

Advanced Variety Trial 2-Irrigated Early Transplanted (AVT 2-ETP) was constituted with nine test entries including four varietal and five hybrid entries in the third year of testing along with CO-51 as national check, PR124 in northern, Narendra 97 in eastern, Luit in north eastern, Sahbhagidhan in central and western and MTU 1153 in southern as zonal checks, HRI 314 as hybrid check and a local check. The trial was sent to a total of 52 locations across the country and data was received from 47 locations. Data from ten locations was not included in the analysis due to low CV % at Masodha, Wangbal, Coimbattore and Mandya, high CV% at Kurumbapet and low experimental mean at Pantnagar, Kanpur, Arundhutinagar, Lembucherra and Pattambi. Overall mean for the entries varied from 4891 kg/ha (IET 29197)

to 6633 kg/ha (IET 28959), plant height from 102 (IET 28950) to 112 cm (IET 28959), days to fifty percent flowering from 91 (IETs 29142, 29140 and 28954) to 99 (29177) days and panicles/m^2 from 251 (IET 28960) to 289 (IET 29177). Experimental mean of the locations ranged from 3166 (Lembucherra) to 8803 kg/ha (Patna-ICAR) and CV % from 1.31 (Wangbal) to 26.72% (Kurumbapet). The data pertaining to yield, days to 50% flowering, plant height, panicles/m^2 and quality are presented in tables 1.2, 1.3 and 1.4 respectively.

On overall basis, local check is the best varietal check (BVC) with mean performance of 5374 kg/ha and four hybrid entries viz., IETs 28959, 28950, 28960 and 28954 recorded required yield advantages of more than 10% over the BVC and 5% over the hybrid check (HC) and two varietal entries, IETs 29177 and 29142 of more than 5% over the BVC. Additionally, one hybrid entry, IET 28964 recorded required yield advantage over BVC and HC in eastern and western ones. Overall and zonal performance of these entries is detailed below.

IET 28959 (PHI-20101), a hybrid entry ranked first on overall basis with a mean yield of 6633 kg/ha, 94 days to fifty percent flowering and yield advantage of 23.42 and 25.81% over the BVC and HC respectively. It also outperformed BVC and HC in the eastern (34.16 and 41.05%), central (20.31 and 14.29%), western (29.39 and 24.10 %) and southern zones (12.96 and 22.55%). It has high HRR (60.2%), intermediate amylose content (22.96%), GC of 27 mm and ASV of 4.0 with long slender grains.

IET 28950 (HRI-207), a hybrid entry ranked second on overall basis with a mean yield of 6393 kg/ha, 92 days to fifty percent flowering and yield superiority of 18.96 and 21.26 % over the BVC and HC respectively. It also outperformed BVC and HC in the eastern (17.81 and 23.86%), central (25.61 and 19.32%) and western zones (32.62 and 27.2%). In terms of grain quality characteristics, it recorded a HRR of 58.1%, amylose content of 24.37%, gel consistency of 22 mm and ASV of 4 with short bold grains.

IET 28960 (RRX-848), a third ranking hybrid entry on overall basis recorded a mean yield of 6369 kg/ha, 92 days to fifty percent flowering and yield advantage of 18.51 and 20. 81% over the BVC and HC respectively. In the eastern, central and western regions it recorded a yield advantage of 26.33 and 32.82; 20.83 and 14.76; 31.17 and 25.81 over the BVC and HC respectively. It recorded a high HRR of 62.5%, amylose content of 23.99%, GC of 22 mm and ASV of 4 with long slender grains.

IET 28954 (Kaveri 7299), a fourth ranking hybrid entry on overall basis recorded a mean yield of 5930 kg/ha, 91 days to fifty percent flowering and yield advantage of 10.35 and 12.49% over the BVC and HC respectively. It also outperformed the BVC and HC with yield advantage of 13.82 and 25.42 % in the northern zone and with 12.54 and 18.32%in the eastern zone respectively. It recorded a high HRR of 61.5 %, intermediate amylose content of 24.34%, GC of 22 mm and ASV of 7 with long bold grains.

IET 28964 (VNR 227) outperformed the BVC and HC in eastern (12.29 and 18.05%) and western (21.99 and 17%) zones. It recorded HRR of 59.5%, AC of 23.9%, GC of 28 mm and ASV of 5 with long bold grains.

IET 29177 (ORJ-1317-RP5530-23-1) derived from the cross of Improved Samba Mahsuri/IRGC48960//MTU1081 recorded a mean yield of 5704 kg/ha, 99 days to fifty percent flowering and yield advantage of 6.14 % over the BVC on overall basis. Also, it outperformed BVC with 7.28 and 7.72% yield advantage in eastern and central zones

respectively. It recorded HRR of 57%, AC of 27.98%, soft GC of 63mm and ASV of 4 with long slender grains.

IET 29142 (JGL 35085) derived from the cross of JGL 2017/NLR34449//JGL20171 recorded a mean yield of 5691 kg/ha, 91 days to fifty percent flowering and 5.9% yield advantage over the BVC on overall basis. It recorded 7.52 and 7.15% yield advantage over the BVC in eastern and central zones respectively. It recorded HRR of 56.9%, AC of 26.13%, soft GC of 63mm and ASV of 3 with long bold grains.

Performance of promising entries at the Northern, Eastern, Central, Western and Southern Zones in Advance variety Trial (AVT 2-ETP) *kharif*2022

IET No/ Designation/ Cross combination	GY /DFF/ GT	% Yld Adv over NC/ ZC/ LC/ HC	GY / DFF / GT	% Yld Adv over NC/ ZC/ LC/ HC	GY /DFF/ GT	% Yld Adv over NC/ ZC/ LC /HC	GY /DFF/ GT	% Yld Adv over NC/ ZC/ LC/ HC	GY /DFF/ GT	% Yld Adv over NC/ ZC/ LC/ HC	GY /DFF/ GT	% Yld Adv over NC/ ZC/ LC/ HC
	Overall (O)		Northern (II)		Eastern (III)		Central (V)		Western (VI)		Southern (VII)	
28959 (H) (PHI-20101)	6633 94 LS	35.06 37.01 ***23.42*** 25.81			7336 94	54.54 82.94 ***34.16*** 41.05	6671 95	***20.31*** 23.30 32.18 14.29	6014 92	56.25 34.39 ***29.39*** 24.10	6494 92 LS	13.85 18.65 ***12.96*** 22.55
28950 (H) (HRI-207)	6393 92 SB	30.18 32.06 ***18.96*** 21.26			6442 91	35.71 60.65 ***17.81*** 23.86	6965 94	***25.61*** 28.74 38.00 19.32	6164 90	60.14 37.74 ***32.62*** 27.20		
28960 (H) (RRX-848)	6369 92 LS	29.69 31.56 ***18.51*** 20.81			6908 92	45.52 72.27 ***26.33*** 32.82	6700 93	***20.83*** 23.84 32.75 14.78	6097 88	58.40 36.24 ***31.17*** 25.81		
28954 (H) (KAVERI-7299)	5930 91 LB	20.75 22.50 ***10.35*** 12.49	6408 92	55.80 27.00 ***13.82*** 25.42	6154 90	29.64 53.47 ***12.54*** 18.32	-		-			
28964 (H) (VNR-227)					6140 91 LB	29.34 53.11 ***12.29*** 18.05			5670 92	47.31 26.70 ***21.99*** 17.00		
29177 (ORJ-1317-RP5530-23-1) RPBio 226/ IRGC48960//MTU 1081	5704 99	16.15 17.83 ***6.14*** 8.19			5866 99	23.57 46.28 ***7.28*** 12.79	5973 100	***7.72*** 10.41 18.34 2.32	5699 94			
29142 (JGL-35085) (JGL 20171/NLR 34449)/JGL 20171	5691 91	15.88 17.56 ***5.90*** 7.95			5879 92	23.85 46.61 ***7.52*** 13.03	5942	***7.15*** 9.83 17.73 1.79				
CO-51 (NC)	4911		4113 88		4747 88		***5545*** 88		3849 84		5704 84	
Zonal Check (ZC)	4841		5046 95		4010 83		5410 91		4475 88		5473 90	
Local Check (LC)	***5374***		***5630*** 98		***5468*** 89		5047 94		***4648*** 89		***5749*** 91	
US 314 (HC)	5272		5109 94		5201 90		5837 90		4846 89		5299 88	

Bold &Italics: Best check &over the best check; GY: Grain Yield (kg/ha); DFF: Days to 50% flowering; GT: Grain Type; NC: National Check; ZC: Zonal Check; LC: Local Check; HC: Hybrid Check

Three years performance of the promising entries in AVT2-ETP, Kharif 2022

IET No/ Designation/ Cross combination	Year	Zonal performance			Performance across the States			
		Overall/ Zone	Yield/Rank	%YA BC/HC	State	Yield/Rank	%Y BC/HC	Remarks
Hybrid entries								
28959 (H) PHI-20101	2022	O	6633 (1)	23, 26	RA	6588 (1)	32, 45	Promising for Uttarakhand, Odisha, Bihar, Uttar Pradesh Chhattisgarh, Maharashtra, Gujarat
		II	7336 (1)	34, 41	OD	7384 (1)	32, 44	
		III	6671 (3)	20, 14	BI	8533 (1)	44, 42	
		V	6014 (3)	29, 24	WB	6527 (1)	41, 14	
		VI	6494 (1)	13, 23	MP	9076 (3)	19, 17	
					CH	7200 (3)	24, 18	
					MH	5152 (2)	19, 12	
					GU	8506 (1)	40, 51	
					TS	6994 (1)	22, 26	
	2021	II	6590 (1)	18, 12	UK	5569 (1)	28, 35	
		III	5300 (7)	20, 15	HA	7856 (3)	26, 11	
		V	5788 (1)	30, 19	BI	6397 (1)	46, 27	
					UP	7415 (1)	33, 77	
					CH	6536 (2)	33, 22	
	2020	O	6359	27, 15	UK	5297	33, 34	
		II	7695	28, 18	DL	9441	47, 45	
		III	5993	12, 6	UP	6285	18, 9	
		IV	4991	13, 16	OD	6435	22, 27	
		V	6788	20, 15	CH	7158	18, 18	
		VI	6319	34, 13	MH-1	6115	13, 13	
		VII	6749	18, 22	MH-2	6632	30, 17	
					GU	5849	17, 7	
					KA	9348	57, 27	
28950 (H) HRI-207	2022	O	6393 (2)	19, 21	HA	7801 (2)	18, 24	Promising for Odisha, Bihar, Jharkhand, Maharashtra and Chhattisgarh
		III	6442 (3)	18, 24	RA	6151 (4)	23, 35	
		V	6965 (1)	26, 19	OD	6600 (3)	18, 29	
		VI	6164 (1)	33, 27	BI	8040 (4)	36, 34	
					JH	5940 (2)	47, 39	
					MP	9211 (2)	20, 19	
					CH	7506 (2)	29, 23	
					MH	5724 (1)	32, 25	
					AP	6214 (1)	17, 22	
					TS	6321 (3)	11, 14	
	2021	II	6258 (2)	12, 7	OD	5158 (4)	36, 33	
		III	5605 (3)	26, 22	BI	6322 (2)	45, 26	
					JH	5961 (1)	35, 16	
					CH	6264 (3)	27, 17	
					KE	5486 (4)	12, 14	
	2020	O	6147	23, 11	UK	6426	61, 62	
		II	7203	20, 11	DL	7051	10, 9	
		III	5992	12, 5	OD	5831	10, 15	
		IV	5072	15, 18	AS	5380	11, 29	
		V	6551	16, 11	CH	7212	30, 20	
		VI	6659	41, 19	MH-2	7170	41, 27	
					GU	5893	18, 8	
					KA	8300	39, 12	

IET No/ Designation/ Cross combination	Year	Zonal performance			Performance across the States			
		Overall/ Zone	Yield/Rank	%YA BC/HC	State	Yield/Rank	%Y BC/HC	Remarks
28960 (H) RRX-848	2022	O III V VI	6369 (3) 6908 (2) 6700 (2) 6097 (2)	19, 21 26, 33 21, 15 31, 26	HA RA OD BI JH MP CH MH GU TS	7583 (4) 5496 (7) 6764 (2) 8088 (3) 6062 (1) 9548 (1) 7593 (1) 5146 (3) 7477 (2) 6260 (4)	14, 21 10, 21 21, 32 37, 35 50, 42 25, 24 30, 24 19, 12 23, 33 10, 13	Promising for Haryana, Odisha, Bihar, Jharkhand, Chhattisgarh and Gujarat,
	2021	O III	5677 5993 (1)	18, 9 35, 30	HA OD BI UP WB CH	8211 (1) 5420 (3) 6274 (3) 6841 (3) 6923 (1) 5945 (5)	32, 16 43, 40 43, 25 22, 63 15, 37 21, 11	
	2020	O III IV VI	5923 6307 5113 5921	18, 7 18, 11 16, 19 25, 6	UK DL JH OD TR GU KA	4402 7297 6484 6368 5826 6142 8044	11, 11 14, 12 49, 40 20, 26 7, 32 23, 12 35, 9	
28954(H) *KAVERI-7299*	2022	O II III	5930 (4) 6408 (1) 6154 (4)	10, 12 14, 25 13, 18	HA RA UP BI JH GU TS	8101 (1) 5783 (5) 6339 (1) 7253 (5) 5476 (4) 6659 (5) 6324 (2)	22, 29 16, 27 47, 20 23, 21 36, 28 10, 18 11, 14	Promising for Haryana, Uttar Pradesh and Bihar
	2021	III	5561 (4)	26, 21	HA OD BI WB CH	7965 (2) 5541 (2) 6016 (5) 6398 (2) 5887 (4)	28, 13 47, 43 38, 20 6, 26 22, 12	
	2020	II IV	7081 4974	18, 9 13, 16	UK DL UP KA	4816 8823 6185 7958	21, 21 35, 35 16, 7 33, 8	
28964(H) *VNR-227*	2022	III VI	6140 (5) 5670 (5)	12, 18 22, 17	HA BI JH MH GU	7720 (3) 8338 (2) 5696 (3) 5280 (5) 7231 (4)	16, 23 41, 39 41, 33 23, 14 19, 28	Promising for Odisha, Jharkhand and Maharashtra

IET No/ Designation/ Cross combination	Year	Zonal performance			Performance across the States			
		Overall/ Zone	Yield/Rank	%YA BC/HC	State	Yield/Rank	%Y BC/HC	Remarks
	2021	III	5112 (10)	15, 11	OD	4468 (10)	18, 16	
					UP	6153 (5)	10, 47	
	2020	O	5860	17, 6	UK	5004	26, 26	
		III	6186	15, 9	DL	7916	23, 22	
		VI	6439	36, 16	JH	6427	49, 39	
					OD	6219	17, 22	
					CH	6632	20, 10	
					MH-2	7024	38, 24	
Varietal entries								
29177 *ORJ-1317* (RP5530-23-1)	2022	O	5704 (6)	6	RA	6465 (2)	29, 42	Promising for Kerala, Bihar, Chhattisgarh, Maharashtra
		III	5866 (7)	7, 13	OD	6225 (4)	11, 22	
		V	5973 (4)	8	BI	6862 (7)	16, 14	
		VI	5699 (4)	23, 18	UP	5246 (6)	27	
					CH	6999 (4)	20, 14	
					MH	5313 (4)	24, 14	
					GU	7243 (3)	20, 29	
					KE	7069 (1)	31, 60	
					KA	6236	20	
	2021	III	4683	6	BI	5457 (10)	25	
		V	5088 (7)	14	JK	4745 (8)	7	
		VII	5785 (6)		CH	5506 (9)	12	
					KE	5379 (5)	10	
	2020	V	4393 (5)	8	MH	4540	8	
		VI	4893 (4)	8	KE	7292 (4)	12	
29142 *JGL-35085* (JGL 20171/NLR 34449)/JGL 20171	2022	O	5691 (7)	6	HA	7065 (6)	7	Promising for Haryana, Rajasthan, Gujarat and Bihar
		III	5879 (6)	8	RA	6301 (3)	26	
		V	5942 (5)	7	UP1	5442 (2)	26	
					OD	6120 (5)	10	
					BI	6855 (8)	16	
					WB	5353 (6)	15	
					UP2	5325 (5)	79	
					MP	8941 (4)	17	
					CG	6268 (6)	8	
					GU	6242 (7)	11	
					KE	5167 (6)	17	
					KA	6414 (6)	23	
	2021	O	5073 (10)	5	GU	5874 (4)	16	
		IV	4667 (9)	16	RA	7065 (6)	12	
		VI	5109 (5)	9	HA	6574 (10)	6	
					BI	5105	17	
	2020	O	5598 (2)	6	MA	4707 (2)	12	
		V	4866 (1)	19	AP	6280 (6)	26	

Three years' performance of the promising entries

IET 28959 (PHI 20101), a hybrid entry showed consistent superiority over the BVC and HC in all the three years of testing in Chhattisgarh. It also showed consisting promising performance in 2020 and 2021 in Uttarakhand and Uttar Pradesh, in 2021 and 2022 in Bihar and in 2020 and 2022 in Odisha, Maharashtra and Gujarat. Also owing to its desirable grain

quality traits of high HRR (60.2%), intermediate amylose content (22.96%), GC of 27 mm and ASV of 4.0 with long slender grains, it is promising for Uttarakhand, Uttar Pradesh, Bihar, Odisha, Chhattisgarh, Maharashtra and Gujarat.

IET 28950 (HRI-207), a hybrid entry showed consistent yield performance in five states. It recorded required yield advantage over the BVC and HC in all the three years of testing in Odisha and Chhattisgarh, in the years 2021 and 2022 in Bihar and Jharkhand and in the years 2020 and 2022 in Maharashtra. It also recorded required grain quality parameters of HRR (58.1%), amylose content (24.37%), gel consistency (22 mm) and ASV (4) with short bold grains. **It is promising for the states of Bihar, Odisha, Jharkhand, Chhattisgarh and Maharashtra.**

IET 28960 (RRX-848), a hybrid entry recorded consistent yield performance in all the three years of testing in Odisha. In the years 2021 and 2022, it recorded required yield superiority over the BVC and HC in Haryana, Bihar and Chhattisgarh and in the years 2020 and 2022, it showed consistent yield performance in Gujarat and Jharkhand. It also recorded desirable grain quality parameters of high HRR of 62.5%, amylose content of 23.99%, GC of 22 mm and ASV of 4 with long slender grains. **Hence, IET 28960 is found promising for Haryana, Odisha, Bihar, Jharkhand, Chhattisgarh and Gujarat.**

IET 28954 (KAVERI-7299), a hybrid entry recorded consistent yield advantage over the BVC and HC in Haryana and Bihar in 2021 and 2022 and also in Uttar Pradesh in the years in 2020 and 2022. It possesses desirable grain quality parameters with a high HRR of 61.5 %, intermediate amylose content of 24.34%, GC of 22 mm and ASV of 7 with long bold grains. **Hence, it is found promising for Haryana, Bihar and Uttar Pradesh.**

IET 28964 (VNR-227), a hybrid entry recorded required yield advantage over the BVC and HC in the years 2020 and 2022 in Jharkhand and Maharashtra and in the years 2020 and 2021 in Odisha. It recorded HRR of 59.5%, AC of 23.9%, GC of 28 mm and ASV of 5 with long bold grains. Owing to its consistent yield performance and required grain quality parameters, **it is found promising for the states of Odisha, Jharkhand and Maharashtra.**

IET 29177 (ORJ-1317-RP5530-23-1) derived from the cross of Improved Samba Mahsuri/IRGC48960//MTU1081 recorded consistent yield performance in all the three years in Kerala and in the years 2021 and 2022 in Bihar, Chhattisgarh and Maharashtra. It recorded HRR of 57%, AC of 27.98%, soft GC of 63mm and ASV of 4 with long slender grains. Hence, **it is found promising for the states of Kerala, Bihar, Chhattisgarh and Maharashtra.**

IET 29142(JGL 35085) derived from the cross of JGL 2017/NLR34449//JGL20171 recorded consistent yield performance in the years 2021 and 2022 in Haryana, Rajasthan, Gujarat and Bihar. It recorded HRR of 56.9%, AC of 26.13%, soft GC of 63mm and ASV of 3 with long slender grains. **It is found promising for Haryana, Rajasthan, Gujarat and Bihar.**

ADVANCED VARIETY TRIAL1- EARLY TRANSPLANTED (AVT1-E TP)

Locations: 45 **Test Entries: 25**

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:1.5**

Advance variety trial - Early Transplanted (AVT-1- E- TP) was constituted with 25 test entries and 4 checks namely CO-51 (National check), PR 124 (Northern), Narendra 97 (Eastern), Luit (North Eastern), Sahbhagidhan (Central & Western), MTU 1153 (Southern) as Zonal checks, US 314 (Hybrid check) and a local check. The trial was sent to 36 locations in zone I-VI, while test entries 25 plus 3 Nils and 1 recurrent parent along with checks are tested in 15 locations in zone-VII. However, data was not received from three locations namely Titabar, Dabhoi, Hazaribagh in Zone I-VI, while in Zone –VII data not received from Mugad and Jagtial. Trail was failed at Arundhuthinagar. Data from seven centers was excluded from analysis viz., Nagina, Panthnagar, Kanpur, Hathwara, Masodha, Wangbal, Lembucherra, in zone I-VI, while in zone VII six centers viz., Mandya, Rudrur, Moncompu, Pattambi, Brahmavar, and Kurumbapet not included in the trail either due to low (<5%) / high CV (20%) or low mean experimental yield (<4000 Kg/ha).

Results of Zone I to VI.

25 test entries and 4 checks namely CO-51 (National check), PR 124 (Northern), Narendra 97 (Eastern), Luit (North Eastern), Sahbhagidhan (Central & Western), MTU 1153 (Southern) as Zonal checks, US 314 (Hybrid check) and local check are evaluated in Zone I to Zone VI.

Performance of the entries on overall mean basis

Among the varietal checks, local check was the highest yielder (5357 Kg/ha) followed by zonal check (4726kg/ha) and National check (4446 kg/ha) whereas hybrid check yielded (5109 kg/ ha). The data pertaining to yield, days to 50% flowering, plant height, panicles/m^2 and quality are presented in tables 1.6, 1.7 and 1.8 respectively. On overall mean basis four varietal test entries IET 29947 (5781 kg/ha), IET 29958 (5647 kg/ha) IET 29940 (5940 kg/ha) and IET 29939 (5879 kg/ha) and among hybrids IET 29694(6276 kg/ha), IET 29689(6306 kg/ha), IET 29692 (6113 kg/ha), IET 28123 (5789 kg/ha), IET 29691 (6074 kg/ha), IET29690 (6467 kg/ha), IET 29696 (6263 kg/ha) recorded required significant superior yield advantage over best check i.e., local check (LC) (5357 kg/ha).

The performance of the top 11 entries in overall mean is tabulated and described in detail as below

Overall performance of the entries based on yield in advanced variety trial - Early Transplanted (AVT-1- E- TP) Kharif 2022

Rank	IET No/ Designation/ Cross Combination	GY/ FD/ GT	HRR/AC/GC/ASV	Promotion / shift
1	IET 29947 NLR 3684 NLR 34449/NLR 33359	5781*/98/MS	61.8/28.21/60/7.0	Promoted to AVT2 ETP
2	IET 29958 RCPR 82-IR 14L362 IR09L 272/IR09L 337	5647*/94/LS	48.0/24.52/81/3.0#	Dropped due to quality
3	IET 29940 CRU-BCKV-22-35(14-N22 / 35-13-4-5-2) N22 / IET 25701	5940*/96/MS	59.4/26.98/41/4.0	Promoted to AVT2 ETP
4	IET 29939 CR 4060-1318-5-2-2-2-1-5-3-4 IET 22729 / Brown gora	5879*/93/LB	55.4/24.12/22/5.0	Promoted to AVT2 ETP
5	IET 29694 (Hybrid) UPLRH-181325	6276*/94/LB	51.8/23.58/69/4.0	Promoted to AVT2 ETP
6	IET 29689 (hybrid) HRI-214	6306*/92/LS	52.0/23.87/62/5.0	Promoted to AVT2 ETP
7	IET 29692 (hybrid) UPLRH-162087	6113*/90/LS	51.9/23.84/37/5.0	Promoted to AVT2 ETP
8	IET 28123 (hybrid) IIRRH-130	5789*/97/MS	56.9/26.13/24/4.0	Promoted to AVT2 ETP
9	IET 29691 (hybrid) VNR-228	6074*/91/SB	51.0/21.94/23/7.0	Promoted to AVT2 ETP
10	IET 29690 (hybrid) UPLRH-180842	6467*/94/LB	55.5/23.73/65/4.0	Promoted to AVT2 ETP
11	IET 29696 (hybrid) PAN-2150	6263*/96/LS	50.6/26.13/22/7.0	Promoted to AVT2 ETP
	CO-51 (NC)	4446/88/MS		
	US 314 (HC)	5109/90/MS		
	Zonal check (ZC)	4726/90/LB		
	Local check (LC)	5357/92/LS		
	CD @ 5 %	198		

Bold Italics: GY: Grain Yield; FD: Days to 50% flowering; GT: Grain Type; BC- Best Check
*-denotes significantly superior over best check

Zonal performance of the entries

Northern Zone (Zone II)

The trial was evaluated at seven locations viz., Pantnagar (Uttarakhand), Ludhiana (Punjab), Kaul (Haryana), Chatha (Jammu & Kashmir), Kota (Rajasthan), Nagina (UP), Kanpur (UP), covering Six states of Northern Zone. However, data received from Pantnagar, Kanpur and Nagina, not included in analysis due to low CV or low mean. Experimental mean yield at the locations ranged from 3288 kg/ha (Pantnagar) to 5081 kg/ha (Kota,) and CV% from 4.69 (Nagina) to 16.59 (Kanpur). Zonal mean yield of the entries varied from 4309 kg/ha (IET 29975) to 6317kg/ha (IET 29700); days to 50% flowering ranged from 85 days (IET 29692) to 103 days (IET 29947); plant height ranged from 93 cm (IET 29957 & ZC) to 170cm (IET 29939) and panicles per square meter ranged from 251 (IET 29951) to 328(IET 29694). In Zone II, Local check was the best check followed by Zonal check which yielded 5521 and 5286 kg/ha respectively. The hybrid test entries viz., IET 29700 (6317 kg /ha), IET 29694 (6285 kg/ha), IET 29691 (6249 kg/ha), and IET 29690 (6136 kg/ha) recorded

significantly superior yields over best check (LC-5521 kg/ha) and hybrid check (US314-4672 kg/ha).

Hence hybrid entries namely IET 29700, IET 29694, IET 29691 and IET 29690 are promoted to 3rd year of testing in AVT-2-E TP (Zone II).

Performance of the entries AVT-1- E- TP, Zone II, Kharif 2022

Rank	IET No / Designation / Cross Combination	GY/ FD/ GT/	HRR/AC/GC/ASV	Promotion/shift
1	IET 29700 (hybrid) JKRH-1004	6317*/89/LS	63.7/20.56/51/4.0	Promoted to AVT2 ETP
2	IET 29694 (hybrid) UPLRH-181325	6285*/96/LB	51.8/23.58/69/4.0	Promoted to AVT2 ETP
3	IET 29691 (hybrid) VNR-228	6249*/91/SB	51.0/21.94/23/7.0	Promoted to AVT2 ETP
4	IET 29690 (hybrid) UPLRH-180842	6136*/90/LB	55.5/23.73/65/4.0	Promoted to AVT2 ETP
	CO-51 (NC)	4669/87		
	US 314 (HC)	4672/93		
	Zonal check (ZC) PR 124	***5286/99***		
	Local check (LC)	5521/98		
	CD at 5%	400		

Bold Italics: GY: Grain Yield; FD: Days to 50% flowering; GT: Grain Type; BC- Best Check
*-denotes significantly superior over best check

Eastern Zone (Zone III)

The trial was evaluated at 12 locations viz., Cuttack and, Jeypore (Odisha), Chiplima, Bikramganj, Sabour, Patna (Bihar) and Ranchi (Jharkhand), Chinsurah, Hathwara, Malda, (West Bengal), Masodha, Varanasi (UP) in Eastern Zone, however data from Hathwara, Malda and Masodha are not considered for analysis due to low mean and low/high CV. Experimental mean yield at the locations ranged from 3789 kg/ha (Hathwara) to 7927 kg/ha (Patna - ICAR) and CV% from 3.28 (Malda) to 16.07 (Cuttack). Mean yield of the entries ranged from 3606kg/ha (ZC) to 5993 kg/ha (IET 28960); days to 50% flowering ranged from 85 days (ZC) to 98days (IET 29947); plant height ranged from 85 cm (ZC) to 116 cm (IET 29943) and panicles per square meter ranged from 234 (IET 28952) to 315 (ZC).

Four varietal entries namely IET Nos. 29947(6818 kg/ha), 29958(6246 kg/ha), 29940(6050 kg/ha) and 29939 (6488 kg/ha), and Seven hybrid test entries viz., IET29694(6595 kg/ha), IET29689(6662 kg/ha), IET29692(6429 kg/ha), IET28123(6091 kg/ha), IET 29691 (6001 kg/ha), IET 29690 (6828 kg/ha), and IET 29696 (6313 kg/ha), recorded significantly superior yield performance over the best check(LC-5446 kg/ha) and

Hybrid check(5391 kg/ha).These are promoted to 3rd year of testing in AVT-2-ETP (Zone III).

Performance of the entries AVT-1- E- TP, Zone III, Kharif 2022

Rank	IET No / Designation / Cross Combination	GY/ FD/ GT/	HRR/AC/GC/ASV	Promotion/shift
1	IET 29947 NLR 3684 NLR 34449/NLR 33359	6818*/98/SB	61.8/28.21/60/7.0	Promoted to AVT2 ETP
2	IET 29958 RCPR 82-IR 14L362 IR09L 272/IR09L 337	6246*/93/LB	48.0/24.52/81/3.0#	Dropped due to poor quality
3	IET 29940 CRU-BCKV-22-35(14-N22 / 35-13-4-5-2) N22 / IET 25701	6050*/97/SB	59.4/26.98/41/4.0	Promoted to AVT2 ETP
4	IET 29939 CR 4060-1318-5-2-2-2-1-5-3-4 IET 22729 / Brown gora	6488*/91/LS	55.4/24.12/22/5.0	Promoted to AVT2 ETP
5	IET 29694 (hybrid) UPLRH-181325	6595*/93/LB	51.8/23.58/69/4.0	Promoted to AVT2 ETP
6	IET 29689 (hybrid) HRI-214	6662*/93/LS	52.0/23.87/62/5.0	Promoted to AVT2 ETP
7	IET 29692 (hybrid) UPLRH-162087	6429*/89/LS	51.9/23.84/37/5.0	Promoted to AVT2 ETP
8	IET 28123 (hybrid) IIRRH-130	6091*/96/MS	56.9/26.13/24/4.0	Promoted to AVT2 ETP
9	IET 29691 (hybrid) VNR-228	6001*/89/SB	51.0/21.94/23/7.0	Promoted to AVT2 ETP
10	IET 29690 (hybrid) UPLRH-180842	6828*/94/LB	55.5/23.73/65/4.0	Promoted to AVT2 ETP
11	IET 29696 (hybrid) PAN-2150	6313*/95/LS	50.6/26.13/22/7.0	Promoted to AVT2 ETP
	CO-51 (NC)	4537/89		
	US 314 (HC)	5391/89		
	Zonal check (ZC) Narendra 97	3606/85		
	Local check (LC)	***5446/92***		
	CD at 5%	***332***		

Bold Italics: GY: Grain Yield; FD: Days to 50% flowering; GT: Grain Type; BC- Best Check
*-denotes significantly superior over best check

North Eastern Zone (Zone IV)

The trial was evaluated at 2 locations viz., Wangbal and Lembucherra and the data from both the locations was not considered for analysis due to low CV (0.9) at Wangbal and low Mean 2567 kg/ha at Lembucherra. Hence no conclusions are drawn.

Central Zone (Zone V)

The trial was evaluated at six locations viz., Rewa (MP), Raipur, Bilaspur and Jagadalpur (Chhattisgarh), Sakoli and Sindewahi (Maharashtra) in Central Zone the data from all the centers was considered for analysis. Experimental mean yield at the locations ranged from 4073 kg/ha (Sindewahi) to 7408 kg/ha (Bilaspur) and CV% ranged from 8.60 (Sindewahi) to 16.29 (Rewa). Mean yield of the entries ranged from 4761 kg/ha (IET 29957) to 6831 kg/ha (IET 29696); days to 50% flowering ranged from 90 days (IET 28123 and NC) to 98 days (IETs29940 and 28965); plant height ranged from 95 cm (IET 29957) to 117 cm (IET 29939) and panicles per square meter ranged from 220 (IET 28965) to 277 (CO-51-NC). Three varietal test entries namely IET No. 29940 (6576 kg/ha), IET 29975 (6302 kg/ha), and IET 29939 (6367 kg/ha), and seven hybrid test entries viz,. IET 29694 (6103 kg/ha), IET 29689 (6590 kg/ha), IET 29692 (6577 kg/ha), IET 28123 (6187 kg/ha), IET 29691 (6470 kg/ha), IET 29690 (6464 kg/ha), and IET 29696 (6831 kg/ha), recorded significantly superior yield performance over the respective best check (ZC-5599 kg/ha), and hybrid check (5208 kg/ha) and are promoted to next year of testing (AVT -2).

Performance of the entries AVT-1- E- TP, Zone V, Kharif 2022

Rank	IET No / Designation / Cross Combination	GY/ FD/ GT/	HRR/AC/GC/ASV	Promotion/shift
1	IET 29940 CRU-BCKV-22-35 (14-N22 / 35-13-4-5-2) N22 / IET 25701	6576*/98/SB	59.4/26.98/41/4.0	Promoted to AVT2 ETP
2	IET 29975 KPS 6251 MTU 1010 / Chittimuthyalu	6302*/93/LS	60.2/21.23/55/3.0	Promoted to AVT2 ETP
3	IET 29939 CR 4060-1318-5-2-2-2-1-5-3-4 IET 22729 / Brown gora	6367*/93/LS	55.4/24.14/22/5.0	Promoted to AVT2 ETP
4	IET 29694 (hybrid) UPLRH-181325	6103*/92/LB	51.8/23.58/69/4.0	Promoted to AVT2 ETP
5	IET 29689 (hybrid) HRI-214	6590*/94/LS	52.0/23.87/62/5.0	Promoted to AVT2 ETP
6	IET 29692 (hybrid) UPLRH-162087	6577*/95/LS	51.9/23.84/37/5.0	Promoted to AVT2 ETP
7	IET 28123 (hybrid) IIRRH-130	6187*/96/MS	56.9/26.13/24/4.0	Promoted to AVT2 ETP
8	IET 29691 (hybrid) VNR-228	6470*/94/SB	51.0/21.94/23/7.0	Promoted to AVT2 ETP
9	IET 29690 (hybrid) UPLRH-180842	6464*/96/LB	55.5/23.73/65/4.0	Promoted to AVT2 ETP
10	IET 29696 (hybrid) PAN-2150	6831*/96/LS	50.6/26.13/22/7.0	Promoted to AVT2 ETP
	CO-51 (NC)	4836/90		
	US 314 (HC)	5208/90		
	Zonal check (ZC)- Narendra 97	5599/92		
	Local check (LC)	***5362/91***		
	CD at 5%	***471***		

Bold Italics: GY: Grain Yield; FD: Days to 50% flowering; GT: Grain Type; BC- Best Check
*-denotes significantly superior over best check

Western Zone (Zone VI)

The trial was evaluated at six locations viz., Karjat, Shirgaon, Vadagaon, Radhanagari (Maharashtra), Nawagam, and Vyara (Gujarat). The data from all the centers was considered for analysis. Experimental mean yield at the locations ranged from 4206 kg/ha (Shirgaon) to 7041 Kg/ha (Nawagam) and CV% ranged from 9.6 (Nawagam) to 16.28 (Shirgaon). Mean yield of the entries ranged from 3769kg/ha (NC-CO-51) to 6149 kg/ha (IET 29690); days to 50% flowering ranged from 84 days (IET 29700) to 97 days (IET 29696); plant height ranged from 95 cm (IET 29957) to 122 cm (IET 29939) and panicles per square meter ranged from 194 (IET 29700) to 239(IETs29951 29689 and 29696).Seven hybrid test entries namely IET 29694 (5963 kg/ha), 29689 (6042 kg/ha), IET 28965(5727 kg/ha), IET 28123 (5575 kg/ha), IET 29691 (5670 kg/ha), IET 29690 (6149 kg/ha), and IET 29696 (5883 kg/ha), recorded significantly superior yield performance over the best check (ZC-5159 kg/ha), whereas hybrid check (4880kg/ha)/ zonal check (5159 kg/ha),and local check yielded (5109 kg/ha).Hence the above entries are promoted in this zone to 3rd year of testing.

Performance of the entries AVT-1- E- TP, Zone VI, Kharif 2022

Rank	IET No / Designation / Cross Combination	GY/ FD/ GT/	HRR/AC/GC/ASV	Promotion/shift
1	IET 29694 (hybrid) UPLRH-181325	5963*/94/LB	51.8/23.58/69/4.0	Promoted to AVT2 ETP
2	IET 29689 (hybrid) HRI-214	6042*/92/LS	52.0/23.87/62/5.0	Promoted to AVT2 ETP
3	IET 28965 (hybrid) Pusa RH-60	5727*/93/LS	59.4/20.94/62/4.0	Promoted to AVT2 ETP
4	IET 28123 (hybrid) IIRRH-130	5575*/95/MS	56.9/26.13/24/4.0	Promoted to AVT2 ETP
5	IET 29691 (hybrid) VNR-228	5670*/91/SB	51.0/21.94/23/7.0	Promoted to AVT2 ETP
6	IET 29690 (hybrid) UPLRH-180842	6149*/94/LB	55.5/23.73/65/4.0	Promoted to AVT2 ETP
7	IET 29696 (hybrid) PAN-2150	5883*/97/LS	50.6/26.13/22/7.0	Promoted to AVT2 ETP
	CO-51 (NC)	3769/85		
	US 314 (HC)	4880/90		
	Zonal check (ZC) Narendra 97	5159/90		
	Local check (LC)	***5109/91***		
	CD at 5%	***198***		

Southern Zone (Zone VII)

In Zone VII a total of 29 entries out of which 24 are test entries which includes three NILs along with five checks. The trial was evaluated at thirteen locations viz., Maruteru, Rudrur, Kampasagar, Kunaram, Warangal (AP & TS), Aduthurai and Coimbatore, (TN), Moncompu and Pattambi (Kerala), and Mandya, Brahmavar, Gangavati (Karnataka), Kurumbapet (Puducherry). Data received from Rudrur, Moncompu, Pattambi, Mandya, Brahmavar, and Kurumbapet is not considered due to low / high CV and low mean. Experimental mean yield at the locations ranged from 3638 kg/ha (Rudrur and Mandya) to 8530 Kg/ha (Gangavathi) and CV% ranged from 5.69 (Aduthurai) to 27.09 (Kurumbapet). Mean yield of the entries ranged from 4549 kg/ha (IET 29957) to 6783 kg/ha (IET 29694); 82

days (IET 29700) to 96 days (IETs29949 & 29947); plant height ranged from 114 cm (IET 29700) to 142 cm (IET 29943) and panicles per square meter ranged from 316 (ZC) to 366 (IET 28123). Among the checks zonal check was the top yielder (6079 Kg/ha) followed by local check (5785 Kg/ha), hybrid check (5685 Kg/ha), and then national check (5242 Kg/ha). Two hybrid test entries Viz, IET 29694 (6783 kg/ha) and IET 29696 (6461 kg/ha) recorded significantly superior over all the checks.

Among the three NILs which evaluated along with recurrent parent Varalu two entries having QTLs for leaf blast (BL) viz., IET 30633 (5496 kg/ha), and IET 30634 (5203 kg/ha), exhibited slightly superior or on par with recurrent parent Varalu (5252 kg/ha) however due to their poor quality parameters the lines are dropped for further testing. Among the lines tested for drought tolerance (having drought QTLs) entries IET 30632 and IET 30634 both are recorded significantly superior yield compared to the recurrent parent under drought conditions.

Performance of the entries AVT-1- E- TP, Zone VII, Kharif 2022

Rank	IET No / Designation / Cross Combination	GY/ FD/ GT/	HRR/AC/GC/ASV	Disease score (SI)/RP	Promotion/shift
1	IET 29694 (hybrid) UPLRH-181325	6783*/90/LB	51.8/23.58/69/4.0	-	Promoted to AVT2 ETP
2	IET 29696 (hybrid) PAN-2150	6461*/95/LS	50.6/26.13/22/7.0	-	Promoted to AVT2 ETP
4	IET 30632 RP 6613-MSM -65/ Bio- 36-4-15Varalu*3 / Vandana NIL (contains qyld 12.1) / Samba Mahsuri NIL (Contains Pi 1+ Pi 54)	4666/87/LS	34.4/24.2/24/7.0	**4.9/5.3**	**Dropped due to poor quality parameters (HRR)** # With respect to drought resistance Significant yield superiority over recurrent parent.
5	IET 30633 (NIL entry) RP6 6613-MSM-66-Bio-88-4-15 Varalu*3 / Vandana NIL (contains Pi1+ Pi54) (also qyld)	5496/85/LB	35.4/24.93/39/7.0	**5.0/5.3**	**Dropped due to poor quality parameters (HRR)** Dropped due to moderate resistance (4.8 /5.0) with SI score of 5.3 similar to RP
6	IET 30634 (NIL entry) RP 6612-MSM-63-Bio-62-4-15. Varalu*3 / Vandana NIL (contains qyld)	5203/84/LB	38.3/27.07/32/7.0	**5.0/5.3**	**Dropped due to poor quality parameters (HRR)** # With respect to drought resistance Significant yield superiority over recurrent parent.
	CO-51 (NC)	5242/86			
	US 314 (HC)	5685/85			
	Zonal check (ZC) PR 124	***6079/91***			
	Local check (LC)	5785/88			
	Varalu (RP)	5252/89		**5.3**	
	CD at 5%	337			

List of entries that are promoted from AVT-1 to AVT-2

On overall mean	**:**	**IETs 29947, 29940, 29939, 29694, 29689, 29692, 28123, 29691, 29690 and 29696.**
Zone-II	**:**	**IETs 29700, 29694, 29691 and 29690**
Zone-III	**:**	**IETs 29947, 29940, 29939, 29694, 29689, 29692, 28123, 29691, 29690 and 29696.**
Zone V	**:**	**IETs 29940, 29975, 29939, 29694, 29689, 29692, 28123, 29691, 29690 and 29696**
Zone VI	**:**	**IETs 29694, 29689, 28965, 28123, 29691, 29690 and 29696**
Zone VII	**:**	**IETs 29694 and 29696**

.

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

Locations: 51 **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:1.9**

Initial variety trial - Early Transplanted (IVT- ETP) was constituted with 64 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 51 locations however data was not received from 14 locations namely Kanpur, Hazaribagh, Titabar, Arundhutinagar, Bilaspur, Shirgaon, Radhanagari, Dabhoi, Kunaram, Jagtial, Aduthurai, Mugad, Brahmavar and Kurumbapet. Data from thirteen centers was excluded from analysis viz., Pantnagar, Ludhiana, ICAR- NRRI Cuttack, Patna-ICAR, Ranchi, Hathwara, Malda, Masodha, Rewa, Raipur, Rudrur, Pattambi and Mandya due to either low (<5%) / high CV (20%) or low experimental yield (<4000kg/ha).

Among the centres from which data was included in the analysis, location-wise mean grain yield ranged from 4182 kg/ha (Sakoli, Maharashtra) to 7420 kg/ha (Warangal-Telangana) while CV ranged from 5.52% (Bihar) to 18.47% (Jagadalpur). Overall mean grain yield of the entries ranged from 4406 kg/ha (IET 30666) to 6329 kg/ha (IET 30692); days to

50% flowering from 82 days (IET 30666) to 102 days (IET 30667, 30654 and 30692); plant height ranged from 87cm (IET 30665) to 114cm (IET 30674); number of panicles per sq. m ranged from 259 (IET 30663) to 314 (IET 30650).

Performance of the entries on overall mean basis

Among the varietal checks, local check was the highest yielder (5427 Kg/ha) followed by National check (4964kg/ha) and Zonal check (4923 Kg/ha). The data pertaining to yield, days to 50% flowering, plant height and panicles/m^2 are presented in tables 1.10 and 1.11 respectively. The Overall mean grain yield of the entries ranged from 4406 kg/ha (IET 30666) to 6329 kg/ha (IET 30692). Based on the overall performances the entries IETs 30692, 30657, 30642, 30641, 30656, 30669, 30636, 30690, 30689 30679, 30680, 30639, 30638 and 30674 were yielded significantly superior compared to best check (LC). Hence these entries were promoted for All India coordinated trial for 2nd year.

The performance of the top 14 entries in overall mean is tabulated and described in detail as below

Overall performance of the entries based on yield in Initial variety trial - Early Transplanted (IVT- E- TP) Kharif 2022

Rank	IET No/ Designation/ Cross Combination	GY	DFF	GT	Promotion / shift
1	IET 30692 NDR 8806-TFR-3 (MTU 1010/Bauni Pusa Basmati Mutant)	6329	102	LS	Shift to IVT -IM
2	IET 30657 WGL 1720 (MTU 1081/R 1556-25-77)	6299	88	LS	Promoted to AVT1 ETP
3	IET 30642 KNM 12509 (KNM 118/ IR 72//MTU 1156)	6226	90	LS	Promoted to AVT1 ETP
4	IET 30641 RNR 35105 (JGL 24423/MTU 1156)	6201	9 1	LS	Promoted to AVT1 ETP
5	IET 30656 IIABR-9/IIAB-54/IR 16A3098 (PR 36921-B-6-1-3-4/IRRI 154//IR09A228)	6082	92	LS	Promoted to AVT1 ETP
6	IET 30669 WGL 1719 (MTU 1081/R 1556-25-77)	6050	89	LS	Promoted to IVT1 ETP
7	IET 30636 JGL 28639 (MTU 1010/NLR 34449)	5844	94	LS	Shift to IVT -IME
8	IET 30690 RNR 35109 (JGL 24423/MTU 1156)	5818	91	LS	Promoted to AVT1 ETP
9	IET 30689 NVSR 750 (NVSR 303-06/GNR -3)	5797	94	LB	Shift to IVT -IME
10	IET 30679 HURS 19-9-IR 128773-4-3-1-4-B (IR 69428-6-1-1-3-3/ Rajendra Mahsuri 1)	5790	91	LS	Promoted to AVT1 ETP
11	IET 30638 CR4401-1-7-IR117834-10-1 RGA-1 RGA-1 RGA-1 (IR 84984-83-15-18-B-B-93/3*Anjali//IR 81896-B-B-195-2/3* Anjali)	5767	89	LS	Promoted to AVT1 ETP

Rank	IET No/ Designation/ Cross Combination	GY	DFF	GT	Promotion / shift
12	IET 30680 UPR 4304-12-1-1-1 (UPR 4202/ UPR 4192)	5730	96	LS	Shift to AVT-IME
13	IET 30639 CSR AP 10 (IRRI134/IR70479-45-2-3//IR 64680-81-2-2-1-3)	5724	95	-	Shift to AVT -IME
14	IET 30674 RCPR 95-IR97046-39-2-1-2 (IR09L272/IR10L165)	5686	91	LS	Promoted to AVT1 ETP
	CO-51 (NC)	**4964**	83		
	Zonal check (ZC)	4923	89		
	Local check (LC)	5427	91		
	CD	**247**			

Bold Italics: Best check & over the best check; NC- National Check; ZC- Zonal Check; LC- Local Check; GY: Grain Yield; FD: Days to 50% flowering; GT: Grain Type; BC- Best Check

Zonal performance of the entries

Northern Zone (Zone II)

The trial was evaluated at five locations viz., Pantnagar (Uttarakhand), Ludhiana (Punjab), Kaul (Haryana) and Kota (Rajasthan) and Nagina (Uttar Pradesh) covering five states of Northern Zone. The data received from Pantnagar and Ludhiana were not included in analysis due to high CV% values. Experimental mean yield at the locations ranged from 5027 kg/ha (Kaul) to 5962 kg/ha (Kota, Rajasthan) and CV% from 6.74% (Nagina) to 8.35% (Kaul). Zonal mean yield of the entries varied from 4078 kg/ha (IET 30668) to 7296kg/ha (IET 30656); days to 50% flowering ranged from 82 days (CO 51 (NC), IET 30682) to 104 days (IETs30692, 30649); plant height ranged from 78 cm (IET 30658) to 118 cm (IET 30694) and panicles per square meter ranged from 212 (IET 30661) to 304 (IET 30641). In Zone II, Zonal check was the high yielder followed by local check, which yielded 5813 and 5359 kg/ha respectively.

In Zone II, entries namely IET 30656 (7296 kg/ha), IET 30639 (7144 kg/ha), IET 30642 (6850 kg/ha), IET 30679 (6587 kg/ha), IET 30660 (6575 kg/ha), IET 30657 (6535 kg/ha), IET 30641 (6387 kg/ha), IET 30674 (6372 kg/ha), IET 30673 (6318 kg/ha) were recorded significantly superior yield performance and these entries were promoted for 2nd year of testing in AVT 1- ETP (Zone II).

Performance of the entries IVT- E- TP, Zone II, Kharif 2022

Rank	IET No/ Designation/ Cross Combination	GY	FD	GT	REMARKS
1	IET 30656 IIABR-9/IIAB-54/IR 16A3098 (PR36921-B-6-1-3-4/IRRI154//IR09A228)	7296	92	LS	Promoted to AVT1 ETP
2	IET 30639 CSR AP10 (IRRI 134/ IR 70479-45-2-3//IR 64680-81-2-2-1-3)	7144	96	-	Shift to IVT -IME
3	IET30642 KNM 12509 (KNM 118/ IR 72//MTU 1156)	6850	93	LS	Shift to IVT -IME
4	IET 30679 HURS 19-9-IR 128773-4-3-1-4-B (IR 69428-6-1-1-3-3/ Rajendra Mahsuri 1)	6587	90	LS	Promoted to AVT1 ETP
5	IET 30660 KNM 13557 MTU 1156/WGL1097//MUT NS1	6575	88	LS	Promoted to AVT1 ETP
6	IET 30657 WGL 1720 (MTU 1081/R 1556-25-77)	6535	89	LS	Promoted to AVT1 ETP
7	IET 30641 RNR 35105 (JGL 24423/MTU 1156)	6387	90	LS	Promoted to AVT1 ETP
8	IET 30674 RCPR 95-IR 97046-39-2-1-2 (IR09L272/IR10L165)	6372	86	LS	Promoted to AVT1 ETP
9	IET 30673 HKR 18-32 (HKR 48/HKR 47)	6318	89	LS	Promoted to AVT1 ETP
	CO-51 (NC)	4461	82		
	Zonal check (ZC)	5813	94		
	Local check (LC)	5359	94		
	CD	500			

Eastern Zone (Zone III)

The trial was evaluated at 13 locations viz., Cuttack, Jeypore and Chiplima (Odisha), Bikramganj, Sabour, Patna (Bihar); Ranchi, Hazaribagh (Jharkhand), Chinsurah, Hathwara, Malda (West Bengal), Masodha, Varanasi (UP) in Eastern Zone. Data from Cuttack, Patna, Hathwara, Masodha, Ranchi, and Malda was not considered for analysis due to low/high CV%. Experimental mean yield at the locations ranged from 4227 kg/ha (Jeypore) to 6310 kg/ha (Bikaramganj) and CV% from 7.82 (Sabour) to 15.38 (Chiplima). Mean yield of the entries ranged from 3399 kg/ha (Zonal check) to 6078 kg/ha (IET 30657); days to 50% flowering ranged from 83 days (IET 30640, 30666) to 100 days (IET 30654, 30667); plant height ranged from 84 cm (Zonal check) to 110 cm (IET 30684) and panicles per square meter ranged from 251 (IET 30637) to 347(IET 30639).

In zone III, entries namely IET 30657 (6078kg/ha), IET 30641 (5996 kg/ha), IET 30662 (5933 kg/ha), IET 30685 (5883 kg/ha), IET 30651 (5779 kg/ha), IET 30692 (5762 kg/ha), IET 30638 (5722 kg/ha) and IET 30652 (5683 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 IVT- E- TP, Zone III, Kharif 2022

Rank	IET No/ Designation/ Cross Combination	GY	FD	GT	REMARKS
1	IET 30657 WGL 1720 (MTU 1081/R 1556-25-77)	6078	90	LS	Promoted to AVT1 ETP
2	IET 30641 RNR 35105 (JGL 24423/MTU 1156)	5996	93	LS	Promoted to AVT1 ETP
3	IET 30662 BRR 0156 (MTU 1010/ IRMT 4344)	5933	92	LS	Promoted to AVT1 ETP
4	IET 30685 NWGR-16034 (GUJRAT/IET 19850/ 37-2-1-1-1-1-1)	5883	97	LB	Shift to IVT-IME
5	IET 30651 RCPR 94-IR97030-7-2-2-2 (IR09L337/IR10L178)	5779	90	LS	Promoted to AVT1 ETP
6	IET 30692 NDR 8806-TFR-3 (MTU 1010/Bauni Pusa Basmati Mutant)	5762	99	LS	Shift to IVT-IME
7	IET 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)	5722	93	LS	Shift to IVT-IME
8	IET 30652 RP 6166-47-1-23 (MTU 1010 /*O. rufipogon*)	5683	94	MS	Shift to IVT-IME
	CO-51 (NC)	4706	87		
	Zonal check (ZC)	3399	84		
	Local check (LC)	5144	90		
	CD	497			

North Eastern Zone (Zone IV)

The trial was evaluated at 3 locations viz., Titabar, Arundhutinagar and Lembucherra and the data from Titabar, and Arundhutinagar was not received thus these locations not included for analysis. Experimental mean yield at the Lembucherra location was 6921 kg/ha and CV% is 6.55. Mean yield of the entries ranged from 3744 kg/ha (IET 30666) to 9529 kg/ha (IET 30692); days to 50% flowering ranged from 69 days (IET 30645&30668) to 99 days (IET 30650); plant height ranged from 72 cm (IET 30666) to 124 cm (IET 30674) and panicles per square meter ranged from 150 (IET 30669) to 450 (IET 30671). In Zone IV, a total of 41 entries viz., IETs30692, 30691, 30686, 30677, 30659, 30679, 30645, 30684, 30636, 30637, 30635, 30640, 30642, 30643, 30644, 30646, 30647, 30649, 30653, 30656, 30657, 30658, 30660, 30661, 30667, 30668, 30669, 30671, 30672, 30673, 30674, 30676, 30680, 30681, 30683, 30685, 30687, 30688, 30689, 30690, 30694 recorded significantly

superior yield compared to best varietal check (CO-51) and these entries were promoted for 2nd year of testing in AVT-1-ETP (Zone IV).

Performance of top twelve entries IVT- E- TP, Zone IV, Kharif 2022

Rank	IET No/ Designation/ Cross Combination	GY	FD	GT	REMARKS
1	IET 30692 NDR 8806-TFR-3 (MTU 1010/Bauni Pusa Basmati Mutant)	9529	94	LS	Shift to IVT-IME
2	IET 30691 RP 6420-C10-269-12 (MTU 1010/ Tualsi)	9095	86	MS	Promoted to AVT1 ETP
3	IET 30686 IIABR-10/IIAB-309/IR 13T144 (AT 401/3*IR04A285)	9092	86	LS	Promoted to AVT1 ETP
4	IET 30677 CR 4386-RGA-134 (CR Dhan 202/SR-36-2-1)	8945	89	MS	Promoted to AVT1 ETP
5	IET 30659 ORJ 1345(TP 30531) (IURON 43 ENT.02)	8853	89	MS	Promoted to AVT1 ETP
5	IET 30679 HURS 19-9-IR 128773-4-3-1-4-B (IR 69428-6-1-1-3-3/ Rajendra MahsurI 1)	8853	79	LS	Promoted to AVT1 ETP
7	IET 30645 RP6468-JB 396-9-7-2-1-1-1 (Krishna Hamsa/ IRBB60//Krishna Hamsa / IR96321-1447-561-B-1/// Krishna Hamsa / IR81896-96-B-B-195// Krishna Hamsa/ Tetep.	8779	69	LS	Promoted to AVT1 ETP
8	IET 30684 CR 3842-62-5-1-1-1 (Gontra Bidhan/CR Dhan 203)	8603	82	MS	Promoted to AVT1 ETP
9	IET 30636 JGL 28639 (MTU 1010/NLR 34449)	8593	79	LS	Promoted to AVT1 ETP
10	IET 30637 CR 4075-1341-3-3-2-2-1-4-3 (Jaya/PKV HMT)	8482	86	MS	Promoted to AVT1 ETP
11	IET 30658 AD (BIO) 13060 MTU 1081 / R 1556-25-77	8329	74	MS	Promoted to AVT1 ETP
12	IET 30687	8080	88	MB	Promoted to AVT1 ETP
	CO-51 (NC)	5283	84		
	Zonal check (ZC)	5515	81		
	Local check (LC)	4589	86		
	CD	**907**			

Central Zone (Zone V)

The trial was evaluated at six locations viz., Rewa (MP), Raipur, Bilaspur and Jagadalpur (Chhattisgarh), Sakoli and Sindewahi (Maharashtra) in Central Zone the data from Bilaspur was not received. The data obtained from Rewa and Raipur station was not included

in analysis. Experimental mean yield at the locations ranged from 4182 (Sakoli) to 5020 kg/ha (Jagdalpur) and CV% ranged from 11.11 (Sindewahi) to 18.47 (Jagdalpur). Mean yield of the entries ranged from 2990 kg/ha (IET 30649) to 5653 kg/ha (IET 30660); days to 50% flowering ranged from 81days (IET 30665) to 106 days (IET 30649); plant height ranged from 86 cm (IET 30658) to 118 cm (IET 30678) and panicles per square meter ranged from 209 (IET 30680) to 332 (IET 30648). In Zone V none of the entries recorded superior yield performance, hence not promoted to next year in zone V.

Western Zone (Zone VI)

The trial was evaluated at seven locations viz., Karjat, Shirgaon, Vadagaon, Radhanagari (Maharashtra), Nawagam, Dabhoi and Vyara (Gujarat). The experimental data was not received from Shirgaon, Dabhoi and Radhanagari were not considered for analysis. Experimental mean yield at the locations ranged from 4230 kg/ha (Vyara) to 5362 Kg/ha (Nawagam) and CV% ranged from 10.08 (Karjat) to 15.16 (Nawagam). Mean yield of the entries ranged from 3906 kg/ha (IET30661) to 5875 kg/ha (IET 30692); days to 50% flowering ranged from 75 days (IET 30666) to 107 days (IET 30692); plant height ranged from 88 cm (IET 30658) to 119 cm (IET 30694) and panicles per square meter ranged from 201 (IET 30663) to 267 (IET 30644). In zone VI, IET 30692 was recorded significantly superior yield performance hence promoted to AVT-I ETP in this Zone.

Performance of the entries IVT- E- TP, Zone VI, Kharif 2022

Rank	IET No/ Designation/ Cross Combination	GY	FD	GT	Remarks
1	IET 30692 NDR8806-TFR-3 (MTU 1010/Bauni Pusa Basmati Mutant)	5875	107	LS	Shift to IVT-IM
	CO-51 (NC)	4211	76		
	Zonal check (ZC)	5141	87		
	Local check (LC)	4693	90		
	CD	713			

Southern Zone (Zone VII)

The trial was evaluated at 15locations viz., Maruteru, Rudrur, Kampasagar, Kunaram, Warangal, Jagtial (Telangana), Aduthurai, Coimbatore, (TN), Moncompu and Pattambi (Kerala), and Mandya, Mugad, Brahmavar, Gangavati (Karnataka), Kurumbapet (Puducherry). The experimental data was not obtained from Kunaram, Jagtial, Aduthurai, Mugad, Brahmavar and Kurumbapet and data obtained from Rudrur, Pattambi, Mandya reported very low or high CV% or experimental mean yield hence these locations were not included in analysis. Experimental mean yield at the locations ranged from 4434 kg/ha (Moncompu) to 7420Kg/ha (Warangal) and CV% ranged from 6.25 (Coimbatore) to 18.1 (Moncompu). Mean yield of the entries ranged from 4923 kg/ha (IET zonal check) to 6329 kg/ha (IET 30692); 82 days (IET 30666) to 102 days (IET 30667); plant height ranged from 84 cm (IET 30665) to 118 cm (IET 30684) and panicles per square meter ranged from 296 (IET 30659) to 400 (IET 30650). Among the checks local check was the top yielder (6620 Kg/ha) followed by national check (6298 Kg/ha) and zonal check (6100 Kg/ha).

In Zone VII the entries, IETs 30692, 30642, 30641, 30690, 30669, and 30636were recorded significantly superior yields hence these entries are promoted in this Zone to AVT-ETP.

Performance of the entries IVT- E- TP, Zone VII, Kharif 2022

Rank	IET No/ Designation/ Cross Combination	GY	FD	GT	REMARKS
1	IET 30692 NDR8806-TFR-3 (MTU 1010/Bauni Pusa Basmati Mutant)	7702	100	LS	Shift to IVT-IME
2	IET 30642 KNM 12509 (KNM 118/ IR 72//MTU 1156)	7562	91	LS	Promoted to AVT1 ETP
3	IET 30641 RNR 35105 (JGL 24423/MTU 1156)	7396	91	LS	Promoted to AVT1 ETP
4	IET 30690 RNR 35109 (JGL 24423/MTU 1156)	7348	90	LS	Promoted to AVT1 ETP
5	IET 30669 WGL 1719 (MTU 1081/ R 1556-25-77)	7326	89	LS	Promoted to AVT1 ETP
6	IET 30636 JGL 28639 (MTU 1010/NLR 34449)	7218	93	LS	Shift to IVT-IME
7	IET 30657 WGL 1720 (MTU 1981 / R 1556-25-77)	7113	88	LS	Promoted to AVT1 ETP
8	IET 30684 CR-3842-62-5-1-1-1 Gontra Bidhan / CR Dhan 203	7083	101	MS	Shift to IVT-IM
9	IET 30656 IIABR-9 / IIAB-54 / IR 16A3098 PR 36921-B-6-1-3-4 / IRR I 154// IR09A228	6933	94	LS	Shift to IVT-IME
	CO-51 (NC)	6298	83		
	Zonal check (ZC)	6100	92		
	Local check (LC)	6620	92		
	CD	502			

<u>List of the entries promoted in IVT-E TP</u>

Overall : IET Nos. 30657, 30642, 30641, 30656, 30669, 30690, 30679, 30638 and 30674.

Zone II : IET Nos. 30656, 30679, 30660, 30657, 30641, 30674 and 30673.

Zone III : IET Nos. 30657, 30641, 30662, 30651.

Zone IV : IET Nos. 30691, 30686, 30677, 30659, 30679, 30645, 30684, 30636, 30637, 30635, 30640, 30642, 30643, 30644, 30646, 30647, 30653, 30656, 30657, 30658, 30660, 30661, 30668, 30669, 30671, 30673, 30674, 30676, 30680, 30681, 30683, 30685, 30687, 30688, 30689, 30690 and 30694.

Zone V : None

Zone VII : IET Nos. 30642, 30641, 30690 and 30669

Depending on the durations, the following entries can be shifted to IVT-IME& IM

On Overall basis IETs 30692, 30636, 30689, 30639, 30680
Zone II IETs 30639, 30642
Zone III IETs 30685, 30638, 30652 and 30692.
Zone IV IET 30692, 30649, 30667 and 30672.
Zone VI IET 30692.
Zone VII IETs 30692, 30636, 30684 and 30656.

Table No. 1.1: Composition of entries in Advance Variety Trial 2–Early Transplanted (AVT 2E-TP), Kharif 2022

Entry No.	IET No.	Designation	Cross Combination	GT
3rd year of testing:				
3401	29142	JGL 35085	(JGL 20171 / NLR 34449) / JGL 20171	LB
3402	29140	BRR 2176	IR 97443-11-2-1-1-1-1-B / HUR- 1304	MS
3403	29177	ORJ 1317 (RP 5530-23-1)	RP Bio 226 / IRGC 48960 // MTU 1081	LS
3404	**CO-51 (NC)**			
3405	29197	ORJ 1349 (TP 30457)	IR 09L272 / IR 10L105	LS
3406	28954	***KAVERI-7299 (Hybrid)***	-	LB
3407	28964	***VNR-227 (Hybrid)***	-	LB
3408	**PR 124-Northern, Narendra 97-Eastern, Luit -North Eastern, Sahbhagidhan-Central & Western, MTU 1153-Southern-- ZC**			
3409	28950	***HRI-207 (Hybrid)***	-	SB
3410	28960	***RRX-848 (Hybrid)***	-	LS
3411	**US 314 (HC)**			
3412	28959	***PHI-20101 (Hybrid)***	-	LS
3413	**Local Check (LC)**			

Table No. 1.2: Grain Yield (kg/ha) in AVT 2 – E TP, Kharif 2022

ENTRY NO	IET NO	ZONE II - NORTHERN																							
		PUNJAB (1)				HARYANA (1)				JAMMU_KASHMIR (1)				RAJASTHAN (1)				UTTAR_PRADESH 1(1)				ZONE II (5)			
		Ludhiana				Kaul				CHATHA				KOTA				NAGINA				Mean			
3401	29142	5098	10			7065	6	7% #	13%	4142	8			6301	3 *	26% #	39%	5442	2	26%		5610	6	#	
3402	29140	5749	8	#	11%	5292				4133	9			5687	6	14% #	25%	5292	3	23%		5231	8		
3403	29177	3185				5837				4000				6465	2 *	29% #	42%	4495	7			4796			
3404	CO-51 (NC)	4251				5074				3911				4487				2842				4113			
3405	29197	3726				6165	10			4789	4	12%		5265	8	5%	16%	2818				4553			
3406	28954	7733	3	#	50%	8101	1 *	22% #	29%	4084				5783	5 *	16% #	27%	6339	1 *	47%	20%	6408	1 *	14% #	25%
3407	28964	6491	6	#	26%	7720	3 *	16% #	23%	4922	1	#	15%	4978	10			3342				5491	7		
3408	Zonal Check (ZC)	5802	7			6628	7			4133	9			4951				3718	10			5046	10		
3409	28950	7960	1	#	54%	7801	2 *	18% #	24%	4171	7			6151	4 *	23% #	35%	4359	8			6088	2 *	8% #	19%
3410	28960	7464	5	#	45%	7583	4 *	14% #	21%	4893	2	#	14%	5496	7	10% #	21%	5000	5	16%		6087	3 *	8% #	19%
3411	US 314 (HC)	5160	9			6274	8			4291	5			4542				5278	4	22%		5109	9		
3412	28959	7466	4	#	45%	7092	5	7% #	13%	4196	6			6588	1 *	32% #	45%	4926	6	14%		6054	4 *	8% #	18%
3413	Local Check (LC)	7738	2			6247	9			4851	3			5005	9			4310	9			5630	5		
Exp. Mean		**5986**				**6683**				**4348**				**5515**				**4474**				**5401**			
CD		569				633				518				760				1371				402			
CV%		**5.64**				**5.62**				**7.06**				**8.18**				**18.19**				**4.41**			
D/S		04-06-2022				06-06-2022				01-06-2022				29-06-2022				19-06-2022							
D/P		02-07-2022				05-07-2022				25-07-2022				27-07-2022				17-07-2022							
Local Check Name		PR 126				HKR-48				SJR-5				Pratap -1				NDR 97							

***Superior to best check; #Superior to hybrid check**

Table No.1.2 (Contd): Grain Yield (kg/ha) in AVT 2 – E TP Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN																	
		ODISHA						ODISHA (3)						BIHAR					
		ICAR-NRRI (Cuttack)		JEYPORE		CHIPLIMA		Mean						BIKRAMGANJ (Dhangain)		Sabour			
3401	29142	5953	1	7087	6	5319	7	6120	5	10% #	20%	6455	9	5406	7				
3402	29140	4340		3200		6236	5	4592				8562	1	4237	9				
3403	29177	5273	3	7851	4	5552	6	6225	4 *	11% #	22%	6461	8	5734	5				
3404	CO-51 (NC)	4913	4	6948	8	3951		5271	9			6394	10	3371					
3405	29197	4520	9	3353		3435		3769				6163		4124	10				
3406	28954	3720		6512	9	7979	1	6070	6	9% #	19%	7690	6	4916	8				
3407	28964	4780	6	8475	2	4433	10	5896	7	6% #	15%	8230	3	6478	2				
3408	Zonal Check (ZC)	2473		2425		5122	9	3340				6730	7	3389					
3409	28950	4887	5	8408	3	6505	4	6600	3 *	18% #	29%	7863	5	6176	3				
3410	28960	4707	7	7641	5	7943	2	6764	2 *	21% #	32%	7891	4	6145	4				
3411	US 314 (HC)	4707	7	6380	10	4245		5111	10			5435		3829					
3412	28959	5367	2	9338	1	7447	3	7384	1 *	32% #	44%	8434	2	6757	1				
3413	Local Check (LC)	4420	10	7018	7	5319	7	5586	8			5585		5619	6				
Exp. Mean		**4620**		**6511**		**5653**		**5594**				**7069**		**5091**					
CD		1106		1270		1120		537				1110		940					
CV%		**14.20**		**11.58**		**11.76**		**5.70**				**9.32**		**10.96**					
D/S		20-07-2022		06-07-2022		13-07-2022						28-06-2022		02-07-2022					
D/P		24-08-2022		05-08-2022		12-08-2022						25-07-2022		23-07-2022					
Local Check Name		MTU 1010		Mandakini		Mandakini						R.Bhagwati		Sabour Harshit Dhan					

Table No. 1.2 (Contd): Grain Yield (kg/ha) in AVT 2 – E TP Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN																			
		BIHAR		BIHAR (3)					JHARKHAND (1)					WEST_BENGAL				WEST_BENGAL (2)			
		Patna-ICAR		Mean					RANCHI					CHINSURAH		Hathwara		Mean			
3401	29142	8705	7	6855	8 *	16% #	14%		3838					5439	10	5267	2	5353	6 *	15%	
3402	29140	8232	10	7010	6 *	19% #	17%		5109	6 *	27%	19%		5526	9	4048	7	4787	8		
3403	29177	8391	9	6862	7 *	16% #	14%		4131	9				5702	8	3571	9	4637			
3404	CO-51 (NC)	7909		5891					4033	10				5205		4083	6	4644	10		
3405	29197	8513	8	6267	9	6%			4473	7	11%			6170	7	3186		4678	9		
3406	28954	9153	5	7253	5 *	23% #	21%		5476	4 *	36% #	28%		6257	6	4696	3	5477	5 *	18%	
3407	28964	10307	2	8338	2 *	41% #	39%		5696	3 *	41% #	33%		6988	4	3101		5045	7	9%	
3408	Zonal Check (ZC)	7207		5775					3862					4240		3235		3738			
3409	28950	10081	4	8040	4 *	36% #	34%		5940	2 *	47% #	39%		7515	2	4352	5	5934	2 *	28%	
3410	28960	10227	3	8088	3 *	37% #	35%		6062	1 *	50% #	42%		6725	5	4380	4	5553	4 *	20%	
3411	US 314 (HC)	8761	6	6008	10				4278	8				7485	3	3917	8	5701	3		
3412	28959	10409	1	8533	1 *	44% #	42%		5378	5 *	33% #	26%		7544	1	5510	1	6527	1 *	41% #	14%
3413	Local Check (LC)	6540		5915					3936					5351		3376	10	4364			
Exp. Mean		**8803**		**6987**					**4785**					**6165**		**4056**		**5110**			
CD		798		611					1007					1364		565		662			
CV%		**5.38**		**5.19**					**12.49**					**13.13**		**8.26**		**7.69**			
D/S		08-07-2022							20-06-2022					25-06-2022		16-07-2022					
D/P		04-08-2022							28-07-2022					26-07-2022		28-08-2022					
Local Check Name		Sahbhagi Dhan							BVD-110					Ajit		Sahbhagidhan					

Table No. 1.2 (Contd): Grain Yield (kg/ha) in AVT 2 – E TP Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN												ZONE-V – CENTRAL					
		UTTAR_PRADESH2 (1)			UTTAR_PRADESH (2)			Zone III (10)						MADHYA_PRADESH (1)				CHHATTISGARH	
		VARANASI			Mean			Mean						REWA				RAIPUR	
3401	29142	5325	5	# 79%	5384	5	# 30%	5879	6 *	8% #	13%	8941	4 *	17%	16%	5673	4
3402	29140	5128	8	# 72%	5210	7	# 26%	5462	9			7962	6			4363	10
3403	29177	5996	4	# 102%	5246	6	# 27%	5866	7 *	7% #	13%	6748				5814	3
3404	CO-51 (NC)	658			1750			4747				7119	10			5239	5
3405	29197	5179	6	# 74%	3999	9		4912				7051				3838	
3406	28954	5145	7	# 73%	5742	4	# 39%	6154	4 *	13% #	18%	7726	7			4575	9
3407	28964	2915	10		3129			6140	5 *	12% #	18%	8030	5			4987	8
3408	Zonal Check (ZC)	1419			2569			4010				6444				4120	
3409	28950	2688			3524	10		6442	3 *	18% #	24%	9211	2 *	20% #	19%	6603	1
3410	28960	7361	2	# 148%	6181	1	# 50%	6908	2 *	26% #	33%	9548	1 *	25% #	24%	6072	2
3411	US 314 (HC)	2974	9		4126	8		5201	10			7726	7			5229	6
3412	28959	7175	3	# 141%	6051	2	#47%	7336	1 *	34% #	41%	9076	3 *	19% #	17%	5203	7
3413	Local Check (LC)	7511	1		5911	3		5468	8			7659	9			2526	
Exp. Mean		**4575**			**4524**			**5733**				**7941**				**4942**	
CD		802			904			321				1232				1286	
CV%		**10.41**			**11.85**			**3.33**				**9.21**				**15.44**	
D/S		03-06-2022										30-06-2022				30-06-2022	
D/P		25-06-2022										13-08-2022				21-07-2022	
Local Check Name		HUR-3022										MTU1010				Indira Aerobic 1	

Table No. 1.2 (Contd): Grain Yield (kg/ha) in AVT 2 – E TP Kharif 2022

ENTRY NO	IET NO	ZONE-V – CENTRAL																			
		CHHATTISGARH				CHHATTISGARH (3)				MAHARASHTRA 1				MAHARASHTRA 1 (2)				Zone V (6)			
		JAGADALPUR		Bilaspur		Mean				SAKOLI		Sindewahi		Mean				Mean			
3401	29142	6786	8	6345	9	6268	6	8%		3846	10	4059	9	3953	10			5942	5	7%	
3402	29140	4936		6915	7	5405				4785	4	3354		4070	8			5386			
3403	29177	7318	5	7865	4	6999	4 *	20% #	14%	3696		4394	5	4045	9			5973	4	8%	
3404	CO-51 (NC)	5291		6140		5557	10			5169	2	4312	6	4741	2			5545	9		
3405	29197	5625	10	6228	10	5230				2861		4423	4	3642				5004			
3406	28954	6926	7	6696	8	6066	8			4719	5	4566	3	4643	4			5868	6	6%	
3407	28964	7499	4	7442	6	6643	5 *	14%		3178		3916		3547				5842	7	5%	
3408	Zonal Check (ZC)	5848	9	7506	5	5825	9			4910	3	3631		4271	7			5410	10		
3409	28950	7919	1	7997	3	7506	2 *	29% #	23%	5306	1	4755	2	5031	1	6% #	13%	6965	1 *	26% #	19%
3410	28960	7906	3	8801	1	7593	1 *	30% #	24%	3942	9	3928	10	3935				6700	2 *	21% #	15%
3411	US 314 (HC)	7051	6	6082		6121	7	5%		4700	6	4234	8	4467	5			5837	8	5%	
3412	28959	7918	2	8480	2	7200	3 *	24% #	18%	4460	8	4886	1	4673	3			6671	3 *	20% #	14%
3413	Local Check (LC)	5580		5731		4612				4514	7	4272	7	4393	6			5047			
Exp. Mean		**6662**		**7094**		**6233**				**4314**		**4210**		**4262**				**5861**			
CD		1041		1062		661				742		615		446				472			
CV%		**9.27**		**8.88**		**6.29**				**10.20**		**8.66**		**6.21**				**4.78**			
D/S		16-06-2022		12-06-2022						02-07-2022		27-06-2022									
D/P		08-07-2022		03-07-2022						04-08-2022		27-07-2022									
Local Check Name		Samleshwari		Chandrahasini						SKL-6		Sindewahi-1									

Table No. 1.2 (Contd): Grain Yield (kg/ha) in AVT 2 – E TP Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN																	
		MAHARASHTRA 2										MAHARASHTRA 2 (4)						MAHARASHTRA (6)			
		KARJAT		Shirgaon		Vadagaon		Radhanagari				Mean						Mean			
3401	29142	3499		4198		4746	7	4936	7			4345	8					4214	10		
3402	29140	4076	9	4830	7	4475	9	3995	9			4344	9					4253	9		
3403	29177	5244	4	6051	3	4971	5	4986	6			5313	4 *	24% #	14%			4890	4	* 13%	
3404	CO-51 (NC)	2735		2944		4150		3768				3399						3846			
3405	29197	3248		4475	9	4178		5440	3			4335	10					4104			
3406	28954	4223	8	4906	6	4809	6	3734				4418	7					4493	7		
3407	28964	5737	3	5178	5	5005	4	5201	4			5280	5 *	23% #	14%			4703	5	* 9%	
3408	Zonal Check (ZC)	4316	7	4470	10	4072		3786	10			4161						4198			
3409	28950	6838	1	6552	1	5811	2	5084	5			6071	1 *	41% #	31%			5724	1	*32%	# 25%
3410	28960	6076	2	5942	4	5479	3	5509	2			5752	2 *	34% #	24%			5146	3	*19%	# 12%
3411	US 314 (HC)	3958	10	4252		4460	10	5928	1			4650	6					4589	6		
3412	28959	4931	5	6432	2	6046	1	4155	8			5391	3 *	25% #	16%			5152	2	*19%	# 12%
3413	Local Check (LC)	4503	6	4552	8	4605	8	3522				4296						4328	8		
Exp. Mean		**4568**		**4983**		**4831**		**4619**				**4750**						**4588**			
CD		811		1100		688		576				380						320			
CV%		**10.54**		**13.09**		**8.46**		**7.40**				**4.74**						**4.14**			
D/S		17-06-2022		14-06-2022		21-06-2022		14-06-2022													
D/P		11-07-2022		08-07-2022		20-07-2022		13-07-2022													
Local Check Name		Karjat 7		Ratnagiri 1		Phule Radha		Phule Radha													

Table No. 1.2 (Contd): Grain Yield (kg/ha) in AVT 2 – E TP Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN								ZONE VII – SOUTHERN							
		GUJARAT (1)				Zone VI (5)				ANDHRA_PRADESH (1)		TELANGANA					
		NAWAGAM				Mean				MARUTERU		Kampasagar		Kunaram		WARANGAL	
3401	29142	6242	7		11%	4724	8			5488	2	4370	8	6565	2	5657	7
3402	29140	5231				4521	10			4616	10	4307	9	5909	5	4066	
3403	29177	7243	3	20% #	29%	5699	4 *	23% #	18%	4266		4433	6	5355	7	5885	5
3404	CO-51 (NC)	5647	10			3849				4631	9	4011		5915	4	6094	3
3405	29197	5093				4487				4690	8	4237	10	5015		4318	
3406	28954	6659	5	10%	18%	4866	6			4819	7	4922	2	5172	9	5065	10
3407	28964	7231	4	19% #	28%	5670	5 *	22% #	17%	5045	6	4433	6	4973		5444	8
3408	Zonal Check (ZC)	5733	9			4475				3848		3981		5017	10	5149	9
3409	28950	6536	6	8%	16%	6164	1 *	33% #	27%	6214	1	17%	22%	4815	3	6012	3	6733	2
3410	28960	7477	2 *	23% #	33%	6097	2 *	31% #	26%	3671		4678	4	4707		5959	4
3411	US 314 (HC)	5633				4846	7			5100	5	4515	5	5306	8	4784	
3412	28959	8506	1 *	40% #	51%	6014	3 *	29% #	24%	5192	4	5219	1	6772	1	7328	1
3413	Local Check (LC)	6057	8			4648	9			5329	3	4159		5772	6	5876	6
Exp. Mean		**6407**				**4969**				**4839**		**4468**		**5576**		**5566**	
CD		1670				407				1136		695		1241		689	
CV%		**11.96**				**4.86**				**13.93**		**9.23**		**13.21**		**7.34**	
D/S		13-06-2022								25-06-2022		21-07-2022		30-06-2022		28-06-2022	
D/P		18-07-2022								22-07-2022		24-08-2022		06-08-2022		04-08-2022	
Local Check Name		Mahisagar								MTU1156		KNM-118		KNM 118		WGL 962 (Warangal Vari-2)	

Table No.1.2 (Contd): Grain Yield (kg/ha) in AVT 2 – E TP Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN													
		TELANGANA		TELANGANA (4)				TAMIL_NADU (1)		KERALA (1)				KARNATAKA			
		Jagtial		Mean				ADUTHURAI		MONCOMPU				BRAHMAVAR		GANGAVATI	
3401	29142	7227	10	5955	5			5764	7	5167	6		17%	5238	2	7590	
3402	29140	7756	6	5510				5837	4	4219				4930	3	7949	10
3403	29177	7359	9	5758	7			5840	3	7069	1 *	31% #	60%	4336	6	8135	8
3404	CO-51 (NC)	6195		5554	9			5851	2	4733	9			5459	1	8445	6
3405	29197	6931		5125				5104		4786	8			4222	8	7558	
3406	28954	10137	1	6324	2 *	11% #	14%	5417		4324				4638	4	9923	1
3407	28964	8444	4	5824	6			5486	10	4303				4595	5	8032	9
3408	Zonal Check (ZC)	7989	5	5534				5799	6	4985	7			4300	7	8186	7
3409	28950	7725	7	6321	3 *	11% #	14%	5712	8	5526	2	#	25%	3921		9635	3
3410	28960	9696	2	6260	4 *	10% #	13%	5868	1	5329	5		21%	3858		8942	4
3411	US 314 (HC)	7562	8	5542	10			5590	9	4415	10			3845		6577	
3412	28959	8655	3	6994	1 *	22% #	26%	5833	5	5446	3		23%	4086	9	9917	2
3413	Local Check (LC)	7033		5710	8			5382		5389	4			4065	10	8733	5
Exp. Mean		**7901**		**5878**				**5653**		**5053**				**4422**		**8432**	
CD		1219		508				965		1107				581		1229	
CV%		**9.16**		**5.13**				**10.13**		**13.01**				**8.05**		**6.69**	
D/S		16-06-2022						17-06-2022		11-07-2022				15-06-2022		05-07-2022	
D/P		19-07-2022						18-07-2022		03-08-2022				13-07-2022		01-08-2022	
Local Check Name		JGL 18047						ADT 56		Prathyasa (MO 21)				MO-21		GNV 10-89	

Table No.1.2 (Contd): Grain Yield (kg/ha) in AVT 2 – E TP Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN										Overall Mean (35)			
		KARNATAKA (2)				Zone VII (9)									
		Mean				Mean									
3401	29142	6414	6	#	23%	5896	4	#	11%			5691	7 *	6% #	
3402	29140	6440	5	#	24%	5510	10					5294	9		
3403	29177	6236	#		20%	5853	6	#	10%			5704	6 *	6% #	
3404	CO-51 (NC)	6952	3			5704	8					4911			
3405	29197	5890	#		13%	5207						4891			
3406	28954	7281	1	#	40%	6046	3	5% #	14%			5930	4 *	10% #	12%
3407	28964	6314	9	#	21%	5639	9					5800	5 *	8% #	10%
3408	Zonal Check (ZC)	6243	10			5473						4841			
3409	28950	6778	4	#	30%	6255	2 *	9% #	18%			6393	2 *	19% #	21%
3410	28960	6400	7	#	23%	5856	5	#	11%			6369	3 *	19% #	21%
3411	US 314 (HC)	5211				5299						5272	10		
3412	28959	7002	2	#	34%	6494	1 *	13% #	23%			6633	1 *	23% #	26%
3413	Local Check (LC)	6399	8			5749	7					5374	8		
Exp. Mean		**6427**				**5696**						**5596**			
CD		665				389						211			
CV%		**6.14**				**4.06**						**2.24**			
D/S															
D/P															
Local Check Name															

Table No. 1.2 (contd): Grain Yield (kg/ha) in AVT 2 – E TP, (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED											
		UTTARAKHAND		UTTAR_PRADESH 1		WEST BENGAL		UTTAR_PRADESH 2		MANIPUR		TRIPURA	
		@PANTNAGAR		@KANPUR		@Malda		@MASODHA		@WANGBAL		@ARUNDHUTI NAGAR	
3401	29142	3709	8	4455	4	5428	2	4187	8	4133	5	4467	1
3402	29140	3225		4534	3	5133	5	4281	6	4022	8	3747	4
3403	29177	4322	3	4201	5	5300	3	4402	5	4000		3400	
3404	CO-51 (NC)	3274	10	4688	2	4267		3945	9	4067	7	3610	9
3405	29197	3111		2810	8	4528	8	3502		4000		4110	3
3406	28954	3749	7	2656		5250	4	5395	3	4889	1	3637	8
3407	28964	4151	5	4873	1	4844	6	5421	1	4133	5	3487	
3408	Zonal Check (ZC)	3432	9	2799	9	4389	9	3918		3978		3720	5
3409	28950	4377	2	3275	6	4133		5408	2	4133	5	3563	10
3410	28960	4738	1	2487		4272	10	5368	4	4200	3	4140	2
3411	US 314 (HC)	3842	6	3185	7	4094		3865		4022	8	3653	7
3412	28959	4259	4	2794	10	6339	1	4240	7	4689	2	3683	6
3413	Local Check (LC)	1887				4706	7	3945	9	4000		3523	
Exp. Mean		**3698**		**3563**		**4822**		**4452**		**4174**		**3749**	
CD		959		938		199		351		92		660	
CV%		**15.38**		**15.54**		**2.44**		**4.68**		**1.31**		**10.44**	
D/S		08-06-2022		02-07-2022		27-07-2022		18-06-2022		20-06-2022		04-08-2022	
D/P		09-07-2022		23-08-2022		12-08-2022		18-07-2022		15-07-2022		20-08-2022	
Local Check Name		Govind				Ajit		Shushk Smart		Punshi		Hakuchuk-2	

Table No. 1.2 (Contd): Grain Yield (kg/ha) in AVT 2 – E TP, (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED											
		TRIPURA		GUJARAT		TAMILNADU		KERALA		KARNATAKA		PUDUCHERRY	
		@Lembucherra		@Vyara		@COIMBATORE		@PATTAMBI		@MANDYA		@KURUMBAPET	
3401	29142	2709	9	4060	5	7298	2	3224		4285	8	7998	2
3402	29140	2741	8	2984		6979	6	2867		4007		3297	
3403	29177	5121	1	3559	8	4605		3127		5105	5	6288	5
3404	CO-51 (NC)	2555		3186	10	6902	7	3793	2	3283		5800	6
3405	29197	3303	5	3634	7	5474	10	3591	5	3586		6319	4
3406	28954	2895	6	4177	4	6328	8	3589	6	5332	4	2839	
3407	28964	2765	7	4919	1	5165		3631	4	4634	6	5586	8
3408	Zonal Check (ZC)	2227		3748	6	7031	4	3558	7	4234	9	5800	6
3409	28950	3414	4	4764	2	7170	3	3524	9	5930	3	3999	
3410	28960	2561	10	2535		6990	5	3298	10	6448	1	6868	3
3411	US 314 (HC)	2561	10	3011		5184		3824	1	4516	7	5098	9
3412	28959	4673	2	4559	3	7398	1	3764	3	6343	2	4396	10
3413	Local Check (LC)	3637	3	3236	9	6034	9	3527	8	4179	10	8547	1
Exp. Mean		**3166**		**3721**		**6351**		**3486**		**4760**		**5603**	
CD		509		898		404		797		254		2523	
CV%		**9.54**		**14.31**		**3.77**		**13.57**		**3.16**		**26.72**	
D/S		09-07-2022		13-06-2022		22-06-2022		20-06-2022		27-07-2022		05-07-2022	
D/P		30-07-2022		08-07-2022		16-07-2022		08-07-2022		20-08-2022		30-07-2022	
Local Check Name		HAKUCHUK-2		GR 17		CO 51		KANCHANA		Raksha		ADT 53	

Table No. 1.3: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 – E TP, Kharif 2022

ENTRY NO	IET NO	ZONE II - NORTHERN																	
		PUNJAB (1)			HARYANA (1)			JAMMU_KASHMIR (1)			RAJASTHAN (1)			UTTAR_PRADESH 1 (1)			ZONE II (5)		
		Ludhiana			Kaul			Chatha			Kota			Nagina			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3401	29142	95	107	313	91	108	303	98	99	264	81	91	301	110	87	207	95	98	278
3402	29140	94	116	262	83	114	265	103	106	258	79	110	275	105	92	296	93	107	271
3403	29177	120	124	297	103	123	284	105	106	294	86	121	312	123	84	212	107	112	280
3404	CO-51 (NC)	89	102	310	82	112	276	97	96	216	74	109	229	100	93	260	88	102	258
3405	29197	99	126	310	90	114	289	104	104	258	82	121	207	102	68	300	95	107	273
3406	28954	90	106	304	84	111	346	96	96	272	78	104	211	111	97	280	92	103	282
3407	28964	93	114	251	90	123	326	103	104	287	81	116	216	111	95	300	96	110	276
3408	Zonal Check (ZC)	96	105	306	96	104	307	84	84	241	88	91	215	110	71	308	95	91	276
3409	28950	91	105	273	85	111	334	95	95	264	80	109	276	132	92	235	97	102	276
3410	28960	90	117	203	86	112	312	105	105	287	81	111	203	103	105	242	93	110	249
3411	US 314 (HC)	95	118	251	82	115	289	107	108	264	80	106	221	104	101	229	94	110	251
3412	28959	93	118	277	87	120	307	108	109	253	83	118	304	107	101	212	96	113	271
3413	Local Check (LC)	93	96	310	86	123	312	115	117	312	100	119	264	95	101	285	98	111	297
Exp. Mean		**95**	112	**282**	**88**	115	**304**	**102**	102	**267**	**83**	110	**249**	**109**	91	**259**	**95**	106	**272**

Table No. 1.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 – E TP, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN														
		ODISHA									ODISHA (3)			BIHAR		
		ICAR-NRRI (Cuttack)			Jeypore			Chiplima			Mean			Bikramganj (Dhangain)		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3401	29142	88	103	274	100	101	289	89	110	173	92	105	245	92	105	255
3402	29140	92	94	262	96	96	315	86	105	227	92	98	268	88	108	293
3403	29177	97	109	274	103	98	431	94	109	214	98	105	306	99	109	273
3404	CO-51 (NC)	82	96	306	97	99	371	86	106	217	88	100	298	89	105	320
3405	29197	93	107	229	101	103	362	93	116	183	95	109	258	78	122	298
3406	28954	79	86	216	98	100	322	89	109	212	89	98	250	93	109	252
3407	28964	80	101	185	99	102	344	92	110	221	90	105	250	88	106	225
3408	Zonal Check (ZC)	78	71	314	87	72	387	80	97	196	82	80	299	83	92	259
3409	28950	79	84	246	102	95	260	90	110	195	90	96	234	92	115	263
3410	28960	80	97	185	100	102	249	94	124	152	91	108	195	93	127	249
3411	US 314 (HC)	87	98	197	96	98	333	86	115	156	90	104	229	94	115	231
3412	28959	87	102	192	103	105	350	93	124	157	94	110	233	95	117	257
3413	Local Check (LC)	92	103	243	97	120	312	90	114	121	93	113	226	96	122	290
Exp. Mean		**86**	96	**240**	**98**	99	**333**	**89**	111	**186**	**91**	102	**253**	**91**	112	**267**

Table No. 1.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 – E TP, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN														
		BIHAR						BIHAR (3)			JHARKHAND (1)			WEST BENGAL		
		Sabour			Patna-ICAR			Mean			Ranchi			Chinsurah		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3401	29142	81	103	331	88	89	294	87	99	293	106	91	106	90	103	264
3402	29140	83	102	242	85	104	311	85	105	282	108	95	192	88	104	297
3403	29177	89	108	296	98	101	330	95	106	300	113	90	147	100	112	330
3404	CO-51 (NC)	78	95	324	83	98	292	83	99	312	103	93	136	90	99	308
3405	29197	85	106	250	95	107	253	86	112	267	105	101	164	97	109	220
3406	28954	85	104	267	89	105	279	89	106	266	105	110	146	81	83	209
3407	28964	91	110	240	91	115	222	90	110	229	101	95	173	87	108	242
3408	Zonal Check (ZC)	77	80	365	83	88	268	81	87	297	89	75	209	77	87	187
3409	28950	84	102	271	89	101	294	88	106	276	105	93	140	85	102	275
3410	28960	89	123	201	90	118	214	91	123	222	103	99	142	84	110	297
3411	US 314 (HC)	83	101	253	89	104	278	89	107	254	96	94	182	86	104	253
3412	28959	90	116	290	94	105	271	93	113	273	105	104	150	87	108	286
3413	Local Check (LC)	84	115	309	86	108	262	89	115	287	85	97	139	88	106	242
Exp. Mean		**84**	105	**280**	**89**	103	**274**	**88**	107	**274**	**102**	95	**156**	**88**	103	**262**

Table No. 1.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 – E TP, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN														
		WEST BENGAL			WEST BENGAL (2)			UTTAR PRADESH2 (1)			UTTAR PRADESH (2)			Zone III (10)		
		Hathwara			Mean			Varanasi			Mean			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3401	29142	99	104		94	104	264	86	99	189	98	93	198	92	101	242
3402	29140	99	103		93	103	297	83	101	174	94	96	235	91	101	257
3403	29177	102	95		101	104	330	95	109	213	109	97	213	99	104	279
3404	CO-51 (NC)	96	87		93	93	308	75	93	163	88	93	212	88	97	271
3405	29197	98	104		98	107	220	82	109	141	92	89	221	93	108	233
3406	28954	98	94		89	89	209	87	104	184	99	100	232	90	100	232
3407	28964	91	88		89	98	242	93	111	150	102	103	225	91	105	223
3408	Zonal Check (ZC)	92	89		85	88	187	82	80	203	96	75	256	83	83	265
3409	28950	91	93		88	98	275	88	103	148	110	97	192	91	100	232
3410	28960	98	99		91	104	297	90	125	128	97	115	185	92	112	202
3411	US 314 (HC)	98	89		92	97	253	81	109	182	93	105	205	90	103	230
3412	28959	97	98		92	103	286	92	116	199	100	108	206	94	110	239
3413	Local Check (LC)	91	97		90	102	242	83	99	306	89	100	296	89	108	247
Exp. Mean		**96**	95		**92**	99	**262**	**86**	104	**183**	**97**	98	**221**	**91**	102	**242**

Table No. 1.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 – E TP, Kharif 2022

ENTRY NO	IET NO	ZONE-V – CENTRAL														
		MADHYA PRADESH (1)			CHHATTISGARH									CHHATTISGARH (3)		
		Rewa			Raipur			Jagdalpur			Bilaspur			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3401	29142	102	109	350	98	117	183	90	96	274	88	121		92	112	228
3402	29140	100	109	330	118	117	181	89	96	326	87	122		98	112	253
3403	29177	108	112	388	102	124	163	97	101	308	94	126		98	117	235
3404	CO-51 (NC)	96	100	310	89	118	184	88	96	277	82	115		86	110	231
3405	29197	101	114	327	102	137	162	90	98	238	89	140		94	125	200
3406	28954	99	106	328	94	117	160	95	97	315	88	119		92	111	238
3407	28964	98	122	344	91	117	159	96	101	248	91	126		93	115	204
3408	Zonal Check (ZC)	98	115	309	95	117	141	89	100	335	88	123		91	113	238
3409	28950	97	103	322	93	117	170	98	95	315	87	125		93	112	243
3410	28960	97	113	347	92	124	163	95	106	368	88	132		92	120	266
3411	US 314 (HC)	99	106	329	94	117	165	89	101	321	85	117		89	112	243
3412	28959	98	118	316	100	135	136	95	107	294	89	132		95	125	215
3413	Local Check (LC)	97	109	326	98	118	161	89	111	255	89	129		92	119	208
Exp. Mean		**99**	110	**333**	**97**	121	**164**	**92**	100	**298**	**88**	125		**93**	116	**231**

Table No. 1.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 – E TP, Kharif 2022

ENTRY NO	IET NO	ZONE-V – CENTRAL												ZONE VI – WESTERN		
		MAHARASHTRA 1						MAHARASHTRA 1 (2)			Zone V (6)			MAHARASHTRA 2		
		Sakoli			Sindewahi			Mean			Mean			Kariat		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3401	29142	92	109	278	87	106	219	90	108	248	93	110	261	86	123	202
3402	29140	90	108	307	92	88	214	91	98	260	96	107	271	84	104	209
3403	29177	98	108	268	98	104	271	98	106	270	100	112	280	91	135	217
3404	CO-51 (NC)	88	106	314	87	107	279	88	106	297	88	107	273	85	101	204
3405	29197	96	109	262	88	112	282	92	111	272	94	118	254	86	127	202
3406	28954	93	111	289	92	101	284	93	106	286	94	108	275	86	113	212
3407	28964	91	106	270	93	112	224	92	109	247	93	114	249	92	122	229
3408	Zonal Check (ZC)	88	109	272	88	99	277	88	104	274	91	110	267	86	114	215
3409	28950	93	104	320	96	111	268	94	107	294	94	109	279	90	120	233
3410	28960	90	103	268	93	112	245	92	107	257	93	115	278	90	132	228
3411	US 314 (HC)	87	108	284	86	111	272	87	110	278	90	110	274	85	114	208
3412	28959	93	111	273	95	127	287	94	119	280	95	122	261	90	123	222
3413	Local Check (LC)	90	96	279	98	124	270	94	110	275	94	115	258	87	107	194
Exp. Mean		**92**	107	**283**	**92**	109	**261**	**92**	108	**272**	**93**	112	**268**	**87**	118	**213**

Table No. 1.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 – E TP, Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN						ZONE VII – SOUTHERN								
		GUJARAT (1)			Zone VI (5)			ANDHRA PRADESH (1)			TELANGANA					
		Nawagam			Mean			Maruteru			Kampasagar			Kunaram		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3401	29142	90	117	289	88	106	214	75	121	348	93	87	333	89	111	255
3402	29140	85	108	283	87	101	214	76	117	323	90	88	377	90	111	262
3403	29177	96	113	291	94	109	220	102	128	370	89	89	400	111	117	277
3404	CO-51 (NC)	85	108	285	84	92	210	69	117	306	88	88	355	83	103	264
3405	29197	90	121	281	90	110	207	80	123	341	95	91	355	95	125	235
3406	28954	88	113	294	89	103	218	75	119	363	91	90	278	83	108	255
3407	28964	92	113	296	92	106	223	81	121	319	90	86	244	82	104	246
3408	Zonal Check (ZC)	88	108	287	88	103	208	77	118	350	90	86	311	86	110	251
3409	28950	85	104	290	90	103	217	81	120	317	92	90	333	84	105	240
3410	28960	87	117	301	88	113	222	77	124	334	93	88	311	85	113	275
3411	US 314 (HC)	89	112	286	86	101	205	80	123	328	86	88	344	84	109	260
3412	28959	89	120	304	92	110	226	76	124	341	93	95	278	86	107	266
3413	Local Check (LC)	87	110	289	89	99	222	87	125	334	89	88	333	84	98	279
Exp. Mean		**88**	113	**290**	**89**	104	**216**	**80**	122	**336**	**91**	89	**327**	**88**	109	**259**

Table No. 1.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 – E TP, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN														
		TELANGANA						TELANGANA (4)			TAMIL NADU (1)			KERALA (1)		
		Warangal			Jagtial			Mean			Aduthurai			Monocompu		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3401	29142	97	117	321	96	118	349	94	108	315	92	92	290	84	95	180
3402	29140	92	114	319	99	113	374	93	107	333	91	91	190	82	94	180
3403	29177	104	132	349	104	118	380	102	114	351	81	81	310	101	103	211
3404	CO-51 (NC)	86	107	330	92	105	365	87	101	329	85	85	250	83	95	340
3405	29197	101	120	328	99	122	373	98	115	323	94	94	283	83	108	262
3406	28954	86	113	328	97	111	405	89	106	316	94	94	189	83	98	187
3407	28964	84	114	341	99	116	333	89	105	291	90	90	281	101	104	207
3408	Zonal Check (ZC)	95	107	318	101	112	373	93	104	313	90	90	200	85	96	218
3409	28950	91	112	326	97	108	337	91	104	309	94	94	205	84	97	202
3410	28960	91	117	330	97	116	364	92	108	320	95	95	209	101	112	202
3411	US 314 (HC)	84	118	305	92	111	371	87	107	320	94	94	227	85	100	238
3412	28959	92	127	315	98	115	353	92	111	303	94	94	219	96	114	351
3413	Local Check (LC)	100	108	328	95	110	395	92	101	334	84	84	185	100	102	260
Exp. Mean		**92**	116	**326**	**97**	114	**367**	**92**	107	**320**	**91**	91	**234**	**90**	101	**234**

Table No. 1.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 – E TP, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN												Overall Mean(35)		
		KARNATAKA						KARNATAKA (2)			Zone 7 (9)					
		Brahmavar			Gangavati			Mean			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3401	29142	85	75	432	93	101	389	89	88	411	89	102	322	91	103	268
3402	29140	86	75	405	93	95	434	89	85	419	89	100	318	91	103	271
3403	29177	96	93	400	101	110	436	98	102	418	99	108	348	99	108	289
3404	CO-51 (NC)	81	78	409	88	95	468	84	86	439	84	97	343	87	99	280
3405	29197	92	92	386	97	106	490	95	99	438	93	109	339	93	110	267
3406	28954	92	79	390	98	105	397	95	92	393	89	102	310	91	103	265
3407	28964	92	86	391	98	105	439	95	96	415	91	103	311	92	107	259
3408	Zonal Check (ZC)	94	85	400	94	102	352	94	93	376	90	101	308	89	96	270
3409	28950	95	82	373	97	96	381	96	89	377	91	100	302	92	102	263
3410	28960	95	94	376	99	115	332	97	104	354	93	108	304	92	112	251
3411	US 314 (HC)	96	82	387	88	100	420	92	91	403	88	103	320	89	105	260
3412	28959	98	88	387	99	111	382	99	100	384	92	108	321	94	112	268
3413	Local Check (LC)	83	91	378	93	100	374	88	95	376	91	101	318	91	106	272
Exp. Mean		**91**	84	**393**	**95**	103	**407**	**93**	94	**400**	**91**	103	**320**	**92**	105	**268**

Table No. 1.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2-E TP, (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED																	
		UTTARAKHAND			UTTAR_PRADESH 1			WEST BENGAL			UTTAR_PRADESH 2			MANIPUR (0)			TRIPURA (0)		
		@Pantnagar			@Kanpur			@Malda			@Masodha			@Wangbal			@Arundhuti Nagar		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3401	29142	98	103	273	64	80	314	94	99	307	66	112	286	97	104	302	77	102	348
3402	29140	97	105	301	59	70	327	100	102	343	70	118	282	113	81	284	72	113	330
3403	29177	112	134	331	51	77	320	94	100	323	72	129	301	114	87	316	85	122	339
3404	CO-51 (NC)	88	98	286	61	79	340	94	102	309	67	130	285	104	87	383	85	102	357
3405	29197	106	116	309	57	77	340	100	105	326	71	118	272	102	98	349	83	120	374
3406	28954	97	104	294	54	72	275	97	103	308	66	113	299	104	88	320	76	100	360
3407	28964	98	115	231	50	71	280	102	106	311	73	124	295	101	91	284	80	115	394
3408	Zonal Check (ZC)	102	92	268	74	71	312	98	99	310	64	121	277	90	84	418	82	104	388
3409	28950	94	105	249	66	72	302	103	104	313	65	118	198	104	76	285	80	107	339
3410	28960	97	111	248	70	89	249	98	107	290	68	128	301	101	89	248	78	122	380
3411	US 314 (HC)	97	112	270	54	71	279	97	109	304	67	119	290	112	86	319	75	116	421
3412	28959	95	109	302	62	73	366	102	116	302	67	111	292	103	107	356	77	123	353
3413	Local Check (LC)	88	84	371				97	109	311	71	130	287	98	95	416	76	124	325
Exp. Mean		**98**	107	**287**	**60**	75	**309**	**98**	105	**312**	**68**	121	**282**	**103**	90	**329**	**79**	113	**362**

Table No. 1.3 Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2-E TP, (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED																	
		TRIPURA (0)			GUJARAT			TAMILNADU			KERALA			KARNATAKKA			PUDUCHERRY (0)		
		@Lembucherra			@Vyara			@Coimbatore			@Pattambi			@Mandya			@Kurumbapet		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3401	29142	83	97	275	89	126	171	90	95	318	96	96	447	88	86	227	80	100	393
3402	29140	89	96	217	85	124	169	87	95	277	96	94	451	87	84	273	78	95	383
3403	29177	89	116	300	93	129	233	94	105	315	97	95	437	96	86	253	84	108	404
3404	CO-51 (NC)	82	90	317	82	114	189	84	94	320	99	90	463	86	84	267	76	100	372
3405	29197	90	111	375	92	139	168	91	104	321	98	97	450	87	82	240	82	117	467
3406	28954	81	88	250	83	115	174	90	95	289	97	98	455	98	93	200	77	105	408
3407	28964	85	102	267	90	127	149	90	99	329	98	96	449	99	84	207	79	100	376
3408	Zonal Check (ZC)	95	96	133	90	126	180	94	98	277	98	97	445	91	86	233	79	107	372
3409	28950	86	90	275	89	124	191	92	97	285	97	92	461	97	86	260	84	107	398
3410	28960	89	105	192	86	131	163	93	103	261	98	97	462	98	92	213	83	113	390
3411	US 314 (HC)	80	102	200	85	129	156	86	85	301	97	96	458	87	87	247	75	103	423
3412	28959	90	105	292	88	140	187	95	107	296	97	102	502	98	110	240	83	113	387
3413	Local Check (LC)	82	117	308	87	120	218	81	89	409	98	98	441	82	84	360	79	102	467
Exp. Mean		**86**	101	**262**	**88**	126	**181**	**90**	97	**308**	**97**	96	**455**	**92**	88	**248**	**80**	105	**403**

Table No. 1.4: Grain quality characteristics of entries in AVT 2-E TP, kharif 2022

Entry No.	IET No.	Hull %	Mill %	HRR %	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
3401	29142	81.4	66.6	56.9	6.03	2.02	2.98	LB	OC	3	26.13	63
3402	29140	83.3	68.2	60.0	5.34	1.83	2.91	MS	VOC	4	26.01	24
3403	29177	80.8	64.3	57.0	6.63	2.09	3.17	LS	VOC	4	27.98	63
3404	CO-51 (NC)	80.0	67.2	59.8	5.32	1.94	2.74	MS	A	4	26.75	58
3405	29197	79.9	64.4	59.6	6.85	2.03	3.37	LS	VOC	4	24.64	35
3406	28954	81.6	64.0	61.5	6.55	2.35	2.78	LB	OC	7	24.34	22
3407	28964	81.9	67.2	59.5	6.39	2.60	2.45	LB	OC	5	23.90	28
3408	NDR-97 (ZC)	80.2	65.8	55.3	6.39	2.00	3.19	LS	VOC	4	26.54	22
3409	28950	82.1	70.2	58.1	5.58	2.32	2.40	SB	OC	4	24.37	22
3410	28960	82.3	70.2	62.5	7.27	2.05	3.54	LS	VOC	4	23.99	22
3411	US-314 (HC)	80.1	61.5	55.5	5.56	2.08	2.67	MS	OC	4	22.02	53
3412	28959	82.2	67.2	60.2	7.00	2.01	3.48	LS	OC	4	22.96	27
3413	Rajendra Bhagwati (LC)	79.9	69.5	61.0	7.78	1.93	4.03	LS	VOC	4	23.90	43

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. 1.5: Composition of entries in Advance Variety Trial 1–Early Transplanted (AVT 1E-TP), Kharif 2022

Entry No.	IET No.	Designation	Cross Combination	GT
2nd year of testing:				
3501	29943	KNM 11544	KNM 118 / CT 1865-1-5-1-25-4	LS
3502	29947	NLR 3684	NLR 34449 / NLR 33359	SB
3503	29958	RCPR 82-IR 14L362	IR09L 272 / IR09L 337	LB
3504	29940	CRU-BCKV-22-35 (14-N22 / 35-13-4-5-2)	N22 / IET 25701	SB
3505	29975	KPS 6251	MTU 1010 / Chittimuthyalu	LS
3506	29946	MTU 1363	MTU 1010 / FL478 // *3 MTU 1010	LS
3507	29939	CR 4060-1318-5-2-2-2-1-5-3-4	IET 22729 / Brown gora	LS
3508	**CO-51 (NC)**			
3509	29957	RNR 39029	IR14G 3108	LS
3510	29951	RTN 1403-7-1-1-2-4	RTN-1 / HRTMS-55	LS
3511	29992	CRR 841-IR14L245	IR 10L179 / IR 10L15	LS
3512	29983	HKR 2018-39	HKR 46 / OM 6377 / OM 5240	LS
3513	**PR 124-Northern, Narendra 97-Eastern, Luit -North Eastern, Sahbhagidhan- Central & Western, MTU 1153-Southern—ZC**			
3514	29964	KNM 11505	TME 80518 / MTU 1156	LS
3515	29694	***UPLRH-181325 (Hybrid)***	-	LB
3516	29689	***HRI-214 (Hybrid)***	-	LS
3517	28965	***Pusa RH-60 (Hybrid)***	-	LS
3518	29692	***UPLRH-162087 (Hybrid)***	-	LS
3519	**US 314 (HC)**			
3520	28123 (R)	***IIRRH-130 (Hybrid)***	-	MS
3521	29691	***VNR-228 (Hybrid)***	-	SB
3522	29700	***JKRH-1004 (Hybrid)***	-	LS
3523	29690	***UPLRH-180842 (Hybrid)***	-	LB
3524	29696	***PAN-2150 (Hybrid)***	-	LS
3525	**Local Check (LC)**			
1st of year of testing (NILs):				
3526	30632	RP 6613- MSM-65-Bio-36-4-15	Varalu*3 / Vandana NIL (contains qyld 12.1) / Samba Mahsuri NIL (contains Pi1 + Pi54)	LS
3527	30633	RP 6613-- MSM-66-Bio-88-4-15	Varalu*3 / Vandana NIL (contains qyld 12.1) / Samba Mahsuri NIL (contains Pi1 + Pi54)	LB
3528	30634	RP 6612- MSM-63-Bio-62-4-15	Varalu*3 / Vandana NIL (contains qyld 12.1)	LB
3529	**Varalu (RP)**			LS

Table No. 1.6: Grain Yield (kg/ha) in AVT 1 – E TP, Zone 2 to 6 Kharif 2022

ENTRY NO	IET NO	ZONE II - NORTHERN									
		Punjab (1)		Haryana (1)		Jammu Kshamir (1)		Rajasthan (1)		Zone II (4)	
		Ludhiana		Kaul		Chatha		Kota		Mean	
3501	29943	4273	#	5974		4133		4883		4816	
3502	29947	4269	#	5837		3987		5415	6	4877	
3503	29958	3084		6765		4533	5	5578	5 #	4990	
3504	29940	3953	#	7092	10 *	4733	1 #	6083	2 * #	5465	10 #
3505	29975	3201		4910		4133		4992		4309	
3506	29946	4869	#	5810		4200		4910		4947	
3507	29939	3673		6929	*	4080		4937		4905	
3508	CO-51 (NC)	4573		5346		4653	3	4105		4669	
3509	29957	5485	10 #	7774	8 *	4080		4337		5419	#
3510	29951	5388	#	6547		4253	9	4528		5179	#
3511	29992	6339	5 #	6110		4373	6	4242		5266	#
3512	29983	5657	7 #	6738		3987		4596		5245	#
3513	Zonal Check (ZC)	6292	6	6165		4067		4618		5286	
3514	29964	5524	9 #	7365	9 *	4147		5060	10	5524	7 #
3515	29694	5571	8 #	8456	2 * #	4320	7	6792	1 * #	6285	2 * #
3516	29689	4733	#	7829	7 * #	3993		5330	8	5471	9 #
3517	28965	4031	#	6874		4633	4 #	5360	7	5225	#
3518	29692	5232	#	8265	4 * #	4220	10	5046		5691	6 #
3519	US 314 (HC)	3076		7065		4073		4474		4672	
3520	28123 (R)	3349		6956	*	4087		4951		4836	
3521	29691	6643	4 #	8783	1 * #	4293	8	5278	9	6249	3 * #
3522	29700	7279	1 #	8292	3 * #	4733	1 #	4965		6317	1 * #
3523	29690	7053	3 #	7938	6 * #	3853		5701	4 #	6136	4 * #
3524	29696	5131	#	8047	5 * #	4220	10	6069	3 * #	5867	5 #
3525	Local Check (LC)	7222	2	6001		4087		4774		5521	8
Exp. Mean		**5036**		**6955**		**4235**		**5081**		**5327**	
F Value		25.3(p<0.0001)S		15.11(p<0.0001)S		2.16(p=0.0103)S		3.48(p<0.0001)S		13.87(p<0.0001)S	
CD		716		727		524		971		400	
CV%		**8.66**		**6.37**		**7.54**		**11.65**		**4.57**	
D/S		07-06-2022		11-06-2022		21-06-2022		29-06-2022			
D/P		05-07-2022		10-07-2022		22-07-2022		28-07-2022			
Local Check Name		PR 126		HKR-48		SJR-5		Pratap -1			

For Promotion of entries:
***For Varietal entries: Yield of entry should be superior over yield of BVC+CD (at 5%level of significance).**
#For hybrid entries: Yield of entry should be superior over yield of BVC+CD and over yield of BHC+CD (at 5% level of significance)
In locations where the F variance ratio between treatments is non-significant, data from such locations was not considered in analysis

Table No. 1.6 (Contd): Grain Yield (kg/ha) in AVT 1 – E TP, Zone 2 to 6 Kharif 2022

ENTRY NO	IET NO	ZONE III- EASTERN													
		Odisha						Odisha (3)		Bihar					
		ICAR-NRRI (Cuttack)		Jeypore		Chiplima		Mean		Bikramganj		Sabour		Patna-ICAR	
3501	29943	5220	10	3248		5752		4740		6393		4469		7600	
3502	29947	6213	2	3426		7106	6	5582	8 #	7661	3	5970	5	9507	1
3503	29958	5267	8	5422	4	6660	10	5783	5 #	6456		4870		8020	
3504	29940	5247	9	3956		6113		5105		7542	4	6035	4	8460	9
3505	29975	4540		5907	3	5496		5314		6586		4235		7540	
3506	29946	4953		6315	2	6135		5801	4 #	6729		4530		6853	
3507	29939	5687	4	5175	6	7816	2	6226	1 * #	6994		4695		7820	
3508	CO-51 (NC)	4493		2859		5688		4347		6271		4169		5993	
3509	29957	4020		2836		6369		4408		6563		5285	8	8133	
3510	29951	4800		2840		5121		4254		7196	8	5021	10	7460	
3511	29992	5540	5	2863		8298	1	5567	9 #	6420		4384		7287	
3512	29983	4920		3123		5305		4449		6378		4811		8060	
3513	Zonal Check (ZC)	3220		2010		4177		3136		4098		3578		5973	
3514	29964	3560		4528	10	6348		4812		6414		4224		6360	
3515	29694	5773	3	4644	9	7014	7	5810	2 #	7708	2	6089	3	8660	6
3516	29689	5333	7	4175		6979	8	5496	10	7773	1	6305	1	9300	3
3517	28965	4567		5414	5	3652		4544		7080	10	4971		8040	
3518	29692	3820		6475	1	7113	4	5803	3 #	7080	10	5235	9	8613	7
3519	US 314 (HC)	4500		3559		6518		4859		5702		4078		8207	10
3520	28123 (R)	6707	1	4669	8	5851		5742	6 #	7107	9	4822		8880	5
3521	29691	4533		4183		7113	4	5276		7417	5	5483	7	9120	4
3522	29700	3507		2448		4312		3422		6411		4244		8527	8
3523	29690	5367	6	4178		7305	3	5617	7 #	7321	6	6180	2	9500	2
3524	29696	5200		2542		6752	9	4831		7267	7	5615	6	8207	10
3525	Local Check (LC)	5150		4821	7	5624		5198		5080		4866		6060	
Exp. Mean		**4885**		**4065**		**6185**		**5045**		**6706**		**4967**		**7927**	
F Value		3.18(p=0.0003)S		11.87(p<0.0001)S		5.02(p<0.0001)S		9.32(p<0.0001)S		10.76(p<0.0001)S		10.33(p<0.0001)S		13.53(p<0.0001)S	
CD		1289		1003		1397		695		704		659		784	
CV%		**16.07**		**15.03**		**13.76**		**8.39**		**6.4**		**8.08**		**6.03**	
D/S		20-07-2022		14-07-2022		26-07-2022				28-06-2022		04-07-2022		08-07-2022	
D/P		24-08-2022		13-08-2022		26-08-2022				02-08-2022		04-08-2022		04-08-2022	
Local Check Name		MTU 1010		Mandakini		Mandakini				R. Bhagwati		Sabour Harshit Dhan		Sahbhagi Dhan	

Table No. 1.6 (Contd): Grain Yield (kg/ha) in AVT 1 – E TP, Zone 2 to 6 Kharif 2022

ENTRY NO	IET NO	ZONE III- EASTERN											
		Bihar (3)			Jharkhand (1)			West Bengal (1)		Uttar Prradesh 2 (1)		Zone III (9)	
		Mean			Ranchi			Chinsurah		Varanasi		Mean	
3501	29943	6154	*		4467			6463		5563		5464	
3502	29947	7713	2 *	#	5978	5	#	7632	3 *	7847	1 #	6816	2 * #
3503	29958	6449	*	#	5711	6	#	6930	9 *	6875	5 #	6246	8 * #
3504	29940	7346	5 *	#	7111	1 *	#	7018	8 *	2971		6050	10 * #
3505	29975	6120	*		3378			7047	7 *	6500	10 #	5692	
3506	29946	6037	*		4511	#		6667		4965		5740	#
3507	29939	6503	*	#	6711	3 *	#	6930	9 *	6563	9 #	6488	5 * #
3508	CO-51 (NC)	5478			5222			4678		1464		4537	
3509	29957	6660	*	#	5356	10	#	6637		6410	#	5734	#
3510	29951	6559	*	#	5000	#		7368	6 *	6063		5652	
3511	29992	6030	*		4044			6374		5063		5586	
3512	29983	6416	*	#	4244			6491		6292	#	5514	
3513	Zonal Check (ZC)	4550	*	6	3378			4327		1695		3606	
3514	29964	5666	*	#	4133			6667		4354		5176	
3515	29694	7486	4 *	#	5311	#		7485	4 *	6674	8 #	6595	4 * #
3516	29689	7793	1 *	#	5644	7	#	8012	1 *	6438	#	6662	3 * #
3517	28965	6697	10 *	#	3244			6053		7410	4 #	5603	
3518	29692	6976	8 *	#	5378	9	#	7690	2 *	6458	#	6429	6 * #
3519	US 314 (HC)	5996			3356			7427	5	5172		5391	
3520	28123 (R)	6936	9 *	#	5044	#		4971		6764	7 #	6091	9 * #
3521	29691	7340	6 *	#	5644	7	#	5702		4813		6001	* #
3522	29700	6394	*	#	3778			6404		2496		4681	
3523	29690	7667	3 *	#	6889	2 *	#	6901	*	7813	2 #	6828	1 * #
3524	29696	7030	7 *	#	6667	4 *	#	6842	*	7722	3 #	6313	7 * #
3525	Local Check (LC)	5335			4956			5614		6847	6	5446	
Exp. Mean		**6533**			**5006**			**6573**		**5649**		**5774**	
F Value		33.81(p<0.0001)S			8.24(p<0.0001)S			5.70(p<0.0001)S		24.69(p<0.0001)S		38.57(p<0.0001)S	
CD		379			1144			1076		1009		332	
CV%		**3.53**			**13.93**			**9.97**		**10.88**		**3.5**	
D/S					20-06-2022			25-06-2022		07-06-2022			
D/P					01-08-2022			30-07-2022		27-06-2022			
Local Check Name					LALAT			Ajit		HUR-3022			

Table No. 1.6 (Contd): Grain Yield (kg/ha) in AVT 1 – E TP, Zone 2 to 6 Kharif 2022

ENTRY NO	IET NO	ZONE-V – CENTRAL															
		Madhya Pradesh (1)			Chattisgarh							Chattisgarh (3)			Maharshtra 1			
		Rewa			Raipur		Jagadalpur		Bilaspur			Mean			Sakoli		Sindewahi	
3501	29943	5951			3732		5314		6871			5306			3535		5321	4
3502	29947	4674			5097		6822		8041	8		6653	#		4382		3558	
3503	29958	7140			4187		7086		7427			6233	#		4516	8	3645	
3504	29940	5434			6802	2	8149	4	8158	6		7703	4 *	#	4766	6	6145	1
3505	29975	9436	2 *	#	5512		5321		7865			6233	#		5058	5	4618	8
3506	29946	7617	8		4296		5815		8041	8		6051			3605		4344	
3507	29939	5417			5254		7652	10	8523	4		7143	9 *	#	5664	1	5693	3
3508	CO-51 (NC)	6120			4264		4410		5673			4782			3783		4764	6
3509	29957	5477			4690		5465		7018			5724			3975		1941	
3510	29951	4701			5393		7443		7281			6706	*	#	4579	7	3348	
3511	29992	8325	5	#			5820		6404			6112			3290		5830	2
3512	29983	7782	7		4597		5478		6842			5639			3337		2751	
3513	Zonal Check (ZC)	7604	9		5077		5598		6374			5683			4449	10	4490	10
3514	29964	5838			4907		3567		8070	7		5515			5379	3	4376	
3515	29694	8941	3	#	6998	1	7750	8	6915			7221	7 *	#	3771		2241	
3516	29689	9562	1 *	#	6494	6	8325	2	8670	3		7830	2 *	#	3882		2608	
3517	28965	4714			5772	9	7644		7953			7123	10 *	#	3276		2477	
3518	29692	6849			6389	7	8296	3	7953			7546	5 *	#	5390	2	4586	9
3519	US 314 (HC)	6141			4927		5387		6272			5529			3863		4659	7
3520	28123 (R)	7600	10		5708	10	7748	9	8187	5		7214	8 *	#	4475	9	3406	
3521	29691	8737	4	#	6530	3	7957	7	7953			7480	6 *	#	3825		3820	
3522	29700	5130			4833		8448	1	5424			6235	#		5177	4	4455	
3523	29690	7114			6500	5	8041	6	8684	2		7742	3 *	#	4249		4196	
3524	29696	8103	6	#	6510	4	8120	5	8889	1		7840	1 *	#	4315		5050	5
3525	Local Check (LC)	6250			5819	8	6629		5702			6050			4276		3497	
Exp. Mean		**6826**			**5429**		**6731**		**7408**			**6532**			**4273**		**4073**	
F Value		5.14(p<0.0001)S			5.57(p<0.0001)S		13.29(p<0.0001)S		5.29(p<0.0001)S			15.29(p<0.0001)S			5.83(p<0.0001)S		28.75(p<0.0001)S	
CD		1826			1075		1052		1280			645			775		575	
CV%		**16.29**			**12.05**		**9.52**		**10.53**			**6.02**			**11.05**		**8.6**	
D/S		25-06-2022			30-06-2022		16-06-2022		12-06-2022						02-07-2022		25-06-2022	
D/P		18-08-2022			21-07-2022		07-07-2022		03-07-2022						05-08-2022		28-07-2022	
Local Check Name		JR 767			Indira Aerobic 1		Samleshwari		MTU 1010						SKL-6		Sakoli-6	

Table No. 1.6 (Contd): Grain Yield (kg/ha) in AVT 1 – E TP, Zone 2 to 6 Kharif 2022

ENTRY NO	IET NO	ZONE-V – CENTRAL				ZONE VI – WESTERN							
		Maharshtra 1 (2)		Zone V (6)		Maharashtra 2							
		Mean		Mean		Kariat		Shirgaon		Vadagaon		Raghanagari	
3501	29943	4428	10	5121		3478		3136		3779		6090	
3502	29947	3970		5429		5144	7	3176		4752		5983	
3503	29958	4081		5667		5895	4	2694		5110		5733	
3504	29940	5456	2 * #	6576	4 * #	3666		4031		5902	3	6705	7
3505	29975	4838	5 #	6302	8 * #	4207		4367		4683		6134	
3506	29946	3975		5620		3726		4507	9	4958		6647	8
3507	29939	5679	1 * #	6367	7 * #	3590		5556	2	5258	7	4630	
3508	CO-51 (NC)	4274		4836		3330		2986		4701		3689	
3509	29957	2958		4761		4807		3558		4888		5164	
3510	29951	3964		5458		5085	8	3560		5291	6	6278	
3511	29992	4560	8	5934	#	3790		4204		4485		5609	
3512	29983	3044		5131		4005		4411		5144	9	4106	
3513	Zonal Check (ZC)	4470	9	5599		5385	5	4064		4940		6583	9
3514	29964	4878	4 * #	5356		4818	10	4545	8	4878		5406	
3515	29694	3006		6103	10 * #	4693		4839	5	5653	4	6531	10
3516	29689	3245		6590	2 * #	5347	6	5223	3	6276	1	7601	1
3517	28965	2877		5306		6132	2	4180		5589	5	7289	2
3518	29692	4988	3 * #	6577	3 * #	3814		4925	4	6037	2	6951	4
3519	US 314 (HC)	4261		5208		4103		3810		4870		5066	
3520	28123 (R)	3941		6187	9 * #	4829	9	4072		5250	8	5643	
3521	29691	3823		6470	5 * #	4219		5588	1	4260		6800	5
3522	29700	4816	6 #	5578		2922		3986		3814		5382	
3523	29690	4223		6464	6 * #	7011	1	4757	6	5095		6724	6
3524	29696	4683	7 #	6831	1 * #	5959	3	4554	7	5117	10	7186	3
3525	Local Check (LC)	3887		5362		4696		4425	10	4363		5129	
Exp. Mean		**4173**		**5793**		**4586**		**4206**		**5004**		**5962**	
F Value		25.46(p<0.0001)S		12.74(p<0.0001)S		13.27(p<0.0001)S		3.39(p<0.0001)S		3.62(p<0.0001)S		5.76(p<0.0001)S	
CD		407		471		755		1124		881		1183	
CV%		**5.94**		**4.95**		**10.02**		**16.28**		**10.72**		**12.09**	
D/S						17-06-2022		16-06-2022		21-06-2022		14-06-2022	
D/P						10-07-2022		26-07-2022		20-07-2022		10-07-2022	
Local Check Name						Karjat 7		Ratnagiri 1		Phule Radha		Phule Radha	

Table No. 1.6 (Contd): Grain Yield (kg/ha) in AVT 1 – E TP, Zone 2 to 6 Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN												Overall Mean (25)	
		Maharashtra 2 (4)		Maharashtra (6)		Gujarat				Gujarat (2)		Zone VI (6)			
		Mean		Mean		Nawagam		Vyara		Mean		Mean			
3501	29943	4121		4223		7796	5	3512		5654		4632		5078	
3502	29947	4764		4499		7065		4986	5	6026	7	5184		5781	10 * #
3503	29958	4858		4599		7283		4281		5782		5166		5647	* #
3504	29940	5076	9 #	5203	4 #	7486	10	4952	7	6219	6	5457	8 #	5940	7 * #
3505	29975	4848		4845	9 #	7772	8	3490		5631		5109		5477	#
3506	29946	4960	#	4631		7778	6	3952		5865		5261		5469	#
3507	29939	4759		5065	6 #	7289		4442		5866		5128		5879	8 * #
3508	CO-51 (NC)	3677		3876		4444		3463		3954		3769		4446	
3509	29957	4604		4056		5632		5512	3	5572		4927		5256	
3510	29951	5054	10 #	4690		7037		4743		5890	10	5332	10 #	5453	#
3511	29992	4522		4535		6655		3709		5182		4742		5394	#
3512	29983	4417		3959		6624		4188		5406		4746		5195	
3513	Zonal Check (ZC)	5243	7	4985	7	5894		4087		4991		5159		4726	
3514	29964	4912		4900	8 #	7367		4113		5740		5188		5278	
3515	29694	5429	6 #	4621		7911	4	6149	1	7030	1 * #	5963	3 * #	6276	3 * #
3516	29689	6112	1 * #	5156	5 #	7158		4648		5903	9	6042	2 * #	6306	2 * #
3517	28965	5798	3 * #	4824	10 #	6268		4905	8	5587		5727	5 * #	5501	#
3518	29692	5432	5 #	5284	3	6027		4985	6	5506		5457	8.5 #	6113	5 * #
3519	US 314 (HC)	4462		4395		6844		4585		5715		4880		5109	
3520	28123 (R)	4949	#	4613		8829	1	4827	9	6828	2 * #	5575	7 * #	5789	9 * #
3521	29691	5217	8 #	4752	#	7488	9	5667	2	6578	4 #	5670	6 * #	6074	6 * #
3522	29700	4026		4289		5519		4785	10	5152		4401		5091	
3523	29690	5897	2 * #	5339	2 * #	8110	2	5199	4	6655	3 #	6149	1 * #	6467	1 * #
3524	29696	5704	4 #	5364	1 * #	7967	3	4512		6240	5	5883	4 * #	6263	4 * #
3525	Local Check (LC)	4653		4398		7773	7	4265		6019	8	5109		5357	#
Exp. Mean		**4940**		**4684**		**7041**		**4558**		**5374**		**5102**		**5554**	
F Value		12.17(p<0.0001)S		11.55(p<0.0001)S		4.33(p=0.0003)S		6.81(p<0.0001)S		10.13(p<0.0001)S		4.91(p<0.0001)S		50.64(p<0.0001)S	
CD		465		340		1395		789		787		412		198	
CV%		**5.73**		**4.42**		**9.6**		**10.54**		**8.92**		**4.92**		**2.17**	
D/S						18-06-2022		13-06-2022							
D/P						29-07-2022		12-07-2022							
Local Check Name						Mahisagar		GR 17 (Sardar)							

Table No. 1.6: Grain Yield (kg/ha) in AVT 1 – E TP, Zone -7 Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN									
		Andhra Pradesh (1)		Telangana						Telangana (3)	
		Maruteru		Kampasagar		Kunaram		Warangal		Mean	
3501	29943	4987		4638		5355		5601		5198	
3502	29947	5444	5	3830		4612		6331	10	4924	
3503	29958	3755		3740		3848		5468		4352	
3504	29940	5172	9	5487	5	4202		6831	8	5507	8
3505	29975	4347		4742		6957	3	5656		5785	6
3506	29946	4268		4022		6217	8	5600		5280	
3507	29939	3759		3961		5971	10	6523	9	5485	9
3508	CO-51 (NC)	3571		5242	7	6211	9	4629		5361	
3509	29957	3483		2883		4012		4179		3691	
3510	29951	6109	2 #	3116		6619	5	4532		4756	
3511	29992	5976	3 #	4879		6515	6	4990		5461	
3512	29983	4572		3853		5097		5036		4662	
3513	Zonal Check (ZC)	5101		4291		5820		6029		5380	
3514	29964	5386	6	3108		7103	1	5598		5270	
3515	29694	4660		5188	9	5569		9476	1	6744	2 * #
3516	29689	4136		7371	1	4553		7463	3	6462	3 * #
3517	28965	3801		5256	6	3603		4763		4541	
3518	29692	4347		6151	3	5422		7274	5	6282	4 * #
3519	US 314 (HC)	4428		4972	10	5271		6189		5477	10
3520	28123 (R)	5112	10	5216	8	3966		7632	2	5605	7
3521	29691	5636	4	5932	4	4424		7296	4	5884	5
3522	29700	3492		3881		6924	4	4598		5134	
3523	29690	6380	1 #	4226		3909		6999	7	5045	
3524	29696	4158		6265	2	7056	2	7107	6	6809	1 * #
3525	Local Check (LC)	5366	7	3269	3	5298		6174		4914	
3526	30632	4171		3140		4220		3333		3564	
3527	30633	5256	8	3678		5687		3992		4452	
3528	30634	4731		3571		6391	7	3889		4617	
3529	Varalu (RP)	4832		4014		5705		5034		4918	
Exp. Mean		**4705**		**4480**		**5398**		**5801**		**5226**	
F Value		3.23(p<0.0001)S		18.23(p<0.0001)S		7.26(p<0.0001)S		18.83(p<0.0001)S		16.95(p<0.0001)S	
CD		1224		707		1110		867		519	
CV%		**15.9**		**9.65**		**12.58**		**9.14**		**6.07**	
D/S		25-06-2022		21-07-2022		04-07-2022		28-06-2022			
D/P		22-07-2022		24-08-2022		09-08-2022		04-08-2022			
Local Check Name		MTU1156		KNM-118		KNM 118		VGL 962 (Warangal Vari-2			

Table No. 1.6 (Contd): Grain Yield (kg/ha) in AVT 1 – E TP, Zone -7 Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN									
		Tamil Nadu				Tamil Nadu (2)		Karnataka (1)		Zone VII (7)	
		Aduthurai		Coimbatore		Mean		Gangavathi		Mean	
3501	29943	5972	7	5754		5863	9 #	9017		5903	
3502	29947	5503		4464		4984		9647	5 #	5690	
3503	29958	5417		4654		5036		8301		5026	
3504	29940	6076	4	4009		5043		9987	1 #	5966	
3505	29975	5365		6525	2	5945	6 #	8365		5994	9
3506	29946	6198	2	5742		5970	5 #	8904		5850	
3507	29939	5608		6093	10	5851	10 #	9282	7	5885	
3508	CO-51 (NC)	5260		4372		4816		7410		5242	
3509	29957	5859	9	4701		5280		6724		4549	
3510	29951	5469		4704		5087		7417		5424	
3511	29992	5443		5671		5557		6897		5767	
3512	29983	5365		4412		4889		7058		5056	
3513	Zonal Check (ZC)	5703	10	6472	3	6088	2	9135		6079	8
3514	29964	5286		6113	8	5700		9269	8	5980	10
3515	29694	6094	3	6709	1	6402	1 #	9782	4 #	6783	1 * #
3516	29689	5417		6130	7	5774	#	8987		6294	5 #
3517	28965	5703	10	4725		5214		7192		5006	
3518	29692	5469		5636		5553		9872	3 #	6310	4 #
3519	US 314 (HC)	5469		5073		5271		8391		5685	
3520	28123 (R)	5635		6210	4	5923	8 #	9981	2 #	6250	6 #
3521	29691	5990	5	6185	5	6088	2 #	9247	9	6387	3 #
3522	29700	6354	1	4185		5270		7609		5292	
3523	29690	5990	5	6105	9	6048	4 #	9333	6	6135	7 #
3524	29696	5417		6022		5720		9199	10	6461	2 * #
3525	Local Check (LC)	5885	8	5521		5703		8984		5785	
3526	30632	5660		4155		4908		7981		4666	
3527	30633	5677		6174	6	5926	7 #	8006		5496	
3528	30634	5208		4455		4832		8173		5203	
3529	Varalu (RP)	5226		4727		4977		7224		5252	
Exp. Mean		**5645**		**5369**		**5507**		**8530**		**5544**	
F Value		4.54(p<0.0001)S		8.61(p<0.0001)S		7.89(p<0.0001)S		6.69(p<0.0001)S		24.13(p<0.0001)S	
CD		525		791		469		1140		337	
CV%		**5.69**		**9.01**		**5.21**		**8.17**		**3.72**	
D/S		17-06-2022		21-06-2022				05-07-2022			
D/P		18-07-2022		15-07-2022				03-08-2022			
Local Check Name		ADT 56		CO 51				GNV 10-89			

Table No.1.6 (Contd): Grain Yield (kg/ha) in AVT 1 – E TP, (Trial Not Considered) Zone 2 to 6 Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED							
		Uttarakhand		Uttar Pradesh 1				West Bengal	
		@Pantnagar		@Nagina		@Kanpur		@Hathwara	
3501	29943	6615	1	2867		5085	2	3560	
3502	29947	2464		3704		3296		3834	9
3503	29958	3300	9	4580		3598	9	4311	4
3504	29940	4127	3	4978		3571	10	3793	10
3505	29975	2968		5344	9	3138		4126	7
3506	29946	3989	4	5153		3053		3661	
3507	29939	3503	8	5772	6	4958	3	5231	1
3508	CO-51 (NC)	2573		5205	10	3873	7	3758	
3509	29957	2239		3612		3508		3093	
3510	29951	2679				4354	6	3111	
3511	29992	3889	6	6110	3	3476		3607	
3512	29983	2612		4984		3275		3140	
3513	Zonal Check (ZC)	2910		5720	7	3370		3532	
3514	29964	3225		3374		3286		3468	
3515	29694	3924	5	6727	2	3005		3958	8
3516	29689	2969		4108		3265		4128	6
3517	28965	3054		4547		3190		3623	
3518	29692	3284	10	5633	8	4481	5	3788	
3519	US 314 (HC)	2701		4913		3185		4214	5
3520	28123 (R)	4756	2	6885	1	4757	4	5000	2
3521	29691	3855	7	5065		3640	8	3218	
3522	29700	2741		6050	4	5206	1	3082	
3523	29690	3227		5854	5	3180		3477	
3524	29696	3000		3884		3455		4968	3
3525	Local Check (LC)	1606		3745				3033	
Exp. Mean		**3288**		**4951**		**3717**		**3789**	
F Value		21.66(p<0.0001)S		58.10(p<0.0001)S		3.54(p=0.0001)S		15.99(p<0.0001)S	
CD		573		381		1013		415	
CV%		**10.61**		**4.69**		**16.59**		**6.68**	
D/S		10-06-2022		17-06-2022		02-07-2022		16-07-2022	
D/P		02-08-2022		17-07-2022		26-08-2022		28-08-2022	
Local Check Name		Govind		NDR 97		.		Sahbhagidhan	

Table No. 1.6 (Contd): Grain Yield (kg/ha) in AVT 1 – E TP, (Trial Not Considered) Zone 2 to 6 Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED							
				Uttarpradesh 2		Manipur		Tripura	
		@Malda		@Masodha		@Wangbal		@Lembucherra	
3501	29943	6028	1	3103		4267		2783	9
3502	29947	4044		5051	10	4733		3080	5
3503	29958	4817	7	3999		6267		3563	3
3504	29940	4228		5502	2	7378	9	3451	4
3505	29975	4306		4372		7533	7	2115	
3506	29946	5044	6	2952		7378	9	3711	2
3507	29939	3956		5236	5	7489	8	1781	
3508	CO-51 (NC)	3767		3441		4933		2672	
3509	29957	3928		5153	7	4378		2895	7
3510	29951	4089		4184		6067		3600	2
3511	29992	4706	8	5067	9	5556		2301	
3512	29983	5528	4	3596		8133	5	1930	
3513	Zonal Check (ZC)	5906	2	3022		4556		2041	
3514	29964	4428		5207	6	5689		1893	
3515	29694	4372		5244	4	6289		3043	6
3516	29689	4439		4391		5733		1930	
3517	28965	4706	8	2971		6200		2338	
3518	29692	5628	3	3462		7578	6	1948	
3519	US 314 (HC)	4650	10	5368	3	7333		2561	
3520	28123 (R)	5150	5	3755		8689	2	2190	
3521	29691	4461		4222		8933	1	2412	
3522	29700	4272		5690	1	5067		2060	
3523	29690	4250		5121	8	8333	4	2301	
3524	29696	4294		3607		8667	3	2858	8
3525	Local Check (LC)	4011		3650		6378		2709	10
Exp. Mean		**4600**		**4295**		**6542**		**2567**	
F Value		47.80(p<0.0001)S		51.93(p<0.0001)S		1683.03(p<0.0001)S		54.31(p<0.0001)S	
CD		248		343		96		221	
CV%		**3.28**		**4.86**		**0.9**		**5.25**	
D/S		27-07-2022		20-06-2022		15-06-2022		12-07-2022	
D/P		13-08-2022		20-07-2022		10-07-2022		03-08-2022	
Local Check Name		Ajit		Shushk Smart		Punshi		HAKUCHUK-2	

Table No. 1.6 (Contd): Grain Yield (kg/ha) in AVT 1 – E TP, (Trial Not Considered) Zone 7 Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED											
		Telangana		Kerala				Karnataka				Puducherry	
		@Rudrur		@Moncompu		@Pattambi		@Mandya		@Brahmawar		@Kurumbapet	
3501	29943	6661	2	4875		3209		3627		4730	1	6005	
3502	29947	7795	1	6354	9	3540		3317		4670	2	5820	
3503	29958	2660		6082		3113		3194		4589	5	4630	
3504	29940	2832		6431	8	3324		4293	5	2999		3598	
3505	29975	4736	7	6074		3602		3105		3221		4735	
3506	29946	4990	6	5823		3093		3860		4269		6481	7
3507	29939	2765		6054		3720		3991	10	4340	9	4365	
3508	CO-51 (NC)	2823		4869		4158	2	2590		4666	3	5291	
3509	29957	2587		5561		3620		2982		3458		6402	9
3510	29951	3523		6542	5	3467		4105	7	3965		5608	
3511	29992	2867		4418		4069	4	3264		4248		6852	1
3512	29983	2858		4790		3467		2557		2508		4815	
3513	Zonal Check (ZC)	4529	8	5320		3738		3550		2637		6442	8
3514	29964	4129	9	4212		3780		3211		3321		6706	5
3515	29694	6369	3	6436	7	4142	3	4481	3	4388	7	6720	4
3516	29689	3383		6207		3367		4314	4	2562		6746	3
3517	28965	2348		6801	4	3809		5359	1	4581	6	5952	
3518	29692	2388		7074	2	3729		5094	2	4086		6614	6
3519	US 314 (HC)	2913		4581		4187	1	3962		4227		4947	
3520	28123 (R)	2855		6465	6	2967		2169		3184		3995	
3521	29691	2654		6296	10	3993	6	4048	9	3060		6825	2
3522	29700	2631		3515		4036	5	2169		1457		4524	
3523	29690	3319		6980	3	3951	8	4228	6	4006		4947	
3524	29696	2187		7929	1	3976	7	3917		4010		3968	
3525	Local Check (LC)	5162	5	6263		3884	9	3877		4034		4392	
3526	30632	5366	4	3975		3829	10	2618		4287	10	4921	
3527	30633	3969	10	3929		3313		4056	8	4348	8	5450	
3528	30634	2033		4064		3458		3836		4610	4	6085	10
3529	Varalu (RP)	2167		5754		3407		3738		2033		5926	
Exp. Mean		**3638**		**5644**		**3653**		**3638**		**3741**		**5509**	
F Value		20.29(p<0.0001)S		2.42(p=0.002)S		2.37(p=0.0026)S		17.81(p<0.0001)S		12.69(p<0.0001)S		1.48(p=0.1003)NS	
CD		908		1968		630		521		703		2441	
CV%		**15.27**		**21.32**		**10.54**		**8.76**		**9.177**		**27.09**	
D/S		08-07-2022		20-06-2022		20-06-2022		27-07-2022		14-06-2022		05.07.2022	
D/P		08-08-2022		08-07-2022		08-07-2022		20-08-2022		16-07-2022		28.07.2022	
Local Check Name		MTU 1010		Prathyasa (MO 21)		kanchana		Raksha		MO-21		ADT-53	

Table No. 1.7: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – E TP, Zone 2 to 6 Kharif 2022

ENTRY NO	IET NO	ZONE II - NORTHERN														
		Punjab (1)			Haryana (1)			Jammu Kshamir (1)			Rajasthan (1)			Zone II (4)		
		Ludhiana			Kaul			Chatha			Kota			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3501	29943	101	128	284	96	132	290	111	93	224	88	106	221	99	115	255
3502	29947	110	113	350	95	115	294	112	82	227	97	93	256	103	101	282
3503	29958	104	119	352	93	136	307	111	93	232	86	104	267	98	113	289
3504	29940	97	98	286	89	106	322	109	78	295	90	97	290	96	95	298
3505	29975	99	106	321	93	122	270	110	74	194	82	97	227	96	100	253
3506	29946	98	106	277	90	127	292	110	75	211	81	107	237	95	104	254
3507	29939	104	123	330	94	140	308	112	95	209	80	108	249	98	117	274
3508	CO-51 (NC)	89	105	389	83	109	288	101	89	239	75	106	218	87	102	284
3509	29957	97	101	332	86	105	332	98	71	247	86	94	218	92	93	282
3510	29951	98	105	271	88	109	299	100	77	222	90	106	210	94	99	251
3511	29992	106	110	343	93	118	271	114	91	283	84	106	207	99	106	276
3512	29983	100	112	257	93	115	290	98	80	230	80	104	245	93	103	256
3513	Zonal Check (ZC)	107	100	266	98	98	277	110	76	257	81	97	210	99	93	253
3514	29964	101	116	345	93	123	302	102	87	217	76	118	271	93	111	284
3515	29694	102	103	352	92	114	342	110	80	302	80	107	314	96	101	328
3516	29689	98	112	240	85	109	323	89	88	215	74	109	271	87	104	262
3517	28965	97	111	299	87	115	279	101	94	234	86	112	283	93	108	274
3518	29692	94	105	301	83	111	305	85	77	203	76	107	257	85	100	266
3519	US 314 (HC)	98	106	275	84	123	280	108	93	282	79	117	231	93	110	267
3520	28123 (R)	110	125	321	98	136	312	112	81	245	88	119	243	102	115	280
3521	29691	94	114	280	82	117	344	97	80	224	90	111	244	91	106	273
3522	29700	88	106	297	83	117	293	98	96	272	89	108	230	89	107	273
3523	29690	98	111	299	87	116	314	91	74	290	85	111	250	90	103	288
3524	29696	97	110	334	89	120	303	108	90	274	88	118	307	96	109	305
3525	Local Check (LC)	93	91	347	87	118	269	111	92	219	100	119	234	98	105	267
Exp. Mean		**99**	**109**	**310**	**90**	**118**	**300**	**104**	**84**	**242**	**84**	**107**	**248**	**94**	**105**	**275**

Table No. 1.7 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – E TP, Zone 2 to 6 Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN														
		Odisha									Odisha (3)			Bihar		
		ICAR-NRRI (Cuttack)			Jeypore			Chiplima			Mean			Bikramganj		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3501	29943	82	110	217	89	72	364	94	100	158	89	94	246	98	125	293
3502	29947	87	97	289	95	65	388	98	81	216	93	81	298	99	113	315
3503	29958	97	106	267	91	77	324	93	95	195	94	93	262	93	119	290
3504	29940	92	101	277	95	64	364	92	82	185	93	82	275	119	114	282
3505	29975	87	98	269	93	71	424	90	89	183	90	86	292	93	113	269
3506	29946	87	98	266	97	73	373	91	93	202	92	88	280	91	123	292
3507	29939	90	114	219	91	82	385	92	97	184	91	98	263	90	102	244
3508	CO-51 (NC)	88	95	287	93	77	326	92	86	248	91	86	287	91	106	276
3509	29957	82	91	213	92	65	356	89	83	204	88	80	258	93	108	266
3510	29951	87	103	232	93	70	238	93	81	150	91	84	207	95	106	259
3511	29992	91	93	264	91	64	296	92	92	185	91	83	248	98	108	254
3512	29983	87	101	228	92	67	251	90	86	172	90	85	217	95	109	273
3513	Zonal Check (ZC)	81	68	498	97	52	371	81	74	318	86	64	396	86	101	289
3514	29964	82	86	212	97	69	282	92	89	207	90	81	234	90	119	272
3515	29694	95	97	305	94	64	460	92	85	203	94	82	323	96	105	273
3516	29689	82	103	207	96	70	311	95	91	137	91	88	218	91	117	269
3517	28965	92	99	233	94	74	302	92	96	210	93	89	248	92	121	279
3518	29692	82	85	241	92	70	380	84	92	200	86	82	274	90	109	269
3519	US 314 (HC)	82	100	227	89	67	357	91	92	183	87	86	256	93	110	299
3520	28123 (R)	92	104	301	98	73	374	89	101	264	93	93	313	98	125	268
3521	29691	82	85	262	95	60	342	89	92	181	88	79	262	91	109	273
3522	29700	82	82	214	92	65	369	81	79	196	85	75	260	85	107	267
3523	29690	87	100	256	100	67	377	88	92	169	92	86	267	95	109	276
3524	29696	87	102	249	104	73	416	92	97	187	94	91	284	94	123	259
3525	Local Check (LC)	87	91	248	92	82	347	93	91	189	91	88	261	95	119	267
Exp. Mean		**87**	**96**	**259**	**94**	**69**	**351**	**91**	**89**	**197**	**90**	**85**	**269**	**94**	**113**	**275**

Table No. 1.7 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – E TP, Zone 2 to 6 Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN														
		Bihar						Bihar (3)			Jharkhand (1)			West Bengal (1)		
		Sabour			Patna-ICAR			Mean			Ranchi			Chinsurah		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3501	29943	90	120	250	90	114	245	93	120	263	105	111	231	98	187	253
3502	29947	100	106	283	103	90	316	101	103	305	107	101	235	99	180	308
3503	29958	89	109	289	92	94	269	91	107	283	104	105	201	91	195	275
3504	29940	94	103	257	93	102	281	102	106	274	105	101	163	89	174	286
3505	29975	86	95	275	87	104	361	89	104	302	102	100	233	90	170	264
3506	29946	86	101	266	87	89	261	88	104	273	105	106	230	88	172	286
3507	29939	89	109	229	89	111	305	90	107	260	104	121	192	95	211	264
3508	CO-51 (NC)	84	97	259	88	96	314	88	100	283	102	126	269	87	163	275
3509	29957	91	96	303	92	188	318	92	131	296	103	98	255	88	150	352
3510	29951	85	114	271	97	95	301	92	105	277	104	95	219	90	154	308
3511	29992	88	100	246	91	93	356	92	100	286	103	101	243	91	171	297
3512	29983	92	107	238	92	106	291	93	107	267	108	99	223	90	176	286
3513	Zonal Check (ZC)	84	83	357	87	87	298	85	90	315	96	86	269	82	131	220
3514	29964	87	100	297	89	90	267	89	103	279	102	111	214	86	175	319
3515	29694	88	96	308	91	90	352	92	97	311	109	91	259	90	171	330
3516	29689	93	112	264	94	98	236	92	109	256	110	103	195	90	179	297
3517	28965	91	111	246	92	112	234	92	115	253	112	105	236	90	180	231
3518	29692	89	105	250	90	105	238	89	106	252	105	104	215	85	167	297
3519	US 314 (HC)	88	102	214	89	103	248	90	105	254	102	104	250	86	185	308
3520	28123 (R)	93	107	297	91	111	281	94	114	282	110	104	238	98	198	242
3521	29691	87	107	274	92	107	320	90	108	289	104	101	217	87	171	264
3522	29700	84	89	233	84	99	228	84	98	243	98	98	239	80	159	253
3523	29690	93	109	255	98	109	263	96	109	265	106	101	242	89	177	264
3524	29696	95	112	239	93	96	326	94	110	275	110	100	255	88	178	275
3525	Local Check (LC)	89	120	282	86	109	292	90	116	280	106	104	246	88	107	220
Exp. Mean		**89**	**104**	**267**	**91**	**104**	**288**	**92**	**107**	**277**	**105**	**103**	**231**	**89**	**171**	**279**

Table No. 1.7 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – E TP, Zone 2 to 6 Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN						ZONE-V – CENTRAL								
		Uttar Prradesh 2 (1)			Zone III (9)			Madhya Pradesh (1)			Chattisgarh					
		Varanasi			Mean			Rewa			Raipur			Jagadalpur		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3501	29943	85	105	204	92	116	246	105	102	311	87	108	157	95	103	219
3502	29947	91	108	197	98	105	283	112	85	307	73	106	168	99	93	225
3503	29958	88	102	229	93	111	260	104	97	310	85	119	127	94	98	279
3504	29940	92	98	206	97	104	256	112	93	308	92	104	154	96	88	277
3505	29975	86	97	157	90	104	271	103	111	307	83	104	197	90	96	273
3506	29946	83	105	193	91	107	263	102	100	314	84	108	184	90	99	236
3507	29939	83	111	185	91	117	245	104	108	272	87	116	149	89	106	202
3508	CO-51 (NC)	76	99	174	89	105	270	107	97	327	81	106	135	88	96	275
3509	29957	85	90	187	91	108	273	103	92	352	86	98	176	99	92	288
3510	29951	85	97	210	92	102	243	105	91	284	89	102	158	98	97	232
3511	29992	91	104	180	93	103	258	106	97	316				90	90	250
3512	29983	88	104	189	93	106	239	103	109	322	83	105	138	89	94	273
3513	Zonal Check (ZC)	75	81	218	85	85	315	109	113	306	82	103	141	89	97	199
3514	29964	84	102	231	90	105	256	105	103	323	83	117	92	89	100	218
3515	29694	85	97	218	93	100	301	104	96	332	85	94	159	89	92	212
3516	29689	84	106	187	93	109	234	106	97	287	85	109	148	90	100	223
3517	28965	88	108	169	94	112	238	105	99	302	88	120	125	97	103	278
3518	29692	87	104	219	89	104	257	111	99	323	86	109	154	94	98	270
3519	US 314 (HC)	84	101	161	89	107	250	105	108	296	81	108	114	89	101	178
3520	28123 (R)	93	107	226	96	115	277	111	111	329	87	106	185	90	99	256
3521	29691	79	108	218	89	104	261	105	100	302	85	106	163	95	92	252
3522	29700	82	99	173	85	97	241	100	96	294	77	98	141	99	102	196
3523	29690	92	102	197	94	107	255	102	101	310	90	106	150	102	91	267
3524	29696	91	113	214	95	110	269	101	116	316	90	120	179	99	104	244
3525	Local Check (LC)	89	94	199	92	102	254	95	99	329	86	116	155	89	98	254
Exp. Mean		**86**	**102**	**198**	**92**	**106**	**261**	**105**	**101**	**311**	**85**	**108**	**152**	**93**	**97**	**243**

Table No. 1.7 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – E TP, Zone 2 to 6 Kharif 2022

ENTRY NO	IET NO	ZONE-V – CENTRAL														
		Chattisgarh			Chattisgarh (3)			Maharshtra 1						Maharshtra 1 (2)		
		Bilaspur			Mean			Sakoli			Sindewahi			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3501	29943	94	136		92	116	188	94	114	221	102	128	323	98	121	272
3502	29947	92	127		88	109	196	100	113	288	107	112	295	104	113	292
3503	29958	91	135		90	117	203	92	112	275	103	113	274	98	113	275
3504	29940	90	118		93	104	215	96	107	267	100	108	357	98	108	312
3505	29975	89	120		87	107	235	93	110	271	99	106	303	96	108	287
3506	29946	88	128		87	112	210	95	111	243	100	104	250	98	108	247
3507	29939	89	135		88	119	175	91	111	317	98	125	293	95	118	305
3508	CO-51 (NC)	84	120		84	107	205	89	103	282	92	116	366	91	110	324
3509	29957	89	103		91	98	232	95	94	294	101	89	219	98	91	257
3510	29951	91	115		93	105	195	98	100	298	102	111	250	100	106	274
3511	29992	89	117			103		93	104	246	98	110	355	96	107	301
3512	29983	88	118		87	106	206	96	108	233	96	107	206	96	108	219
3513	Zonal Check (ZC)	89	125		87	108	170	90	109	269	93	130	238	92	119	254
3514	29964	88	127		87	115	155	93	111	302	96	116	343	95	114	322
3515	29694	91	112		88	99	186	95	96	265	104	100	216	100	98	240
3516	29689	87	131		87	113	185	95	108	263	99	113	220	97	110	242
3517	28965	91	120		92	114	202	99	106	183	105	113	210	102	110	197
3518	29692	86	118		89	109	212	95	105	302	100	108	289	98	107	295
3519	US 314 (HC)	83	122		84	110	146	91	106	210	91	114	328	91	110	269
3520	28123 (R)	91	134		89	113	220	94	90	260	104	119	268	99	104	264
3521	29691	88	122		89	107	208	93	103	221	100	107	320	97	105	271
3522	29700	82	116		86	105	169	81	103	273	84	113	305	83	108	289
3523	29690	91	120		94	106	208	95	109	233	97	104	227	96	107	230
3524	29696	91	127		93	117	212	98	104	282	98	95	232	98	99	257
3525	Local Check (LC)	89	132		88	115	205	87	96	293	102	104	303	95	100	298
Exp. Mean		**89**	**123**		**89**	**109**	**197**	**94**	**105**	**264**	**99**	**111**	**280**	**96**	**108**	**272**

Table No. 1.7 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – E TP, Zone 2 to 6 Kharif 2022

ENTRY NO	IET NO	ZONE-V – CENTRAL			ZONE VI – WESTERN											
		Zone V (6)			Maharashtra 2											
		Mean			Karjat			Shirgaon			Vadagaon			Raghanagari		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3501	29943	96	115	246	86	128	199	103	127	107	91	110	219	96	101	233
3502	29947	97	106	256	90	123	215	100	93	132	92	95	247	101	88	252
3503	29958	95	112	253	87	127	232	96	107	123	88	104	233	97	101	294
3504	29940	98	103	273	90	121	190	98	113	162	90	92	280	105	92	248
3505	29975	93	108	270	88	115	213	98	113	156	86	89	238	84	93	272
3506	29946	93	108	246	87	118	199	96	110	114	86	96	254	94	101	265
3507	29939	93	117	246	89	130	221	99	124	141	86	105	234	89	110	248
3508	CO-51 (NC)	90	106	277	86	121	180	88	92	135	78	89	270	85	94	214
3509	29957	96	95	266	90	109	217	96	89	156	93	80	242	101	80	252
3510	29951	97	103	244	88	117	209	90	84	168	95	95	253	98	84	282
3511	29992		104		87	120	181	99	110	155	87	87	273	94	96	266
3512	29983	93	107	234	86	120	185	90	109	119	86	100	254	93	92	251
3513	Zonal Check (ZC)	92	113	231	86	112	215	94	96	113	84	101	240	97	104	237
3514	29964	92	112	255	91	124	213	95	121	155	90	102	226	92	102	257
3515	29694	95	98	237	89	115	207	103	97	150	88	91	267	93	95	267
3516	29689	94	109	228	87	121	220	97	114	164	88	103	284	100	102	287
3517	28965	98	110	220	86	123	217	93	88	136	96	102	189	101	93	285
3518	29692	95	106	268	90	118	213	94	113	156	79	94	263	95	95	264
3519	US 314 (HC)	90	110	225	86	134	195	98	119	114	85	93	245	92	92	286
3520	28123 (R)	96	110	259	90	120	198	101	122	185	88	89	288	95	103	252
3521	29691	94	105	252	88	134	193	93	109	143	87	84	235	97	97	265
3522	29700	87	105	242	86	113	164	85	86	100	79	76	219	93	89	211
3523	29690	96	105	237	86	113	203	98	113	171	95	95	241	100	89	213
3524	29696	96	111	251	91	123	217	102	116	163	98	101	250	103	94	271
3525	Local Check (LC)	91	107	267	88	108	188	94	92	148	90	93	250	95	95	250
Exp. Mean		**94**	**107**	**249**	**88**	**120**	**203**	**96**	**106**	**143**	**88**	**95**	**248**	**96**	**95**	**257**

Table No. 1.7 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – E TP, Zone 2 to 6 Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN								
		Maharashtra 2 (4)			Maharashtra (6)			Gujarat		
		Mean			Mean			Nawagam		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3501	29943	94	117	190	96	118	217	100	128	283
3502	29947	96	100	211	98	104	238	97	119	280
3503	29958	92	110	220	94	111	238	95	129	280
3504	29940	96	105	220	97	106	251	94	113	282
3505	29975	89	103	219	91	105	242	97	117	282
3506	29946	91	106	208	93	107	221	96	127	283
3507	29939	91	117	211	92	117	242	92	133	281
3508	CO-51 (NC)	84	99	200	87	103	241	94	112	269
3509	29957	95	89	217	96	90	230	95	95	274
3510	29951	93	95	228	95	99	243	98	106	279
3511	29992	92	103	219	93	105	246	102	121	279
3512	29983	89	105	202	91	106	208	87	125	277
3513	Zonal Check (ZC)	90	103	201	91	109	219	92	125	275
3514	29964	92	112	213	93	113	249	95	131	281
3515	29694	93	100	223	95	99	229	100	121	283
3516	29689	93	110	238	94	110	239	93	118	280
3517	28965	94	101	207	97	104	203	93	121	275
3518	29692	90	105	224	92	105	248	85	124	276
3519	US 314 (HC)	90	109	210	90	110	230	95	125	281
3520	28123 (R)	93	108	231	95	107	242	102	137	289
3521	29691	91	106	209	93	106	230	94	107	284
3522	29700	86	91	174	85	97	212	83	111	275
3523	29690	95	102	207	95	104	215	95	117	283
3524	29696	98	109	225	98	106	236	94	122	282
3525	Local Check (LC)	92	97	209	93	98	239	91	118	285
Exp. Mean		**92**	**104**	**213**	**93**	**105**	**232**	**94**	**120**	**280**

Table No. 1.7 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – E TP, Zone 2 to 6 Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN									Overall Mean (25)		
		Gujarat			Gujarat (2)			Zone VI (6)					
		Vyara			Mean			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3501	29943	94	125	201	97	127	242	95	120	207	95	116	238
3502	29947	95	123	273	96	121	277	96	107	233	98	105	265
3503	29958	93	144	231	94	136	256	93	119	232	94	113	256
3504	29940	90	138	227	92	125	254	95	111	231	96	104	260
3505	29975	92	119	224	94	118	253	91	108	231	92	105	258
3506	29946	89	117	236	92	122	260	91	111	225	92	108	248
3507	29939	91	133	265	91	133	273	91	122	232	93	118	247
3508	CO-51 (NC)	81	114	258	87	113	264	85	104	221	88	105	261
3509	29957	89	117	258	92	106	266	94	95	233	93	99	263
3510	29951	92	125	242	95	116	260	94	102	239	94	102	244
3511	29992	90	113	249	96	117	264	93	108	234	95	105	261
3512	29983	89	120	190	88	122	233	88	111	213	92	107	234
3513	Zonal Check (ZC)	89	132	230	91	128	252	90	112	218	90	99	263
3514	29964	89	119	249	92	125	265	92	116	230	91	110	254
3515	29694	89	110	213	94	116	248	94	105	231	94	101	275
3516	29689	87	131	198	90	125	239	92	115	239	92	110	238
3517	28965	91	138	246	92	129	261	93	111	225	94	110	237
3518	29692	86	120	246	86	122	261	88	110	236	90	106	255
3519	US 314 (HC)	83	125	221	89	125	251	90	115	224	90	110	241
3520	28123 (R)	93	134	252	97	136	271	95	117	244	97	114	266
3521	29691	87	123	240	91	115	262	91	109	227	91	106	253
3522	29700	81	121	192	82	116	234	84	99	194	86	101	235
3523	29690	92	119	218	93	118	250	94	108	221	94	106	249
3524	29696	93	130	250	93	126	266	97	114	239	96	111	264
3525	Local Check (LC)	88	116	251	90	117	268	91	104	229	92	104	253
Exp. Mean		**89**	**124**	**234**	**92**	**122**	**257**	**92**	**110**	**227**	**93**	**107**	**253**

Table No. 1.7 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – E TP, Zone 7 Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN														
		Andhra Pradesh (1)			Telangana									Telangana (3)		
		Maruteru			Kampasagar			Kunaram			Warangal			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3501	29943	86	125	363	96	286	288	93	120	306	101	132	325	97	179	306
3502	29947	87	109	381	102	242	389	91	109	288	101	118	356	98	156	344
3503	29958	85	116	339	92	275	366	90	112	260	99	120	327	94	169	318
3504	29940	85	110	391	100	252	344	88	104	279	96	108	327	95	155	317
3505	29975	80	113	394	93	256	344	89	113	306	97	117	333	93	162	328
3506	29946	79	117	378	90	254	389	90	113	299	95	118	333	92	161	340
3507	29939	79	121	358	92	265	322	90	107	290	99	130	360	94	168	324
3508	CO-51 (NC)	75	108	348	87	252	489	85	102	304	86	108	327	86	154	373
3509	29957	83	104	370	99	238	411	83	87	306	92	96	340	91	140	352
3510	29951	79	111	365	100	259	311	85	92	275	91	105	331	92	152	306
3511	29992	83	113	383	93	241	322	88	96	297	98	107	322	93	148	314
3512	29983	80	119	376	87	258	388	83	104	297	92	117	354	87	160	347
3513	Zonal Check (ZC)	77	111	367	90	252	311	89	109	323	97	110	321	92	157	319
3514	29964	81	120	363	89	242	266	88	116	332	99	122	348	92	160	315
3515	29694	83	112	328	95	241	444	91	104	301	97	109	318	94	151	355
3516	29689	79	111	363	97	284	344	83	114	304	94	115	327	91	171	325
3517	28965	85	109	372	97	273	344	90	109	279	100	117	332	96	166	319
3518	29692	75	113	396	93	259	355	82	108	308	85	108	342	87	158	335
3519	US 314 (HC)	77	113	361	85	245	355	82	116	306	88	117	309	85	160	323
3520	28123 (R)	88	115	369	89	265	411	92	123	306	100	127	328	94	172	348
3521	29691	80	114	347	95	262	311	83	105	268	86	113	327	88	160	302
3522	29700	71	99	385	80	223	244	92	94	304	84	96	325	85	138	291
3523	29690	82	117	400	100	265	355	84	104	301	96	116	333	93	162	330
3524	29696	86	117	347	99	280	400	85	110	299	95	122	339	93	170	346
3525	Local Check (LC)	86	113	378	84	234	344	86	102	293	96	106	356	89	147	331
3526	30632	81	111	369	87	241	411	90	107	297	86	107	322	88	152	343
3527	30633	82	116	367	84	239	400	81	100	284	84	105	330	83	148	338
3528	30634	79	114	365	84	233	267	80	101	354	84	111	322	82	148	314
3529	Varalu (RP)	82	114	350	89	252	411	81	113	337	90	113	312	87	159	353
Exp. Mean		**81**	**113**	**368**	**92**	**254**	**356**	**87**	**107**	**300**	**93**	**113**	**332**	**91**	**158**	**329**

Table No. 1.7 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – E TP, Zone 7 Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN														
		Tamil Nadu						Tamil Nadu (2)			Karnataka (1)			Zone VII (7)		
		Aduthurai			Coimbatore			Mean			Gangavathi			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3501	29943	102	108	242	95	109	273	99	108	257	97	112	466	96	142	323
3502	29947	101	89	274	89	105	302	95	97	288	103	105	461	96	125	350
3503	29958	95	102	340	92	106	339	93	104	339	96	108	337	93	134	330
3504	29940	93	73	269	94	97	298	94	85	283	103	104	388	94	121	328
3505	29975	93	90	289	85	107	368	89	99	329	97	102	362	90	128	342
3506	29946	91	97	243	87	108	340	89	102	292	95	100	451	90	129	348
3507	29939	96	103	249	87	107	321	91	105	285	93	106	387	91	134	327
3508	CO-51 (NC)	89	98	326	86	108	330	87	103	328	93	89	403	86	123	361
3509	29957	92	104	239	94	93	329	93	99	284	101	82	363	92	115	337
3510	29951	84	94	244	92	107	295	88	100	269	104	85	455	91	122	325
3511	29992	95	95	238	92	97	302	93	96	270	95	84	301	92	119	309
3512	29983	92	95	239	85	99	287	88	97	263	98	96	384	88	127	332
3513	Zonal Check (ZC)	95	94	240	93	103	331	94	98	286	99	100	319	91	126	316
3514	29964	88	98	239	90	106	321	89	102	280	98	99	418	90	129	327
3515	29694	90	87	236	88	97	349	89	92	293	97	90	372	91	120	335
3516	29689	92	104	238	89	107	321	90	105	279	99	103	397	90	134	328
3517	28965	89	95	253	92	106	309	90	101	281	101	102	342	93	130	319
3518	29692	91	96	248	90	103	349	90	99	299	98	100	401	88	127	343
3519	US 314 (HC)	91	95	220	86	104	326	89	100	273	89	103	384	85	128	323
3520	28123 (R)	93	97	394	87	118	355	90	108	374	97	112	403	92	137	366
3521	29691	90	98	317	88	97	308	89	98	313	98	107	439	88	128	331
3522	29700	89	96	283	74	106	314	81	101	299	85	84	277	82	114	304
3523	29690	97	102	316	92	100	270	95	101	293	103	108	461	93	130	348
3524	29696	99	104	277	95	102	326	97	103	301	103	109	462	95	135	350
3525	Local Check (LC)	90	91	346	80	88	384	85	90	365	93	99	366	88	119	352
3526	30632	89	97	353	86	104	296	88	101	325	93	99	369	87	124	345
3527	30633	87	91	276	86	113	312	86	102	294	93	98	342	85	123	330
3528	30634	83	100	254	88	94	317	85	97	285	93	98	389	84	121	324
3529	Varalu (RP)	92	97	251	88	110	311	90	104	281	97	105	378	89	129	336
Exp. Mean		**92**	**96**	**274**	**89**	**103**	**320**	**90**	**100**	**297**	**97**	**99**	**389**	**90**	**127**	**334**

Table No. 1.7 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1-E TP, (Trials Not Considered) Zone 2 to 6 Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED											
		Uttarakhand			Uttar Pradesh 1						West Bengal		
		@Pantnagar			@Nagina			@Kanpur			@Hathwara		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3501	29943	119	124	341	117	100	245	61	65	319	98	89	
3502	29947	124	102	276	123	99	317	57	81	311	98	98	
3503	29958	110	111	286	114	88	282	57	81	315	97	102	
3504	29940	114	100	265	112	98	321	59	59	303	99	93	
3505	29975	116	99	304	113	77	247	60	73	305	96	87	
3506	29946	112	102	348	107	82	216	60	65	326	97	88	
3507	29939	112	117	277	112	102	282	61	83	331	96	104	
3508	CO-51 (NC)	104	101	308	109	99	296	59	63	332	95	86	
3509	29957	109	98	269	106	87	298	64	71	334	100	97	
3510	29951	113	99	313				58	90	357	100	96	
3511	29992	115	98	308	114	125	274	60	74	315	97	98	
3512	29983	112	100	283	109	97	248	60	81	315	98	92	
3513	Zonal Check (ZC)	113	92	291	114	72	245	60	82	334	87	101	
3514	29964	111	105	324	111	99	308	58	92	361	99	98	
3515	29694	115	98	357	120	88	283	59	86	307	103	100	
3516	29689	111	99	267	104	92	262	61	76	322	100	89	
3517	28965	118	107	264	108	90	264	63	86	326	96	87	
3518	29692	110	107	318	106	76	241	57	88	341	98	96	
3519	US 314 (HC)	107	105	319	106	94	297	59	89	306	96	84	
3520	28123 (R)	119	118	389	120	82	292	61	81	340	97	91	
3521	29691	109	102	320	105	88	287	61	81	339	96	99	
3522	29700	104	96	288	95	84	270	61	87	329	84	100	
3523	29690	119	99	276	110	129	313	65	95	340	99	89	
3524	29696	118	106	337	114	98	231	61	90	335	99	101	
3525	Local Check (LC)	106	83	363	97	97	237				92	98	
Exp. Mean		**113**	**103**	**308**	**110**	**93**	**273**	**60**	**80**	**327**	**97**	**95**	

Table No. 1.7 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1-E TP, (Trials Not Considered) Zone 2 to 6 Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED											
		West Bengal			Uttar Pradesh 2			Manipur(0)			Tripura (0)		
		@Malda			@Masodha			@Wangbal			@Lembucherra		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3501	29943	94	99	338	71	111	270	112	114	245	91	115	400
3502	29947	89	97	319	74	102	274	129	110	409	75	95	342
3503	29958	90	105	335	79	109	284	113	116	405	78	112	350
3504	29940	99	107	409	78	78	295	111	99	369	87	87	300
3505	29975	96	100	334	78	100	275	133	106	405	77	102	350
3506	29946	94	95	369	76	84	269	128	109	411	79	103	350
3507	29939	97	100	296	73	119	262	107	118	388	84	103	275
3508	CO-51 (NC)	94	92	398	72	110	257	107	94	376	77	98	450
3509	29957	90	102	315	76	110	275	116	91	333	71	90	225
3510	29951	96	95	412	80	107	256	112	100	456	81	97	242
3511	29992	93	102	298	71	118	274	102	91	432	78	97	508
3512	29983	93	95	397	72	110	273	107	104	390	82	88	317
3513	Zonal Check (ZC)	98	106	309	67	125	267	92	94	405	86	102	242
3514	29964	99	104	410	77	105	282	108	110	357	75	109	283
3515	29694	95	103	305	77	84	265	108	96	399	92	102	350
3516	29689	95	109	378	79	105	263	113	107	273	79	107	225
3517	28965	97	102	321	80	99	261	106	115	306	84	113	308
3518	29692	98	100	346	76	107	289	108	105	384	83	106	275
3519	US 314 (HC)	94	95	337	78	103	255	104	114	387	79	92	208
3520	28123 (R)	97	100	372	74	96	273	136	126	405	85	111	325
3521	29691	98	102	340	73	94	288	133	110	367	82	95	300
3522	29700	93	105	386	78	116	275	108	100	286	78	88	233
3523	29690	96	124	299	71	118	295	108	108	408	87	99	283
3524	29696	99	127	412	75	108	275	108	119	341	83	115	250
3525	Local Check (LC)	99	100	308	70	80	252	105	109	353	83	120	308
Exp. Mean		**95**	**103**	**350**	**75**	**104**	**272**	**113**	**107**	**372**	**81**	**102**	**308**

Table No. 1.7 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1-E TP, (Trials Not Considered) Zone 7 Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED								
		Telangana			Kerala					
		@Rudrur			@Moncompu			@Pattambi		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3501	29943	99	105	285	89	113	187	76	90	437
3502	29947	105	87	292	89	103	275	76	91	475
3503	29958	98	81	191	88	449	247	85	96	392
3504	29940	100	80	188	92	98	257	75	94	383
3505	29975	101	80	220	87	101	287	82	87	372
3506	29946	100	84	262	85	101	273	74	88	372
3507	29939	100	77	196	87	117	256	75	83	495
3508	CO-51 (NC)	97	72	190	81	99	260	74	95	428
3509	29957	98	63	221	88	98	273	77	90	404
3510	29951	94	72	234	88	106	242	77	86	452
3511	29992	98	77	233	88	95	236	74	95	399
3512	29983	92	78	239	88	104	251	76	87	443
3513	Zonal Check (ZC)	98	82	252	89	103	236	74	91	475
3514	29964	99	87	262	88	106	291	72	95	424
3515	29694	98	74	282	89	97	260	74	93	454
3516	29689	99	81	239	90	113	218	76	84	346
3517	28965	95	79	235	92	106	289	74	111	387
3518	29692	98	62	221	85	105	247	78	93	412
3519	US 314 (HC)	95	72	221	84	102	237	76	99	434
3520	28123 (R)	98	83	212	89	106	273	78	103	440
3521	29691	94	68	236	88	106	280	75	94	456
3522	29700	90	81	236	86	87	204	77	92	449
3523	29690	105	69	261	88	116	256	76	90	399
3524	29696	99	77	223	88	107	307	73	86	455
3525	Local Check (LC)	91	82	289	89	103	251	75	91	467
3526	30632	95	78	235	88	104	249	77	92	500
3527	30633	89	76	225	89	105	273	74	93	452
3528	30634	87	88	192	86	106	242	76	86	466
3529	Varalu (RP)	98	89	194	89	114	289	76	92	500
Exp. Mean		**97**	**79**	**233**	**88**	**116**	**257**	**76**	**92**	**433**

Table No. 1.7 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1-E TP, (Trials Not Considered) Zone 7 Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED								
		Karnataka						Puducherry		
		@Mandya			@Brahmawar			@Kurumbapet		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3501	29943	89	106	307	96	93	403	87	118	400
3502	29947	99	92	293	97	83	397	91	100	452
3503	29958	89	90	307	97	84	394	82	113	540
3504	29940	98	95	340	102	82	363	96	99	457
3505	29975	88	81	247	97	75	371	82	101	449
3506	29946	86	94	267	97	82	392	78	97	461
3507	29939	88	92	273	99	75	398	79	112	423
3508	CO-51 (NC)	73	87	267	95	82	386	75	99	490
3509	29957	95	85	267	100	79	398	87	99	464
3510	29951	99	84	273	97	73	373	86	102	453
3511	29992	86	82	280	96	74	390	86	105	404
3512	29983	86	85	253	95	80	369	78	100	404
3513	Zonal Check (ZC)	87	86	267	96	82	358	82	101	460
3514	29964	87	91	267	92	89	389	79	108	432
3515	29694	85	79	240	94	75	390	83	102	469
3516	29689	92	93	253	94	83	379	80	104	413
3517	28965	95	91	260	101	77	402	85	112	529
3518	29692	96	83	267	97	76	386	78	101	486
3519	US 314 (HC)	85	90	267	96	75	390	78	104	406
3520	28123 (R)	82	83	253	94	86	401	79	110	480
3521	29691	92	82	180	96	78	418	80	105	455
3522	29700	77	85	233	81	71	346	72	91	372
3523	29690	102	94	240	80	82	390	87	106	367
3524	29696	102	79	247	102	91	389	89	115	477
3525	Local Check (LC)	83	86	267	92	89	394	78	107	517
3526	30632	90	85	267	81	74	418	74	109	492
3527	30633	116	86	253	80	78	401	75	104	437
3528	30634	85	88	240	80	75	408	74	104	452
3529	Varalu (RP)	91	89	253	81	84	334	78	105	430
Exp. Mean		**90**	**88**	**263**	**93**	**80**	**387**	**81**	**105**	**451**

Table No. 1.8: Grain quality characteristics of entries in AVT 1-E TP, kharif 2022

Entry No.	IET No.	Hull %	Mill %	HRR %	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
3501	29943	80.8	71.1	65.8	7.16	2.10	3.40	LS	VOC	7.0	24.87	61
3502	29947	82.7	71.7	61.8	6.30	2.41	2.61	SB	OC	7.0	28.21	60
3503	29958	81.7	64.9	48.0	6.43	2.19	2.93	LB	VOC	3.0	24.52	81
3504	29940	80.1	69.5	59.4	5.39	2.22	2.43	SB	VOC	4.0	26.98	41
3505	29975	82.8	70.1	60.2	5.68	1.84	3.08	LS	VOC	3.0	21.23	55
3506	29946	80.1	64.6	51.8	6.29	2.07	3.03	LS	VOC	3.0	22.14	80
3507	29939	81.6	65.8	55.4	6.97	2.29	3.04	LS	OC	5.0	24.14	22
3508	CO-51 (NC)	79.2	66.8	60.7	5.37	1.91	2.81	MS	A	4.0	25.96	62
3509	29957	79.2	68.5	60.1	6.85	1.90	3.60	LS	VOC	5.0	16.54	73
3510	29951	79.4	70.7	66.9	7.37	1.87	3.94	LS	A	5.0	20.27	60
3511	29992	78.1	68.1	60.4	6.87	2.08	3.30	LS	VOC	7.0	23.58	24
3512	29983	79.6	68.9	56.3	7.06	2.05	3.44	LS	VOC	7.0	22.32	22
3513	NDR-97 (ZC)	82.1	67.1	56.6	6.15	2.29	2.68	LB	VOC	7.0	24.54	22
3514	29964	79.4	69.3	62.3	6.64	1.91	3.47	LS	VOC	4.0	24.61	75
3515	29694	80.6	66.5	51.8	6.34	2.13	2.97	LB	VOC	4.0	23.58	69
3516	29689	81.2	66.0	52.0	6.85	2.04	3.35	LS	VOC	5.0	23.87	62
3517	28965	82.7	68.9	59.4	7.97	1.93	4.12	LS	VOC	4.0	20.94	62
3518	29692	80.3	65.6	51.9	7.02	2.21	3.17	LS	VOC	5.0	23.84	37
3519	US-314 (HC)	82.9	66.5	56.3	5.71	2.12	2.69	MS	VOC	4.0	21.61	49
3520	28123 (R)	80.4	69.4	56.9	5.86	2.05	2.85	MS	VOC	4.0	26.13	24
3521	29691	80.8	68.9	51.0	5.57	2.38	2.34	SB	VOC	7.0	21.94	23
3522	29700	81.8	71.0	63.7	6.61	2.08	3.17	LS	A	4.0	20.56	51
3523	29690	81.5	67.8	55.5	6.27	2.29	2.73	LB	VOC	4.0	23.73	65
3524	29696	81.0	65.3	50.6	6.83	2.16	3.16	LS	VOC	7.0	26.13	22
3525	Rajendra Bagvati (ZC)	81.6	71.2	64.2	7.72	1.98	3.89	LS	VOC	7.0	24.40	55
3526	30632	80.6	65.8	34.4	6.81	2.18	3.12	LS	VOC	7.0	24.20	24
3527	30633	80.0	71.2	35.4	6.19	2.24	2.76	LB	VOC	7.0	24.93	39
3528	30634	80.0	70.4	38.3	6.19	2.28	2.71	LB	VOC	7.0	27.07	22
3529	Varalu (RP)	81.3	67.5	56.3	6.12	1.89	3.23	LS	VOC	7.0	24.05	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. 1.9: Composition of entries in Initial Variety Trial–Early Transplanted (IVT-E TP), Kharif 2022

Entry No.	IET No.	Designation	Cross Combination	GT
1st year of testing:				
3601	29775	RP 6112- MS-M-4-11-5-3-7-9-4-1	BPT 5204 Mutant	MB
3602	30635	Pusa 2091-26	CMH 310 / CMH 482	MS
3603	30636	JGL 28639	MTU 1010 / NLR 34449	LS
3604	30637	CR 4075-1341-3-3-2-2-1-4-3	Jaya / PKV HMT	MS
3605	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
3606	30639	CSR AP10	IRRI 134 / IR 70479-45-2-3 // IR 64680-81-2-2-1-3	
3607	30640	CSR M1-4	IR 71730-51-2 / NSIC Rc106	LS
3608	30641	RNR 35105	JGL 24423 / MTU 1156	LS
3609	30642	KNM 12509	KNM 118 / IR 72 // MTU 1156	LS
3610	30643	CR 3745-3-2-1-2-1-1	Pooja / Lalat	MS
3611	30644	CB 18611	CB 08504 / CB 10554	MS
3612	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
3613	30646	NVSR 3211	GR 7 / Gurjari	LB
3614	30647	NWGR-16032	Gurjari / NWGR-3015 / 35-2-1-1-1-1-1	MB
3615	30648	AD 19215	ADT 57 / ADT 53	MS
3616	30649	CR 4396-1-13-11	Lalat MAS / CR Dhan 801 // 3* Lalat MAS	LS
3617	30650	TRC B3N 693-B-B-9-4	Bhalum 3 / Naveen	LS
3618	**CO-51 (NC)**			
3619	30651	RCPR 94-IR97030-7-2-2-2	IR09L337 / IR10L178	LS
3620	30652	RP 6166-47-1-23	MTU 1010 / O.rufipogon	MS
3621	30653	CSR M1-5	IR 71730-51-2 / NSIC Rc106	LS
3622	30654	CR 3516-11-2-2-1-15	Birupa / Pusa 44	LS
3623	30655	KJTR 4	Selection from KJTR 4 restorer lines	LS
3624	30656	IIABR-9 / IIAB-54 / IR 16A3098	PR 36921-B-6-1-3-4 / IRR I 154 // IR09A228	LS
3625	30657	WGL 1720	MTU 1081 / R 1556-25-77	LS
3626	30658	AD (Bio) 13060	ADT 47 / IRBB 60	MS
3627	30659	ORJ 1345 (TP 30531)	IURON 43 Ent.02	MS
3628	30660	KNM 13557	MTU 1156 / WGL 1097 // MUT NS1	LS
3629	30661	CR 3843-22-2	Gontra Bidhan / CR Dhan202	LS
3630	30662	BRR 0156	MTU 1010 / IRMT 4344	LS
3631	30663	UPR 4546-4-1-1-1	UPR4439 / HKR47	LS
3632	30664	AD 18028	AD 08010 / ADT 53	MS
3633	30665	RP 6496-JB 202-4-6-1-1-1-1	Krishna Hamsa / IRBB60 //Krishna Hamsa / Tetep /// Krishna Hamsa // IR 8196-96-B-B-195	LS
3634	30666	KMP-241	KMP 149 / IC-10	MB
3635	30667	CR 3506 -1-2-3-1-2-1	IR 36 / Tapaswini	MS
3636	30668	R 1902-97-1-77-1	Danteshwari / JGL 1118	MS
3637	30669	WGL 1719	MTU 1081 / R 1556-25-77	LS
3638	30670	OR 2800-4		

Entry No.	IET No.	Designation	Cross Combination	GT
3639	30671	KPS-10321	Akshaydhan / RNR 15048	MS
3640	30672	CR 4388-RGA-245	CR Dhan 202 / ARIZE 8433DT	MS
3641	30673	HKR 18-32	HKR 48 / HKR 47	LS
3642	30674	RCPR 95-IR 97046-39-2-1-2	IR09L272 / I R10L165	LS
3643	**PR 124-Northern, Narendra 97-Eastern, Luit -North Eastern, Sahbhagidhan- Central & Western, MTU 1153-Southern-- ZC**			
3644	30675	CRR-DH8	DH derivative of CRHR 32	MS
3645	30676	RP 5599-240-B-7-3 (PSV-56)	MTU 1010 / KMR 3	MS
3646	30677	CR 4386-RGA-134	CR Dhan 202 / SR-36-2-1	MS
3647	30678	TRC H2N 422-B-B-7-4	Hakuchuk 2 / Naveen	MB
3648	30679	HURS 19-9-IR 128773-4-3-1-4-B	IR 69428-6-1-1-3-3 / Rajendra Mahsuri 1	LS
3649	30680	UPR 4304-12-1-1-1	UPR4202 / UPR4192	LS
3650	30681	RP 6529-1780-28-7-16	MTU 1010*2 / Improved Samba Mahsuri	LS
3651	30682	CB 17529	CO 51 / WGL 536	MS
3652	30683	MTU 1390 (IR17M1172)	IR 95097:1-B-19-7-13-GBS / Madirat 66	LS
3653	30684	CR 3842-62-5-1-1-1	Gontra Bidhan / CR Dhan203	MS
3654	30685	NWGR-16034	Gurjari / IET 19850 / 37-2-1-1-1-1-1	LB
3655	30686	IIABR-10 / IIAB-309/IR 13T144	AT 401 / 3*IR04A285	LS
3656	30687	CRR - DH64	Savitri / Pokkali	MB
3657	30688	RP 6680- RMS-1703-55-89-66	MTU 1010*2 // ST12	LS
3658	30689	NVSR 750	NVSR 303-06 /GNR-3	LB
3659	30690	RNR 35109	JGL 24423 / MTU 1156	LS
3660	30691	RP 6420-C10-269-12	MTU 1010 / Tualsi	MS
3661	30692	NDR 8806-TFR-3	MTU1010 / Bauni Pusa Basmati Mutant	LS
3662	30693	RDR-2747	(MTU 1164 / WGL 283) // CSA 43	LS
3663	30694	CRR 778-B-B-2-2	Naveen / WITA 2	LS
3664	**Local Check (LC)**			

Table No. 1.10: Grain Yield (kg/ha) in IVT – E TP, Kharif 2022

ENTRY NO	IET NO	ZONE II - NORTHERN								ZONE III - EASTERN			
		Haryana (1)		Rajasthan (1)		Uttar Pradesh 1(1)		Zone II (3)		Odisha			
		Kaul		Kota		Nagina		Mean		Jeypore		Chiplima	
3601	29775	5300		6383		5898		5860		3586		4167	
3602	30635	4200		6416		4568		5061		3313		4818	
3603	30636	6250	10	6981	10	4688		5973		3970		3950	
3604	30637	3750		6449		6396	*	5532		2487		3767	
3605	30638	6100		6383		6070		6184		6487	2	5382	
3606	30639	6950	2 *	6848		7633	2 *	7144	2 *	3131		6076	10
3607	30640	4400		5851		5219		5157		1265		4427	
3608	30641	6700	5 *	7646	2	4814		6387	7 *	5174		5469	
3609	30642	6800	3 *	7114	7	6636	10 *	6850	3 *	5146		4948	
3610	30643	5150		5918		7553	3 *	6207		5715	6	5816	
3611	30644	4250		6649		5113		5337		4280		5425	
3612	30645	4350		5652		4222		4741		4568		6380	7
3613	30646	4600		5918		4056		4858		3247		4080	
3614	30647	5250		6915		4355		5507		6444	3	4080	
3615	30648	5300		6715		3956		5324		4033		4210	
3616	30649	4300		7247	5	5878		5808		1795		4688	
3617	30650	5000		6882		6090		5991		4596		2561	
3618	CO-51 (NC)	3550		5253		4581		4461		3048		5729	
3619	30651	4500		5306		6616	*	5474		7167	1	6771	3
3620	30652	4350		5319		5472		5047		5005		5295	
3621	30653	3000		5053		4528		4194		5285		5208	
3622	30654	3000		5519		3431		3983		2503		5990	
3623	30655	3800		5519		4940		4753		4962		5903	
3624	30656	6800	3 *	7580	3	7507	4 *	7296	1 *	5152		5165	
3625	30657	6200	*	6715		6689	8 *	6535	6 *	4018		6510	5
3626	30658	2600		6449		4661		4570		1712		2561	
3627	30659			5785		6210		5998		4957		4861	
3628	30660	6700	5 *	6449		6576	*	6575	5 *	4311		4167	
3629	30661			3989		6144		5067		5270		5642	
3630	30662	4650		4388		4847		4628		5167		6988	1
3631	30663	5500		4122		5392		5005		5295	10	5773	
3632	30664	5450		6582		5412		5815		3881		4818	
3633	30665	4900		5918		4614		5144		1508		4991	
3634	30666	4400		6004		4541		4982		4316		3819	
3635	30667	4050		4854		3989		4298		3944		4427	
3636	30668	3750		4388		4096		4078		1543		3516	
3637	30669	5700		5652		6077		5810		5280		4470	
3638	30670	5300		6184		5492		5659		6013	4	3906	
3639	30671	4050		5685		4967		4901		2038		4731	
3640	30672	5350		7048	9	4934		5777		5215		3689	
3641	30673	7100	1 *	7839	1	4016		6318	9 *	4740		6120	8
3642	30674	5600		6848		6669	9 *	6372	8 *	4482		6120	8
3643	Zonal Check (ZC)	4600		7247	5	5592		5813		1343		3168	
3644	30675	4300		5319		3471		4363		4939		3559	
3645	30676	4450		5452		4688		4863		5995	5	4514	
3646	30677	5100		4056		5984		5047		1402		5859	
3647	30678	4250		6117		6908	7 *	5758		4717		6814	2
3648	30679	6350	9	7247	5	6164		6587	4 *	4146		4905	
3649	30680	6500	7 *	7114	7	5086		6233	10	5379	9	3472	
3650	30681	5150		5918		4063		5044		5104		6641	4
3651	30682	4050		5306		3338		4231		5215		5946	
3652	30683	4900		5785		5406		5364		4907		6510	5
3653	30684	5100		4641		7387	5 *	5709		3604		4514	
3654	30685	5200		3723		3517		4147		4972		4948	
3655	30686	5300		6051		7114	6 *	6155		5523	8	6076	10
3656	30687	4350		5851		5326		5176		2056		3342	
3657	30688	5700		5851		3763		5105		4162		4948	
3658	30689	6100		5918		3763		5260		4396		3689	
3659	30690	6500	7 *	5519		5598		5872		5543	7	3168	
3660	30691	4550		5452		5904		5302		1886		4818	
3661	30692	4250		5984		5426		5220		4886		5642	
3662	30693	5250		5452		5386		5363		5225		4557	
3663	30694	5200		5485		7899	1 *	6195		4614		4340	
3664	Local Check (LC)	5550		5652		4874		5359		4442		4948	
Exp. Mean		**5027**		**5962**		**5347**		**5450**		**4227**		**4903**	
F Value		**53.38(p<0.0001)S**		**8.83(p<0.0001)S**		**20.19(p<0.0001)S**		**18.47(p<0.0001)S**		**11.31(p<0.0001)S**		**4.03(p<0.0001)S**	
CD		839		883		720		500		1184		1507	
CV%		**8.35**		**7.42**		**6.74**		**4.59**		**14.02**		**15.38**	
D/S		05-07-2022		05-07-2022		07-07-2022				18-07-2022		26-07-2022	
D/P		02-08-2022		03-08-2022		30-07-2022				17-08-2022		13-08-2022	
Local Check Name		HKR-48		Pratap -1		NDR 97				Mandakini		Mandakini	

For Promotion of entries:

***For Varietal entries: Yield of entry should be superior over yield of BVC+CD (at 5%level of significance).**

#For hybrid entries: Yield of entry should be superior over yield of BVC+CD and over yield of BHC+CD (at 5% level of significance)

In locations where the F variance ratio between treatments is non-significant, data from such locations was not considered in analysis

Table No. 1.10 (Contd): Grain Yield (kg/ha) in IVT – E TP, Kharif 2022

ENTRY NO	IET NO	ZONE III - EASTERN											
		Odisha (2)		Bihar				Bihar (2)		West Bengal (1)		Uttar Pradesh 2 (1)	
		Mean		Bikaramganj		Sabour		Mean		Chinsurah		Varanasi	
3601	29775	3877		7043		3889		5466		5149		6375	
3602	30635	4066		7154		4175		5665		4583		6760	6
3603	30636	3960		6304		5309		5807	*	6429	1 *	5615	
3604	30637	3127		5928		3994		4961		4226		6313	
3605	30638	5935	3 *	7096		4834		5965	*	4613		5917	
3606	30639	4604		6797		5775	6	6286	9 *	5506	9	5958	
3607	30640	2846		5523		3490		4507		4048		5719	
3608	30641	5322		7833	2	5415	9	6624	4 *	4613		7469	1
3609	30642	5047		6464		4872		5668		6071	2 *	5000	
3610	30643	5766	6 *	5667		4213		4940		5286		6094	
3611	30644	4853		4381		4924		4653		5833	3 *	5219	
3612	30645	5474		6363		5012		5688		4167		6917	5
3613	30646	3664		7167	10	5064		6116	*	4643		5604	
3614	30647	5262		6897		5265		6081	*	4911		6042	
3615	30648	4122		6254		3614		4934		4167		5292	
3616	30649	3242		5041		5023		5032		5655	6 *	5146	
3617	30650	3579		4993		3088		4041		4226		3630	
3618	CO-51 (NC)	4389		6261		3941		5101		4405		4854	
3619	30651	6969	1 *	6152		4620		5386		4464		5500	
3620	30652	5150		7703	4	4946		6325	8 *	4524		6625	9
3621	30653	5247		6088		3914		5001		4375		4802	
3622	30654	4247		5493		5165		5329		4226		5760	
3623	30655	5433		6914		4484		5699		4405		4698	
3624	30656	5159		6543		5423	8	5983	*	4940		6271	
3625	30657	5264		8384	1	5256		6820	2 *	5238		7063	3
3626	30658	2137		6710		4904		5807	*	4524		5281	
3627	30659	4909		6413		4262		5338		4583		4917	
3628	30660	4239		7133		3946		5540		4405		5542	
3629	30661	5456		6028		3618		4823		4286		6052	
3630	30662	6078	2 *	6920		5387	10	6154	10 *	5357		5781	
3631	30663	5534	10	5716		4292		5004		4226		5135	
3632	30664	4350		7490	6	4438		5964	*	4196		6450	
3633	30665	3250		4988		3939		4464		4762		4208	
3634	30666	4068		3762		3415		3589		4018		3765	
3635	30667	4186		7222	9	5956	3	6589	5 *	4405		4646	
3636	30668	2530		6101		3765		4933		4345		5656	
3637	30669	4875		7072		5175		6124	*	4464		7292	2
3638	30670	4960		7000		4485		5743	*	4226		5469	
3639	30671	3385		4727		3957		4342		4583		3708	
3640	30672	4452		7022		4581		5802	*	5357		5073	
3641	30673	5430		6094		4287		5191		5060		5094	
3642	30674	5301		6382		5062		5722	*	5000		6625	9
3643	Zonal Check (ZC)	2256		4065		3266		3666		4226		4323	
3644	30675	4249		5275		4596		4936		4762		5604	
3645	30676	5255		5486		4350		4918		4643		5365	
3646	30677	3631		7355	8	4868		6112	*	4583		5938	
3647	30678	5766	6 *	5949		4451		5200		5060		5813	
3648	30679	4526		6609		4141		5375		4286		5500	
3649	30680	4426		6145		5871	4	6008	*	5774	4 *	6438	
3650	30681	5873	4 *	6732		4348		5540		4345		6198	
3651	30682	5581	9	5848		4514		5181		4583		4292	
3652	30683	5709	8 *	5530		4282		4906		4881		4698	
3653	30684	4059		5913		4520		5217		4107		5750	
3654	30685	4960		7565	5	5966	2	6766	3 *	5179		6667	8
3655	30686	5800	5 *	5551		4701		5126		5595	7	5625	
3656	30687	2699		5638		4997		5318		5060		6729	7
3657	30688	4555		7059		4204		5632		5417	10	6971	4
3658	30689	4043		7001		6069	1	6535	6 *	5714	5 *	5802	
3659	30690	4356		7449	7	5607	7	6528	7 *	4345		5604	
3660	30691	3352		4921		4466		4694		4286		4729	
3661	30692	5264		7833	2	5844	5	6839	1 *	5536	8	4833	
3662	30693	4891		6514		4602		5558		5119		5198	
3663	30694	4477		6355		4635		5495		4405		6083	
3664	Local Check (LC)	4695		5817		4406		5112		4702		6550	
Exp. Mean		**4565**		**6310**		**4623**		**5466**		**4767**		**5626**	
F Value		**10.05(p<0.0001)S**		**7.01(p<0.0001)S**		**7.37(p<0.0001)S**		**11.20(p<0.0001)S**		**2.81(p<0.0001)S**		**3.34(p<0.0001)S**	
CD		887		1002		722		603		938		1331	
CV%		**9.72**		**7.94**		**7.82**		**5.52**		**9.84**		**11.84**	
D/S				05-07-2022		02-07-2022				04-07-2022		01-07-2022	
D/P				02-08-2022		03-08-2022				03-08-2022		27-07-2022	
Local Check Name				R. Bhagwati		Sabour Deep				Ajit		HUR-3022	

Table No. 1.10 (Contd): Grain Yield (kg/ha) in IVT – E TP, Kharif 2022

ENTRY NO	IET NO	ZONE III - EASTERN		ZONE IV- NORTH EASTERN		ZONE V - CENTRAL									
		Zone III (6)		Tripura (1)		Chhattisgarh (1)		Maharshtra 1				Maharshtra 1(2)		Zone V (3)	
		Mean		Lembucherra		Jagadalpur		Sakoli		Sindewahi		Mean		Mean	
3601	29775	5035		5717		5952	9	5212		2919		4066		4694	
3602	30635	5134		7739	*	4150		5138		5234	4	5186	4	4841	
3603	30636	5263		8593	9 *	5114		4724		4063		4394		4634	
3604	30637	4453		8482	10 *	3721		3945		4034		3990		3900	
3605	30638	5722	7 *	5700		6855	1	5250	9	4205		4728		5437	2
3606	30639	5541		5733		5632		3700		4361		4031		4564	
3607	30640	4079		7026	*	5475		4090		3913		4002		4493	
3608	30641	5996	2 *	6371		4925		4750		5405	3	5078	8	5027	
3609	30642	5417	*	7312	*	5521		5264	8	4886		5075	9	5224	5
3610	30643	5465		6782	*	5902		4946		3722		4334		4857	
3611	30644	5010		7905	*	6615	3	3802		4070		3936		4829	
3612	30645	5568		8779	7 *	5218		2800		3935		3368		3984	
3613	30646	4968		6782	*	4105		2787		3651		3219		3514	
3614	30647	5607		7197	*	5664		3845		3700		3773		4403	
3615	30648	4595		5900		2920		5309	6	4070		4690		4100	
3616	30649	4558		6634	*	3913		2280		2777		2529		2990	
3617	30650	3849		6395		5511		2606		3175		2891		3764	
3618	CO-51 (NC)	4706		5283		5303		4800		2528		3664		4210	
3619	30651	5779	5 *	4755		4098		5291	7	3438		4365		4276	
3620	30652	5683	8 *	5598		5283		3115		3026		3071		3808	
3621	30653	4945		7230	*	3900		4031		3352		3692		3761	
3622	30654	4856		5553		5309		2336		5220	5	3778		4288	
3623	30655	5228		5598		5397		3640		3523		3582		4187	
3624	30656	5582		6815	*	5179		5185		5121	9	5153	7	5162	6
3625	30657	6078	1 *	7811	*	4766		4800				4800		4783	
3626	30658	4282		8329	*	5527		3481		4105		3793		4371	
3627	30659	4999		8853	5 *	6660	2	4100		4368		4234		5043	
3628	30660	4917		6740	*	6468	5	5534	3	4957		5246	3	5653	1
3629	30661	5149		7146	*	5531		4400		4212		4306		4714	
3630	30662	5933	3 *	5901		4655		5250	9			5250	2	4953	
3631	30663	5073		4539		5179		5050		4098		4574		4776	
3632	30664	5212		5384		4492		5438	4	5930	2	5684	1 *	5287	4
3633	30665	4066		4420		3649		5792	1	4531		5162	6	4657	
3634	30666	3849		3744		4463		5212		4190		4701		4622	
3635	30667	5100		6814	*	4707		3531		3942		3737		4060	
3636	30668	4154		7751	*	4935		5190		5178	6	5184	5	5101	9
3637	30669	5626	9	7261	*	4954		5341	5	4276		4809		4857	
3638	30670	5183		5492		4512		5598	2	3438		4518		4516	
3639	30671	3957		7645	*	4255		4743		4134		4439		4377	
3640	30672	5156		7219	*	4554		3496		4027		3762		4026	
3641	30673	5233		7781	*	4863		4987		4822		4905	10	4891	
3642	30674	5612	10	7595	*	4170		4150		4077		4114		4132	
3643	Zonal Check (ZC)	3399		5515		4704		3650		4361		4006		4238	
3644	30675	4789		6348		5931	10	4385		5043		4714		5120	8
3645	30676	5059		7180	*	5892		4800		4545		4673		5079	10
3646	30677	5001		8945	4 *	4626		4300		3366		3833		4097	
3647	30678	5467		5900		4170		3200		4219		3710		3863	
3648	30679	4931		8853	5*	6517	4	3631		4652		4142		4933	
3649	30680	5513		7562	*	3421		2977		5071	10	4024		3823	
3650	30681	5561		6648	*	4632		2214		3509		2862		3452	
3651	30682	5066		6324		5830		3640		4531		4086		4667	
3652	30683	5135		7779	*	5026		4600		4403		4502		4676	
3653	30684	4735		8603	8 *	5514		3650		4389		4020		4518	
3654	30685	5883	4 *	7595	*	6100	8	4095		3956		4026		4717	
3655	30686	5512		9092	3 *	4111		3250		5156	7	4203		4172	
3656	30687	4637		8080	*	4336		4593		3075		3834		4001	
3657	30688	5460		7914	*	5889		3200		4205		3703		4431	
3658	30689	5445		7977	*	6348	7	4594		4482		4538		5141	7
3659	30690	5286		7678	*	3626		2900		5149	8	4025		3892	
3660	30691	4184		9095	2 *	4287		3300		3232		3266		3606	
3661	30692	5762	6 *	9529	1 *	6432	6	3600		6058	1	4829		5363	3
3662	30693	5203		4986		4222		3500		4808		4154		4177	
3663	30694	5072		6430	*	4242		4000		4176		4088		4139	
3664	Local Check (LC)	5144		4589		5446		4650		4709		4680		4935	
Exp. Mean		**5076**		**6921**		**5020**		**4182**		**4221**		**4214**		**4481**	
F Value		**10.61(p<0.0001)S**		**17.66(p<0.0001)S**		**2.29(p=0.0006)S**		**6.15(p<0.0001)S**		**4.95(p<0.0001)S**		**5.70(p<0.0001)S**		**4.22(p<0.0001)S**	
CD		497		907		1853		1053		938		762		773	
CV%		**4.9**		**6.55**		**18.47**		**12.6**		**11.11**		**9.05**		**8.63**	
D/S				12-07-2022		12-07-2022		01-07-2022		28-06-2022					
D/P				02-08-2022		04-08-2022		04-08-2022		22-07-2022					
Local Check Name				HAKUCHUK 2		Samleshwari		SKL-6		MTU-1010					

Table No. 1.10 (Contd): Grain Yield (kg/ha) in IVT – E TP, Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN											
		Maharshtra 2				Maharshtra 2(2)		Maharshtra (4)		Gujarat			
		Karjat		Vadagaon		Mean		Mean		Nawagam		Vyara	
3601	29775	5464		4621		5043		4554		5155		4282	
3602	30635	5778		4980		5379		5283	6	4564		2922	
3603	30636	5815		4431		5123		4758		5606		3261	
3604	30637	5429		5392		5411		4700		4491		3984	
3605	30638	4698		5679	6	5189		4958		4643		4169	
3606	30639	5056		4787		4922		4476		5779		4089	
3607	30640	4873		4222		4548		4275		4845		3997	
3608	30641	5056		5855	4	5456		5267	7	6159	9	4594	
3609	30642	6246	9	5610	8	5928	4	5502	2 *	5595		4339	
3610	30643	5770		5537		5654	9	4994		5043		4933	
3611	30644	5635		5870	3	5753	6	4844		5985		3525	
3612	30645	3943		4169		4056		3712		5877		5013	10
3613	30646	4371		3736		4054		3636		5411		4518	
3614	30647	6233	10	4183		5208		4490		5649		4305	
3615	30648	5024		3703		4364		4527		4719		3738	
3616	30649	5516		3600		4558		3543		5260		5656	2
3617	30650	6324	8	3459		4892		3891		4816		3881	
3618	CO-51 (NC)	4937		3670		4304		3984		5054		3182	
3619	30651	4116		3561		3839		4102		5281		4769	
3620	30652	4825		3624		4225		3648		4896		4056	
3621	30653	4849		3676		4263		3977		5119		4634	
3622	30654	5429		3582		4506		4142		5161		4428	
3623	30655	4863		3442		4153		3867		5725		2628	
3624	30656	5484		3665		4575		4864		6494	7	4968	
3625	30657	6627	6	3455		5041		4961		7078	2	5289	5
3626	30658	6218		3731		4975		4384		4870		3758	
3627	30659	4210		3932		4071		4153		4978		3735	
3628	30660	4944		3799		4372		4809		3788		3122	
3629	30661	4635		3666		4151		4228		4210		3113	
3630	30662	7222	3	3401		5312		5291	5	5703		4292	
3631	30663	4417		4459		4438		4506		4026		3725	
3632	30664	6159		3893		5026		5355	3 *	5328		5013	10
3633	30665	5944		4363		5154		5158	9	3694		4169	
3634	30666	4250		4281		4266		4483		4134		4176	
3635	30667	6748	5	4748		5748	7	4742		5687		4048	
3636	30668	3333		5375		4354		4769		4188		4123	
3637	30669	5450		5992	1	5721	8	5265	8	6055		4690	
3638	30670	6489	7	5656	7	6073	3	5295	4 *	5755		3246	
3639	30671	5310		5068		5189		4814		5433		2784	
3640	30672	6090		5686	5	5888	5	4825		5415		4783	
3641	30673	4766		4483		4625		4765		5747		4405	
3642	30674	3373		5962	2	4668		4391		5502		6338	1
3643	Zonal Check (ZC)	5635		5548	10	5592		4799		4207		5175	7
3644	30675	4774		5197		4986		4850		5422		4256	
3645	30676	4798		5112		4955		4814		4913		4068	
3646	30677	5667		5549	9	5608	10	4721		5461		5043	9
3647	30678	5322		5213		5268		4489		5509		4555	
3648	30679	5433		4352		4893		4517		6539	4	4122	
3649	30680	6913	4	3819		5366		4695		5087		5369	4
3650	30681	3833		3586		3710		3286		6531	5	3828	
3651	30682	3897		4041		3969		4027		6158	10	3178	
3652	30683	5119		4296		4708		4605		8225	1	5076	8
3653	30684	5083		4061		4572		4296		5812		4812	
3654	30685	5957		4167		5062		4544		5216		4958	
3655	30686	5198		4513		4856		4529		4567		5378	3
3656	30687	3143		3896		3520		3677		4264		4856	
3657	30688	3929		4406		4168		3935		5736		4650	
3658	30689	5933		4963		5448		4993		5779		3924	
3659	30690	7675	1	4672		6174	2	5099	10	6082		2613	
3660	30691	5310		4323		4817		4041		5303		2961	
3661	30692	7659	2	4847		6253	1	5541	1 *	6288	8	4706	
3662	30693	5120		3617		4369		4261		3868		3642	
3663	30694	5766		3791		4779		4433		6764	3	5257	6
3664	Local Check (LC)	4651		4005		4328		4504		6515	6	3601	
Exp. Mean		**5293**		**4453**		**4873**		**4544**		**5362**		**4230**	
F Value		**6.66(p<0.0001)S**		**4.53(p<0.0001)S**		**6.19(p<0.0001)S**		**10.38(p<0.0001)S**		**2.11(p=0.0017)S**		**3.50(p<0.0001)S**	
CD		1066		1028		727		448		1625		1258	
CV%		**10.08**		**11.55**		**7.47**		**4.93**		**15.16**		**14.89**	
D/S		29-06-2022		01-07.2022						04-07-2022		30-06-2022	
D/P		25-07-2022		07.08-2022						16-08-2022		22-07-2022	
Local Check Name		Karjat 7		Phule Radha						Mahisagar		GR-17 (Sardar)	

Table No. 1.10 (Contd): Grain Yield (kg/ha) in IVT – E TP, Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN				ZONE VII – SOUTHERN							
		Gujarat (2)		Zone VI (4)		Andhra Pradesh (1)		Telangana				Telangana (2)	
		Mean		Mean		Maruteru		Kampasagar		Warangal		Mean	
3601	29775	4719		4881		6519		6648	9	6431		6540	
3602	30635	3743		4561		6072		6454		8229		7342	
3603	30636	4434		4778		7985	7	6750	5	8419		7585	10
3604	30637	4238		4824		6116		5676		6640		6158	
3605	30638	4406		4797		5433		5306		7113		6210	
3606	30639	4934		4928		5629		4472		8137		6305	
3607	30640	4421		4484		5697		4130		5301		4716	
3608	30641	5377	9	5416	8	8754	2	6639		7218		6929	
3609	30642	4967		5448	6	7566	10	6370		9870	3	8120	3 *
3610	30643	4988		5321	10	6737		5648				5648	
3611	30644	4755		5254		6071		6500		6969		6735	
3612	30645	5445	8	4751		5352		4259		8644		6452	
3613	30646	4965		4509		6732		4815		7336		6076	
3614	30647	4977		5093		7111		5556		7517		6537	
3615	30648	4229		4296		7205		6009		7274		6642	
3616	30649	5458	7	5008		7337		3759		6961		5360	
3617	30650	4349		4620		5304		4287		5737		5012	
3618	CO-51 (NC)	4118		4211		5519		6454		7254		6854	
3619	30651	5025		4432		4959		5806		8341		7074	
3620	30652	4476		4350		4634		4501		6852		5677	
3621	30653	4877		4570		6111		6581		6374		6478	
3622	30654	4795		4650		5601		5087		5906		5497	
3623	30655	4177		4165		7441		5000		8558		6779	
3624	30656	5731	5	5153		7791	9	6537		7828		7183	
3625	30657	6184	2	5612	3	5644		6565		10213	2	8389	2 *
3626	30658	4314		4644		7485		6193		7977		7085	
3627	30659	4357		4214		5878		5574		5397		5486	
3628	30660	3455		3913		6334		5523		5933		5728	
3629	30661	3662		3906		7065		4266		4564		4415	
3630	30662	4998		5155		6145		4608		8438		6523	
3631	30663	3876		4157		4032		5738		6170		5954	
3632	30664	5171		5098		7142		5608		4935		5272	
3633	30665	3932		4543		4334		4544		6198		5371	
3634	30666	4155		4210		4625		3766		4883		4325	
3635	30667	4868		5308		4976		6619		8187		7403	
3636	30668	4156		4255		3958		4711		4619		4665	
3637	30669	5373	10	5547	4	7990	6	7071	4	8770	9	7921	4 *
3638	30670	4501		5287		7448		6519		8881	7	7700	7 *
3639	30671	4109		4649		6223		7352	2	5231		6292	
3640	30672	5099		5494	5	5363		6657	8	8646	10	7652	8 *
3641	30673	5076		4850		7049		4636		6918		5777	
3642	30674	5920	4	5294		7848	8	5544		7435		6490	
3643	Zonal Check (ZC)	4691		5141		6782		5192		6959		6076	
3644	30675	4839		4912		5204		5031		7022		6027	
3645	30676	4491		4723		6391		4226		8532		6379	
3646	30677	5252		5430	7	8819	1	5235		7039		6137	
3647	30678	5032		5150		5594		6211		8898	6	7555	
3648	30679	5331		5112		8199	3	6702	6	9132	4	7917	5 *
3649	30680	5228		5297		7200		6304		8254		7279	
3650	30681	5180		4445		6584		4609		7042		5826	
3651	30682	4668		4319		4286		5731		6917		6324	
3652	30683	6651	1 *	5679	2	8067	5	5192		6994		6093	
3653	30684	5312	*	4942		7070		7701	1	7975		7838	6 *
3654	30685	5087		5075		5763		5905		8291		7098	
3655	30686	4973		4914		6981		3755		8260		6008	
3656	30687	4560		4040		5238		4747		7807		6277	
3657	30688	5193		4680		5256		5857		8821	8	7339	
3658	30689	4852		5150		6307		6590		8590		7590	9
3659	30690	4348		5261		8187	4	4821		8333		6577	
3660	30691	4132		4474		5358		6645	10	4779		5712	
3661	30692	5497	6	5875	1 *	6125		7259	3	11417	1	9338	1 *
3662	30693	3755		4062		4478		6673	7	7753		7213	
3663	30694	6011	3	5395	9	5780		4562		8953	5	6758	
3664	Local Check (LC)	5058		4693		7365		4849		7365		6107	
Exp. Mean		**4796**		**4834**		**6316**		**5602**		**7420**		**6497**	
F Value		**2.50(p=0.0002)S**		**3.70(p<0.0001)S**		**4.99(p<0.0001)S**		**15.89(p<0.0001)S**		**8.95(p<0.0001)S**		**13.09(p<0.0001)S**	
CD		1138		713		1505		704		1328		764	
CV%		**11.88**		**7.38**		**11.92**		**6.29**		**8.95**		**5.88**	
D/S						25-06-2022		21-07-2022		29-06-2022			
D/P						22-07-2022		23-08-2022		05-08-2022			
Local Check Name						MTU1156		KNM-118		KNM 118			

Table No. 1.10 (Contd): Grain Yield (kg/ha) in IVT – E TP, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN								Overall Mean (23)	
		Tamil Nadu (1)		Kerala (1)		Karnataka (1)		Zone 7(6)			
		Coimbatore		Moncopmphu		Gangavathi		Mean			
3601	29775	6564	8	4788		8346		6549		5496	
3602	30635	6182		3819		8327		6514		5460	
3603	30636	7141	3	4386		8628	9	7218	6 *	5844	7 *
3604	30637	6083		4580		7346		6074		5184	
3605	30638	5511		6725	2	8462		6425		5767	*
3606	30639	5379		6067	6	8167		6309		5724	*
3607	30640	6434		4284		7212		5510		4845	
3608	30641	6386		6104	5	9276	4	7396	3 *	6201	4 *
3609	30642	5706		7237	1	8622	10	7562	2 *	6226	3 *
3610	30643	5654		3973		7378		5878		5611	
3611	30644	6158		4814		6141		6109		5484	
3612	30645	4730		3629		6885		5583		5255	
3613	30646	4987		4273		7122		5878		5000	
3614	30647	5694		4547		8397		6470		5642	
3615	30648	6278		2431		6750		5991		4994	
3616	30649	5817		5771	9	6192		5973		5054	
3617	30650	5113		4569		6372		5230		4722	
3618	CO-51 (NC)	6948	5	4094		7519		6298		4964	
3619	30651	5424		5018		7737		6214		5378	
3620	30652	6194		2847		7295		5387		5043	
3621	30653	6111		3363		4910		5575		4891	
3622	30654	5516		4591		7827		5755		4897	
3623	30655	5895		3801		6564		6210		5117	
3624	30656	5182		6667	3	7590		6933	9	6082	5 *
3625	30657	6117		5067		9071	6	7113	7	6299	2 *
3626	30658	5943		4338		6173		6352		5110	
3627	30659	4588		3947		6397		5297		5209	
3628	30660	6985	4	3191		8436		6067		5434	
3629	30661	6293		3231		7750		5528		5051	
3630	30662	5604		5994	7	7590		6397		5649	
3631	30663	5978		4203		7769		5648		4993	
3632	30664	6937	6	3618		8955	8	6199		5546	
3633	30665	5719		2950		5929		4946		4611	
3634	30666	6376		3308		5891		4808		4406	
3635	30667	5750		4715		6724		6162		5247	
3636	30668	5411		2047		6756		4584		4554	
3637	30669	5481		5402		9244	5	7326	5 *	6050	6 *
3638	30670	6436	10	3977		6321		6597		5558	
3639	30671	4725		3728		4814		5346		4778	
3640	30672	5454		4751		6385		6209		5513	
3641	30673	5411		4240		5333		5598		5469	
3642	30674	4105		4598		7288		6136		5686	*
3643	Zonal Check (ZC)	5407		4532		7728		6100		4923	
3644	30675	6223		3655		6981		5686		5100	
3645	30676	5849		5446		7173		6270		5386	
3646	30677	4633		5263		6324		6219		5453	
3647	30678	5072		3618		5359		5792		5344	
3648	30679	5170		3933		6593		6622		5790	10 *
3649	30680	5918		4086		8032		6632		5730	*
3650	30681	5704		4174		6186		5717		5112	
3651	30682	6375		3618		6205		5522		4949	
3652	30683	5187		4931		5218		5932		5522	
3653	30684	5625		5691	10	8436		7083	8	5650	
3654	30685	5003		4876		9968	1 *	6634		5634	
3655	30686	4439		5314		6564		5886		5570	
3656	30687	6657	7	3618		6958		5838		4983	
3657	30688	6062		3136		7955		6181		5439	
3658	30689	6035		4313		9045	7	6813	10	5797	9 *
3659	30690	7403	1	5504		9840	3 *	7348	4 *	5818	8 *
3660	30691	6547	9	3406		6885		5603		4889	
3661	30692	5239		6287	4	9885	2 *	7702	1 *	6329	1 *
3662	30693	5224		3154		7679		5827		5045	
3663	30694	7261	2	3739		7378		6279		5527	
3664	Local Check (LC)	5746		5775	8	8622	10.5	6620		5427	
Exp. Mean		**5800**		**4434**		**7358**		**6151**		**5367**	
F Value		**7.38(p<0.0001)S**		**3.61(p<0.0001)S**		**12.19(p<0.0001)S**		**13.36(p<0.0001)S**		**24.60(p<0.0001)S**	
CD		724		1604		991		502		247	
CV%		**6.25**		**18.1**		**6.74**		**4.08**		**2.3**	
D/S		08-07-2022		01-07-2022		05-07-2022					
D/P		05-08-2022		27-07-2022		05-08-2022					
Local Check Name		CO 51		Uma (MO 16)		GNV 10-89					

Table No. 1.10 (Contd): Grain Yield (kg/ha) in IVT – E TP, (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED											
		Uttarakhand		Punjab		Odisha		Bihar		Jharkhand		West Bengal	
		@Pantnagar		@Ludhiana		ICAR-NRRI (Cuttac		@Patna-ICAR		@Ranchi		@Hatwara	
3601	29775	3645		4287		3460		8640	4	4785		3980	
3602	30635	1734		2704		4940		8530	6	3795		3411	
3603	30636	7033	1	4815	8	4470		9380	2	3465		4398	7
3604	30637	4405		4407		4830		6990		4345		2539	
3605	30638	3681		4676		4240		8260		5555	8	4563	3
3606	30639	6693	3	5620	3	3970		9640	1	4840		4479	6
3607	30640	3898		2454		3660		5460		3080		3089	
3608	30641	5889	8	2954		4620		5010		4510		3766	
3609	30642	5806	9	4306		4400		8430	9	5280		3233	
3610	30643	3594		3074		4030		7820		5940	4	4596	2
3611	30644	3934		4741	9	3190		7470		5005		3209	
3612	30645	4460		4593		4210		7040		5005		3328	
3613	30646	3381		2722		4190		7600		4565		3954	
3614	30647	4181		2602		4980		7480		5225		4069	
3615	30648	6788	2	4722	10	3820		6660		5170		3673	
3616	30649	1705		3935		4940		5980		3630		3729	
3617	30650	2609		3241		3650		7230		5555	8	4556	4
3618	CO-51 (NC)	3399		4222		4750		7890		6820	1	2823	
3619	30651	4600		4213		4720		6740		5995	3	4394	8
3620	30652	4080		2880		4470		7130		4400		4341	9
3621	30653	3177				4530		7520		5625	6	3344	
3622	30654	2513				5060		8470	7	3575		1915	
3623	30655	3529		3824		4625		8450	8	5830	5	3614	
3624	30656	3641		5630	2	4580		8360	10	5005		4115	
3625	30657	5350		4028		5210	9	7290		6105	2	2698	
3626	30658	2231				3670		6950		5335	10	1816	
3627	30659	5063		2556		4410		7550		5610	7	3058	
3628	30660	4933		4648		3720		6850		3025		1566	
3629	30661	5505		2454		5100		5550		2585		2831	
3630	30662	5061		3935		3390		8240		3550		3930	
3631	30663	2538		2898		3700		7250		3650		2683	
3632	30664	5912	7	3704		4340		4960		3050		4182	10
3633	30665	2990		3861		3240		5480		3150		3482	
3634	30666	3250		3204		2770		5030		1150		2647	
3635	30667	1624				5020		8140		3300		5753	1
3636	30668	3201		3833		3300		7170		2950		3143	
3637	30669	4835		4407		4760		7080		4700		3522	
3638	30670	6206	4	5657	1	4620		8060		3900		2388	
3639	30671	3207		3028		3210		7460		3700		2503	
3640	30672	4857		3454		4620		8290		4450		3368	
3641	30673	5077		4120		4150		6830		3000		3350	
3642	30674	4749		4157		5630	5	5790		2950		4511	5
3643	Zonal Check (ZC)	4077		3741		3150		6410		950		3105	
3644	30675	3815		4093		5120		7330		4100		3386	
3645	30676	3715		2731		4380		5570		5250		2672	
3646	30677	5787	10	4898	6	5720	4	5920		3450		3078	
3647	30678	4472		3870		4420		6610		5200		3015	
3648	30679	5436		2898		4090		7600		4000		4003	
3649	30680	6021	6	3676		4630		8890	3	2950		3753	
3650	30681	4412		3500		4130		6170		2950		2977	
3651	30682	3830		3806		3790		6990		5300		3058	
3652	30683	2535		3676		6000	1	5960		4600		3427	
3653	30684	3125		4861	7	5550	6	7080		4500		3264	
3654	30685	3862		3278		4830		8560	5	3000		4039	
3655	30686	5426		5074	4	4240		7530		4600		2979	
3656	30687	4090		3963		5010		5710		2450		4095	
3657	30688	4191		2852		3680		6790		3400		3263	
3658	30689	1992		2676		4550		7170		3900		3243	
3659	30690	5308		4111		5320	7	7160		4050		3079	
3660	30691	6074	5	4648		4330		6760		3900		2053	
3661	30692	3912				5960	2	6570		3550		2546	
3662	30693	4394		4157		5280	8	7210		4500		3424	
3663	30694	3667		2981		5180	10	7050		3350		2276	
3664	Local Check (LC)	3096		5065	5	5870	3	5880		2850		2966	
Exp. Mean		**4191**		**3850**		**4444**		**7142**		**4156**		**3379**	
F Value		**3.68(p<0.0001)S**		**6.75(p<0.0001)S**		**1.47(p=0.0652)NS**		**20.14(p<0.0001)S**		**3.82(p<0.0001)S**		**101.09(p<0.0001)S**	
CD		1978		921		1729		669		1678		216	
CV%		**23.63**		**11.96**		**19.47**		**4.69**		**20.21**		**3.2**	
D/S		05-07-2022		05-07-2022		20-07-2022		08-07-2022		02-07-2022		17-07-2022	
D/P		10-08-2022		31-07-2022		24-08-2022		04-08-2022		16-08-2022		30-08-2022	
Local Check Name		Govind		PR 126		Annada		Sahbhagi Dhan		BVD-111		Sahbhagidhan	

Table No. 1.10 (Contd): Grain Yield (kg/ha) in IVT – E TP, (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED													
		West Bengal		Uttar Pradesh 2		Madhya Pradesh		Chhattisgarh		Telangana		Kerala		Karnataka	
		@Malda		@Masodha		@Rewa		@Raipur		@Rudrur		@Pattambi		@Mandya	
3601	29775	5458		3790		977		4009		5217		6205		4807	
3602	30635	5292		3923		1536		2836		2283		6771		3549	
3603	30636	4800		4056		1100		2221		4875		7614	7	4144	
3604	30637	3850		4654	8	1042		3426		5131		4767		4313	
3605	30638	4500		4388		1888		4568	5	3990		7038		4653	
3606	30639	4367		4455		1816		2877		2008		6948		4198	
3607	30640	6042	4	3989		1849		4247		2100		7286	10	4221	
3608	30641	4625		4056		2513	7	3490		6667	7	7281		4259	
3609	30642	5292		3125		2435	8	5574	1	2533		7529	8	4580	
3610	30643	4792		5053	1	1992		4160		2388		5905		4159	
3611	30644	4342		3989		85		2786		6726	6	7205		3804	
3612	30645	4750		4388				2470		2487		7776	6	3843	
3613	30646	4042		3358		1810		3596		2349		5876		4421	
3614	30647	4292		4654	8	1452		2666		5656	10	5038		3472	
3615	30648	4300		4455				3271		4672		6610		4313	
3616	30649	4608		3457				4581	4	2008		5138		4699	
3617	30650	5067		4521		2155		3529		2231		5186		4035	
3618	CO-51 (NC)	5292		3457				3537		2579		4819		5856	2
3619	30651	4833		3723		2754	5	4035		4954		6638		5486	7
3620	30652	4350		3690		1810		2281		2172		5876		4807	
3621	30653	4667		2759		2975	3	3235		2251		6552		4460	
3622	30654	4317		3823		1947		3965		2421		6743		4630	
3623	30655	6300	1	4654	8	2109		3656		7133	2	6748		3565	
3624	30656	6175	2	2427		1263		2917		2395		6810		4313	
3625	30657	4342		4122		1536		3562		4055		8214	4	4853	
3626	30658	4558		3457		1361		3786		6509	8	8652	3	3588	
3627	30659	4050		3258		2767	4	4380	10	4744		8695	2	3465	
3628	30660	4242		3657				4450	9	4370		8700	1	4722	
3629	30661	4533		3191		827				2625		6433		3403	
3630	30662	4808		4122		1478		3187		4062		6348		3904	
3631	30663	5083		3657		1426		2554		2362		4043		4637	
3632	30664	5650	9	4388		1029		4201		1837		4090		4452	
3633	30665	4358		3059		1120		2247		2008		4248		5023	
3634	30666	4458		2859		1569		2614		2185		3957		3827	
3635	30667	4133		4654	8	612		3413		4665		4043		3056	
3636	30668	5592	10	4920	2	612		4628	3	4357		4333		3233	
3637	30669	4575		3657		2708	6	4908	2	2448		4333		5224	9
3638	30670	5225		4588		1908		4134		2664		4857		3279	
3639	30671	4667		3059		306		3559		2021		4905		2894	
3640	30672	4042		3723		1504		4112		2402		4429		3519	
3641	30673	4483		4056		1634		3738		2060		5638		3688	
3642	30674	4108		4049		1764		4043		4062		5771		4336	
3643	Zonal Check (ZC)	5250		3059		1582		3909		2402		4610		5625	5
3644	30675	6000	5	3989		1563		3521		5748	9	5605		3441	
3645	30676	4542		4322		2194	10	3433		5525		4248		5509	6
3646	30677	4233		4056		4349	1	2381		2402		4476		4414	
3647	30678	4292		4355		1823		3839		1896		4824		5185	
3648	30679	4525		3723		1380		4452	8	2710		7110		6003	1
3649	30680	4625		4388		98		3023		7959	1	7319	9	4498	
3650	30681	4708		4721	4	1549		2259		4239		4190		4090	
3651	30682	4592		3457		2409	9	3893		3970		5138		5069	
3652	30683	4192		3823		1706		3353		6969	4	5348		3326	
3653	30684	5758	8	3524		1862		3136		2218		4852		4877	
3654	30685	4792		4388		3066	2	3524		4324		4981		3873	
3655	30686	5975	6	4654	8			3527		1614		6414		4012	
3656	30687	5950	7	4322		2116		4505	6	2270		5800		2863	
3657	30688	5483		3590		2148		2649		2264		5838		4198	
3658	30689	4458		3457		977		2986		7073	3	6043		5201	10
3659	30690	4342		3457		1191		3968		6791	5	6124		5640	3
3660	30691	6125	3	3324		1706		2248		3091		6100		5131	
3661	30692	5542		4920	2	1784		3693		2769		5757		5424	8
3662	30693	4400		3590		1380		4464	7	5440		5390		3850	
3663	30694	4125		4688	5	2122		3327		2388		7186		5633	4
3664	Local Check (LC)	4208		3457		306		2884		5538		7857	5	4144	
Exp. Mean		**4803**		**3916**		**1672**		**3531**		**3692**		**5957**		**4339**	
F Value		**26.16(p<0.0001)S**		**10.35(p<0.0001)S**		**19.95(p<0.0001)S**		**2.64(p<0.0001)S**		**11.89(p<0.0001)S**		**2.40(p=0.0003)S**		**53.58(p<0.0001)S**	
CD		347		515		477		1302		1434		2420		293	
CV%		**3.62**		**6.58**		**14.26**		**18.45**		**19.44**		**20.33**		**3.38**	
D/S		27-07-2022		06-07-2022		05-07-2022		30-06-2022		08-07.2022		11-07-2022		27-07-2022	
D/P		14-08-2022		08-08-2022		26-08-2022		22-07-2022		11-08-2022		31-07-2022		19-08-2022	
Local Check Name		Ajit		Shushak Smart		JR206		Indira Aerobic 1		MTU 1010		kanchana		Raksha	

Table No.1.11: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT – E TP, Kharif 2022

ENTRY NO	IET NO	ZONE II - NORTHERN												ZONE III - EASTERN		
		Haryana (1)			Rajasthan (1)			Uttar Pradesh 1(1)			Zone II (3)			Odisha		
		Kaul			Kota			Nagina			Mean			Jeypore		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3601	29775	82	112	315	91	104	244	95	99	299	89	105	286	93	93	326
3602	30635	76	106	274	86	112	258	88	88	213	83	102	248	87	67	306
3603	30636	91	111	283	98	116	284	102	94	200	97	107	256	89	65	253
3604	30637	78	95	242	89	115	235	98	88	232	88	99	236	102	76	269
3605	30638	75	114	311	90	114	246	92	100	295	86	109	284	97	90	375
3606	30639	94	94	335	93	89	268	100	81	294	96	88	299	104	75	398
3607	30640	81	105	263	85	98	238	86	107	242	84	103	247	95	76	297
3608	30641	89	106	332	89	106	305	93	91	277	90	101	304	98	68	373
3609	30642	89	109	341	98	111	305	91	99	243	93	106	296	93	81	438
3610	30643	90	125	308	96	120	253	96	103	219	94	116	260	98	86	381
3611	30644	89	99	262	98	101	289	102	93	225	96	98	258	95	78	418
3612	30645	84	101	292	91	92	237	94	85	217	89	92	249	103	58	347
3613	30646	87	108	279	99	110	227	104	84	242	96	101	249	88	59	353
3614	30647	90	107	307	100	116	272	100	89	313	96	104	297	91	75	405
3615	30648	90	106	315	93	117	228	86	94	277	90	106	273	87	83	355
3616	30649	98	89	273	99	87	314	114	74	202	104	83	263	107	70	366
3617	30650	88	111	298	98	115	306	95	94	268	93	107	290	97	84	444
3618	CO-51 (NC)	77	103	272	85	105	233	85	93	234	82	100	246	91	75	345
3619	30651	84	115	268	92	123	158	91	95	271	89	111	232	97	108	428
3620	30652	93	111	284	98	110	166	102	84	234	97	102	228	93	86	373
3621	30653	77	102	261	94	103	220	83	93	208	85	99	229	93	68	450
3622	30654	97	116	252	102	120	258	106	91	294	101	109	268	98	98	418
3623	30655	74	100	266	86	95	247	108	100	241	89	98	251	91	73	366
3624	30656	87	104	324	94	102	309	95	93	198	92	99	277	93	76	390
3625	30657	86	108	320	91	101	249	91	99	194	89	103	254	95	79	353
3626	30658	96	74	242	98	84	234	99	75	262	98	78	246	83	60	405
3627	30659				90	108	242	89	99	256	89	103	249	97	81	468
3628	30660	82	109	307	88	108	281	95	90	201	88	102	263	93	71	456
3629	30661				86	104	152	98	92	272	92	98	212	97	72	318
3630	30662	88	103	281	95	99	190	95	92	249	92	98	240	94	80	401
3631	30663	86	108	304	85	102	171	95	106	236	89	105	237	93	88	348
3632	30664	87	111	297	85	103	248	89	90	196	87	101	247	90	84	402
3633	30665	77	94	259	89	84	230	83	81	210	83	86	233	89	74	340
3634	30666	75	105	274	85	103	248	103	91	257	88	100	259	87	76	370
3635	30667	94	94	261	98	98	195	112	93	217	101	95	224	102	62	381
3636	30668	83	109	272	85	116	173	86	96	214	85	107	219	102	65	378
3637	30669	85	112	296	85	115	188	92	102	261	87	110	248	93	85	345
3638	30670	87	106	304	84	103	235	92	100	228	88	103	256	91	75	385
3639	30671	91	94	258	91	95	215	93	84	192	91	91	221	93	71	329
3640	30672	90	107	312	103	107	302	96	98	271	96	104	295	108	88	321
3641	30673	85	118	329	87	108	307	95	85	244	89	104	293	91	75	401
3642	30674	87	128	284	84	120	250	88	106	239	86	118	258	100	96	438
3643	Zonal Check (ZC)	92	92	299	95	85	306	96	93	242	94	90	282	88	55	330
3644	30675	83	110	297	84	113	248	106	100	193	91	108	246	89	70	387
3645	30676	90	107	288	87	112	211	91	102	219	89	107	239	99	72	373
3646	30677	90	103	292	86	114	135	92	93	272	89	103	233	85	69	332
3647	30678	89	108	272	101	119	275	93	102	251	94	110	266	103	89	391
3648	30679	87	106	326	89	110	288	94	95	234	90	104	282	99	81	283
3649	30680	93	105	329	98	103	286	104	92	283	98	100	299	107	84	377
3650	30681	88	110	279	99	112	224	95	92	192	94	105	232	96	80	336
3651	30682	76	112	254	88	110	204	83	95	298	82	106	252	94	71	364
3652	30683	82	105	286	92	119	231	89	86	227	88	103	248	98	83	423
3653	30684	90	115	280	97	117	166	101	101	200	96	111	215	102	80	371
3654	30685	91	105	308	96	108	147	97	94	215	94	102	223	98	65	330
3655	30686	89	101	295	95	106	243	88	93	237	90	100	258	104	72	466
3656	30687	86	106	306	84	109	232	90	101	229	87	105	255	96	70	350
3657	30688	82	112	276	85	111	230	86	93	209	84	105	238	99	80	403
3658	30689	87	105	328	97	113	240	96	96	235	93	104	267	99	91	426
3659	30690	85	116	321	98	107	249	93	94	207	92	106	259	93	80	345
3660	30691	90	113	295	99	115	244	96	100	215	95	109	251	101	82	450
3661	30692	99	97	298	102	106	250	112	84	206	104	96	251	100	72	440
3662	30693	83	112	271	92	106	226	93	94	256	89	104	251	100	83	340
3663	30694	88	122	302	100	120	234	91	111	196	93	118	244	99	79	331
3664	Local Check (LC)	86	108	285	102	121	205	96	107	244	94	112	244	97	81	356
Exp. Mean		**86**	**106**	**291**	**92**	**107**	**239**	**95**	**94**	**237**	**91**	**102**	**255**	**96**	**77**	**374**

Table No. 1.11 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT – E TP, Kharif 2022

ENTRY NO	IET NO	ZONE III - EASTERN														
		Odisha			Odisha (2)			Bihar						Bihar (2)		
		Chiplima			Mean			Bikaramganj			Sabour			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3601	29775	104	71	252	99	82	289	90	109	404	90	108	304	90	109	354
3602	30635	109	81	269	98	74	287	85	110	372	92	116	284	89	113	328
3603	30636	104	90	233	96	77	243	91	110	400	97	114	337	94	112	368
3604	30637	96	84	258	99	80	263	86	102	398	94	109	237	90	106	317
3605	30638	104	80	287	100	85	331	82	116	373	91	115	273	87	115	323
3606	30639	97	83	290	100	79	344	89	100	381	95	94	403	92	97	392
3607	30640	85	82	293	90	79	295	78	102	373	81	93	358	80	98	365
3608	30641	99	75	214	99	72	293	89	114	378	92	100	300	90	107	339
3609	30642	84	69	173	89	75	305	89	110	368	90	107	302	89	109	335
3610	30643	112	82	274	105	84	327	91	125	397	92	113	320	92	119	358
3611	30644	104	85	183	99	82	300	97	113	377	96	107	293	96	110	335
3612	30645	106	86	254	104	72	301	90	106	397	97	97	295	94	101	346
3613	30646	79	83	208	84	71	281	88	104	400	92	108	295	90	106	347
3614	30647	90	82	322	90	78	363	94	100	388	96	118	305	95	109	346
3615	30648	90	91	234	89	87	294	84	113	360	87	109	291	86	111	326
3616	30649	105	95	222	106	83	294	78	88	403	102	109	395	90	98	399
3617	30650	79	80	240	88	82	342	92	122	394	91	114	318	92	118	356
3618	CO-51 (NC)	106	79	298	99	77	321	81	102	368	83	105	385	82	103	377
3619	30651	91	71	253	94	90	340	89	133	386	90	114	284	89	123	335
3620	30652	97	71	298	95	79	335	92	108	400	96	111	356	94	109	378
3621	30653	100	82	260	96	75	355	80	102	352	88	92	251	84	97	301
3622	30654	97	70	306	98	84	362	101	122	404	109	125	311	105	123	358
3623	30655	101	78	309	96	76	337	82	109	348	90	93	320	86	101	334
3624	30656	95	80	216	94	78	303	95	118	385	94	108	406	94	113	396
3625	30657	90	82	294	92	81	323	87	113	404	89	102	360	88	107	382
3626	30658	100	85	245	92	72	325	96	98	394	107	89	350	102	93	372
3627	30659	84	86	215	91	84	341	89	116	394	91	107	293	90	111	344
3628	30660	90	86	214	92	78	335	87	112	384	86	103	345	86	108	364
3629	30661	104	79	306	101	76	312	86	129	388	92	100	240	89	114	314
3630	30662	102	82	243	98	81	322	85	115	398	91	110	291	88	112	344
3631	30663	94	84	233	93	86	290	92	106	390	92	113	250	92	109	320
3632	30664	103	82	250	97	83	326	84	109	403	86	113	317	85	111	360
3633	30665	99	90	244	94	82	292	102	99	407	82	79	383	92	89	395
3634	30666	104	71	261	96	74	315	77	110	397	80	98	307	78	104	352
3635	30667	102	65	264	102	64	322	97	107	371	103	107	297	100	107	334
3636	30668	96	78	233	99	72	305	80	104	366	88	106	313	84	105	339
3637	30669	93	86	356	93	85	350	90	118	402	91	106	284	91	112	343
3638	30670	103	98	229	97	86	307	82	110	324	87	104	328	85	107	326
3639	30671	83	79	233	88	75	281	84	97	391	88	90	333	86	93	362
3640	30672	104	71	215	106	80	268	94	124	380	96	106	298	95	115	339
3641	30673	96	78	204	94	76	302	82	107	400	90	112	365	86	109	382
3642	30674	90	76	302	95	86	370	90	104	368	92	123	339	91	114	354
3643	Zonal Check (ZC)	105	88	252	97	71	291	76	102	377	82	90	330	79	96	353
3644	30675	91	84	238	90	77	312	84	125	397	92	121	349	88	123	373
3645	30676	104	81	278	102	76	325	87	114	426	91	106	234	89	110	330
3646	30677	101	79	168	93	74	250	96	115	377	89	97	312	93	106	344
3647	30678	92	88	306	97	88	349	87	106	409	93	113	325	90	109	367
3648	30679	89	86	346	94	83	314	90	100	379	91	106	281	90	103	330
3649	30680	91	91	259	99	87	318	97	116	410	103	113	239	100	114	324
3650	30681	97	73	243	96	77	289	90	123	403	92	116	304	91	120	354
3651	30682	90	95	256	92	83	310	79	106	350	85	107	260	82	107	305
3652	30683	91	71	262	94	77	342	88	100	393	89	110	293	88	105	343
3653	30684	114	90	283	108	85	327	95	121	360	99	120	256	97	121	308
3654	30685	114	75	228	106	70	279	89	106	348	98	115	308	94	110	328
3655	30686	110	76	227	107	74	347	94	109	384	91	102	351	92	105	367
3656	30687	92	101	217	94	86	283	82	118	397	91	119	302	86	118	350
3657	30688	110	85	248	105	83	325	80	110	384	87	100	246	83	105	315
3658	30689	106	87	230	103	89	328	96	114	383	99	119	311	97	116	347
3659	30690	99	83	221	96	82	283	88	107	403	94	112	357	91	109	380
3660	30691	91	79	247	96	80	348	95	108	418	91	113	353	93	111	385
3661	30692	99	88	144	99	80	292	80	118	373	110	108	311	95	113	342
3662	30693	90	87	215	95	85	277	87	121	378	90	97	322	89	109	350
3663	30694	98	91	256	98	85	294	92	113	396	93	127	315	92	120	355
3664	Local Check (LC)	90	81	171	94	81	264	92	129	365	88	109	331	90	119	348
Exp. Mean		**97**	**82**	**249**	**96**	**80**	**312**	**88**	**111**	**385**	**92**	**107**	**312**	**90**	**109**	**349**

Table No.1.11 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT – E TP, Kharif 2022

ENTRY NO	IET NO	ZONE III - EASTERN									ZONE IV- NORTH EASTERN			ZONE V - CENTRAL		
		West Bengal (1)			Uttar Pradesh 2 (1)			Zone III (6)			Tripura (1)			Chhattisgarh (1)		
		Chinsurah			Varanasi			Mean			Lembucherra			Jagadalpur		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3601	29775	90	111	297	85	114	216	92	101	300	79	99	288	93	97	290
3602	30635	89	112	281	83	117	221	91	101	289	79	96	325	91	94	293
3603	30636	97	124	297	95	120	191	95	104	285	79	90	338	95	95	282
3604	30637	93	119	215	92	97	129	94	98	251	86	110	350	93	86	280
3605	30638	90	121	248	92	115	168	93	106	287	70	100	200	93	98	258
3606	30639	96	110	363	89	93	248	95	93	347	84	102	263	94	70	265
3607	30640	78	104	215	81	99	188	83	93	287	85	76	288	85	85	278
3608	30641	90	98	231	90	111	177	93	94	279	85	99	338	93	90	275
3609	30642	87	107	330	87	105	161	88	96	295	88	104	400	90	92	232
3610	30643	90	116	264	93	106	216	96	105	308	74	90	300	92	106	292
3611	30644	94	111	281	91	101	179	96	99	288	83	128	238	93	86	257
3612	30645	90	101	215	92	99	237	96	91	291	69	87	388	95	77	293
3613	30646	87	105	248	87	103	186	87	94	282	81	105	325	94	86	234
3614	30647	87	111	248	98	113	186	93	100	309	84	109	288	95	98	275
3615	30648	83	105	231	82	103	181	85	101	275	81	91	263	85	97	308
3616	30649	99	115	330	103	100	257	99	96	329	96	98	300	106	74	237
3617	30650	94	122	281	82	104	222	89	104	316	99	104	263	98	93	303
3618	CO-51 (NC)	79	103	215	81	102	202	87	94	302	84	89	213	90	96	248
3619	30651	90	115	264	81	108	190	90	108	301	77	92	213	89	91	208
3620	30652	96	111	248	90	117	206	94	101	313	83	95	250	93	94	208
3621	30653	83	144	314	92	99	208	89	98	306	76	78	238	86	80	266
3622	30654	102	101	264	94	125	218	100	107	320	92	100	188	103	93	270
3623	30655	89	125	297	81	95	188	89	95	305	82	105	263	88	86	250
3624	30656	94	116	264	91	110	209	94	101	312	86	94	313	93	96	233
3625	30657	90	110	347	92	104	197	90	98	326	82	106	325	88	99	314
3626	30658	103	112	248	94	94	242	97	90	314	74	91	263	96	78	311
3627	30659	87	111	297	90	90	159	90	99	304	89	89	363	86	90	245
3628	30660	86	117	231	90	108	152	88	99	297	75	92	350	92	99	260
3629	30661	90	113	231	92	103	174	93	99	276	82	94	288	93	88	255
3630	30662	90	112	281	92	108	203	92	101	303	80	94	288	91	101	254
3631	30663	87	111	215	90	104	179	91	101	269	84	95	250	91	97	193
3632	30664	86	108	231	83	101	156	89	99	293	82	92	313	88	88	221
3633	30665	84	89	330	78	83	202	89	86	317	78	79	363	84	79	333
3634	30666	73	74	231	77	96	154	83	88	286	72	72	250	89	93	225
3635	30667	99	123	330	98	115	191	100	96	306	94	97	575	105	92	283
3636	30668	79	111	314	81	117	208	88	97	302	69	99	363	85	107	287
3637	30669	86	109	281	85	114	211	90	103	313	84	114	150	80	98	227
3638	30670	86	103	248	80	105	185	88	99	283	82	97	275	88	92	275
3639	30671	89	100	347	84	97	204	87	89	306	83	85	450	91	80	296
3640	30672	94	128	297	92	116	201	98	105	285	93	113	313	97	95	278
3641	30673	86	112	314	88	111	191	89	99	312	83	92	213	94	91	250
3642	30674	90	124	248	92	118	199	92	107	315	90	124	313	90	94	256
3643	Zonal Check (ZC)	76	85	330	79	87	244	84	84	310	81	85	388	87	98	273
3644	30675	90	79	248	92	117	224	89	99	307	81	99	338	88	100	240
3645	30676	87	73	264	114	101	172	97	91	291	87	100	413	91	91	283
3646	30677	93	113	264	95	101	189	93	96	273	89	95	288	95	84	275
3647	30678	94	123	248	90	117	208	93	106	314	83	121	313	94	102	231
3648	30679	90	103	248	84	102	200	90	96	289	79	94	425	88	98	190
3649	30680	96	118	264	92	118	176	97	106	287	81	103	363	98	94	223
3650	30681	91	133	264	89	107	224	92	105	296	92	84	188	94	87	258
3651	30682	84	104	264	82	104	202	86	98	283	75	93	338	87	100	236
3652	30683	88	102	330	83	93	201	89	93	317	89	92	413	88	94	231
3653	30684	95	132	215	92	119	199	99	110	281	82	102	338	97	98	268
3654	30685	90	106	281	93	108	188	97	96	280	87	99	263	94	92	247
3655	30686	92	103	297	89	102	222	97	94	324	86	103	388	92	87	350
3656	30687	86	116	248	89	114	195	89	106	285	88	100	238	88	97	213
3657	30688	86	110	380	85	105	200	91	98	310	78	97	288	88	91	234
3658	30689	88	112	330	92	116	187	96	106	311	83	103	275	94	87	218
3659	30690	89	101	297	80	96	152	90	97	296	89	98	300	93	94	226
3660	30691	90	108	264	93	111	192	93	100	320	86	103	363	90	96	210
3661	30692	104	114	248	103	111	155	99	102	278	94	108	288	107	84	292
3662	30693	90	107	363	89	108	206	91	100	304	79	92	375	92	101	291
3663	30694	93	123	231	87	118	219	94	109	291	90	110	288	93	92	298
3664	Local Check (LC)	88	109	248	87	97	261	90	101	288	86	117	313	88	105	248
Exp. Mean		**89**	**110**	**275**	**89**	**106**	**197**	**92**	**99**	**299**	**83**	**98**	**308**	**92**	**92**	**260**

Table No.1.11 Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT – E TP, Kharif 2022

ENTRY NO	IET NO	ZONE V - CENTRAL												ZONE VI – WESTERN		
		Maharshtra 1						Maharshtra 1(2)			Zone V (3)			Maharshtra 2		
		Sakoli			Sindewahi			Mean			Mean			Kariat		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3601	29775	88	109	310	101	132	336	94	121	323	94	113	312	88	115	200
3602	30635	87	111	295	95	125	394	91	118	345	91	110	327	88	126	216
3603	30636	95	108	266	101	116	368	98	112	317	97	106	305	88	118	223
3604	30637	93	103	232	99	122	237	96	112	235	95	103	250	88	115	181
3605	30638	87	113	286	98	115	251	92	114	268	93	108	265	91	128	215
3606	30639	92	90	243	104	100	372	98	95	308	96	87	293	88	102	190
3607	30640	77	110	238	86	101	314	81	106	276	83	99	277	85	118	201
3608	30641	91	110	258	96	108	281	93	109	269	93	103	271	91	123	207
3609	30642	91	109	306	95	115	323	93	112	314	92	105	287	89	111	228
3610	30643	95	110	290	95	121	342	95	115	316	94	112	308	87	126	212
3611	30644	97	110	284	97	124	343	97	117	314	95	107	295	88	120	206
3612	30645	98	89	275	93	103	305	95	96	290	95	90	291	88	106	198
3613	30646	96	103	254	97	122	357	96	112	305	95	104	281	88	108	195
3614	30647	98	110	263	97	124	297	97	117	280	96	111	278	90	124	217
3615	30648	88	110	308	90	119	381	89	114	344	88	109	332	88	115	205
3616	30649	105	102	240	108	104	388	106	103	314	106	94	288	100	114	185
3617	30650	93	110	183	95	123	319	94	116	251	95	109	268	92	129	210
3618	CO-51 (NC)	86	108	258	86	113	337	86	110	297	87	106	281	84	109	196
3619	30651	88	112	295	90	125	321	89	118	308	89	109	274	88	126	192
3620	30652	95	110	189	98	124	289	96	117	239	95	109	229	88	126	208
3621	30653	87	97	267	90	94	297	88	96	282	87	90	277	86	108	193
3622	30654	101	113	190	105	122	226	103	117	208	103	109	229	101	153	198
3623	30655	90	102	216	91	94	342	90	98	279	89	94	269	87	109	190
3624	30656	95	109	298	94	107	300	95	108	299	94	104	277	88	121	222
3625	30657	91	101	278				91	101	278	89	100	296	88	127	210
3626	30658	102	77	230	102	102	376	102	90	303	100	86	306	100	101	204
3627	30659	87	106	254	87	102	342	87	104	298	86	99	280	85	110	205
3628	30660	86	110	313	94	110	245	90	110	279	91	106	273	88	113	181
3629	30661	93	112	278	92	105	245	92	109	261	93	102	259	87	113	207
3630	30662	92	109	301				92	109	301	91	105	278	88	125	205
3631	30663	85	107	276	98	107	286	91	107	281	91	104	251	85	115	187
3632	30664	87	108	309	90	106	285	88	107	297	88	101	272	86	112	185
3633	30665	79	94	319	82	113	250	80	104	285	81	95	301	80	97	207
3634	30666	103	106	306	74	114	314	89	110	310	89	104	282	75	107	222
3635	30667	102	105	189	102	117	289	102	111	239	103	105	253	101	116	222
3636	30668	77	97	288	82	114	261	79	105	275	81	106	279	85	129	231
3637	30669	90	110	295	92	115	225	91	113	260	87	108	249	91	127	203
3638	30670	88	112	315	95	106	296	91	109	306	90	103	295	88	117	205
3639	30671	90	93	286	95	98	320	92	95	303	92	90	300	89	104	197
3640	30672	93	111	152	98	127	200	95	119	176	96	111	210	88	124	240
3641	30673	91	109	248	96	113	237	93	111	242	94	104	245	88	118	211
3642	30674	93	109	256	94	127	196	93	118	226	92	110	236	90	110	165
3643	Zonal Check (ZC)	87	111	178	93	104	211	90	108	194	89	105	221	86	117	217
3644	30675	95	102	194	94	121	226	94	111	210	92	108	220	88	135	195
3645	30676	90	107	267	96	111	273	93	109	270	92	103	274	90	110	206
3646	30677	96	102	263	96	107	289	96	104	276	96	97	276	88	113	209
3647	30678	93	116	215	97	134	297	95	125	256	94	118	248	88	124	204
3648	30679	90	109	230	95	116	297	92	113	263	91	108	239	87	114	201
3649	30680	100	110	146	99	113	258	99	111	202	99	106	209	87	125	236
3650	30681	96	111	130	95	122	241	95	117	186	95	107	210	88	120	215
3651	30682	81	103	210	85	116	289	83	110	249	84	107	245	86	107	208
3652	30683	86	108	262	88	110	332	87	109	297	87	104	275	87	123	180
3653	30684	92	111	220	95	129	268	94	120	244	95	113	252	87	116	210
3654	30685	97	108	231	94	128	332	95	118	281	95	109	270	88	122	212
3655	30686	95	111	222	90	118	357	92	114	290	92	105	310	85	112	221
3656	30687	85	103	260	87	134	214	86	119	237	87	111	229	87	123	225
3657	30688	86	107	225	86	113	268	86	110	247	87	104	242	88	115	184
3658	30689	96	117	269	95	124	226	96	120	247	95	109	237	88	118	199
3659	30690	92	111	190	91	117	260	91	114	225	92	107	225	86	119	227
3660	30691	96	113	289	90	119	269	93	116	279	92	109	256	91	124	191
3661	30692	104	108	220	104	118	294	104	113	257	105	103	268	110	125	222
3662	30693	87	113	223	89	112	268	88	112	245	89	109	260	86	114	218
3663	30694	93	114	265	91	128	330	92	121	297	92	111	297	85	127	205
3664	Local Check (LC)	86	109	272	89	107	383	87	108	327	87	107	301	86	105	205
Exp. Mean		**91**	**107**	**252**	**93**	**115**	**294**	**92**	**111**	**273**	**92**	**104**	**269**	**88**	**118**	**206**

Table No. 1.11 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT – E TP, Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN														
		Maharshtra 2			Maharshtra 2(2)			Maharshtra (4)			Gujarat					
		Vadagaon			Mean			Mean			Nawagam			Vyara		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3601	29775	92	95	256	90	105	228	92	113	275	101	105	264	77	115	230
3602	30635	91	96	266	89	111	241	90	114	293	98	102	261	80	141	233
3603	30636	87	93	240	87	105	231	93	109	274	102	102	266	85	112	261
3604	30637	98	84	268	93	100	224	94	106	229	104	94	261	82	119	242
3605	30638	93	114	291	92	121	253	92	117	261	74	108	260	81	124	216
3606	30639	98	76	260	93	89	225	95	92	266	108	85	267	84	107	270
3607	30640	74	96	235	80	107	218	80	106	247	90	97	262	73	131	249
3608	30641	92	86	295	91	104	251	92	107	260	101	99	269	82	127	222
3609	30642	97	88	286	93	99	257	93	106	285	97	100	266	80	121	243
3610	30643	96	91	284	91	108	248	93	112	282	102	111	265	85	123	258
3611	30644	98	87	311	93	103	258	95	110	286	104	102	270	83	135	284
3612	30645	99	80	233	93	93	215	94	95	253	94	95	268	82	115	257
3613	30646	90	84	222	89	96	208	92	104	257	95	95	265	82	126	246
3614	30647	90	84	230	90	104	224	94	110	252	101	102	266	87	131	215
3615	30648	76	79	222	82	97	213	85	105	279	77	101	261	76	128	245
3616	30649	100	70	214	100	92	199	103	97	257	109	88	264	97	119	252
3617	30650	87	88	210	89	108	210	91	112	230	75	108	263	84	130	305
3618	CO-51 (NC)	76	70	221	80	89	209	83	100	253	73	100	263	73	106	261
3619	30651	87	74	223	87	100	207	88	109	258	100	111	264	78	136	254
3620	30652	95	80	228	91	103	218	94	110	228	100	113	261	86	130	255
3621	30653	82	88	217	84	98	205	86	97	243	73	102	209	72	122	251
3622	30654	108	86	212	104	119	205	103	118	206	114	114	265	95	143	297
3623	30655	89	70	196	88	89	193	89	94	236	99	96	268	76	115	263
3624	30656	77	74	223	82	97	223	88	103	261	109	110	278	83	133	275
3625	30657	77	68	212	82	97	211	85	99	233	101	100	284	80	128	284
3626	30658	100	67	220	100	84	212	101	87	257	116	80	264	94	107	269
3627	30659	83	85	234	84	97	220	85	101	259	72	97	210	75	120	258
3628	30660	82	81	223	85	97	202	87	103	241	84	92	204	79	115	215
3629	30661	98	86	211	92	100	209	92	104	235	101	101	204	83	114	227
3630	30662	96	86	205	92	105	205	92	107	237	101	100	268	80	121	281
3631	30663	88	97	247	86	106	217	89	107	249	72	99	150	81	129	221
3632	30664	82	88	218	84	100	201	86	104	249	72	102	265	78	132	251
3633	30665	82	74	249	81	85	228	81	95	256	73	78	208	72	107	252
3634	30666	80	87	242	77	97	232	83	103	271	73	88	209	72	130	215
3635	30667	107	83	252	104	99	237	103	105	238	114	93	266	94	108	321
3636	30668	81	92	265	83	110	248	81	108	261	74	103	206	74	131	237
3637	30669	91	91	301	91	109	252	91	111	256	101	106	270	82	131	260
3638	30670	90	89	292	89	103	248	90	106	277	74	98	267	79	115	248
3639	30671	90	82	283	90	93	240	91	94	271	96	88	267	76	104	275
3640	30672	98	91	286	93	107	263	94	113	219	102	110	265	85	122	209
3641	30673	93	83	233	90	100	222	92	106	232	91	101	267	83	134	260
3642	30674	94	101	293	92	106	229	92	112	227	95	120	266	79	150	267
3643	Zonal Check (ZC)	88	89	289	87	103	253	88	105	224	94	104	204	81	142	207
3644	30675	95	88	295	91	111	245	93	111	227	95	110	264	78	140	284
3645	30676	92	88	269	91	99	237	92	104	254	100	98	263	78	130	258
3646	30677	92	89	289	90	101	249	93	102	262	74	94	265	85	113	264
3647	30678	95	96	282	91	110	243	93	117	249	109	109	267	84	120	267
3648	30679	96	79	228	91	96	215	92	104	239	96	98	275	84	117	270
3649	30680	97	87	237	92	106	236	96	109	219	99	93	263	93	119	239
3650	30681	95	74	209	92	97	212	93	107	199	114	103	277	86	138	240
3651	30682	87	90	252	87	99	230	85	104	240	94	100	273	74	100	300
3652	30683	89	82	230	88	102	205	87	106	251	107	100	286	80	134	273
3653	30684	103	95	231	95	105	220	94	113	232	108	107	272	87	123	216
3654	30685	89	72	241	88	97	226	92	107	254	96	99	266	87	131	281
3655	30686	95	82	250	90	97	236	91	106	263	72	101	263	82	113	300
3656	30687	91	82	209	89	102	217	87	110	227	97	106	207	79	140	260
3657	30688	82	93	237	85	104	210	85	107	228	90	100	219	78	125	215
3658	30689	88	92	273	88	105	236	92	113	241	104	97	269	87	125	264
3659	30690	92	84	270	89	102	249	90	108	237	94	97	270	91	102	179
3660	30691	102	92	194	96	108	192	95	112	236	109	103	268	84	125	269
3661	30692	103	86	262	106	105	242	105	109	249	117	102	270	97	128	252
3662	30693	92	81	205	89	98	211	88	105	228	95	100	206	75	116	212
3663	30694	96	93	219	90	110	212	91	115	255	112	111	277	84	145	297
3664	Local Check (LC)	92	75	226	89	90	216	88	99	271	100	100	275	83	113	227
Exp. Mean		**91**	**85**	**245**	**90**	**101**	**225**	**91**	**106**	**249**	**95**	**100**	**255**	**82**	**124**	**253**

Table No.1.11 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT – E TP, Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN						ZONE VII – SOUTHERN								
		Gujarat (2)			Zone VI (4)			Andhra Pradesh (1)			Telangana					
		Mean			Mean			Maruteru			Kampasagar			Warangal		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3601	29775	89	110	247	89	107	237	76	136	343	90	96	300	100	132	383
3602	30635	89	121	247	89	116	244	78	127	353	93	90	300	91	123	358
3603	30636	93	107	264	90	106	247	87	124	426	90	88	283	95	113	333
3604	30637	93	106	251	93	103	238	77	107	380	91	82	333	97	112	358
3605	30638	77	116	238	84	118	246	74	129	307	89	97	266	93	123	358
3606	30639	96	96	268	94	93	247	81	110	442	93	77	316	107	105	328
3607	30640	81	114	256	80	110	237	74	107	290	80	80	383	106	113	360
3608	30641	91	113	245	91	109	248	78	124	386	90	91	266	98	124	353
3609	30642	88	111	254	90	105	255	75	123	330	94	85	333	96	113	350
3610	30643	93	117	261	92	113	255	86	128	370	95	93	300			
3611	30644	93	118	277	93	111	267	86	123	356	82	92	366	101	123	361
3612	30645	88	105	262	90	99	239	79	107	376	98	81	350	87	102	350
3613	30646	88	111	256	88	103	232	74	118	380	97	81	333	94	123	345
3614	30647	94	117	240	92	110	232	86	129	333	95	92	400	88	125	376
3615	30648	77	115	253	79	106	233	74	113	304	99	85	466	90	124	343
3616	30649	103	104	258	102	98	229	79	122	360	82	86	283	107	117	408
3617	30650	79	119	284	84	114	247	84	127	386	96	89	500	105	128	414
3618	CO-51 (NC)	73	103	262	76	96	235	77	101	366	83	87	316	89	109	353
3619	30651	89	124	259	88	112	233	76	132	294	84	92	366	96	146	365
3620	30652	93	122	258	92	112	238	87	129	356	89	96	300	102	129	343
3621	30653	72	112	230	78	105	217	70	134	323	84	86	333	84	104	323
3622	30654	104	129	281	104	124	243	92	145	333	104	109	333	108	147	389
3623	30655	88	105	265	88	97	229	71	110	310	85	78	366	96	105	356
3624	30656	96	122	276	89	110	249	83	125	419	94	95	316	103	128	337
3625	30657	90	114	284	86	106	247	73	123	287	87	88	350	98	124	373
3626	30658	105	93	266	102	88	239	93	112	393	102	82	466	107	103	348
3627	30659	74	109	234	79	103	227	78	109	386	82	84	216	92	97	337
3628	30660	81	104	209	83	100	206	78	123	317	82	69	350	92	117	347
3629	30661	92	107	215	92	104	212	83	133	360	94	92	333	100	123	378
3630	30662	90	110	274	91	108	239	80	130	393	91	89	316	98	119	360
3631	30663	77	114	185	81	110	201	74	122	257	89	93	316	85	124	342
3632	30664	75	117	258	79	109	230	75	128	413	82	90	350	91	123	343
3633	30665	72	93	230	77	89	229	76	92	340	80	73	433	105	85	375
3634	30666	72	109	212	75	103	222	72	85	287	79	78	350	103	93	338
3635	30667	104	101	294	104	100	265	91	125	373	101	92	333	107	118	368
3636	30668	74	117	222	78	114	235	66	119	297	81	96	283	84	122	356
3637	30669	91	119	265	91	114	258	77	130	333	89	97	283	96	125	340
3638	30670	76	106	257	83	105	253	73	119	287	89	91	300	96	108	351
3639	30671	86	96	271	88	94	255	76	120	399	93	76	333	91	103	340
3640	30672	93	116	237	93	111	250	87	136	350	95	96	400	104	127	351
3641	30673	87	118	263	88	109	243	73	126	333	92	86	300	89	121	355
3642	30674	87	135	266	89	120	248	84	127	300	88	94	300	98	148	398
3643	Zonal Check (ZC)	87	123	206	87	113	229	79	115	383	94	89	283	99	125	360
3644	30675	86	125	274	89	118	259	80	130	353	88	91	333	97	137	350
3645	30676	89	114	260	90	106	249	77	118	310	87	87	316	98	124	355
3646	30677	80	103	265	85	102	257	85	118	393	96	91	316	99	112	342
3647	30678	96	114	267	94	112	255	83	138	337	98	98	300	102	137	371
3648	30679	90	108	272	91	102	243	81	127	294	92	94	366	101	122	363
3649	30680	96	106	251	94	106	244	83	127	376	94	92	433	100	118	356
3650	30681	100	120	258	96	109	235	84	120	320	91	97	283	102	124	384
3651	30682	84	100	286	85	99	258	70	115	307	88	87	450	88	104	309
3652	30683	93	117	279	91	110	242	74	130	370	90	87	350	97	127	347
3653	30684	98	115	244	96	110	232	92	136	403	100	100	283	107	133	376
3654	30685	91	115	273	90	106	250	87	128	297	95	89	283	95	124	361
3655	30686	77	107	281	83	102	258	79	65	347	94	88	383	105	124	335
3656	30687	88	123	233	88	113	225	76	116	327	84	90	316	90	124	351
3657	30688	84	112	217	84	108	213	72	100	304	82	93	300	92	118	353
3658	30689	95	111	266	91	108	251	87	127	366	95	91	266	93	122	350
3659	30690	92	100	224	90	101	236	74	125	350	91	87	300	100	120	342
3660	30691	96	114	268	96	111	230	82	67	350	92	91	300	104	127	333
3661	30692	107	115	261	107	110	251	87	126	419	96	90	400	108	126	373
3662	30693	85	108	209	87	103	210	72	121	320	90	87	333	93	122	338
3663	30694	98	128	287	94	119	249	86	127	297	91	93	333	105	142	384
3664	Local Check (LC)	91	107	251	90	98	233	87	121	327	87	89	350	99	119	361
Exp. Mean		**88**	**112**	**254**	**89**	**107**	**240**	**79**	**120**	**347**	**90**	**89**	**334**	**97**	**120**	**356**

Table No.1.11 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT – E TP, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN															Overall Mean (23)		
		Telangana (2)			Tamil Nadu (1)			Kerala (1)			Karnataka (1)			Zone VII (6)					
		Mean			Coimbatore			Moncopmphu			Gangavathi			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3601	29775	95	114	341	90	102	332	91	113	355	96	106	400	90	114	352	90	107	302
3602	30635	92	106	329	91	89	277	93	100	333	97	108	388	90	106	335	89	106	294
3603	30636	93	100	308	97	98	301	91	99	263	99	102	384	93	104	332	94	104	292
3604	30637	94	97	346	96	88	277	100	111	274	97	99	358	93	100	330	92	101	271
3605	30638	91	110	312	94	103	255	92	127	274	99	102	365	90	113	304	89	111	277
3606	30639	100	91	322	94	82	299	96	94	320	101	85	378	95	92	347	95	91	313
3607	30640	93	96	371	80	102	266	80	98	220	92	106	402	85	101	320	83	99	280
3608	30641	94	107	310	90	94	268	93	96	224	98	101	335	91	105	305	91	102	285
3609	30642	95	99	341	91	93	266	95	110	273	99	102	366	91	104	320	90	103	298
3610	30643	95	93	300	91	96	264	91	104	250	88	109	441	90	106	325	92	108	295
3611	30644	91	108	364	93	94	282	93	104	277	101	98	360	92	105	334	94	105	291
3612	30645	92	91	350	92	87	301	90	90	410	97	91	366	90	93	359	91	93	298
3613	30646	95	102	339	93	91	262	94	105	367	98	108	394	91	104	347	90	101	288
3614	30647	92	109	388	95	95	262	93	106	213	102	108	372	93	109	326	93	106	293
3615	30648	94	105	405	84	93	249	90	102	267	92	91	330	88	101	326	86	103	288
3616	30649	94	101	345	105	93	304	102	108	304	110	88	379	97	102	339	100	96	299
3617	30650	100	109	457	95	112	304	101	113	313	102	108	484	97	113	400	92	109	314
3618	CO-51 (NC)	86	98	335	81	89	288	80	96	317	92	97	371	83	96	335	83	97	285
3619	30651	90	119	365	88	101	297	93	120	227	95	105	353	88	116	317	88	111	277
3620	30652	95	112	321	92	103	301	95	108	243	96	109	390	93	112	322	93	107	278
3621	30653	84	95	328	86	94	304	80	98	294	93	96	354	83	102	322	84	99	278
3622	30654	106	128	361	103	124	308	103	130	270	107	121	443	103	129	346	102	116	289
3623	30655	91	92	361	78	76	288	93	94	340	97	95	401	87	93	344	88	96	288
3624	30656	98	112	326	92	100	306	93	105	244	99	109	424	94	110	341	92	105	299
3625	30657	92	106	361	84	90	282	91	101	254	98	103	390	88	105	322	88	102	298
3626	30658	104	92	407	107	79	328	99	84	337	101	85	412	101	91	380	98	88	306
3627	30659	87	90	277	85	79	282	80	98	260	91	104	297	85	95	296	86	98	282
3628	30660	87	93	348	92	94	273	93	93	227	96	100	372	89	99	314	87	100	280
3629	30661	97	107	355	94	93	275	103	98	347	98	104	311	95	107	334	93	102	273
3630	30662	94	104	338	89	99	293	93	105	257	97	105	388	91	108	334	91	104	288
3631	30663	87	108	329	92	104	295	90	108	254	97	107	369	87	110	305	88	105	259
3632	30664	86	106	346	88	92	282	80	103	290	91	99	365	84	106	340	85	103	286
3633	30665	93	79	404	80	74	290	80	92	454	88	89	390	85	84	380	83	87	307
3634	30666	91	85	344	77	89	279	82	93	284	88	99	396	83	89	322	82	94	279
3635	30667	104	105	350	108	92	299	101	111	280	108	95	409	103	105	344	102	100	303
3636	30668	82	109	320	79	109	277	80	97	274	90	109	367	80	108	309	82	105	281
3637	30669	92	111	311	90	99	229	91	109	240	95	110	354	89	111	297	89	109	275
3638	30670	92	99	326	89	90	323	90	102	320	94	98	357	88	101	323	87	102	286
3639	30671	92	89	336	88	83	288	84	87	310	98	85	330	88	92	333	88	91	299
3640	30672	99	112	376	98	110	251	99	121	274	103	106	372	97	116	333	96	110	284
3641	30673	90	103	327	93	97	319	81	106	280	97	104	366	87	106	325	89	104	288
3642	30674	93	121	349	91	114	268	91	113	247	96	109	363	91	117	313	91	114	285
3643	Zonal Check (ZC)	96	107	321	93	97	297	93	62	230	98	103	351	92	99	317	89	96	286
3644	30675	92	114	341	87	109	290	85	110	327	94	101	374	88	113	338	89	108	289
3645	30676	92	105	336	88	103	308	93	107	324	96	102	342	90	107	326	92	102	289
3646	30677	98	101	329	94	44	220	96	104	250	103	93	340	96	94	310	92	97	276
3647	30678	100	118	335	97	113	295	95	121	303	103	113	390	96	120	333	94	113	294
3648	30679	97	108	365	94	102	319	93	108	244	98	99	343	93	109	321	91	103	288
3649	30680	97	105	395	96	93	264	93	107	197	109	100	334	95	106	327	96	105	284
3650	30681	96	110	334	90	98	240	94	114	240	97	107	340	93	110	301	93	106	262
3651	30682	88	95	379	83	93	288	80	102	280	95	100	363	84	100	333	84	101	285
3652	30683	94	107	348	86	92	286	88	107	343	102	102	409	89	107	351	89	102	302
3653	30684	103	117	330	100	108	282	99	123	354	107	107	337	101	118	339	97	112	278
3654	30685	95	107	322	95	91	301	93	102	297	101	102	452	94	106	332	94	103	279
3655	30686	100	106	359	98	93	319	94	108	297	102	102	419	95	97	350	92	99	312
3656	30687	87	107	334	84	98	282	85	99	230	93	105	378	85	105	314	87	107	269
3657	30688	87	106	326	92	87	286	91	100	280	96	102	397	87	100	320	87	102	277
3658	30689	94	106	308	97	88	246	93	101	257	102	104	420	94	105	318	94	106	285
3659	30690	95	103	321	90	109	262	93	105	233	97	99	323	90	107	301	91	103	273
3660	30691	98	109	317	96	101	284	94	105	325	101	116	403	95	101	332	94	105	292
3661	30692	102	108	386	102	98	271	105	106	380	105	110	443	100	109	381	102	105	296
3662	30693	91	104	336	90	94	293	94	92	317	96	103	413	89	103	335	89	103	286
3663	30694	98	118	359	100	106	290	95	62	267	101	116	363	96	108	322	94	112	287
3664	Local Check (LC)	93	104	356	78	91	370	104	113	450	98	102	364	92	106	370	91	105	297
Exp. Mean		**94**	**104**	**345**	**91**	**95**	**286**	**92**	**103**	**289**	**98**	**102**	**377**	**91**	**105**	**331**	**91**	**103**	**288**

Table No. 1.11 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT-E TP, (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED																	
		Uttarakhand			Punjab			Odisha			Bihar			Jharkhand			West Bengal		
		@Pantnagar			@Ludhiana			@ICAR-NRRI (Cuttack)			@Patna-ICAR			@Ranchi			@Hatwara		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3601	29775	96	106	244	88	107	297	97	100	208	92	100	320	111	97	231	98	76	
3602	30635	96	102	250	86	97	261	87	100	218	89	107	320	110	98	190	95	81	
3603	30636	102	110	270	100	100	251	87	106	211	104	102	303	106	97	201	97	90	
3604	30637	99	96	249	93	89	211	91	109	157	91	111	221	110	88	174	98	84	
3605	30638	93	114	274	88	110	228	87	115	185	88	111	222	102	102	236	98	97	
3606	30639	103	90	301	97	83	356	102	83	251	99	91	338	107	84	223	102	77	
3607	30640	84	99	246	82	102	267	87	92	220	82	105	292	96	89	155	88	84	
3608	30641	99	100	329	90	99	251	92	102	188	87	107	238	105	85	129	97	85	
3609	30642	96	111	277	86	104	257	87	100	181	89	102	315	107	97	190	96	80	
3610	30643	98	114	252	89	121	284	82	99	200	91	105	309	107	99	289	95	94	
3611	30644	104	88	304	93	97	337	92	102	190	95	105	283	113	86	266	101	88	
3612	30645	97	95	274	89	89	274	92	85	261	89	108	314	109	98	298	94	73	
3613	30646	99	100	255	95	92	294	87	90	205	94	95	291	107	92	231	99	84	
3614	30647	99	105	270	90	99	248	89	94	189	96	106	272	104	92	233	96	75	
3615	30648	95	109	232	84	99	277	87	100	185	79	94	236	104	99	187	94	93	
3616	30649	116	77	417	102	90	327	90	98	274	104	80	324	126	97	233	103	75	
3617	30650	102	100	302	95	105	281	87	97	233	99	109	291	107	93	257	97	94	
3618	CO-51 (NC)	90	99	314	81	99	330	82	99	274	90	97	264	101	92	282	94	88	
3619	30651	97	128	325	85	118	287	82	109	198	89	109	223	100	99	176	96	98	
3620	30652	108	104	235	97	107	304	87	103	201	95	110	292	105	98	176	98	97	
3621	30653	86	88	293				82	91	227	89	95	273	105	272	269	94	80	
3622	30654	111	102	223				97	130	248	105	113	313	104	216	215	105	104	
3623	30655	97	96	281	84	102	362	87	88	254	89	95	315	102	160	224	97	79	
3624	30656	105	100	322	97	111	237	87	101	204	92	106	286	94	248	295	100	85	
3625	30657	98	100	259	98	105	297	87	100	209	88	107	282	94	140	154	99	82	
3626	30658	112	77	375				102	79	293	100	84	292	110	263	304	107	71	
3627	30659	95	99	261	92	86	388	87	95	223	86	105	265	100	202	151	89	81	
3628	30660	97	98	305	83	99	314	87	102	228	89	98	252	104	286	187	90	61	
3629	30661	101	106	225	88	102	370	82	106	255	91	97	262	106	195	188	94	83	
3630	30662	98	104	280	91	94	251	87	101	204	89	106	284	102	172	249	94	85	
3631	30663	98	101	293	88	96	320	87	96	198	90	92	244	110	142	219	94	83	
3632	30664	95	100	279	84	104	314	87	108	248	89	121	237	106	155	139	94	86	
3633	30665	85	86	325	79	85	323	82	79	253	87	72	309	100	172	166	84	75	
3634	30666	82	99	295	78	94	271	82	82	236	83	98	274	101	165	109	84	79	
3635	30667	112	93	268				97	101	254	92	98	331	104	155	196	101	81	
3636	30668	92	118	259	85	107	277	82	106	203	95	94	271	107	235	243	90	92	
3637	30669	98	108	308	92	101	251	82	97	233	88	109	249	113	176	209	97	85	
3638	30670	98	104	274	86	103	254	82	95	204	89	103	253	110	265	258	98	70	
3639	30671	97	86	274	88	83	350	92	80	253	92	89	282	106	254	205	98	96	
3640	30672	100	109	361	98	101	234	97	105	187	94	117	252	112	223	242	103	99	
3641	30673	99	100	349	84	96	277	87	103	241	92	103	284	107	160	183	95	89	
3642	30674	100	104	264	90	114	294	97	109	231	89	104	225	100	210	224	99	72	
3643	Zonal Check (ZC)	102	85	235	95	84	257	82	77	193	87	116	305	104	256	250	89	98	
3644	30675	96	108	255	84	106	317	90	104	241	87	122	265	112	288	182	96	81	
3645	30676	99	108	229	91	99	267	87	100	153	89	109	257	102	256	235	96	72	
3646	30677	101	98	281	97	96	320	97	101	206	89	107	229	112	302	286	105	86	
3647	30678	99	116	292	97	107	290	97	104	205	91	109	242	102	116	157	98	84	
3648	30679	99	107	320	92	96	254	87	99	204	91	102	282	105	218	214	95	78	
3649	30680	102	92	270	104	87	294	82	106	140	92	101	232	102	208	203	99	82	
3650	30681	101	95	203	96	93	277	87	107	213	95	105	306	116	163	200	99	75	
3651	30682	92	98	257	83	88	340	87	91	234	88	87	317	115	223	222	95	88	
3652	30683	95	116	255	89	93	310	87	92	294	88	93	273	112	206	216	98	93	
3653	30684	101	107	274	97	100	244	102	116	295	94	102	219	105	223	290	101	79	
3654	30685	99	104	292	95	89	264	89	99	176	97	113	257	104	156	213	94	69	
3655	30686	98	100	376	92	92	330	90	87	256	94	96	320	114	200	201	101	85	
3656	30687	97	108	237	90	99	274	87	98	224	91	98	212	102	93	143	93	82	
3657	30688	91	101	249	84	94	264	82	94	204	86	104	216	105	98	215	98	74	
3658	30689	100	99	349	94	90	271	92	93	185	91	90	273	102	90	205	97	72	
3659	30690	97	100	278	91	92	284	92	98	209	95	104	271	116	92	188	100	71	
3660	30691	101	109	330	94	103	307	102	109	239	90	107	276	115	97	223	103	68	
3661	30692	116	95	280				102	100	275	106	104	308	112	85	213	104	79	
3662	30693	96	110	280	87	93	300	87	93	263	87	106	295	105	102	268	97	83	
3663	30694	103	104	259	94	109	281	92	100	241	90	114	209	104	77	194	105	87	
3664	Local Check (LC)	89	84	336	91	89	366	87	84	210	87	109	272	114	90	201	96	85	
Exp. Mean		**98**	**101**	**283**	**90**	**98**	**290**	**89**	**98**	**221**	**91**	**102**	**274**	**106**	**156**	**214**	**97**	**83**	

Table No. 1.11 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT-E TP, (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED								
		West Bengal @Malda			Uttar Pradesh 2 @Masodha			Madhya Pradesh @Rewa		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3601	29775	78	103	367	65	95	226	95		307
3602	30635	83	102	279	76	92	247	97		308
3603	30636	85	100	361	66	101	269	98		257
3604	30637	78	100	295	65	74	254	103		368
3605	30638	84	105	370	69	75	230	98		244
3606	30639	79	90	325	68	98	241	107		310
3607	30640	76	91	410	71	97	230	89		322
3608	30641	76	85	304	67	92	248	97		326
3609	30642	83	100	364	71	98	257	98		366
3610	30643	86	108	306	72	92	271	99		333
3611	30644	76	92	341	67	89	253	109		309
3612	30645	76	100	334	66	70	250			
3613	30646	77	95	354	66	87	244	99		364
3614	30647	86	100	302	69	95	269	97		285
3615	30648	89	100	425	67	97	240			
3616	30649	81	100	348	70	85	213			
3617	30650	84	100	341	66	84	258	95		335
3618	CO-51 (NC)	89	95	342	67	94	256			
3619	30651	78	102	309	66	92	231	94		336
3620	30652	84	105	343	64	98	251	99		350
3621	30653	77	88	325	76	71	262	92		341
3622	30654	81	112	310	71	110	214	108		301
3623	30655	86	88	306	70	99	250	96		341
3624	30656	85	105	325	69	81	221	84		356
3625	30657	81	103	308	65	85	222	97		154
3626	30658	82	70	351	71	71	251	110		300
3627	30659	81	75	321	65	87	249	98		253
3628	30660	82	100	360	66	90	244			
3629	30661	79	105	309	61	88	227	107		295
3630	30662	85	100	306	71	85	234	96		268
3631	30663	85	100	358	70	88	230	94		140
3632	30664	88	100	281	69	93	248	93		323
3633	30665	89	83	355	68	70	195	93		314
3634	30666	96	99	360	78	99	238	80		287
3635	30667	83	100	334	68	96	263	106		315
3636	30668	88	103	325	66	102	263	92		340
3637	30669	77	107	355	71	88	210	97		360
3638	30670	82	100	425	71	90	250	105		315
3639	30671	79	95	402	88	93	224	102		232
3640	30672	83	100	339	64	103	228	108		335
3641	30673	83	113	375	71	104	247	104		275
3642	30674	79	105	297	74	114	223	96		269
3643	Zonal Check (ZC)	75	102	357	90	105	197	92		281
3644	30675	76	93	309	66	101	213	97		351
3645	30676	76	107	398	70	67	253	94		371
3646	30677	88	100	294	73	91	257	103		256
3647	30678	79	104	359	67	81	227	102		344
3648	30679	90	107	353	74	85	227	101		344
3649	30680	75	100	364	69	100	222	105		188
3650	30681	75	99	280	72	96	216	100		318
3651	30682	87	100	340	66	71	224	93		330
3652	30683	85	106	319	70	99	231	98		350
3653	30684	91	107	332	67	101	224	96		336
3654	30685	89	107	314	71	102	249	95		347
3655	30686	82	103	292	63	90	274			
3656	30687	76	96	310	72	102	232	94		314
3657	30688	77	112	355	71	91	196	90		311
3658	30689	90	96	335	73	91	244	102		307
3659	30690	79	105	344	68	77	196	100		278
3660	30691	93	107	336	69	110	203	103		333
3661	30692	89	105	385	74	115	261	109		352
3662	30693	83	112	303	78	98	231	99		329
3663	30694	82	104	364	71	98	230	102		305
3664	Local Check (LC)	82	100	349	74	101	244	94		321
Exp. Mean		**82**	**100**	**338**	**69**	**92**	**237**	**98**		**308**

Table No. 1.11 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT-E TP, (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED											
		Chattishgarh			Telangana			Kerala			Karnataka		
		@Raipur			@Rudrur			@Pattambi			@Mandya		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3601	29775	88	106	171	119	98	283	108	101	360	89	98	271
3602	30635	85	116	111	90	96	132	112	91	430	82	88	304
3603	30636	96	100	212	95	98	194	114	93	288	98	87	359
3604	30637	88	97	146	98	78	266	108	95	445	89	86	264
3605	30638	86	106	134	91	96	194	108	100	412	97	89	352
3606	30639	88	96	159	90	76	121	104	97	279	92	71	250
3607	30640	78	94	165	91	72	134	108	103	395	88	88	318
3608	30641	86	106	92	96	84	288	109	109	366	88	89	271
3609	30642	87	113	181	95	82	196	107	112	278	93	84	284
3610	30643	90	104	154	90	88	194	108	104	361	92	90	392
3611	30644	91	110	133	106	96	289	111	100	368	92	88	257
3612	30645	90	98	117	97	84	198	108	103	427	99	89	325
3613	30646	88	108	125	95	74	201	108	89	394	99	84	244
3614	30647	91	116	136	101	98	259	110	98	430	104	88	338
3615	30648	83	104	123	88	77	214	108	90	422	87	94	338
3616	30649	102	107	127	100	72	141	109	88	403	109	86	352
3617	30650	87	118	152	90	95	156	108	95	403	68	103	359
3618	CO-51 (NC)	83	97	149	86	75	218	110	105	323	87	99	365
3619	30651	85	110	109	90	87	259	106	102	455	88	105	392
3620	30652	91	115	118	95	90	121	107	95	408	90	99	325
3621	30653	78	104	138	94	92	155	107	104	369	90	88	345
3622	30654	100	122	132	104	88	178	109	99	458	102	109	419
3623	30655	84	85	140	99	76	320	106	98	388	86	79	237
3624	30656	86	104	98	95	82	177	108	102	401	88	92	264
3625	30657	85	107	130	98	85	234	108	95	397	88	95	311
3626	30658	99	87	192	94	72	290	109	92	443	88	67	298
3627	30659	85	104	131	85	86	251	108	97	355	83	84	318
3628	30660	87	97	197	89	84	218	106	102	346	90	87	237
3629	30661		.		96	72	157	110	101	458	90	86	345
3630	30662	86	106	156	89	85	241	108	99	388	93	88	230
3631	30663	87	107	190	99	88	155	108	101	401	98	102	325
3632	30664	85	106	170	99	92	113	107	94	393	87	87	359
3633	30665	76	96	133	95	99	136	108	102	405	86	78	372
3634	30666	76	96	139	85	80	148	106	101	405	83	96	311
3635	30667	100	117	146	106	81	278	108	103	424	111	99	277
3636	30668	81	118	113	89	87	264	106	104	461	89	97	257
3637	30669	85	115	190	97	71	157	107	90	273	89	97	277
3638	30670	85	102	153	95	82	153	108	95	327	87	88	183
3639	30671	84	94	118	92	77	135	108	99	419	91	81	203
3640	30672	92	116	177	90	93	238	107	99	323	96	102	217
3641	30673	90	109	129	94	86	162	107	108	404	93	94	250
3642	30674	87	107	143	89	91	271	106	102	357	88	103	277
3643	Zonal Check (ZC)	85	108	133	90	84	256	105	98	441	90	83	284
3644	30675	86	107	106	89	94	288	108	100	373	88	93	311
3645	30676	86	108	136	87	102	279	110	102	393	81	104	257
3646	30677	88	106	121	99	92	197	107	88	451	80	95	237
3647	30678	90	116	148	98	74	151	108	98	458	93	87	237
3648	30679	87	105	143	90	82	203	105	101	420	82	97	332
3649	30680	99	111	113	95	90	320	106	112	441	84	98	359
3650	30681	88	103	155	98	86	273	109	113	435	93	86	332
3651	30682	83	106	139	91	85	262	110	100	371	82	87	311
3652	30683	83	104	131	93	91	320	107	99	405	92	86	359
3653	30684	94	106	150	103	83	149	111	95	442	59	103	284
3654	30685	91	111	130	99	76	256	106	103	416	82	94	196
3655	30686	87	99	154	94	74	129	106	102	395	86	75	271
3656	30687	87	116	148	96	79	153	111	95	401	80	96	277
3657	30688	82	106	160	94	74	153	109	104	360	98	88	359
3658	30689	93	114	115	101	85	318	106	90	395	89	93	311
3659	30690	86	107	159	101	85	305	109	93	340	82	95	365
3660	30691	89	128	144	93	80	215	108	102	365	102	88	291
3661	30692	104	112	151	91	72	205	108	91	405	93	86	311
3662	30693	85	110	140	100	86	285	108	103	370	88	97	359
3663	30694	90	115	197	93	88	166	106	98	450	82	98	345
3664	Local Check (LC)	87	119	136	90	89	325	108	100	440	93	90	365
Exp. Mean		**87**	**107**	**143**	**95**	**85**	**214**	**108**	**99**	**394**	**90**	**91**	**304**

ADVANCED VARIETY TRIAL 2- IRRIGATED MID EARLY (AVT 2-IME)

Locations: 52 **Test Entries: 09**

Checks: Gontra Bidhan-3 (National); PR 113 (Northern), Lalat (Eastern and North Eastern), MTU 1010 (Central and Southern), Karjat-7 (Western)--Zonal; US 312 (Hybrid) and local check **Table:1.12**

Advanced Variety Trial 2- Irrigated Mid Early (AVT-IME) was constituted with thirteen entries including ten varietal and three hybrid entries in the third year of testing 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 a local check. The trial was sent to a total of 52 locations across the country and data was not received from Bankura, Titabar, Gerua-ICAR, Jabalpur, Mugad and Kurumbapet. Data from seven locations was not included in the analysis due to low CV % at Patna-ICAR, Hathwara, Malda, Masodha and Mandya and low experimental mean at Kanpur and Lembucherra. Overall mean for the entries varied from 5005 (Zonal check) to 6290 kg/ha (IET 28982), plant height from 97 (IET 29214) to 118 cm (IET 29236), days to fifty percent flowering from 96 (IETs 28128 and 28979) to 108 days (IET 29214) and panicles/$m^2$from 267 (IET 28982) to 313 (IET 29214). Experimental mean of the locations ranged from 3287 (Lembucherra) to 10385 kg/ha (Patna) and CV % from 3.25 (Malda) to 19.76 % (Pantnagar). The data pertaining to yield, days to 50% flowering, plant height, panicles/m^2 and quality are presented in tables 1.13, 1.14 and 1.15 respectively.

On overall basis, national check is the best varietal check (BVC) with mean performance of 5633 kg/ha. Only one varietal entry IET 29235 recorded required yield advantage of more than 10 % over the BVC on the overall basis. It also outperformed the BVC in the northern, eastern, western and southern zones. Additionally, a hybrid entry IET 28982 recorded required yield advantage over both BVC and HC in northern and western zones. Similarly, varietal entries, IET 29238 in eastern, IET 28506 in eastern and central, IETs 29246 and 29236 in eastern and western zones recorded required yield advantage over the BVC. Overall and zonal performance of these entries is detailed below.

IET 29235 (PNPK 7106) derived from the PNP 3/SR, a varietal entry ranked second on overall basis with a mean yield of 6198 kg/ha, 100 days to fifty percent flowering and yield advantage of 10.03 % over BVC. It also outperformed BVC in the northern (11%), eastern (15.66%), western (14.55%) and southern (9%) zones. It has acceptable grain quality parameters, HRR (58%), intermediate amylose content (22.88%), GC of 32 mm and ASV of 4.0 with long slender grains.

IET 28982 (RRX-809) is a hybrid entry though ranked first on overall basis, didn't show required yield advantage of 5% over the HC. However, it outperformed BVC and HC in northern (14%, 26%) and western (16.43%, 10.12) zones. It has high HRR (61.7%), amylose content (25.98%), a soft GC of 54 mm and ASV of 3.0 with long bold grains.

IET 28506 (CR 3849-2-1-2-1-2) derived from the cross of Pooja/IR64 MAS, a varietal entry outperformed BVC in eastern (7.87%) and central (5.87%) zones. It has

acceptable grain quality parameters of HRR (55.4%), intermediate amylose content (24.69%), a soft GC of 64 mm and ASV of 3.0 with long bold grains.

Overall/zonal performance of the promising entries in AVT-2 IME Trial, *kharif* 2022

IET No / Designation/ Cross combination	GY/ DFF /GT	% Yld Adv over NC/ZC/ LC/HC	GY / DFF /GT	% Yld Adv over NC/ZC/ LC/HC	GY/ DFF /GT	% Yld Adv over NC/ZC/ LC/HC	GY / DFF /GT	% Yld Adv over NC/ZC/ LC/HC	GY/ DFF /GT	% Yld Adv over NC/ZC/ LC/HC	GY/ DFF /GT	% Yld Adv over NC/ZC/ LC/HC
	Overall (O)		**Northern (II)**		**Eastern (III)**		**Central (V)**		**Western (VII)**		**Southern (VII)**	
IET 29235 (PNPK 7106) PNP 3/SR	6198 100 LS	**10.03** 23.83 17.34	5700 108 LS	**11.00** 16.00 14.00	6505 105 LS	21.49 15.66 **25.21**			5878 95 LS	**14.55** 47.58 18.75	6713 95 LS	9.01 35.50 17.01
IET 28982 (RRX-809) (H)			5889 103 LB	**14.00** 20.00 17.45 26.00					5974 93 LB	**16.43** 50.00 20.69 10.12		
IET 29238 (ORJ 1351) (TP 30600) IRRI 154/ Mazhan (Red)// IR08N194					6119 111 LB	14.28 8.80 17.78						
IET 28506-CR (3849-2-1-2-1-2) Pooja/IR64 MAS					6067 105 LB	13.31 7.87 16.78	6275 99 LB	5.87 18.64 20.78				
IET 29246 (HKR 16-35) HKR 47/HKR 99-60//HKR 47					6242 103 LS	16.58 10.98 20.15			5554 97 LS	**8.24** 39.44 12.20		
IET 29236 (CR 3580-3-1-1-1-1-1-2) Lalat/N22					6626 107 SB	23.75 17.81 27.54			5751 104 SB	**12.08** 44.39 16.18		
GontraBidhan-3 (NC)	5633 97 SB		5151 101 SB		5354 107 SB		5927 96 SB		5131 91 SB		6158 94 SB	
Zonal Check (ZC)	5005 96 LS		4915 108 LS		5624 106 LS		5289 92 LS		3983 87 LS		4954 91 LS	
Local Check (LC)	5282 99 LB		5014 107 LB		5195 105 LB		5195 95 LB		4950 89 LB		5737 99 LB	
US 312 (HC)	6039 97 MS		4679 102 MS		6974 103 MS		6652 96 MS		5425 93 MS		5990 93 MS	

Bold &Italics: Best check &over the best check; GY: Grain Yield (kg/ha); DFF: Days to 50% flowering; GT: Grain Type; NC: National Check; ZC: Zonal Check; LC: Local Check; HC: Hybrid Check

IET 29238[(ORJ1351) (TP 30600)] from the cross of IRRI 154 / Mazhan (Red//IR08N194), a varietal entry outperformed BVC in eastern (8.80%) zone. It has a HRR (54.6%), high amylose content (27.16 %), GC of 48 mm and ASV of 4.0 with long bold grains.

IET 29246 (HKR 16-35) from the cross of HKR47/HKR 99-60//HKR 47), a varietal entry outperformed BVC in eastern (10.98%) and western (8.24%) zones. It has acceptable

grain quality parameters, HRR (59.6%), intermediate amylose content (20.15%), GC of 25 mm and ASV of 7.0 with long slender grains.

IET 29236 (CR 3580-3-1-1-1-1-1-2) from the cross of Lalat / N22, a varietal entry outperformed BVC in eastern (17.81%) and western (12.08%) zones. It has acceptable grain quality parameters, HRR (58.7%), intermediate amylose content (22.76%), GC of 22 mm and ASV of 4.0 with short bold grains.

Three years' performance of the promising entries

IET 28506 (CR 3849-2-1-2-1-2), a varietal entry showed consistent superiority over the BVC in Odisha in 2020 and 2022. It has acceptable desirable grain quality traits of HRR (55.5%), intermediate amylose content (24.69%), a soft GC of 64 mm and ASV of 3.0 with long bold grains. It is promising only for a single state, Odisha.

IET 29235 (PNPK 7106), a varietal entry showed consistent superiority over the BVC in all the three years of testing in Andhra Pradesh. It also showed consistent promising performance in 2020 and 2022 in Telangana and Chhattisgarh, in 2021 and 2022 in Haryana and Maharashtra. Also owing to its desirable grain quality traits of HRR (58.0%), intermediate amylose content (22.88%), GC of 32 mm and ASV of 4.0 with long slender grains, it is promising for Andhra Pradesh, Telangana, Chhattisgarh, Haryana and Maharashtra.

Three years' performance of the AVT2-IME entries, *kharif* 2022

IET No/ Designation/ Cross combination	Year	Zonal performance			Performance across the States			
		Overall/ Zone	Yield/ Rank	%YA BC/HC	State	Yield/ Rank	%YA BC/HC	Remarks
IET 28506 (CR 3849-2-1-2-1-2) Pooja/IR64	2022	III	6067 (9)	8	OD	6382 (7)	12	Promising for Odisha
		V	6275 (4)	17	JH	3712 (9)	6	
					CH	6551 (4)	17	
					TN	6518 (2)	6	
	2021	IV	6122 (4)	19	TR	8221 (1)	30	
		VI	5062 (9)	8	WB	6313 (5)	23	
					MH	4769 (10)	14	
	2020	III	5576 (8)	25	OD	6244 (6)	28	
					AP	5783 (7)	10	
IET 29235 (PNPK 7106) PNP 3/SR	2022	O	6198 (2)	10	UK	5653 (1)	10	Promising for Haryana, Chhattisgarh, Andhra Pradesh, Telangana and Maharashtra
		II	5700 (2)	11	HA	8483 (1)	10	
		III	6505 (5)	16	RA	6247 (1)	13	
		VI	5878(3)	15	JH	5256 (4)	50	
		VII	6713 (1)	9	UP	6504 (1)	38	
					CH	5914 (6)	5	
					MH	5268 (3)	9	
					GU	5585 (3)	7	
					AP	5941 (3)	10	
					TS	7552 (3)	11	
					KA	5189 (1)	12	
					PD	7750 (1)	6	
	2021	IV	5720 (9)	12	HA	9274 (4)	10	
		VI	4938	6	WB	5947	16	

IET No/ Designation/ Cross combination	Year	Zonal performance			Performance across the States			
		Overall/ Zone	Yield/ Rank	%YA BC/HC	State	Yield/ Rank	%YA BC/HC	Remarks
					AS MH AP KE	6428 (1) 4876 (8) 8049 (7) 7281 (1)	24 17 6 28	
	2020	VI	4950 (3)	10	BI CH AP TS	6250 (10) 4585 (1) 6595 (2) 6202 (5)	43 9 25 7	
IET 29238 (ORJ 1351) (TP 30600) IRRI 154/ Mazhan(Red) //IR08N194	2022	III	6119 (7)	9	OD JH GU PD	6196 (9) 3909 (8) 5758 (1) 7750 (1)	9 11 10 6	Not promising
	2021	IV	5889 (6)	15	WB AS	6873 (2) 6175 (2)	34 20	
	2020	III	4987	12	BI KE	5170 6110 (6)	19 7	
IET 29246 (HKR 16-35) HKR 47/HKR 99-60//HKR 47	2022	III VI	6242 (6) 5554 (6)	11 8	RA JH MH GU	5919 (2) 5059 (5) 5200 (6) 5541 (4)	7 44 8 6	Promising for Maharashtra
	2021	IV VI	5447 5123 (8)	6 10	WB TR MH KE	6258 (6) 5826 5021 (4) 7071 (2)	22 10 20 25	
	2020	III	5103	14	BI TS	7160 (4) 6167 (6)	64 7	
IET 29236 (CR 3580-3-1-1-1-1-1-2) Lalat/N22	2022	III VI	6626 (3) 5751 (4)	18 12	OD MH TN	6825 (2) 5438 (1) 6506 (4)	20 13 5	Promising for Odisha and Gujarat
	2021	IV VI	6863 (1) 4 920	34 5	WB AS TR GU AP	5580 5668 (7) 8058 (2) 5551 (9) 9412 (3)	9 10 27 6 23	
	2020	III VI	6289 (2) 5284 (1)	41 18	OD BI GU	6803 (1) 6410 (7) 5226 (1)	39 47 13	
IET 28982 (RRX-809) (H)	2022	II VI	5889 (1) 5974 (1)	14, 26 16, 10	MH-2	6478 (1)	29, 17	Promising for Maharashtra
	2021	O III VI	6453 (1) 6277 (2) 6161 (1)	11, 14 10, 11 32, 22	HA OD MH GU AP	9465 (2) 6190 (1) 6476 (1) 5845 (6) 9244 (4)	13, 18 6, 16 55, 31 11, 12 21,128	
	2020	III	7309	11, 11	UP TS HA	7949 7998 5633	11, 28 23, 54 86, 10	

IET 29238 (ORJ 1351) (TP 30600) from the cross of IRRI 154/Mazhan (Red)//IR08N194 didn't show consistent yield advantage over the BVC in any state, hence discontinued.

IET 29246 (HRK 16-35), a varietal entry showed consistent superiority over the BVC in Maharashtra in 2021 and 2022. It also has acceptable grain quality parameters of HRR (59.6%), intermediate amylose content (20.15%), GC of 25 mm and ASV of 7.0 with long slender grains. It is promising only for a single state, Maharashtra.

IET 29236 (CR 3580-3-1-1-1-1-1-2), a varietal entry showed consistent superiority over the BVC in two years of testing in Odisha in 2020 and 2022 and Gujarat in 2020 and 2021. Also owing to its acceptable grain quality traits of HRR (58.7%), intermediate amylose content (22.76%), GC of 22 mm and ASV of 4.0 with short bold grains, it is promising for Odisha and Gujarat.

IET 28982 (RRX-809), a hybrid entry showed consistent superiority over the BVC and HC in two years of testing in Maharashtra in 2021 and 2022. It has desirable grain quality traits of HRR (61.7%), intermediate amylose content (25.98%), a soft GC of 54 mm and ASV of 3.0 with long bold grains. It is promising only for a single state, Maharashtra.

ADVANCED VARIETY TRIAL 1- IRRIGATED MID EARLY (AVT 1-IME)

Locations:	**52**	**Test Entries: 09**
Checks:	**Gontra Bidhan-3 (National); PR 113 (Northern), Lalat (Eastern and North Eastern), MTU 1010 (Central and Southern), Karjat-7 (Western)--Zonal; US 312 (Hybrid), local check and Recurrent parents: ATD 39, IR 64, MTU 1010 and Naveen.**	**Table:1.16**

Advanced Variety Trial 1- Irrigated Mid Early (AVT-IME) was constituted with 18 entries including eight varietal and ten hybrid entries in the second year of testing along with Gontra Bidhan-3 as national, PR-113 in northern, Lalat in eastern and north eastern, MTU 1010 in central and southern and Karjat 7 in western as zonal checks, US 312 as hybrid check and a local check. Additionally, thirteen near isogenic lines (NILs) in the first year of testing

were also included in the AVT1-IME trial. Among them, three NILs were in the background of ATD 39 for submergence tolerance, two NILs in the background of IR 64 for blast resistance, four NILs in the background of MTU 1010 of which one for blast resistance, one for bacterial blight resistance and two for both blast and bacterial blight resistance and four NILs in the background of Naveen with two for BPH resistance and two for herbicide tolerance.

The trial was sent to a total of 52 locations across the country and data was received from 44 locations. Data was not received from eight locations viz., Nagina, Titabar, Gerua-ICAR, Jabalpur, Bilaspur, Kunaram, Jagtial and Mugad. Data from ten locations were not included in the analysis due to low CV % at Bankura, Hathwara, Malda and Masodha and low experimental mean at Pantnagar, Chatha, Kanpur, Lembuchera, Ambikapur and Mandya. A total of five hybrid entries viz., IETs 29738, 29734, 29726, 29708 and 29717 recorded significant yield advantage over best varietal check (BVC) and hybrid check (HC) and five varietal entries namely IETs 29820, 29808, 29822, 29188 and 29304 significantly outperformed BVC in various zones. The data pertaining to yield, days to 50% flowering, plant height, panicles/m^2 and quality are presented in tables 1.17, 1.18 and 1.19 respectively The zonal performance of these entries is detailed below.

Performance of the hybrid entries

The hybrid IET 29738 (RNC-0457) with the mean yield of 7949 kg/ha showed significant superiority over BVC (16.94%) and HC (9.86%) in eastern zone. It also has significant yield advantage over BVC (5.76%) and HC (0.39%) in southern zone with a mean yield of 5542 kg/ha. It has acceptable grain quality traits with a HRR (56.8%), intermediate amylose content (22.55%), a soft GC of 50 mm and ASV of 7.0 and long slender grains.

The hybrid IET 29734 (PHI-21104) with a mean yield of 7246 kg/ha showed significant superiority over BVC (6.60%) and HC (0.15%) in eastern zone and with 6027 kg/ha in central zones with significant superiority over BVC (6.03%) and HC (8.81%) respectively. It has acceptable grain quality traits with a HRR (55.8%), intermediate amylose content (24.72%), GC of 22 mm and ASV of 4.0 and long bold grains.

IET 29726 (PHI-21103) with the mean yield of 5784 kg/ha showed significant superiority over BVC (1.75%) and HC (4.42%) in central zone. It has HRR of 53.9%, amylose content of 25.98%, GC of 25 mm and ASV of 5.0 with long slender grains.

The hybrid IET 29708 (MALI-348) with the mean yield of 6857 kg/ha showed significant superiority over BVC (10.38%) and HC (4.54%) in western zone. It has desirable grain quality parameters with a high HRR (64.3%), intermediate amylose content (22.14%), GC of 48 mm and ASV of 5.0 and long slender grains.

IET 29717 (RRX-271) with the mean yield of 5701 kg/ha showed significant superiority over BVC (8.79%) and HC (3.27%) in southern zone. It has acceptable grain quality traits with HRR (55.4%), intermediate amylose content (22.79%), a soft GC of 52 mm and ASV of 4.0 and long slender grains.

Performance of the promising entries in AVT1-IME during *kharif* 2022

S. No.	IET No/Designation/ Cross combination	GT	GY (kg/ha) /DFF	% (*) Yld Adv BVC/HC	GY (kg/ha) /DFF	% (*) Yld Adv BVC/HC	GY (kg/ha) /DFF	% (*) Yld Adv BVC/HC	GY (kg/ha) /DFF	% (*) Yld Adv BVC/HC
			Zone III		Zone V		Zone VI		Zone VII	
Hybrid entries										
1	IET 29738 (H) (RNC-0457)	LS	7949 (1) 99	16.94 9.86					5542 (6) 97	5.76 0.39
2	IET 29734 (H) (PHI-21104)	LB	7246 (2) 101	6.60 0.15	6027 (1) 102	6.03 8.81				
3	IET 29726 (H) (PHI-21103)	LS			5784 (2) 97	1.75 4.42				
4	IET 29708 (H) (MALI-348)	LS					6857 (1) 94	10.38 4.54		
5	IET 29717 (H) (RRX-271)	LS							5701 (2) 94	8.79 3.27
Varietal entries										
6	IET 29820 (V) (OR2517-8) OR2006-25/IR 65629-22-1	LS							5961 (1) 98	13.70
7	IET 29808 (V) (RP 6317-RMS-S35-BC_2F_4-49-25-12-24) MTU 1121*2/Swarna	MS							5555 (5) 105	6.01
8	IET 29822 (V) [ORJ 1342 (TP 29409)] IR 10M300	MS							5352 104	2.13
9	IET 29188 (V) (WGL 1355) WGL 347/HKR 06-47	LS							5289 102	0.93
10	IET 29304 (V) (R 2454-1-R1-10) KM/IRBB 59	MS							5384 98	2.74
	Gontra Bidhan-3 (NC)	SB	6468 93 SB		5312 95 SB		5673 90 SB		4847 92 SB	
	Zonal Check (ZC)	LS	5860 100 LS		4389 93 LS		4613 87 LS		4511 93 LS	
	Local Check	MS	5870 99 MS		4884 97 MS		5431 91 MS		4916 104 MS	
	US 312 (HC)	MS	6906 97 MS		5167 99 MS		6020 93 MS		5196 94 MS	
	CD		329		372		539		324	
	BVC+CD		6797		5684		6212		5240	
	HC+CD		7235		5539		6559		5520	

Performance of the varietal entries

Significant yield advantage over the BVC was observed in five varietal entries only in the southern zone wherein local check is the BVC with a mean yield of 4916 kg/ha. IET 29820 (OR 2517-8) derived from the cross of OR 2006-25/IR 65629-22-1 with the mean yield of 5961 kg/ha showed significant superiority over (BVC 13.70%). It has a high HRR (68.7%), amylose content (25.40%), GC of 22 mm and ASV of 4.0 and long slender grains.

IET 29808 (RP 6317-RMS-S35-BC2F4-49-25-12-24) derived from the cross of MTU 1121*2/Swarna with the mean yield of 5555 kg/ha showed significant superiority over BVC 6.01%). It has desirable HRR (64.1%), intermediate amylose content (20.09), GC of 43 mm and ASV of 4.0 and medium slender grains.

IET 29822 [ORJ 1342 (TP 29409)] derived from the cross of IR 10M300 recorded a mean yield of 5352 kg/ha with significant yield advantage over the BVC (2.13%). It has a high HRR (69.4%), amylose content (26.51), GC of 22 mm, ASV of 4 and medium slender grains.

IET 29188 (WGL 1355) from the cross of WGL 347/HKR 06-47 outperformed BVC with a mean yield of 5289 kg/ha and a significant yield advantage of 0.93%. It has desirable grain quality traits of high HRR (64.7%), intermediate amylose content (22.82%), GC of 33mm, ASV of 4.0 and long slender grains.

IET 29304 (R 2454-1-R1-10) derived from the cross of KM/IRBB 59 outperformed BVC with a mean yield of 5384 kg/ha and a significant yield advantage of 2.74%. It has desirable grain quality traits of high HRR (66.6%), intermediate amylose content (20.65%), GC of 45 mm, ASV of 4.0 and medium slender grains.

Near Isogenic Lines in AVT1-IME trial during *kharif* 2022

A total of 13 Near isogenic lines (NILs) in the background of four different elite cultivars with IME duration were evaluated in the AVT1-IME. The performance of the NILs is discussed below.

Near isogenic lines in the background of ADT 39: Three IETs 30695, 30696 and 30697 were evaluated for submergence tolerance. They were developed in the background of ADT 39 with introgression of QTL *Sub* 1 for submergence tolerance. All the three entries were found inferior to the recurrent parent under submergence stress, hence dropped.

Near isogenic lines in the background of 'ADT 39' in AVT1-IME, *kharif* 2023

IET No.	Gazette notified states		Adapted areas		HRR/AC/ GC/ASV	GT
	TN		Z-VII			
	GY (kg/ha) DFF PH (cm)	Yield adv (RP±CD)	GY (kg/ha) DFF PH (cm)	Yield adv (RP±CD)		
IET 30695	6407 99 91	5.8 31.42	5657 107 96	-3.89 8.00	65.9 21.73 22; 4	SB
IET 30696	6032 99 95	-0.31 23.73	5377 108 96	-8.65 2.65	65.5 22.93 22; 4	SB
IET 30697	5190 97 93	-14.23 6.46	5355 110 98	-9.02 2.23	68.2 22.93 24; 4	MS
ADT39 (RP)	5463 97 94		5562 107 97		60.2 25.1 22; 4	MS
CD	588		324			

Near isogenic lines in the background of IR 64: Two IETs 30698 and 30699 in the background of IR 64 were introgressed with *Pi9* for blast resistance. Both the entries didn't show improvement in blast resistance compared to the recurrent parent and resistance reaction of the NIL entries was comparable with recurrent parent. Further IET 30698 recorded very low HRR of 38.3%. Hence, both the IETs 30698 and 30699 are dropped.

Near isogenic lines in the background of 'IR 64' in AVT1-IME, *kharif* 2023

IET No.	Gazette notified states						Adapted areas						HRR AC GC; ASV	GT	Trait (BL) SI (Avg)
	TN		MP		CH		Z-III		Z-V		Z-VII				
	GY (kg/ha) DFF PH (cm)	Yield adv (RP± CD)	GY (kg/ha) DFF PH (cm)	Yield adv (RP± CD)	GY (kg/ha) DFF PH (cm)	Yield adv (RP± CD)	GY (kg/ha) DFF PH (cm)	Yield adv (RP± CD)	GY (kg/ha) DFF PH (cm)	Yield adv (RP± CD)	GY (kg/ha) DFF PH (cm)	Yield adv (RP± CD)			
30698	6270 85 93	-7.11 12.48	5289 104 114	-10.23 14.97	3612 88 98	-36.23 -13.7	5367 93 101	-7.97 3.73	4406 99 107	-11.61 3.89	4912 89 96	-8.72 3.78	38.3 24.52 55; 4	LS	4.44
30699	5860 91 93	-13.18 5.13	4441 102 100	-24.62 -3.45	5165 89 94	-8.81 23.38	5248 94 93	-10.01 1.43	4153 96 97	-16.69 -2.07	5029 90 93	-6.54 6.25	53.4 23.9 63; 4	LS	4.44
IR64 (RP)	6162 88 83		5246 104 96		4925 91 94		5503 94 95		4613 97 96		5057		55.1 25.96 49; 5	LS	4.67
CD	588		646		739		329		372		324				

Near isogenic lines in the background of MTU 1010: A total of four NIL entries in the background of MTU 1010 were evaluated in AVT1-IME. IETs 30700 and 30702 were introgressed with *Xa21+Pi54* for bacterial blight and blast resistance respectively, IET 30701 with *Pi54* and IET 30703 with *Xa21* for blast and bacterial blight respectively. All the entries recorded on par yield performance and grain quality parameters with the recurrent parent. However, as far as the target trait improvement is concerned, none of the entries showed promising performance, hence dropped.

Near isogenic lines in the background of 'MTU 1010' in AVT1-IME, *kharif* 2023

IET No.	Gazette notified states				Adapted areas				HRR/ AC/ GC/ ASV	GT	Trait	
	TS		AP		Z-V		Z-VII				BB	BL
	GY (kg/ha) DFF PH (cm)	Yield adv (RP± CD)	GY (kg/ha) DFF PH (cm)	Yield adv (RP± CD)	GY (kg/ha) DFF PH (cm)	Yield adv (RP± CD)	GY (kg/ha) DFF PH (cm)	Yield adv (RP± CD)				
30700 (*Xa21+ Pi54*)	5790 103 113	-9.08 18.11	5853 84 119	1.24 27.91	4480 98 104	-14.52 -0.38	4940 93 97	-3.87 10.00	57.3 22.2 22; 4	LS	5.78	5.44
30701 (*Pi54*)	5786 101 118	-9.14 18.03	5183 84 117	-10.34 13.33	4365 97 104	-16.71 -2.94	5035 93 103	-2.02 12.11	62.8 23.4 22; 4	LS	--	5.83
30702 (*Xa21+ Pi54*)	5090 102 115	-20.07 3.83	5502 89 119	-4.83 20.31	3772 97 106	-28.03 -18.12	4451 93 103	-13.39 -0.89	55.3 24.61 22; 4	LS	5.56	5.06
30703 (*Xa21*)	6310 98 114	-0.91 28.71	5225 81 126	-9.62 14.25	4882 98 107	-6.85 8.56	4835 93 104	-5.92 7.66	58.1 25.84 39; 4	LS	5.22	--
MTU1010 (RP)	5635 95 103		5177 84 117		4869 94 101		4815 90 94		55.8 21.85 65; 4	LS	5.71	4.67
CD	733		604		372		324					

Near isogenic lines in the background of Naveen: A total of four entries in the background of Naveen were included in AVT1-IME. IETs 30282 and 29203 were introgressed with *qBph4.3+ qBph4.4* for BPH resistance. Both the entries recorded on par yield performance and grain quality traits with the recurrent parent and also resistance to BPH and hence, promoted. Two IETs 30284 and 30281 were introgressed with *AHAS* mutant allele for herbicide resistance. Both the entries recorded significantly inferior yield performance compared to the recurrent parent, hence dropped.

Near isogenic lines in the background of 'Naveen' in AVT1-IME, *kharif* 2023

IET No.	Gazette notified states (OD)		Adapted areas (Z-III)		HRR/AC/ GC/ASV	GT	Trait
	GY (kg/ha) DFF/ PH (cm)	Yield adv (RP±CD)	GY (kg/ha) DFF/ PH (cm)	Yield adv (RP±CD)			
30282	4235 99 93	-2.89 20.73	5705 96 112	-11.96 -2.01	56.4 24.4 31; 3.8	SB	*qBph4.3*+ *qBph4.4* (MR-2.8 to 5.4)
29203	5106 95 91	-9.27 8.29	5500 95 110	-15.12 -5.53	51.3 26.98 22; 4	SB	*qBph4.3*+ *qBph4.4* (R-2.1 to 3.4)
30284	4134 98 91	-26.59 -12.32	4916 94 108	-24.14 -15.56	49.9 24.84 22; 3.7	MS	*AHAS* mutant allele
30281	4599 96 91	-18.28 -2.46	4844 93 110	-25.25 -16.80	50 24.22 22; 3	MS	*AHAS* mutant allele
Naveen (RP)	5167 99 97		6151 96 112		59.3 25.84 47; 4	SB	
CD	461		329				

Considering the required significant yield advantage over BVC in case of varietal entries and over BVC and HC in case of hybrid entries and also based on grain quality parameters, five hybrid entries, IETs 29738, 29734, 29726, 29708 and 29717 and five varietal entries, IETs 29820, 29808, 29822, 29188 and 29304 are promoted to the third year of testing.

Considering similarity with the recurrent parent and target trait improvement, two NIL entries in the background of Naveen, IETs 30282 and 29203 with BPH resistance are promoted to second year of testing

INITIAL VARIETY TRIAL- IRRIGATED MID EARLY (IVT-IME)

Locations: 51 **Test Entries: 64**

Checks: Gontra Bidhan-3 (National); PR 113 (Northern), Lalat (Eastern and North Eastern), MTU 1010 (Central and Southern), Karjat-7 (Western)--Zonal and local check **Table:1.20**

Initial variety trial –Irrigated Mid Early (IVT- IME) was constituted with 64 test entries and 3 checks namely National- Gontra Bidhan-3; Zonal -PR 113 (Northern), Lalat (Eastern and North Eastern), MTU1010 (Central & Southern), Karjat 7 (Western) and Local check. The trial was sent to 51 locations however data was not received from 14 locations namely Kanpur, Titabar, Gerua-ICAR, Jabalpur, Ambikapur, Bilaspur, Shirgaon, Radhanagari, Kunaram, Jagtial, Mugad, Brahmavar and Kurumbapet. Data from tencenters was excluded from analysis viz., Pantnagar, Ludhiana, Patna-ICAR, Hathwara, Malda, Rewa, Jagadalpur, Maruteru, Mandya and Karaikal either due to low (<5%) / high CV (20%) or low experimental yield (<4000Kg/ha) or based on P value.

Among the centres from which data is included in analysis, location-wise mean grain yield ranged from 4003 kg/ha (Jeypore) to 6205 kg/ha (Bikaramganj) while CV ranged from 5.17% (Lembucherra) to 14.08% (Moncompu). Overall mean grain yield of the entries ranged from 4443 kg/ha (IET30724) to 5831 kg/ha (IET30736); days to 50% flowering from 93 days (IET30730 & IET30716) to 112 days (IET30740); plant height ranged from 87cm (IET30737) to 118cm (IET30743); number of panicles per square ranged from 246 (IET30720) to 302 (Zonal check) followed by local check, IET30713, IET30710 having 300panicles/m^2.

Performance of the entries on overall mean basis

Among the varietal checks, national check was the highest yielder (5602 Kg/ha) followed by local check (5362kg/ha) and zonal check (5074 Kg/ha). The data pertaining to yield, days to 50% flowering, plant height and panicles/m^2 are presented in tables 1.21 and 1.22 respectively. The Overall mean grain yield of the entries ranged from 4443 kg/ha (IET 30724) to 5831 kg/ha (IET 30736). Based on the overall performances none of the entries performed superior for grain yield by comparing with best check using CD value. Hence these entries were not promoted for All India coordinated trial for 2nd year on overall basis.

Zonal performance of the entries

Northern Zone (Zone II)

The trial was evaluated at five locations viz., Pantnagar (Uttarakhand), Ludhiana (Punjab), Kaul (Haryana) and Kota (Rajasthan) and Nagina (Uttar Pradesh) covering five states of Northern Zone. The data received from Pantnagar and Ludhiana were not included in analysis due to high CV% value and low experimental mean value respectively. Experimental mean yield of the locations considered for analysis ranged from 4128 kg/ha (Nagina) to 6088 kg/ha (Kota- Rajasthan) and CV% from 7.22% (Nagina) to 8.78% (Kota).

Zonal mean yield of the entries varied from 3810kg/ha (IET 30744 to 7115 kg/ha (IET 30742)); days to 50% flowering ranged from 100 days (IET 30750) to 127 days (IET 30726); plant height ranged from 81 cm (IET 30713) to 119cm (IET 30743) and panicles per square meter ranged from 211 (IET 30719) to 303(IET 30749). In Zone II, national check was the best check followed by zonal check which yielded 5755 and 5377kg/ha respectively. In zone II, entries namely IET30742, IET 30704, IET 30736, IET 30730, IET 30062, IET 30708, IET 30735 were recorded significantly superior yield performance over Zonal check and these entries were promoted for 2nd year of testing in IVT IME in Zone II.

Performance of the entries IVT- IME, Zone II, Kharif 2022

Rank	IET No/ Designation/ Cross Combination	Grain Yield	DFF	Grain Type	Remarks
1	IET 30742 KNM 13584 (MTU 1156/WGL 1097// IR10A 199)	7115*	106	LS	Promoted for AVT1- IME in Zone II
2	IET 30704 WGL 1533 (WGL 32100/ MTU 1936-12-1-2-1// MTU 1081/ HPR2143)	6861*	101	LS	Promoted for AVT1- IME in Zone II
3	IET 30736 Super 4466 (SRPG 10/ SRPG 13)	6684*	103	-	Promoted for AVT1- IME in Zone II
4	IET 30730 RDR 3609 (MTU 1075/ MTU 1010)	6644*	104	LS	Promoted for AVT1- IME in Zone II
5	IET 30062 Daftari-1 (Daftari 741/MTU 1001	6634*	108	LB	Promoted for AVT1- IME in Zone II
6	IET 30708 JNPT 1058 (JR 201/ NPT 65/ JR 201)	6439*	112	MS	Promoted for AVT1- IME in Zone II
7	IET 30735/ CR 4388-RGA-202-1/ (CR DHAN 202 X ARIZE8433 DT)	6327*	105	MS	Promoted for AVT1- IME in Zone II
	Gontra Bidhan-3 (NC)	5755	105		
	Zonal check (ZC) PR 113	5377	109		
	Local check (LC)	4949	112		
	CD	526			
	BC+CD	6281			

- * Denotes significant superiority

Eastern Zone (Zone III)

The trial was evaluated at 13 locations viz., Cuttack, Jeypore and Chiplima (Odisha), Bikramganj, Sabour, Patna (Bihar); Ranchi (Jharkhand), Chinsurah, Hathwara, Malda, Bankura (West Bengal), Masodha, Varanasi (UP) in Eastern Zone. Data from Patna, Hathwara and Malda was not considered for analysis due to low CV%. Experimental mean yield at the locations ranged from 4003 kg/ha (Jeypore) to 6250 kg/ha (Chinsurah) and CV%

from 6.01 (Sabour) to 13.09 (Varanasi). Among the checks national check was the best check followed by zonal check which yielded 5959 and 5344 kg/ha respectively. Mean yield of the entries ranged from 4360 kg/ha (IET 30750) to 6374kg/ha (IET 30756); days to 50% flowering ranged from 93 days (IET 30716, 30723 and IET 30730) to 109 days (IET 30744); plant height ranged from 84 cm (IET 30737) to 114 cm (IET 30743) and panicles per square meter ranged from 225 (IET 30720) to 315(IET 30724).

In zone III, entry namely IET 30756 recorded significant superior yield performance over the best check and promoted to 2nd year of testing in IVT-2-IME (Zone III).

Performance of the entries IVT- IME, Zone III, Kharif 2022

Rank	IET No/ Designation/ Cross Combination	Grain Yield	DFF	Grain Type	Remarks
1	IET 30756 RP 6693-16-388 (Swarna / MTU 1010)	6374*	101	MS	Promoted for AVT1-IME in Zone III
	Gontra Bidhan-3 (NC)	5959	94		
	Zonal check (ZC) PR 113	5344	100		
	Local check (LC)	5194	98		
	CD	368			
	BC+CD	6327			

* Denotes significant superiority

North Eastern Zone (Zone IV)

The trial was sent for evaluation at 3 locations viz., Titabar, Gerua-ICAR, Lembucherra and the data from Titabar, Gerua-ICAR was not received thus these locations not included for analysis. Experimental mean yield at the Lembucherra location is 4974 kg/ha and CV% is 5.17. Mean yield of the entries ranged from 3475 kg/ha (IET 30721) to 9505kg/ha (IET 30213); days to 50% flowering ranged from 63 days (IET 30720) to 111 days (IET 30711); plant height ranged from 72 cm (IET 30737) to 105 cm (IET 30721) and panicles per square meter ranged from 217 (IET 30730) to 458 (IET 30742). In Zone IV, IETs 30213, 30719, 30752, 30736, 30742, 30705, 30707, 30708, 29976, 30740, 30714, 30739, 30741, 30744, 30748, 30753, 30754, 30755, 30756 were top performing genotypes with significant superior yields and these entries were promoted for 2nd year of testing in IVT-IME (Zone IV).

Performance of the entries IVT-IME, Zone IV, Kharif 2022

Rank	IET No/ Designation/ Cross Combination	Grain Yield	DFF	Grain Type	Remarks
1	IET 30213 BRR 2177 (MTU 7029/Taroari Basmati Dwarf Mutant 2)	9505*	95		Promoted for AVT1-IME in Zone IV
2	IET 30719 AD 19050 (ADT 37/WGL 32100)	8600*	80	MS	Promoted for AVT1-IME in Zone IV

Rank	IET No/ Designation/ Cross Combination	Grain Yield	DFF	Grain Type	Remarks
3	IET 30752 Super 4400 (SRPG 13/SRPG 19)	7750*	85	LS	Promoted for AVT1-IME in Zone IV
4	IET 30736 Super 4466 (SRPG 10/ SRPG 13)	7225*	84		Promoted for AVT1-IME in Zone IV
5	IET 30742 KNM 13584 (MTU 1156/WGL 1097//IR 10A 199)	7058*	82	LS	Promoted for AVT1-IME in Zone IV
6	IET 30705 RP Bio 4918-NPS 58-1-8 (Swarna/ O. Nivara)	6650*	79	MS	Promoted for AVT1-IME in Zone IV
7	IET 30707 GNV 2020-05 (IR 95097/Dasmati)	6625*	97	LS	Promoted for AVT1-IME in Zone IV
8	IET 30708 JNPT 1058 (JR 201/ NPT 65/ JR 201)	6535*	90	MS	Promoted for AVT1-IME in Zone IV
9	IET 29976 ORJ 131 (RP Bio 226/ IRGC 48960// MTU 1081)	6475*	74	MB	Promoted for AVT1-IME in Zone IV
	Gontra Bidhan-3 (NC)	4715	77		
	Zonal check (ZC) PR 113	3604	83		
	Local check (LC)	4435	93		
	CD	514			
	BC+CD	5229			

* Denotes significant superiority

Central Zone (Zone V)

The trial was sent to nine locations viz., Waraseoni, Rewa, Jabalpur (MP), Raipur, Ambikapur, Bilaspur and Jagadalpur (Chhattisgarh), Sakoli and Sindewahi (Maharashtra) and data from Waraseoni, Jabalpur, Ambikapur and Bilaspur was not received. The data obtained from Rewa and Jagadalpur station was not included in analysis due to low experimental mean yield. Experimental mean yield at the locations ranged from 4106 (Sindewahi) to4416 kg/ha (Raipur) and CV% ranged from 11.43 (Sakoli) to 12.23 (Sindewahi). Mean yield of the entries ranged from 3142 kg/ha (IET 30724) to 5256kg/ha (IET 30749); days to 50% flowering ranged from 87 days (Zonal check) to 112 days (IET 30744); plant height ranged from 91 cm (IET 30745 & 30714) to 132 cm (IET 30726) and panicles per square meter ranged from 164 (IET 30731) to 265 (NC). In Zone V, none of the entries recorded superior yield performance over best check (BVC+CD) and none of them were promoted to next year.

Western Zone (Zone VI)

The trial was sent for evaluation at six locations viz., Karjat, Shirgaon, Radhanagari (Maharashtra), Navsari, Nawagam, Vyara (Gujarat). Experimental mean yield at the locations

ranged from 4116 kg/ha (Navsari) to 6123Kg/ha (Karjat) and CV% ranged from 9.17 (Karjat) to 13.38 (Vyara). Mean yield of the entries ranged from 3877 kg/ha (IET30725) to 6057 kg/ha (IET 30751); days to 50% flowering ranged from 88 days (IET29976) to 113 days (IET 30740); plant height ranged from 96 cm (IET 30705) to 143 cm (IET 30726) and panicles per square meter ranged from 217 (IET 30728) to 271(IET 30748). In zone VI, none of the entries recorded significant superior yield performance over best check, hence are not promoted to 2ndyear of testing.

Southern Zone (Zone VII)

The trial was sent to15 locations viz., Maruteru, Rajendranagar, Kunaram, Warangal, Jagtial (Telangana), Aduthurai, Coimbatore, (TN), Moncompu and Pattambi (Kerala), and Mandya, Mugad, Brahmavar (Karnataka), Kurumbapet and Karaikal (Puducherry). The experimental data was not obtained from Kunaram, Jagtial, Mugad, Brahmavar, Kurumbapet and data obtained from Maruteru, Mandya, Karaikal reported very low or high CV% or P value hence these locations were not included in analysis. Experimental mean yield at the locations ranged from 4853 kg/ha (Warangal) to 6079 Kg/ha (Rajendranagar) and CV% ranged from 8.74 (Coimbatore) to 14.79 (Aduthurai). Mean yield of the entries ranged from 4417 kg/ha (IET 30710) to 6392 kg/ha (LC); days to 50% flowering 91 days (IET 30704) to 108 days (IET 30740); plant height ranged from 85 cm (IET 30719, 30737) to 116 cm (IET 30743) and panicles per square meter ranged from 297 (IET 30725) to 387(LC). Among the checks local check was the top yielder (6392 Kg/ha) followed by Zonal check (5609 Kg/ha) and national check (5353 Kg/ha). In Zone VII none of the entries recorded significant superior yield over best check, hence are not promoted in this zone to 2ndyear of testing.

Table No. 1.12: Composition of entries in Advance Variety Trial 2-Irrigated Mid Early (AVT 2-IME), Kharif 2022

Entry No.	IET No.	Designation	Cross Combination	GT
3rd year of testing				
3701	29233	RNR 28360	Bhadrakali / NSN 20894	LS
3702	28506	CR 3849-2-1-2-1-2	Pooja / IR64 MAS	LB
3703	29235	PNPK 7106	PNP 3 / SR	LS
3704	28353	NLR 3573	IET 21687 / NLR 40024	SB
3705	29217	Pusa 2090-17-20	Pusa 44 / CB 501	LB
3706	**Gontra Bidhan-3 (NC)**			
3707	29238	ORJ 1351 (TP 30600)	IRRI 154 / Mazhan (Red) // IR08N194	LB
3708	29246	HKR 16-35	HKR 47 / HKR 99-60 // HKR 47	LS
3709	**PR 113-Northern, Lalat-Eastern and North Eastern, MTU 1010-Central and Southern, Karjat 7-Western—ZC**			
3710	29236	CR 3580-3-1-1-1-1-1-2	Lalat / N 22	SB
3711	29214	OR 2523-6	Khandagiri / IR 72	MS
3712	28128	***SHX-468 (Hybrid)***	-	LB
3713	**US 312 (HC)**			
3714	28982	***RRX-809 (Hybrid)***	-	LB
3715	28979	***PHI-20102 (Hybrid)***	-	LB
3716	29212	Shuats Dhan-7	IR 7405-297-2-1 / IR 71700-247-1-1-5	LS
3717	**Local Check (LC)**			

Table No. 1.13: Grain Yield (kg/ha) in AVT 2 – IME, Kharif 2022

ENTRY NO	IET NO	ZONE II-NORTHERN											
		UTTARAKHAND (1)			PUNJAB (1)			HARYANA (1)			JAMMU KASHMIR (1)		
		PANTNAGAR			LUDHIANA			KAUL			CHATHA		
3701	29233	3285			3105			6356	10		4000		
3702	28506	4102	9		4453	8	# 39%	5728			5533	3	# 32%
3703	29235	5653	1	10% 25%	5098	3		8483	1	10% # 24%	4267		
3704	28353	4078	10		3280			6465	9		5933	1	7% # 41%
3705	29217	3536			3766	10	18%	6165			4800	7	14%
3706	Gontra Bidhan-3 (NC)	5142	2		3342			7692	5		4667	9	11%
3707	29238	3703			5098	3		5565			5267	5	# 25%
3708	29246	4589	6		4739	5	# 48%	6301			3867		
3709	Zonal Check (ZC)	3939			4240	9		7201	7		4267		
3710	29236	4881	4		2868			5319			4200		
3711	29214	3451			3697	16%		4992			4467	10	
3712	28128	4892	3		4714	6	# 48%	8265	3	7% # 21%	4800	7	14%
3713	US 312 (HC)	4534	7		3194			6819	8		4200		
3714	28982	4825	5		6033	1	8% # 89%	8374	2	9% # 23%	5933	1	7% # 41%
3715	28979	3968			4579	7	# 43%	7883	4	# 16%	5000	6	# 19%
3716	29212	4319	8		3664	15%		6137			3267		
3717	Local Check (LC)	2894			5605	2		7338	6		5533	3	
Exp. Mean		**4223**			**4204**			**6770**			**4706**		
CD		1388			710			800			665		
CV%		**19.76**			**10.15**			**7.11**			**8.49**		
D/S		09-06-2022			03-06-2022			08-06-2022			10-06-2022		
D/P		15-07-2022			02-07-2022			10-07-2022			30-07-2022		
Local Check Name		Pant Dhan 12			PR 130			HKR-47			SJR-5		

Table No. 1.13 (Contd): Grain Yield (kg/ha) in AVT 2 – IME, Kharif 2022

ENTRY NO	IET NO	ZONE II-NORTHERN											
		RAJASTHAN (1)			UTTAR PRADESH 1			Zone II (6)					
		KOTA			NAGINA			Mean					
3701	29233	4610			3693			4175					
3702	28506	4555			4375	8		4791					
3703	29235	6247	1	13% # 24%	4452	7		5700	2 *	11% # 22%			
3704	28353	5183	9		4356	9		4883	10				
3705	29217	5456	5		4569	4		4715					
3706	Gontra Bidhan-3 (NC)	5537	4		4525	5		5151	5				
3707	29238	5428	6		4512	6		4929	7				
3708	29246	5919	2	7% 17%	4062			4913	9				
3709	Zonal Check (ZC)	5128			4716	3		4915	8				
3710	29236	5346	7		4310			4487					
3711	29214	4364			4152			4187					
3712	28128	5155	10		5671	1 *	20% # 33%	5583	3 *	8% # 19%			
3713	US 312 (HC)	5046			4280			4679					
3714	28982	5319	8		4847	2	# 13%	5889	1 *	14% # 26%			
3715	28979	5728	3	14%	4272			5238	4	# 12%			
3716	29212	4664			4351	10		4400					
3717	Local Check (LC)	4528			4184			5014	6				
Exp. Mean		**5189**			**4431**			**4921**					
CD		920			499			377					
CV%		**10.66**			**6.78**			**4.61**					
D/S		29-06-2022			17-06-2022								
D/P		29-07-2022			15-07-2022								
Local Check Name		Pratap -1			NDR 359								

Table No. 1.13 (Contd): Grain Yield (kg/ha) in AVT 2 – IME, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN													
		ODISHA						ODISHA (3)				BIHAR			
		ICAR-NRRI (Cuttack)		JEYPORE		CHIPLIMA		Mean				BIKRAMGANJ (Dhang)		Sabour	
3701	29233	5220		5704		5476		5467				6367		6952	5
3702	28506	5804	5	5961		7381	2	6382	7		12%	7106	9	5799	
3703	29235	5172		6516	6	5317		5668				7679	5	6785	8
3704	28353	5723	7	5853		4365		5314				7274	8	6810	7
3705	29217	5651	8	6376	7	7143	3	6390	6		13%	6798		5547	
3706	Gontra Bidhan-3 (NC)	3648		6805	4	6587	8	5680	10			7838	4	6866	6
3707	29238	5599	9	6165	10	6825	4	6196	9		9%	6947		5953	
3708	29246	4622		5279		6183		5361				7364	7	6749	9
3709	Zonal Check (ZC)	4213		6074		6706	5	5664				5887		5704	
3710	29236	6817	2	7031	3	6627	7	6825	2 *		20%	7515	6	8251	1
3711	29214	7556	1	6146		7500	1	7067	1 *		24%	6661		6089	
3712	28128	5287	10	6243	9	5159		5563				8969	1	6970	4
3713	US 312 (HC)	4979		8514	1	6389	10	6627	3			7102	10	7103	3
3714	28982	5845	4	7131	2	6579	9	6518	5 *		15%	8632	3	7108	2
3715	28979	5788	6	6662	5	6270		6240	8		10%	8855	2	6503	10
3716	29212	6693	3	6358	8	6706	5	6586	4 *		16%	6248		6239	
3717	Local Check (LC)	3902		4405		5389		4565				5486		5197	
Exp. Mean		**5442**		**6307**		**6271**		**6007**				**7219**		**6507**	
CD		1546		808		1580		798				685		1437	
CV%		**17.08**		**7.71**		**15.15**		**7.99**				**5.7**		**13.27**	
D/S		01-07-2022		06-07-2022		09-07-2022						25-06-2022		15-06-2022	
D/P		18-08-2022		06-08-2022		14-08-2022						26-07-2022		21-07-2022	
Local Check Name		Lalat		Kalinga Dhan 1205		MTU-1156						Sabour Harshit		Sabour Harshit Dhan	

Table No. 1.13 (Contd): Grain Yield (kg/ha) in AVT 2 – IME, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN													
		BIHAR (2)		JHARKHAND (1)		WEST BENGAL (1)		UTTAR PRADESH 2 (1)		UTTAR PRADESH (2)				Zone III (8)		
		Mean		RANCHI		CHINSURAH		VARANASI		Mean				Mean		
3701	29233	6660	10	4533	7 *		29%	6938	10	6987	7	5340	9		6022	7%	
3702	28506	6453		3712	9		6%	7340	2	5436		4906			6067	9	8%
3703	29235	7232	6	5256	4 *		50%	6762		8556	1	6504	1	7%	6505	5 *	16%
3704	28353	7042	9	3351				6737		6816	8	5586	7		5866		
3705	29217	6173		3482				6787		827		2698			5326		
3706	Gontra Bidhan-3 (NC)	7352	5	3153				5806		2132		3329			5354		
3707	29238	6450		3909	8		11%	6988	9	6564	9	5538	8		6119	7	9%
3708	29246	7057	8	5059	5 *		44%	7233	4	7449	5	5756	5		6242	6 *	11%
3709	Zonal Check (ZC)	5796		3515				7177	5	5714	10	5215	10		5624		
3710	29236	7883	2	2267				7039	8	7462	4	5886	4		6626	3 *	18%
3711	29214	6375		2293				7171	6	4996		4574			6052	10	8%
3712	28128	7970	1	5420	3 *		54%	7268	3	3436		4554			6094	8	8%
3713	US 312 (HC)	7103	7	6274	2			7493	1	7940	2	6110	2		6974	1	
3714	28982	7870	3	6340	1 *		80%	6637		4113		4480			6548	4 *	16%
3715	28979	7679	4	4993	6 *		42%	7139	7	7081	6	5677	6		6661	2 *	18%
3716	29212	6244		3712	9		6%	6184		5098		4725			5905		
3717	Local Check (LC)	5342		2989				6271		7923	3	6054	3		5195		
Exp. Mean		**6863**		**4133**		**6881**		**5796**				**5113**			**6070**		
CD		858		940		930		987				564			503		
CV%		**7.51**		**13.67**		**8.13**		**10.24**				**6.62**			**4.98**		
D/S				21-06-2022		07-07-2022		04-06-2022									
D/P				12-08-2022		04-08-2022		25-06-2022									
Local Check Name				BVD-203		Muktoshri (IET 21845)		HUR-4-3									

Table No. 1.13 (Contd): Grain Yield (kg/ha) in AVT 2 – IME, Kharif 2022

ENTRY NO	IET NO	ZONE-V – CENTRAL															
		MADHYA PRADESH				MADHYA PRADESH (2)		CHHATTISGARH								CHHATTISGARH (4)	
		Waraseoni		REWA		Mean		RAIPUR		Ambikhapur		JAGADALPUR		Bilaspur		Mean	
3701	29233	3951		7856		5904		4366		4653	9	5923	6	7800	7	5686	7
3702	28506	4614	10	9688	7	7151	6	6046	4	5469	3	6756	4	7933	5	6551	4 * 17%
3703	29235	4020		10851	3	7436	5	5551	7	4778	7	5060		8267	2	5914	6 5%
3704	28353	4418		8407		6413	10	4568		5063	4	5828	7	7233		5673	8
3705	29217	5145	3	6862		6004		4849	9	4365		5735	9	7467		5604	
3706	Gontra Bidhan-3 (NC)	5475	2	10634	9	8055	3	5708	5	3878		5172		7733	9	5623	10
3707	29238	4584		8837	9	6711	9	4806	10	4285		5752	8	7400		5561	
3708	29246	4332		9388	8	6860	7	4893	8	4191		5473		8033	4	5648	9
3709	Zonal Check (ZC)	4922	6	7891		6407		4546		4813	6	3869		6833		5015	
3710	29236	3583		8837	9.5	6210		4677		3649		4601		7483	10	5103	
3711	29214	4697	8	7847		6272		4041		3969		4992		5833		4709	
3712	28128	3411		10043	6	6727	8	5639	6	4830	5	6595	5	8467	1	6383	5 * 14%
3713	US 312 (HC)	4987	5	10313	5	7650	4	6666	1	6194	2	7707	2	7867	6	7109	2
3714	28982	4691	9	12031	2 * #	8361	2 #	6396	2	4736	8	7957	1	7800	7	6722	3 * 20%
3715	28979	6618	1	12109	1 * #	9364	1 * 16% #	6187	3	6951	1	7192	3	8133	3	7116	1 * 27%
3716	29212	4844	7	7956		6400		4203		4444		4933		6433		5003	
3717	Local Check (LC)	5005	4	7565		6285		4194		4580	10	5490	10	5667		4983	
Exp. Mean		**4665**		**9242**		**6953**		**5137**		**4756**		**5825**		**7434**		**5788**	
CD		846		1001		623		1120		919		1284		1053		478	
CV%		**10.9**		**6.51**		**5.38**		**13.1**		**11.63**		**13.25**		**8.51**		**4.96**	
D/S		20-06-2022		30-06-2022				29-06-2022		11-07-2022		16-06-2022		12-06-2022			
D/P		01-08-2022		13-08-2022				26-07-2022		30-07-2022		09-07-2022		07-07-2022			
Local Check Name		JR 206		JR206				IGKV R 2		MTU1010		IGKVR 1		Chandra			

Table No. 1.13 (Contd): Grain Yield (kg/ha) in AVT 2 – IME, Kharif 2022

ENTRY NO	IET NO	ZONE-V – CENTRAL								ZONE VI – WESTERN							
		MAHARASHTRA 1				MAHARASHTRA 1(2		Zone V (8)		MAHARASHTRA 2						MAHARASHTRA 2(3)	
		SAKOLI		Sindewahi		Mean		Mean		KARJAT		Shirgaon		Radhanagari		Mean	
3701	29233	5426	3	3770		4598	6	5468		3565		3732		6423	6	4573	
3702	28506	5510	2	4184	9	4847	2	6275	4 * 6%	5216	8	4519		5270		5002	
3703	29235	3287		4537	6	3912		5794	6	6228	2	6344	2	5943	8	6172	2 * 23% 11%
3704	28353	3622		4892	2	4257	10	5504	9	4052		3564		5665		4427	
3705	29217	3396		3584		3490		5175		5204	9	5470	5	4615		5096	9
3706	Gontra Bidhan-3 (NC)	4686	7	4126	10	4406	9	5927	5	4904	10	4675	10	5536		5038	10
3707	29238	3849	10	4379	8	4114		5487	10	4833		4983	7	4761		4859	
3708	29246	4629	8	4668	4	4649	5	5701	8	5969	5	4848	8	5885	9	5567	6 11%
3709	Zonal Check (ZC)	5715	1	3721		4718	4	5289		4377		3612		6355	7	4781	
3710	29236	5338	4	3666		4502	8	5229		6031	3	5412	6	6744	4	6062	5 * 20%
3711	29214	5095	5	5052	1	5074	1 8%	5191		4701		3169		3592		3821	
3712	28128	3522		3808		3665		5789	7	6000	4	5819	3	6480	5	6100	4 * 21%
3713	US 312 (HC)	4711	6	4767	3	4739	3	6652	2	4346		4813	9	7514	2	5558	7
3714	28982	3833		3823		3828		6408	3 * 8%	6247	1	5633	4	7555	1	6478	1 * 29% # 17%
3715	28979	3328		4487	7	3908		6876	1 * 16%	5253	7	7526	1	5719	10	6166	3 * 22% 11%
3716	29212	3655		3718		3687		5023		4710		3852		7058	3	5207	8
3717	Local Check (LC)	4501	9	4560	5	4531	7	5195		5867	6	3911		5302		5027	
Exp. Mean		**4359**		**4220**		**4290**		**5705**		**5147**		**4816**		**5907**		**5290**	
CD		835		811		532		317		898		881		1218		734	
CV%		**11.52**		**11.56**		**7.46**		**3.34**		**10.49**		**11**		**12.39**		**8.34**	
D/S		02-07-2022		27-06-2022						15-06-2022		16-06-2022		14-07-2022			
D/P		08-08-2022		26-07-2022						11-07-2022		14-07-2022		20-07-2022			
Local Check Name		PKV Ganesh		PKV GANESH						Karjat 3		Ratnagiri 1		Phule Radha			

Table No. 1.13 (Contd): Grain Yield (kg/ha) in AVT 2 – IME, Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN											
		MAHARASHTRA (5)		GUJARAT						GUJARAT (3)		Zone VI (6)	
		Mean		NAVSARI		NAWAGAM		Vyara		Mean		Mean	
3701	29233	4583		3957		5805		3865		4542		4558	
3702	28506	4940	8	4624	8	6410	7	4539		5191	10	5096	10
3703	29235	5268	3 9%	4449	10	6909	1	5397	2	5585	3 7%	5878	3 * 15% #
3704	28353	4359		4879	5	6125	9	5271	4	5425	7	4926	
3705	29217	4454		4001		5799		3927		4576		4836	
3706	Gontra Bidhan-3 (NC)	4785	10	4666	7	5667		5338	3	5224	9	5131	9
3707	29238	4561		5408	2	6595	4	5271	4	5758	1 10%	5309	8
3708	29246	5200	6 8%	5318	3	6652	2	4653		5541	4 6%	5554	6 * 8%
3709	Zonal Check (ZC)	4756		3335		2322		3899		3185		3983	
3710	29236	5438	1 *13%	4928	4	6631	3	4758		5439	6	5751	4 * 12%
3711	29214	4322		3970		3644		4265		3960		3890	
3712	28128	5126	7 6%	5516	1	6489	5	5118	6	5708	2 9%	5904	2 * 15% #
3713	US 312 (HC)	5230	5	4803	6	6004		5069	7	5292	8	5425	7
3714	28982	5418	2 *12%	4592	9	6061	10	5758	1	5470	5	5974	1 * 16% # 10%
3715	28979	5263	4 9%	3652		6481	6	5053	8	5062		5614	5 * 9%
3716	29212	4599		2952		6368	8	4826	9	4715		4961	
3717	Local Check (LC)	4828	9	4052		5741		4824	10	4872		4950	
Exp. Mean		**4890**		**4418**		**5865**		**4814**		**4908**		**5117**	
CD		504		854		1323		762		574		395	
CV%		**6.2**		**11.62**		**10.64**		**9.52**		**7.03**		**4.64**	
D/S				11-06-2022		13-06-2022		13-06-2022					
D/P				04-07-2022		18-07-2022		08-07-2022					
Local Check Name				GNR-3		Mahisagar		GNR-3					

Table No. 1.13 (Contd): Grain Yield (kg/ha) in AVT 2 – IME, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN											
		ANDHRA PRADESH (1)		TELANGANA								TELANGANA (4)	
		MARUTERU		RAJENDRANAGAR		Kunaram		WARANGAI		Jagtial		Mean	
3701	29233	5532	6 # 19%	4722		5673	9	4031		6933		5340	
3702	28506	5061		4420		5794	8	5208		6633		5514	
3703	29235	5941	3 5% # 27%	7106	2	6320	4	6596	4	10185	3	7552	3 * 11% # 21%
3704	28353	4420		5192	6	4803		6457	5	8210	6	6166	7
3705	29217	5079		4476		5555		4720		7697	8	5612	
3706	Gontra Bidhan-3 (NC)	5643	5	6168	5	6361	3	5436	10	9183	5	6787	5
3707	29238	5060		4877	10	5632		5677	8	7469	9	5914	9
3708	29246	5463	8 # 17%	4524		4461		6364	6	7460	10	5702	10
3709	Zonal Check (ZC)	4917		4819		4985		3205		6747		4939	
3710	29236	4598		5048	8	4683		5186		6178		5274	
3711	29214	5461	9 # 17%	4105		4468		5293		5152		4755	
3712	28128	6075	1 8% # 30%	6299	4	5869	7	8936	1	10332	1	7859	1 * 16% # 26%
3713	US 312 (HC)	4661		6775	3	6071	5	5760	7	6344		6238	6
3714	28982	5920	4 # 27%	5165	7	5935	6	7885	2	10195	2	7295	4 * 7% # 17%
3715	28979	6052	2 7% # 30%	7271	1	6560	1	7412	3	10176	4	7855	2 * 16% # 26%
3716	29212	5467	7 # 17%	4981	9	5635	10	4859		6125		5400	
3717	Local Check (LC)	5397	10	4156		6362	2	5477	9	7821	7	5954	8
Exp. Mean		**5338**		**5300**		**5598**		**5794**		**7814**		**6127**	
CD		747		1193		749		938		939		408	
CV%		**8.41**		**13.53**		**8.04**		**9.73**		**7.23**		**4.01**	
D/S		25-06-2022		02-07-2022		28-06-2022		21-06-2022		16-06-2022			
D/P		22-07-2022		03-08-2022		23-07-2022		16-07-2022		15-07-2022			
Local Check Name		MTU 1121		JGL 24423		KNM 1638		RNR 15048		JGL 24423			

Table No. 1.13 (Contd): Grain Yield (kg/ha) in AVT 2 – IME, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN													
		TAMIL NADU				TAMIL NADU (2)			KERALA				KERALA (2)		
		ADUTHURAI		COIMBATORE		Mean			MONCOMPU		PATTAMBI		Mean		
3701	29233	6250		5658	10	5954			5808		4127		4968		
3702	28506	6556	8	6480	4	6518	2	6%	4249		4333		4291		
3703	29235	6472		5375		5924			8081	4	4833		6457	6	
3704	28353	6528	10	5578		6053	9		5505		5007		5256		
3705	29217	6111		6924	1	6518	2	6%	5960	9	5460	3	5710	9	
3706	Gontra Bidhan-3 (NC)	6611	6	5745	8	6178	8		5470		5140	9	5305		
3707	29238	6750	2	5338		6044	10		6692	7	4784		5738	8	
3708	29246	6556	8	4995		5776			5354		4889		5122		
3709	Zonal Check (ZC)	6278		5398		5838			3495		5231	6	4363		
3710	29236	6361		6651	3	6506	4	5%	7323	6	5682	1	6503	5	
3711	29214	6583	7	4980		5782			8207	2	5287	5	6747	2	
3712	28128	6639	5	6178	6	6409	5		7753	5	5309	4	6531	4	
3713	US 312 (HC)	6750	2	6837	2	6794	1		8434	1	5576	2	7005	1	
3714	28982	6306		6420	5	6363	6		6586	8	5091	10	5839	7	
3715	28979	6972	1	4947		5960			2221		5169	8	3695		
3716	29212	6706	4	5868	7	6287	7		5884	10	5089		5487	10	
3717	Local Check (LC)	6278		5677	9	5978			8157	3	5176	7	6667	3	
Exp. Mean		**6512**		**5826**		**6169**			**6187**		**5070**		**5628**		
CD		1161		762		731			1729		678		973		
CV%		**10.72**		**7.87**		**7.13**			**16.8**		**8.04**		**10.39**		
D/S		18-09-2022		23-06-2022					10-06-2022		20-06-2022				
D/P		11-10-2022		16-07-2022					30-06-2022		16-07-2022				
Local Check Name		TKM13		TKM 13					Uma						

Table No. 1.13 (Contd): Grain Yield (kg/ha) in AVT 2 – IME, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN												Overall Mean (39)		
		KARNATAKA (1)				PUDUCHERRY (1)				Zone 7(11)						
		BRAHMAVAR				Karaikal				Mean						
3701	29233	4734	3	#	23%	6083	10		26%	5414				5227		
3702	28506	4469	7		16%	6417	8		33%	5420				5582	9	
3703	29235	5189	1	12% #	35%	7750	1	6% #	60%	6713	1 *	9% #	12%	6198	2 *	10% #
3704	28353	4275	8		11%	5667	17%			5604	9			5422		
3705	29217	3321				5833	21%			5558				5191		
3706	Gontra Bidhan-3 (NC)	4650	4			7333	5			6158	4			5633	7	
3707	29238	4771	2	#	24%	7750	1	6% #	60%	5891	7			5617	8	
3708	29246	4489	6		17%	6917	7	#	43%	5588	10			5636	6	
3709	Zonal Check (ZC)	3965				5458				4954				5005		
3710	29236	3584				5333	10%			5512				5561	10	
3711	29214	4126	10			7417	4	#	53%	5553				5115		
3712	28128	4630	5	#	20%	4833				6623	2 *	8% #	11%	6073	4 *	8%
3713	US 312 (HC)	3849				4833				5990	6			6039	5	
3714	28982	3382				7583	3	#	57%	6406	3	#		6290	1 *	12% #
3715	28979	4249	9		10%	6333	9		31%	6124	5			6174	3 *	10%
3716	29212	3404				7083	6	#	47%	5555				5249		
3717	Local Check (LC)	3438				5167				5737	8			5282		
Exp. Mean		**4148**				**6341**				**5851**				**5610**		
CD		649				2298				395				159		
CV%		**7.378**				**17.098**				**4.05**				**1.7**		
D/S		13-06-2022				16-09-2022										
D/P		14-07-2022				20-10-2022										
Local Check Name		KCP-1				ADT 46										

Table No. 1.13 (Contd): Grain Yield (kg/ha) in AVT 2 – IME, (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED													
		UTTARPRADESH I		BIHAR		WEST BENGAL				UTTARPRADESH 2		TRIPURA (0)		KARNATAKA	
		@KANPUR		@Patna-ICAR		@Hathwara		@Malda		@MASODHA		@Lembucherra		@MANDYA	
3701	29233	2413		10606	8	7516	6	4344		5153	9	1996		4661	
3702	28506	3582	9	10460	9	6193		5183	7	5207	8	2553		5459	9
3703	29235	5063	2	11723	4	8542	2	6878	1	6146	2	3080	10	6221	2
3704	28353	2778	10	10853	7	6913	9	6372	2	4509	10	2363		5428	10
3705	29217	4392	5	11240	5	6888	10	5989	4	4428		3388	6	5528	6
3706	Gontra Bidhan-3 (NC)	2683		12006	2	7014	8	3906		5314	6	2134		5834	3
3707	29238	5794	1	10263	10	5869		5883	5	4509	10	3106	9	5482	7
3708	29246	2651		9620		6317		5533	6	4402		1930		5037	
3709	Zonal Check (ZC)	4429	4	8640		5987		4061		5260	7	2876		2652	
3710	29236	4492	3	10087		8478	3	3911		6173	1	2234		4599	
3711	29214	2582		9073		6819		4167		3757		5492	1	4053	
3712	28128	3878	7	12007	1	9194	1	4006		5770	3	3154	8	4886	
3713	US 312 (HC)	4291	6	11060	6	8311	4	6200	3	4428		3199	7	5815	4
3714	28982	3825	8	11760	3	8018	5	4428	9	5502	5	3897	5	6496	1
3715	28979	2503		9773		7196	7	4356	10	5717	4	4676	4	5482	7
3716	29212	2624		9887		5643		4567	8	3918		4936	2	4441	
3717	Local Check (LC)			7493		3811		4117		4214		4862	3	5590	5
Exp. Mean		**3624**		**10385**		**6983**		**4935**		**4965**		**3287**		**5157**	
CD		883		816		524		267		405		384		314	
CV%		**14.62**		**4.72**		**4.51**		**3.25**		**4.9**		**7.03**		**3.66**	
D/S		04-07-2022		07-07-2022		16-07-2022		20-06-2022		16-06-2022		12-07-2022		15-07-2022	
D/P		25-08-2022		01-08-2022		10-08-2022		27-07-2022		17-07-2022		01-08-2022		09-08-2022	
Local Check Name				Rajendra Sweta		Sahbhagidhan		Satabdi		NDR 3112-1		Tripura Nirog		Thanu	

Table No. 1.14: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 – IME, Kharif 2022

ENTRY NO	IET NO	ZONE II-NORTHERN														
		UTTARAKHAND (1)			PUNJAB (1)			HARYANA (1)			JAMMU KASHMIR (1)			RAJASTHAN (1)		
		PANTNAGAR			LUDHIANA			KAUL			CHATHA			KOTA		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3701	29233	100	122	254	99	107	220	96	110	308	132	104	272	88	116	221
3702	28506	105	116	240	104	108	231	99	118	297	117	111	276	86	107	227
3703	29235	102	126	262	102	119	211	97	132	338	128	12	305	90	120	267
3704	28353	106	114	234	100	114	250	100	126	310	115	112	317	83	121	230
3705	29217	95	116	225	98	109	198	95	118	287	116	94	241	84	111	227
3706	Gontra Bidhan-3 (NC)	96	117	255	100	102	161	93	117	305	116	97	240	81	99	237
3707	29238	112	121	294	115	115	271	110	105	278	113	94	210	96	117	249
3708	29246	106	127	282	106	109	277	100	112	292	116	97	257	86	107	218
3709	Zonal Check (ZC)	108	105	202	106	104	227	101	105	330	122	105	251	93	95	218
3710	29236	115	134	248	119	122	229	113	133	268	115	109	275	96	118	210
3711	29214	129	100	406	122	95	273	119	92	259	115	94	348	102	105	208
3712	28128	99	110	197	100	112	222	94	119	326	116	106	275	86	115	243
3713	US 312 (HC)	99	118	234	101	114	249	97	129	309	116	100	245	82	114	218
3714	28982	98	139	185	101	117	194	97	127	328	115	106	317	88	114	254
3715	28979	102	126	187	103	121	189	99	130	315	116	89	191	90	105	252
3716	29212	103	113	227	100	109	235	98	110	293	129	103	260	83	112	235
3717	Local Check (LC)	96	118	258	107	104	299	98	118	313	112	105	241	100	118	233
Exp. Mean		**104**	**119**	**246**	**105**	**111**	**231**	**100**	**118**	**303**	**118**	**96**	**266**	**89**	**111**	**232**

Table No. 1.14 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 – IME, Kharif 2022

ENTRY NO	IET NO	ZONE II-NORTHERN						ZONE III-EASTERN					
		UTTAR PRADESH 1			Zone II (6)			ODISHA					
		NAGINA			Mean			ICAR-NRRI (Cuttack)			JEYPORE		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3701	29233	115	94	237	105	109	252	115	115	246	99	95	271
3702	28506	124	88	250	106	108	254	121	121	246	103	89	309
3703	29235	126	85	252	108	99	272	115	115	227	104	96	293
3704	28353	121	74	254	104	110	266	113	114	249	100	95	337
3705	29217	131	77	261	103	104	240	127	128	213	107	96	271
3706	Gontra Bidhan-3 (NC)	122	76	224	101	101	237	115	116	227	104	94	284
3707	29238	121	89	263	111	107	261	128	128	238	107	92	316
3708	29246	115	77	252	105	105	263	112	113	246	105	93	339
3709	Zonal Check (ZC)	117	63	234	108	96	244	115	115	323	100	94	353
3710	29236	122	83	217	114	117	241	117	117	253	101	106	325
3711	29214	122	79	218	118	94	285	132	132	286	111	77	428
3712	28128	114	95	277	102	109	257	111	112	216	100	94	345
3713	US 312 (HC)	119	81	254	102	109	252	117	117	246	105	91	337
3714	28982	121	79	262	103	114	257	117	117	227	104	99	313
3715	28979	118	84	274	105	109	235	116	116	260	98	96	309
3716	29212	115	88	265	105	106	253	121	121	264	98	87	286
3717	Local Check (LC)	130	94	237	107	110	264	109	110	230	103	99	291
Exp. Mean		**121**	**83**	**249**	**106**	**106**	**255**	**118**	**118**	**247**	**103**	**94**	**318**

Table No. 1.14 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 – IME, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN														
		ODISHA			ODISHA (3)			BIHAR						BIHAR (2)		
		CHIPLIMA			Mean			BIKRAMGANJ (Dhangain			Sabour			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3701	29233	104	83	308	106	98	275	108	112	373	102	103	319	105	108	346
3702	28506	103	91	327	109	100	294	100	108	404	107	106	253	104	107	329
3703	29235	121	85	265	113	99	262	95	113	348	103	114	263	99	113	306
3704	28353	98	82	302	104	97	296	96	117	363	111	112	263	104	115	313
3705	29217	123	86	224	119	103	236	92	106	366	102	104	247	97	105	307
3706	Gontra Bidhan-3 (NC)	122	93	257	114	101	256	92	105	347	105	104	362	99	104	355
3707	29238	104	87	304	113	102	286	103	113	367	114	115	260	109	114	314
3708	29246	92	88	383	103	98	323	96	113	345	102	113	322	99	113	334
3709	Zonal Check (ZC)	121	79	325	112	96	334	93	114	354	108	112	318	100	113	336
3710	29236	92	76	317	103	99	298	102	127	335	114	124	299	108	126	317
3711	29214	88	77	343	110	95	352	114	105	398	132	101	323	123	103	361
3712	28128	110	85	278	107	97	280	93	112	412	96	107	240	95	110	326
3713	US 312 (HC)	104	90	306	108	99	296	94	115	355	103	114	337	99	115	346
3714	28982	128	87	248	116	101	263	94	119	413	101	112	203	98	115	308
3715	28979	96	84	334	103	99	301	91	123	363	104	110	299	98	116	331
3716	29212	100	92	299	107	100	283	97	124	427	111	108	327	104	116	377
3717	Local Check (LC)	108	85	316	107	98	279	94	116	365	95	108	303	95	112	334
Exp. Mean		**107**	**85**	**302**	**109**	**99**	**289**	**98**	**114**	**373**	**106**	**110**	**291**	**102**	**112**	**332**

Table No. 1.14 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 – IME, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN														
		JHARKHAND (1)			WEST BENGAL (1)			UTTAR PRADESH 2 (1)			UTTAR PRADESH (2)			Zone III (8)		
		RANCHI			CHINSURAH			VARANASI			Mean			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3701	29233	112	94	199	99	102	319	88	105	192	102	100	215	103	101	291
3702	28506	121	83	258	100	120	341	88	100	187	106	94	219	105	102	291
3703	29235	116	92	232	97	110	352	91	118	198	109	102	225	105	105	271
3704	28353	118	87	190	94	105	352	97	108	194	109	91	224	104	102	282
3705	29217	120	82	271	100	110	308	84	98	166	107	87	214	107	101	262
3706	Gontra Bidhan-3 (NC)	135	84	207	91	98	297	90	104	196	106	90	210	107	100	268
3707	29238	131	80	218	100	122	330	101	109	196	111	99	229	111	106	279
3708	29246	122	87	271	99	109	330	93	113	231	104	95	241	103	103	304
3709	Zonal Check (ZC)	118	87	349	99	110	396	94	110	294	106	86	264	106	102	331
3710	29236	119	97	244	100	107	308	112	114	204	117	98	211	107	108	297
3711	29214	117	98	177	100	113	330	89	97	228	105	88	223	110	100	311
3712	28128	116	92	199	96	115	341	84	104	194	99	99	236	101	103	282
3713	US 312 (HC)	116	100	232	97	112	385	92	119	173	106	100	214	103	107	299
3714	28982	113	95	173	96	111	297	91	114	175	106	96	219	105	107	256
3715	28979	112	95	215	98	114	330	90	100	197	104	92	236	101	105	286
3716	29212	114	91	254	97	110	297	92	102	209	103	95	237	104	104	294
3717	Local Check (LC)	130	89	215	98	120	308	98	100	254	114	97	245	105	103	280
Exp. Mean		**119**	**90**	**230**	**98**	**111**	**331**	**93**	**107**	**205**	**107**	**95**	**227**	**105**	**104**	**287**

Table No. 1.14 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 – IME, Kharif 2022

ENTRY NO	IET NO	ZONE-V – CENTRAL														
		MADHYA PRADESH						MADHYA PRADESH (2)			CHHATTISGARH					
		Waraseoni			REWA			Mean			RAIPUR			Ambikhapur		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3701	29233	101	131	293	107	111	301	104	121	297	97	109	149	88	128	313
3702	28506	106	128	368	110	109	347	108	118	358	95	114	156	87	122	338
3703	29235	103	118	329	108	120	313	106	119	321	83	117	147	86	124	320
3704	28353	107	115	231	108	108	278	108	111	255	96	108	164	87	110	326
3705	29217	104	115	260	108	116	337	106	115	299	93	117	141	90	122	321
3706	Gontra Bidhan-3 (NC)	98	120	289	101	114	331	100	117	310	93	110	138	87	100	301
3707	29238	109	116	286	111	112	318	110	114	302	98	118	124	90	111	306
3708	29246	114	124	230	109	107	347	112	116	289	97	116	176	92	101	309
3709	Zonal Check (ZC)	101	110	250	100	105	321	101	108	285	86	117	143	85	115	322
3710	29236	116	136	279	109	118	293	113	127	286	96	140	145	90	121	295
3711	29214	119	100	399	113	88	334	116	94	367	103	116	178	91	99	299
3712	28128	105	119	269	102	111	307	104	115	288	91	113	114	86	112	322
3713	US 312 (HC)	103	117	200	103	109	339	103	113	269	90	118	153	85	112	347
3714	28982	102	115	204	103	118	308	102	116	256	90	120	139	87	124	325
3715	28979	99	123	251	101	115	320	100	119	286	87	115	175	85	116	362
3716	29212	103	109	282	104	109	297	103	109	290	92	118	173	87	114	315
3717	Local Check (LC)	103	110	310	100	107	301	101	109	305	92	109	135	83	101	263
Exp. Mean		**105**	**118**	**278**	**106**	**110**	**317**	**106**	**114**	**298**	**93**	**116**	**150**	**87**	**114**	**317**

Table No. 1.14 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 – IME, Kharif 2022

ENTRY NO	IET NO	ZONE-V – CENTRAL														
		CHHATTISGARH						CHHATTISGARH (4)			MAHARASHTRA 1					
		JAGADALPUR			Bilaspur			Mean			SAKOLI			Sindewahi		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3701	29233	98	81	284	95	120		95	110	249	98	94	305	99	86	218
3702	28506	97	91	326	95	114		94	110	273	101	106	310	102	104	235
3703	29235	101	90	1229	97	132		92	116	565	103	109	173	100	104	230
3704	28353	98	83	297	95	119		94	105	262	101	86	218	103	95	314
3705	29217	99	80	290	97	126		95	111	251	103	99	181	95	101	237
3706	Gontra Bidhan-3 (NC)	99	84	297	93	123		93	104	245	95	87	212	99	97	229
3707	29238	104	81	349	103	123		99	108	260	106	106	202	107	90	229
3708	29246	106	94	364	100	120		99	108	283	103	98	217	102	105	239
3709	Zonal Check (ZC)	97	81	278	90	111		89	106	248	87	96	322	89	85	265
3710	29236	102	96	292	103	138		98	124	244	97	115	302	102	112	206
3711	29214	107	82	425	110	109		103	101	301	108	92	278	109	89	342
3712	28128	98	83	295	91	113		91	105	244	97	92	211	98	98	228
3713	US 312 (HC)	97	80	318	93	123		91	108	273	101	94	243	96	121	291
3714	28982	99	104	265	94	127		92	119	243	99	98	210	98	107	219
3715	28979	95	94	274	93	125		90	112	270	94	99	179	96	109	247
3716	29212	95	86	277	93	118		92	109	255	101	99	193	93	102	215
3717	Local Check (LC)	89	95	273	96	116		90	105	224	102	123	275	99	120	288
Exp. Mean		**99**	**87**	**361**	**96**	**121**		**94**	**110**	**276**	**100**	**100**	**237**	**99**	**101**	**249**

Table No. 1.14 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 – IME, Kharif 2022

ENTRY NO	IET NO	ZONE-V – CENTRAL						ZONE VI – WESTERN								
		MAHARASHTRA 1(2)			Zone V (8)			MAHARASHTRA 2								
		Mean			Mean			KARJAT			Shirgaon			Radhanagari		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3701	29233	99	90	262	98	108	266	91	115	209	88	109	115	97	96	253
3702	28506	102	105	273	99	111	297	98	110	211	95	107	146	102	85	203
3703	29235	102	107	201	98	114	392	98	119	215	93	121	152	101	98	267
3704	28353	102	91	266	99	103	261	97	106	188	93	104	158	91	83	250
3705	29217	99	100	209	99	109	252	94	109	206	94	118	176	103	93	247
3706	Gontra Bidhan-3 (NC)	97	92	220	96	104	257	94	106	202	87	102	135	104	92	228
3707	29238	107	98	215	103	107	259	98	117	190	100	116	181	103	95	237
3708	29246	103	102	228	103	108	269	98	116	218	99	112	127	105	87	215
3709	Zonal Check (ZC)	88	90	293	92	103	272	92	100	212	83	91	168	97	95	218
3710	29236	100	113	254	102	122	259	98	120	208	102	126	161	103	90	246
3711	29214	109	91	310	108	97	322	106	116	215	107	107	110	107	81	245
3712	28128	98	95	219	96	105	249	95	113	217	91	110	176	99	87	242
3713	US 312 (HC)	98	107	267	96	109	270	94	114	218	92	118	124	100	89	273
3714	28982	98	103	215	96	114	239	94	114	197	91	115	163	100	94	245
3715	28979	95	104	213	94	112	258	92	115	218	89	118	163	97	97	233
3716	29212	97	100	204	96	107	250	92	111	208	90	116	126	97	91	260
3717	Local Check (LC)	101	121	282	95	110	264	98	106	201	84	96	148	96	91	255
Exp. Mean		**100**	**101**	**243**	**98**	**108**	**273**	**96**	**112**	**208**	**93**	**111**	**149**	**100**	**91**	**242**

Table No. 1.14 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 – IME, Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN														
		MAHARASHTRA 2(3)			MAHARASHTRA (5)			GUJARAT								
		Mean			Mean			NAVSARI			NAWAGAM			Vyara		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3701	29233	92	107	192	95	100	220	92	123	210	99	122	281	88	126	165
3702	28506	98	101	187	100	102	221	88	118	272	98	124	288	92	125	162
3703	29235	97	113	211	99	110	207	91	125	217	96	128	291	90	129	148
3704	28353	94	98	198	97	95	225	87	112	247	99	115	283	90	132	178
3705	29217	97	107	210	98	104	209	84	112	224	95	122	280	89	129	151
3706	Gontra Bidhan-3 (NC)	95	100	188	96	97	201	82	113	231	89	113	280	88	126	197
3707	29238	100	109	202	103	105	208	102	120	275	106	126	286	94	126	201
3708	29246	101	105	187	101	104	203	94	117	244	95	118	287	94	128	206
3709	Zonal Check (ZC)	90	95	199	90	93	237	81	88	269	88	96	267	84	103	190
3710	29236	101	112	205	100	112	225	103	137	259	117	133	267	99	134	174
3711	29214	107	102	190	108	97	238	114	76	236	116	112	278	105	106	260
3712	28128	95	104	212	96	100	215	82	115	217	95	117	277	89	124	153
3713	US 312 (HC)	95	107	205	96	107	230	86	115	266	96	128	281	89	135	172
3714	28982	95	108	202	96	106	207	86	118	218	96	125	280	89	136	140
3715	28979	92	110	204	93	108	208	86	129	203	94	125	284	89	135	153
3716	29212	93	106	198	94	104	200	80	117	193	99	119	287	88	125	227
3717	Local Check (LC)	92	97	201	96	107	233	81	123	174	87	114	282	88	131	182
Exp. Mean		**96**	**105**	**200**	**98**	**103**	**217**	**89**	**115**	**233**	**98**	**120**	**281**	**91**	**126**	**180**

Table No. 1.14 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 – IME, Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN						ZONE VII – SOUTHERN								
		GUJARAT (3)			Zone 6(6)			ANDHRA PRADESH (1)			TELANGANA					
		Mean			Mean			MARUTERU			RAJENDRANAGAR			Kunaram		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3701	29233	93	124	219	92	115	206	82	114	308	97	104	360	86	121	319
3702	28506	93	122	241	95	111	214	91	121	288	100	101	369	93	116	299
3703	29235	92	127	219	95	120	215	89	125	282	99	104	360	87	128	304
3704	28353	92	119	236	93	108	217	89	111	304	93	97	382	88	116	273
3705	29217	89	121	218	93	114	214	90	126	319	99	102	360	88	117	306
3706	Gontra Bidhan-3 (NC)	86	117	236	91	109	212	89	111	268	96	101	373	86	115	266
3707	29238	101	124	254	101	117	228	95	126	297	101	102	362	96	119	308
3708	29246	94	121	245	97	113	216	96	123	282	100	100	382	96	118	255
3709	Zonal Check (ZC)	84	95	242	87	95	221	85	109	273	90	100	358	83	106	334
3710	29236	106	134	233	104	123	219	95	145	306	100	106	358	95	143	290
3711	29214	112	98	258	109	100	224	88	105	290	105	89	433	99	104	317
3712	28128	89	119	216	92	111	214	83	111	257	93	102	331	88	119	299
3713	US 312 (HC)	90	126	240	93	117	222	90	120	288	95	100	344	88	118	312
3714	28982	91	126	213	93	117	207	86	123	266	91	104	438	90	124	306
3715	28979	89	130	213	91	120	209	88	119	284	93	104	344	88	119	284
3716	29212	89	121	236	91	113	217	93	115	297	89	102	364	89	123	288
3717	Local Check (LC)	85	123	213	89	110	207	111	113	262	90	97	393	90	106	310
Exp. Mean		**93**	**120**	**231**	**94**	**113**	**215**	**91**	**119**	**287**	**96**	**101**	**371**	**90**	**118**	**298**

Table No. 1.14 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 – IME, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN											
		TELANGANA						TELANGANA (4)			TAMIL NADU		
		WARANGAL			Jagtial			Mean			ADUTHURAI		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3701	29233	93	134	348	101	119	405	94	119	358	88	87	268
3702	28506	97	119	385	105	117	418	99	113	368	95	85	278
3703	29235	94	117	380	101	134	329	95	121	343	89	89	282
3704	28353	93	113	363	102	120	359	94	111	344	88	75	293
3705	29217	95	120	365	102	116	340	96	114	343	90	84	268
3706	Gontra Bidhan-3 (NC)	93	109	372	97	119	444	93	111	364	90	89	265
3707	29238	106	127	363	104	124	422	102	118	364	93	75	275
3708	29246	97	114	359	104	115	419	99	111	354	93	88	278
3709	Zonal Check (ZC)	87	107	355	96	115	392	89	107	360	90	90	274
3710	29236	100	142	349	105	143	529	100	133	382	91	84	275
3711	29214	108	106	382	116	102	499	107	100	408	90	84	273
3712	28128	94	118	385	97	119	400	93	115	354	92	76	265
3713	US 312 (HC)	93	123	403	101	119	377	94	115	359	89	84	265
3714	28982	91	118	361	100	128	381	93	118	371	89	76	275
3715	28979	92	120	370	101	123	427	93	116	356	91	91	280
3716	29212	87	117	365	100	118	437	91	115	364	90	107	273
3717	Local Check (LC)	107	142	395	95	110	403	96	114	375	90	79	265
Exp. Mean		**96**	**120**	**370**	**102**	**120**	**411**	**96**	**115**	**363**	**90**	**85**	**274**

Table No.1.14 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 – IME, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN											
		TAMIL NADU			TAMIL NADU (2)			KERALA					
		COIMBATORE			Mean			MONCOMPU			PATTAMBI		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3701	29233	88	98	321	88	93	295	97	107	267	113	98	670
3702	28506	94	98	287	95	92	283	92	105	267	114	91	495
3703	29235	98	105	273	93	97	277	97	117	289	103	90	593
3704	28353	89	98	282	89	86	287	92	93	261	103	96	654
3705	29217	103	103	274	97	94	271	92	109	240	101	99	641
3706	Gontra Bidhan-3 (NC)	94	90	280	92	90	273	88	95	223	107	91	609
3707	29238	93	99	277	93	87	276	100	103	231	120	94	568
3708	29246	101	100	317	97	94	297	100	105	284	115	97	636
3709	Zonal Check (ZC)	88	93	270	89	91	272	88	96	296	115	101	572
3710	29236	91	116	277	91	100	276	97	118	244	104	95	670
3711	29214	104	86	299	97	85	286	101	103	291	100	88	589
3712	28128	90	99	276	91	88	270	89	95	204	108	101	570
3713	US 312 (HC)	94	98	304	92	91	284	92	109	311	100	96	566
3714	28982	94	105	242	92	91	259	97	97	136	103	92	618
3715	28979	89	98	277	90	95	279	100	101	227	102	90	628
3716	29212	90	97	296	90	102	284	95	108	276	104	97	692
3717	Local Check (LC)	102	88	293	96	83	279	99	102	353	119	98	652
Exp. Mean		**94**	**98**	**285**	**92**	**92**	**279**	**95**	**104**	**259**	**108**	**95**	**613**

Table No. 1.14 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 – IME, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN												Overall Mean (39)		
		KERALA (2)			KARNATAKA (1)			PUDUCHERRY (1)			Zone VII (11)					
		Mean			BRAHMAVAR			Karaikal			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3701	29233	105	102	468	103	87	388	86	108	299	94	107	359	98	107	284
3702	28506	103	98	381	109	82	387	93	105	273	98	104	341	101	107	288
3703	29235	100	103	441	110	88	402	82	101	285	95	109	343	100	110	306
3704	28353	98	94	458	109	83	391	77	101	283	93	100	350	98	104	285
3705	29217	97	104	440	109	82	370	96	108	295	97	106	343	100	107	272
3706	Gontra Bidhan-3 (NC)	98	93	416	109	84	403	83	88	311	94	99	347	97	102	276
3707	29238	110	99	399	111	77	386	90	106	301	101	105	345	105	108	283
3708	29246	108	101	460	111	86	391	81	100	276	99	104	353	101	106	292
3709	Zonal Check (ZC)	102	99	434	100	72	369	81	92	317	91	98	346	96	99	295
3710	29236	100	107	457	105	99	380	81	114	296	97	119	361	104	118	285
3711	29214	100	96	440	107	72	397	96	96	317	101	94	372	108	97	313
3712	28128	99	98	387	103	80	391	86	95	287	93	101	333	96	105	275
3713	US 312 (HC)	96	103	438	102	78	385	81	103	307	93	104	351	97	109	289
3714	28982	100	94	377	103	88	382	84	108	253	93	106	332	98	111	267
3715	28979	101	96	427	102	81	395	74	101	283	93	104	345	96	109	278
3716	29212	99	102	484	100	80	378	78	109	278	92	107	359	97	107	286
3717	Local Check (LC)	109	100	503	91	75	344	99	112	293	99	102	360	99	106	287
Exp. Mean		**101**	**99**	**436**	**105**	**82**	**384**	**85**	**103**	**291**	**95**	**104**	**349**	**100**	**107**	**286**

Table No. 1.14 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2-IME, (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIAL NOT CONSIDERED											
		UTTAR PRADESH 1			BIHAR			WEST BENGAL					
		@KANPUR			@Patna-ICAR			@Hathwara			@Malda		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3701	29233	71	89	310	84	112	338	92	118		96	111	401
3702	28506	62	86	305	91	116	255	102	115		99	95	314
3703	29235	56	82	317	89	119	303	92	126		96	112	350
3704	28353	56	72	321	90	111	315	91	117		96	115	362
3705	29217	56	67	313	90	117	364	94	118		94	91	355
3706	Gontra Bidhan-3 (NC)	64	80	339	87	107	272	94	121		94	100	380
3707	29238	60	71	326	97	113	289	97	117		93	111	301
3708	29246	75	78	324	91	111	294	98	112		93	110	393
3709	Zonal Check (ZC)	53	66	340	90	117	416	96	110		93	111	327
3710	29236	61	78	306	95	124	421	94	125		93	100	395
3711	29214	59	62	312	105	91	358	106	105		93	110	332
3712	28128	71	75	304	85	117	309	94	107		100	110	382
3713	US 312 (HC)	60	64	328	88	122	290	97	115		99	118	287
3714	28982	65	87	327	87	114	291	94	127		100	99	407
3715	28979	58	68	328	85	123	319	92	118		93	100	324
3716	29212	54	70	323	84	123	302	92	109		98	99	375
3717	Local Check (LC)				102	94	334	86	119		100	111	339
Exp. Mean		**61**	**75**	**320**	**91**	**114**	**322**	**95**	**116**		**96**	**106**	**354**

Table No. 1.14 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2-IME, (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIAL NOT CONSIDERED								
		UTTAR PRADESH 2			TRIPURA			KARNATAKA		
		@MASODHA			@Lembucherra			@MANDYA		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3701	29233	83	99	253	71	113	308	94	92	273
3702	28506	78	109	254	69	118	333	99	94	253
3703	29235	79	110	308	71	95	208	100	95	227
3704	28353	82	104	238	80	102	208	97	83	233
3705	29217	83	106	235	62	91	333	95	87	213
3706	Gontra Bidhan-3 (NC)	82	115	253	70	104	283	103	82	247
3707	29238	87	101	244	80	110	250	98	90	233
3708	29246	88	98	256	66	115	342	105	83	293
3709	Zonal Check (ZC)	79	89	251	61	102	400	88	89	287
3710	29236	81	98	273	71	123	342	96	95	253
3711	29214	88	107	233	80	104	342	103	73	347
3712	28128	83	99	274	68	104	475	97	84	240
3713	US 312 (HC)	87	109	235	67	112	392	103	89	367
3714	28982	79	101	264	66	108	317	99	97	207
3715	28979	81	105	263	62	109	292	93	90	213
3716	29212	88	107	243	68	90	283	93	89	247
3717	Local Check (LC)	86	115	254	59	117	350	102	97	260
Exp. Mean		**83**	**104**	**255**	**69**	**107**	**321**	**98**	**89**	**258**

Table No. 1.15: Grain quality characteristics of entries in AVT 2-IME, kharif 2022

Entry No.	IET No.	Hull %	Mill %	HRR %	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
3701	29233	81.5	70.6	68.3	6.67	2.09	3.19	LS	VOC	7.0	24.14	22
3702	28506	81.3	69.5	55.4	6.23	2.40	2.59	LB	VOC	3.0	24.69	64
3703	29235	82.1	70.6	58.0	6.63	2.09	3.17	LS	VOC	4.0	22.88	32
3704	28353	80.5	68.8	56.0	5.26	2.30	2.28	SB	VOC	4.0	24.34	27
3705	29217	81.1	67.0	57.1	6.26	2.36	2.65	LB	VOC	4.0	23.76	56
3706	Gontra Bidhan-3 (NC)	81.9	72.4	55.7	5.46	2.33	2.34	SB	VOC	5.0	26.10	22
3707	29238	81.7	68.3	54.6	6.15	2.27	2.70	LB	VOC	4.0	27.16	48
3708	29246	81.3	71.4	59.6	6.72	2.05	3.27	LS	VOC	7.0	20.15	25
3709	MTU 1010 (ZC)	80.0	66.2	56.0	6.24	2.01	3.10	LS	VOC	4.0	26.72	63
3710	29236	83.1	73.0	58.7	5.21	2.50	2.08	SB	VOC	4.0	22.76	22
3711	29214	78.9	68.4	56.6	5.21	1.99	2.61	MS	VOC	4.0	26.31	45
3712	28128	81.9	72.6	60.5	6.30	2.25	2.80	LB	VOC	4.0	21.64	46
3713	US-312 (HC)	81.2	69.1	55.2	5.60	2.09	2.67	MS	VOC	4.0	22.79	52
3714	28982	84.7	73.9	61.7	6.24	2.36	2.64	LB	VOC	3.0	25.98	54
3715	28979	82.8	70.7	55.4	6.11	2.23	2.73	LB	VOC	4.0	24.11	24
3716	29212	80.5	69.1	57.6	6.46	2.09	3.09	LS	VOC	4.0	23.67	55
3717	JGL 24423 (LC)	81.2	69.4	55.7	6.65	2.24	2.96	LB	VOC	4.0	23.87	59

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. 1.16: Composition of entries in Advance Variety Trial 1-Irrigated Mid Early (AVT 1-IME), Kharif 2022

Entry No.	IET No.	Designation	Cross Combination	GT
2nd year of testing:				
3801	29822	ORJ 1342 (TP 29409)	IR 10M300	MS
3802	29188	WGL 1355	WGL 347 / HKR 06-47	LS
3803	29808	RP 6317-RMS-S35-BC_2F_4-49-25-12-24	MTU 1121* 2 / Swarna	MS
3804	29807	Bhata Mahsuri Mutant-1	Bhata Mahsuri	SB
3805	29770	HKR 17-33	IR 68826A / IR 81873-31-2-2-2	SS
3806	**Gontra Bidhan-3 (NC)**			
3807	29304	R 2454-1-R1-10	KM / IRBB 59	MS
3808	29820	OR 2517-8	OR 2006-25 / IR 65629-22-1	LS
3809	29219 (R)	RP 6467-IR 143507-26-37-2-4-20-10-B	IR 82809:227 / Swarna / 12 // IR 96321-1447-561-B-1 / Aganni // IR 96321-1447-561-B-1 / Abhaya //// IR 96321-1447-561-B-1 / IRBB 4 // IR 96321-1447-561-B-1 / IRBB 60 / 11 // IR 96321-1447-561-B-1 / Aganni // IR 96321-1447-561-B-1 / Abhaya //// IR 96321-1447-561-B-1 / Rathu Heenathi // IR 96321-1447-561-B-1 / IRBL9	LB
3810	**PR 113-Northern, Lalat-Eastern and North Eastern, MTU 1010-Central and Southern, Karjat 7-Western-- ZC**			
3811	29714	***Indam 200-053 (Hybrid)***	-	LS
3812	29726	***PHI-21103 (Hybrid)***	-	LS
3813	29735	***MEPH-164 (Hybrid)***	-	LB
3814	29717	***RRX-271 (Hybrid)***	-	LS
3815	29738	***RNC-0457 (Hybrid)***	-	LS
3816	29718	***UPLRH-180839 (Hybrid)***	-	LB
3817	**US 312 (HC)**			
3818	29734	***PHI-21104 (Hybrid)***	-	LB
3819	29729	***ARRH-23316 (Hybrid)***	-	LB
3820	29715	***IRH-130 (Hybrid)***	-	LS
3821	29708	***MALI-348 (Hybrid)***	-	LS
3822	**Local Check (LC)**			
1st year of testing (NILs):				
3823	30695	KR 19015	ADT 39*3 / Swarna Sub-1	SB
3824	30696	KR 19005	ADT 39*4 / Swarna Sub-1	SB
3825	30697	KR 19011	ADT 39*4 / Swarna Sub-1	MS
3826	**ADT 39 (RP)**			MS
3827	30698	KMP-245	(IR 64 / DHMAS-70Q-164-1B) / IRBL 9-W (LT)-pi9	LS
3828	30699	KMP 225-2	(IR 64 / DHMAS-70Q-164-1B) / IRBL 9-W (LT)-pi9	LS
3829	**IR 64 (RP)**			LS
3830	30700	RP 6529-RMS-1777-55-87-24	MTU 1010 * 2 / Improved Samba Mahsuri	LS
3831	30701	RP 6531-RMS-1778-45-17-84	MTU 1010 * 2 / Improved Samba Mahsuri	LS
3832	30702	RP 6529-RMS-1714-36-22	MTU 1010 * 2 / Improved Samba Mahsuri	LS
3833	30703	RP 6530-RMS-1734-15-67-94	MTU 1010 * 2/ Improved Samba Mahsuri	LS
3834	**MTU 1010 (RP)**			LS

Entry No.	IET No.	Designation	Cross Combination	GT
3835	30282	CR 4331-74-2-2-1	Naveen*3 / CR 3006-8-2	SB
3836	29203	CR 4331-85-1-1-1	Naveen*3 / CR 3006-8-2	SB
3837	30284	CR 4332-184-2-2-1	Naveen*3 / Robin	MS
3838	30281	CR 4332-37-2-1-1	Naveen*3 / Robin	MS
3839	**Naveen (RP)**			MS

Table No. 1.17: Grain Yield (kg/ha) in AVT 1 – IME, Zone 2 & 6 Kharif 2022

ENTRY NO	IET NO	ZONE II – NORTHERN											
		Punjab (1)			Haryana (1)			Rajasthan (1)			Zone II (3)		
		Ludhiana			Kaul			Kota			Mean		
3801	29822	5237	4	#	5974			5033			5415	#	
3802	29188	4869	8	#	6247			6124	5 *		5747	9	#
3803	29808	5065	7	#	6465	#		5756	8		5762	8	#
3804	29807	3980	10	#	7147	10	#	5292			5473	#	
3805	29770	5081	6	#	6847	#		5374			5767	7	#
3806	Gontra Bidhan-3 (NC)	5342	3		7392	6		4883			5872	5	
3807	29304	7386	1 *	#	7147	10	#	5237			6590	1	#
3808	29820	3932	#		5783			6137	4 *		5284	#	
3809	29219 (R)							4037			4037		
3810	Zonal Check (ZC)	4618	9		6547			4774			5313		
3811	29714	3618	#		7856	3	#	6192	3 *		5889	4	#
3812	29726	3853	#		8047	1	#	5565	9		5822	6	#
3813	29735	3310	#		6383			5510	10		5068	#	
3814	29717	2853	#		7801	4	#	4637			5097	#	
3815	29738	2777	#		7501	5	#	5777	7		5352	#	
3816	29718	5139	5	#	7392	6	#	6110	6 *		6214	2	#
3817	US 312 (HC)	1278			5592			5265			4045		
3818	29734	1878	#		7992	2	#	6511	1 *	#	5460	#	
3819	29729	2119	#		6847	#		4937			4634	#	
3820	29715	2377	#		4855			4105			3779		
3821	29708	3037	#		7310	8	#	6219	2 *		5522	10	#
3822	Local Check (LC)	6500	2		7256	9		4528			6095	3	
Exp. Mean		**4012**			**6875**			**5364**			**5374**		
F Value		59.97(p<0.0001)S			8.72(p<0.0001)S			4.16(p<0.0001)S			12.04(p<0.0001)S		
CD		549			792			967			569		
CV%		**8.29**			**6.98**			**10.94**			**6.42**		
D/S		07-06-2022			12-06-2022								
D/P		05-07-2022			13-07-2022								
Local Check Name		PR 130			HKR-47								

Table No. 1.17 (Contd): Grain Yield (kg/ha) in AVT 1 – IME, Zone 2 & 6 Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN									
		Maharashtra						Maharashtra (3)		Gujarat	
		Karjat		Shirgaon		Radhanagari		Mean		Navasari	
3801	29822	7324	8	5646		4483		5818		4085	
3802	29188	7278	9	5364		5161	5	5934	8	4905	
3803	29808	6917		6463	8	3940		5773		4779	
3804	29807	5630		7401	2	3788		5606		4713	
3805	29770	7843	5	5196		3678		5572		5145	
3806	Gontra Bidhan-3 (NC)	6773		6051		4451		5758		4299	
3807	29304	7231	10	5740		4451		5807		5803	8
3808	29820	7718	6	7316	3	3190		6075	7	5090	
3809	29219 (R)	9028	1	3309		4832	8	5723		5985	6
3810	Zonal Check (ZC)	4810		5030		3458		4433		5082	
3811	29714	6579		5392		4879	7	5617		4683	
3812	29726	5991		8597	1	4523		6370	4	5499	10
3813	29735	4972		6144	10	4415		5177		6563	2
3814	29717	8870	2	7138	4	5387	3	7132	2 * #	5694	9
3815	29738	8440	4	5262		5205	4	6302	5	6233	4
3816	29718	7681	7	6859	6	5596	2	6712	3 *	5477	
3817	US 312 (HC)	7046		6243	9	5143	6	6144	6	6172	5
3818	29734	6250		6845	7	4593	10	5896	9	6828	1
3819	29729	6935		5872		4653	9	5820	10	6372	3
3820	29715	4560		3827		3829		4072		4723	
3821	29708	8704	3	6962	5	5843	1	7170	1 * #	5943	7
3822	Local Check (LC)	6185		5136		3897		5073		5471	
Exp. Mean		**6944**		**5991**		**4518**		**5817**		**5434**	
F Value		3.46(p=0.0002)S		6.76(p<0.0001)S		6.15(p<0.0001)S		5.84(p<0.0001)S		3.94(p<0.0001)S	
CD		1865		1279		790		829		1053	
CV%		**16.3**		**12.96**		**10.61**		**8.65**		**11.76**	
D/S		15-06-2022		16-06-2022		14-06-2022				11-06-2022	
D/P		10-07-2022		14-07-2022		10-07-2022				03-07-2022	

Table No. 1.17 (Contd): Grain Yield (kg/ha) in AVT 1 – IME, Zone 2 & 6 Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN								Overall Mean (9)	
		Gujarat				Gujarat (3)		Zone VI (6)			
		Nawagam		Vyara		Mean		Mean			
3801	29822	8201	3	4020		5435		5627		5556	
3802	29188	8069	5	3308		5427		5681		5703	
3803	29808	7465		4291		5512		5643		5682	
3804	29807	7220		5298	4	5744		5675		5608	
3805	29770	7513		4046		5568		5570		5636	
3806	Gontra Bidhan-3 (NC)	7516		4947	7	5587		5673		5739	9
3807	29304	7787	8	4380		5990	8	5899	10	6129	3 * #
3808	29820	8307	1	3886		5761		5918	9	5707	10
3809	29219 (R)	6250		4905	8	5713		5718		5478	
3810	Zonal Check (ZC)	4924		4374		4793		4613		4846	
3811	29714	8179	4	4500	10	5787		5702		5764	8 #
3812	29726	7846	7	5196	6	6180	6	6275	5 *	6124	4 * #
3813	29735	6626		5702	3	6297	4	5737		5514	
3814	29717	6613		4016		5441		6286	4 *	5890	7 #
3815	29738	7593	10	5942	2	6589	1 *	6446	3 *	6081	5 #
3816	29718	7928	6	5290	5	6232	5	6472	2 *	6386	2 * #
3817	US 312 (HC)	7033		4485		5897	9	6020	7	5362	
3818	29734	8286	2	3952		6355	3	6126	6	5904	6 #
3819	29729	6948		4841	9	6054	7	5937	8	5503	
3820	29715	5755		3528		4669		4370		4173	
3821	29708	7743	9	5945	1	6544	2	6857	1 * #	6412	1 * #
3822	Local Check (LC)	7416		4482		5790	10	5431		5652	
Exp. Mean		**7328**		**4606**		**5530**		**5698**		**5606**	
F Value		2.49(p=0.0204)S		4.43(p<0.0001)S		5.27(p<0.0001)S		8.82(p<0.0001)S		48.66(p<0.0001)S	
CD		1581		965		758		539		345	
CV%		**10.37**		**12.72**		**8.32**		**5.74**		**3.74**	
D/S		18-06-2022		13-06-2022							
D/P		29-07-2022		12-07-2022							
Local Check Name		Mahisagar		GNR-3							

Table No. 1.17: Grain Yield (kg/ha) in AVT 1 – IME, Zone 3 Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN											
		Odisha						Odisha (3)		Bihar			
		ICAR-NRRI (Cuttack)		Jeypore		Chiplima		Mean		Bikramganj		Sabour	
3801	29822	5376	10	5735	5	6543		5885	5	7074		6122	
3802	29188	5395	9	3852		7545	1	5597	8	7593		6667	7
3803	29808	5223		3972		7149	5	5448		7614		6127	
3804	29807	5632	5	3617		7291	3	5513		8046	8	6492	8
3805	29770	5270		3247		5770		4762		7093		6081	
3806	Gontra Bidhan-3 (NC)	5363		4401		6939	9	5568	10	8867	2	6849	5
3807	29304	5369		3241		4886		4499		7904	10	5869	
3808	29820	5217		5022	9	7365	2	5868	7	6537		6838	6
3809	29219 (R)	4572		5862	2	5028		5154		4568		3367	
3810	Zonal Check (ZC)	4533		3151		6815		4833		5708		5367	
3811	29714	5739	3	5636	7	6289		5888	4	8451	7	6067	
3812	29726	6177	2	5788	4	7069	6	6345	2 * #	6929		6191	
3813	29735	3737		4012		6895	10	4881		8670	5	5512	
3814	29717	4759		3173		6116		4683		7873		5663	
3815	29738	6469	1	4938		6982	8	6130	3 *	8799	3	7875	1
3816	29718	5739	3	6444	1	7168	4	6450	1 * #	8688	4	6925	4
3817	US 312 (HC)	5280		5605	8	6735		5873	6	7929	9	6242	9
3818	29734	5127		4614		6994	7	5578	9	8485	6	6942	3
3819	29729	5313		4459		5553		5108		7756		6237	10
3820	29715	4749		3617		4137		4168		5380		4674	
3821	29708	5490	8	3838		6759		5362		9225	1	7303	2
3822	Local Check (LC)	5553	6	5696	6	4212		5154		5593		5240	
3827	30698	4359		4391		4978		4576		5429		4905	
3828	30699	3293		3044		5553		3963		5963		4706	
3829	IR 64 (RP)	3913		3032		5807		4251		6395		5241	
3835	30282	4092		3065		5547		4235		6182		5408	
3836	29203	4352		4993	10	5974		5106		4574		4224	
3837	30284	4929		2679		4793		4134		4759		4746	
3838	30281	3776		5810	3	4212		4599		3728		3918	
3839	Naveen (RP)	5552	7	4772		5176		5167		6846		5579	
Exp. Mean		**5012**		**4390**		**6076**		**5159**		**6955**		**5779**	
F Value		8.07(p<0.0001)S		12.16(p<0.0001)S		8.43(p<0.0001)S		17.01(p<0.0001)S		23.47(p<0.0001)S		5.80(p<0.0001)S	
CD		720		854		1020		461		847		1185	
CV%		**8.79**		**11.9**		**10.27**		**5.47**		**7.45**		**12.55**	
D/S		29-06-2022		13-07-2022		19-07-2022				28-06-2022		14-06-2022	
D/P		06-08-2022		13-08-2022		19-08-2022				30-07-2022		18-07-2022	
Local Check Name		CR Dhan 304		Kalinga Dhan 1205		MTU-1156				Sabour Deep		Sabour Harshit Dhan	

Table No. 1.17 (Contd): Grain Yield (kg/ha) in AVT 1 – IME, Zone 3 Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN											
		Bihar		Bihar (3)		Jharkhand (1)		West bengal (1)		Uttar Pradesh (1)		Zone III (9)	
		Pantnagar		Mean		Ranchi		Chinsurah		Varanasi		Mean	
3801	29822	7687		6961		4947	9	7099	5	8188		6530	
3802	29188	9613	6	7958		4418		6868	8	9215		6796	8
3803	29808	10460	1	8067	5	4449		6534		9174		6745	9
3804	29807	8533		7690		4418		4835		8278		6349	
3805	29770	8587		7254		4044		6547		9299	10	6215	
3806	Gontra Bidhan-3 (NC)	8187		7968	9	4511		4554		8701		6486	
3807	29304	7240		7004		3578		4883		7639		5623	
3808	29820	9327	9	7567		5133	4.5	5849		7069		6484	
3809	29219 (R)	6247		4727		4480		4921		1368		4490	
3810	Zonal Check (ZC)	8340		6472		5071	7	6636	9	7118		5860	
3811	29714	9407	8	7975	8	5196	2.5	7245	2	9889	7	7102	5 *
3812	29726	9287	10	7469		5133	4.5	5840		9604	8	6891	7 *
3813	29735	9747	5	7976	7	5196	2.5	4939		10597	6	6589	
3814	29717	10353	3	7963	10	5102	6	6413		11042	4	6722	10
3815	29738	10400	2	9025	1 * #	6129	1 *	7035	6	12917	1	7949	1 * # 15 %
3816	29718	9193		8269	4	4822		6421		9465	9	7207	3 *
3817	US 312 (HC)	9967	4	8046	6	5040	8	7322	1	8035		6906	6
3818	29734	9593	7	8340	3	4573		7132	3	11750	2	7246	2 * #
3819	29729	7573		7189		4760		6533		10764	5	6550	
3820	29715	7407		5820		4200		6062		5618		5094	
3821	29708	8713		8414	2	4853	10	6597	10	11549	3	7147	4 *
3822	Local Check (LC)	6927		5920		4729		5950		8931		5870	
3827	30698	6853		5729		3516		6153		7715		5367	
3828	30699	7240		5970		3982		6550		6903		5248	
3829	IR 64 (RP)	7853		6496		4791		6416		6076		5503	
3835	30282	7807		6466		4356		6156		8736		5705	
3836	29203	7807		5535		4511		6074		6993		5500	
3837	30284	6400		5302		3671		5064		7201		4916	
3838	30281	6100		4582		3422		7119	4	5507		4844	
3839	Naveen (RP)	8193		6873		4324		7013	7	7903		6151	
Exp. Mean		**8368**		**7034**		**4579**		**6225**		**8441**		**6203**	
F Value		5.56(p<0.0001)S		25.68(p<0.0001)S		3.15(p<0.0001)S		4.41(p<0.0001)S		19.07(p<0.0001)S		48.66(p<0.0001)S	
CD		1480		632		933		1081		1417		329	
CV%		**10.82**		**5.5**		**12.47**		**10.63**		**10.27**		**3.25**	
D/S		07-07-2022				20-06-2022		07-07-2022		07-06-2022			
D/P		02-08-2022				30-07-2022		08-08-2022		01-07-2022			
Local Check Name		Rajendra Sweta				NAVEEN		Muktoshri (IET 21845)		HUR-4-3			

Table No. 1.17 (Contd): Grain Yield (kg/ha) in AVT 1 – IME, Zone 5 Kharif 2022

ENTRY NO	IET NO	ZONE-V – CENTRAL									
		Madhya Pradesh				Madhya Pradesh (2)		Chhattisgarh			
		Waraseoni		Rewa		Mean		Raipur		Jagadalpur	
3801	29822	5794	1	3542		4668		5331		8172	3
3802	29188	4404		4145		4275		3380		6482	
3803	29808	5416	5	3958		4687		4926		6233	
3804	29807	3430		4562		3996		5865	7	7871	7
3805	29770	3567		3759		3663		4234		5751	
3806	Gontra Bidhan-3 (NC)	4377		4913		4645		5524		8014	5
3807	29304	3086		4288		3687		5944	6	8024	4
3808	29820	4632		3229		3931		4699		6589	
3809	29219 (R)	3969		2066		3018		5303		6993	
3810	Zonal Check (ZC)	5545	4	4327		4936	10	3643		4836	
3811	29714	5110	8	4722		4916		6055	3	6985	
3812	29726	4579		4171		4375		6250	1	8627	1
3813	29735	5378	6	5985	5	5682	3 * #	5796	10	7889	6
3814	29717	3661		6432	1	5047	7	4675		6241	
3815	29738	5556	3	6211	4	5884	2 * #	5827	9	6534	
3816	29718	4619		5386	7	5003	8	5457		6691	
3817	US 312 (HC)	4815		5169		4992	9	5752		7855	8
3818	29734	5671	2	6233	3	5952	1 * #	5955	4	8416	2
3819	29729	4200		3984		4092		6234	2	7201	10
3820	29715	2939		2114		2527		5953	5	5625	
3821	29708	4372		6372	2	5372	4	5858	8	7533	9
3822	Local Check (LC)	4463				4463		4480		7011	
3827	30698	5352	7	5226	10	5289	5	3063		4161	
3828	30699	4928	10	3954		4441		4411		5919	
3829	IR 64 (RP)	4997	9	5495	6	5246	6	3803		6047	
3830	30700	4402		5243	9	4823		3861		6019	
3831	30701	4310		5278	8	4794		3957		5447	
3832	30702	4444		4210		4327		3131		4669	
3833	30703	3983		5104		4544		4719		4997	
3834	MTU 1010 (RP)	4243		4753		4498		3220		6043	
Exp. Mean		**4541**		**4649**		**4592**		**4910**		**6629**	
F Value		15.49(p<0.0001)S		16.26(p<0.0001)S		10.49(p<0.0001)S		8.49(p<0.0001)S		7.76(p<0.0001)S	
CD		527		1239		646		993		1197	
CV%		**7.1**		**16.29**		**8.61**		**12.37**		**11.05**	
D/S		20-06-2022		30-06-2022				29-06-2022		16-06-2022	
D/P		06-08-2022		20-08-2022				18-07-2022		13-07-2022	
Local Check Name		JR 206		JR 206				IGKV R 2		IGKVR 1	

Table No. 1.17 (Contd): Grain Yield (kg/ha) in AVT 1 – IME, Zone 5 Kharif 2022

ENTRY NO	IET NO	ZONE-V – CENTRAL									
		Chhattisgarh (2)		Maharashtra				Maharashtra (2)		Zone V (6)	
		Mean		Sakoli		Sindewahi		Mean		Mean	
3801	29822	6752	8	5046	4	5233	6	5140	6 * #	5520	3
3802	29188	4931		4713	7	5166	8	4940	8 #	4715	
3803	29808	5580		3695		3811		3753		4673	
3804	29807	6868	4	4371		4799		4585	10 #	5150	
3805	29770	4993		3726		3896		3811		4156	
3806	Gontra Bidhan-3 (NC)	6769	7	4603	10	4438		4521		5312	8
3807	29304	6984	3	4259		4368		4314	#	4995	
3808	29820	5644		5233	2	6069	2	5651	1 * #	5075	
3809	29219 (R)	6148		3265		2579		2922		4029	
3810	Zonal Check (ZC)	4240		4155		3829		3992		4389	
3811	29714	6520		4367		5157	9	4762	9 #	5399	7
3812	29726	7439	1	4653	9	6425	1	5539	2 * #	5784	2 * #
3813	29735	6843	5	3194		3007		3101		5208	9
3814	29717	5458		3607		3365		3486		4664	
3815	29738	6181		5088	3	3339		4214		5426	4
3816	29718	6074		4280		2663		3472		4849	
3817	US 312 (HC)	6804	6	4065		3345		3705		5167	10
3818	29734	7186	2	4690	8	5195	7	4943	7 #	6027	1 * #
3819	29729	6718	9	4982	5	5854	3	5418	4 * #	5409	6
3820	29715	5789				3692		3692		4065	
3821	29708	6696	10	3547		4816	10	4182		5416	5
3822	Local Check (LC)	5746		3689		4779		4234		4884	
3827	30698	3612		4057		4575		4316	#	4406	
3828	30699	5165		3138		2567		2853		4153	
3829	IR 64 (RP)	4925		3524		3811		3668		4613	
3830	30700	4940		3962		3395		3679		4480	
3831	30701	4702		3788		3412		3600		4365	
3832	30702	3900		3661		2517		3089		3772	
3833	30703	4858		4980	6	5507	4	5244	5 * #	4882	
3834	MTU 1010 (RP)	4632		5659	1	5294	5	5477	3 * #	4869	
Exp. Mean		**5770**		**4207**		**4230**		**4210**		**4862**	
F Value		14.91(p<0.0001)S		5.21(p<0.0001)S		24.20(p<0.0001)S		17.76(p<0.0001)S		16.72(p<0.0001)S	
CD		739		800		615		532		372	
CV%		**7.84**		**11.63**		**8.9**		**7.73**		**4.68**	
D/S				02-07-2022		27-06-2022					
D/P				01-08-2022		29-07-2022					
Local Check Name				PKV Ganesh		Sindewahi-2001					

Table No. 1.17 (Contd): Grain Yield (kg/ha) in AVT 1 – IME, Zone 7 Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN													
		Andhra Pradesh (1)		Telangana				Telangana (2)		Tamilnadu				Tamilnadu (2)	
		Maruteru		Rajendranagar		Warangal		Mean		Aduthurai		Coimbatore		Mean	
3801	29822	5498		7624	5	5354		6489		5139		6269	9	5704	#
3802	29188	4055		7787	4	7071	9	7429	4 #	5509		7232	6	6371	8 * #
3803	29808	5537	9	6477		6210		6344		6088		7431	3	6760	3 * #
3804	29807	4515		6558		8081	2	7320	6 #	5347		4124		4736	
3805	29770	5046		4505		6734		5620		6597	7	5054		5826	#
3806	Gontra Bidhan-3 (NC)	4409		6114		7370	6	6742	9	4769		3983		4376	
3807	29304	5260		7037	9	6285		6661	10	5301		6541	7	5921	* #
3808	29820	5688	4 #	9136	1	6921		8029	1 * #	7370	2	5374		6372	7 * #
3809	29219 (R)	5590	8	4634		6397		5516		5079		7263	5	6171	* #
3810	Zonal Check (ZC)	5020		5291		5185		5238		4769				4769	
3811	29714	5068		8201	2	7183	8	7692	2 * #	5856		5360		5608	
3812	29726	4135		7459	6	5761		6610		5579		7794	2	6687	4 * #
3813	29735	4746		6606		4564		5585		7593	1	6385	8	6989	2 * #
3814	29717	5669	5	5912		6322		6117		7111	3	7933	1	7522	1 * #
3815	29738	5494		6525		8230	1	7378	5 #	6343		4610		5477	
3816	29718	5721	3 #	5112		7220	7	6166		5579		6059		5819	#
3817	US 312 (HC)	5076		6930		5874		6402		5079		5008		5044	
3818	29734	4957		7866	3	7033		7450	3 #	4838		6028		5433	
3819	29729	5068		6865		7763	3	7314	7 #	5255		6087		5671	#
3820	29715	3767				3891		3891		4792		4779		4786	
3821	29708	5004		6187		7071	9	6629		6759	5	5400		6080	* #
3822	Local Check (LC)	5312		5788		5686		5737		4815		5811		5313	
3823	30695	5184		7356	7	5862		6609		6574	9	6240	10	6407	6 * #
3824	30696	5486		5708		5051		5380		6690	6	5373		6032	* #
3825	30697	5623	7	7234	8	6659		6947	8	4838		5542		5190	
3826	ADT 39 (RP)	5430		7003	10	6023		6513		6157		4768		5463	
3827	30698	5652	6	5615		5013		5314		6574	9	5966		6270	9 * #
3828	30699	5805	2 #	4488		5874		5181		6944	4	4776		5860	#
3829	IR 64 (RP)	4573		5122		6397		5760		6574	9	5749		6162	* #
3830	30700	5853	1 #	4921		6659		5790		6250		6208		6229	10 * #
3831	30701	5183		5362		6210		5786		5556		7325	4	6441	5 * #
3832	30702	5502	10	3931		6248		5090		4769		5524		5147	
3833	30703	5225		4951		7669	5	6310		4954		5097		5026	
3834	MTU 1010 (RP)	5177		3525		7744	4	5635		5046		6044		5545	
Exp. Mean		**5157**		**6177**		**6401**		**6255**		**5779**		**5853**		**5800**	
F Value		5.60(p<0.0001)S		8.00(p<0.0001)S		12.29(p<0.0001)S		11.26(p<0.0001)S		13.30(p<0.0001)S		8.54(p<0.0001)S		11.08(p<0.0001)S	
CD		604		1273		790		733		651		961		588	
CV%		**7.18**		**12.63**		**7.57**		**7.18**		**6.91**		**10.07**		**6.21**	
D/S		25-06-2022		02-07-2022		21-06-2022				13-09-2022		24-06-2022			
D/P		22-07-2022		17-08-2022		22-07-2022				08-11-2022		19-07-2022			
Local Check Name		MTU 1121		JGL 24423		RNR 15048				TKM13		TKM 13			

Table No. 1.17 (Contd): Grain Yield (kg/ha) in AVT 1 – IME, Zone 7 Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN												Overall Mean (9)	
		Kearala				Kearala (2)		Karnataka (1)		Puuducherry (1)		Zone 5(9)			
		Moncompu		Pttambi		Mean		Brahmawar		Karaikal		Mean			
3801	29822	5726	2	4596		5161	2	3382		4583	8	5352	*	5352	*
3802	29188	4887		4231		4559		3213		3617		5289	*	5289	*
3803	29808	4827		4387		4607		4360		4675	6	5555	5 * #	5555	5 * #
3804	29807	4832		4049		4441		4730	9	3417		5073		5073	
3805	29770	4522		4571		4547		4412		3833		5030		5030	
3806	Gontra Bidhan-3 (NC)	4717		4336		4527		4283		3642		4847		4847	
3807	29304	5177	9	4724	8	4951	6	3446		4683	5	5384	*	5384	*
3808	29820	5113		4458		4786	9	5093	1 *	4492		5961	1 * #	5961	1 * #
3809	29219 (R)	4593		4264		4429		4710	10	3133		5074		5074	
3810	Zonal Check (ZC)	4212		4107		4160		4360		3142		4511		4511	
3811	29714	4650		4196		4423		3012		4533	9	5340	*	5340	*
3812	29726	3434		4531		3983		4952	6	4342		5332	*	5332	*
3813	29735	7616	1	4396		6006	1 * #	3450		3817		5464	9 *	5464	9 *
3814	29717	4749		4684	9	4717		4408		4525	10	5701	2 * #	5701	2 * #
3815	29738	5589	3	4664	10	5127	4	3928		4492		5542	6 * #	5542	6 * #
3816	29718	5446	6	4342		4894	8	5084	3	4325		5432	10 *	5432	10 *
3817	US 312 (HC)	4822		4409		4616		4944	7	4625	7	5196		5196	
3818	29734	5133	10	4744	7	4939	7	3331		3883		5313	*	5313	*
3819	29729	4330		4400		4365		4984	5	4500		5472	8 *	5472	8 *
3820	29715	3286		4660		3973		5089	2	3917		4273		4273	
3821	29708	5274	8	4236		4755	10	4853	8	4508		5477	7 *	5477	7 *
3822	Local Check (LC)	4343		4784	4.5	4564		3680		4025		4916		4916	
3823	30695	5374	7	4096		4735		4646		5583	2 *	5657	3 * #	5657	3 * #
3824	30696	5478	4	4784	4.5	5131	3	4026		5800	1 *	5377	*	5377	*
3825	30697	4897		4167		4532		3986		5250	4	5355	*	5355	*
3826	ADT 39 (RP)	5456	5	4764	6	5110	5	5012	4	5442	3 *	5562	4 * #	5562	4 * #
3827	30698	4052		4029		4041		4386		2917		4912		4912	
3828	30699	3983		4996	2	4490		4521		3875		5029		5029	
3829	IR 64 (RP)	4229		5080	1	4655		3370		4417		5057		5057	
3830	30700	3685		4178		3932		3293		3417		4940		4940	
3831	30701	3894		4651		4273		4513		2625		5035		5035	
3832	30702	3372		4656		4014		4128		1925		4451		4451	
3833	30703	3722		4413		4068		4223		3258		4835		4835	
3834	MTU 1010 (RP)	3754		4940	3	4347		4690		2417		4815		4815	
Exp. Mean		**4682**		**4486**		**4584**		**4250**		**4048**		**5292**		**5292**	
F Value		5.42(p<0.0001)S		2.05(p=0.0060)S		3.45(p<0.0001)S		5.27(p<0.0001)S		3.83(p=0.0001)S		11.43(p<0.0001)S		11.43(p<0.0001)S	
CD		1033		766		646		786		1298		324		324	
CV%		**13.53**		**10.47**		**8.65**		**9.08**		**15.76**		**3.76**		**3.76**	
D/S		02-07-2022		20-06-2022				13-06-2022		19-09-2022					
D/P		01-08-2022		08-07-2022				08-07-2022		21-10-2022					
Local Check Name		Uma		JYOTHI				KCP-1		ADT46					

Table No.1.17 (Contd) Grain Yield (kg/ha) in AVT 1 – IME, (Trial Not Considered) Zone 2 & 6 Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED					
		Uttarakhand (0)		Jammu Kashmir (0)		Uttar Pradesh (0)	
		@Pantnagar		@Chatha		@Kanpur	
3801	29822	3139				3841	7
3802	29188	4354	7			3365	
3803	29808	3858				3392	10
3804	29807	3398		4200		2974	
3805	29770	3948		4333		3730	8
3806	Gontra Bidhan-3 (NC)	2630		5000	6	4804	2
3807	29304	6554	1	5400	2	5074	1
3808	29820	4328	8			2794	
3809	29219 (R)					2730	
3810	Zonal Check (ZC)	3122		4926	7	3175	
3811	29714	5341	2	5808	1	2757	
3812	29726	3891		5214	3	4106	6
3813	29735	3974	10	4486		4190	5
3814	29717	3608		4400		3619	9
3815	29738	5204	4	5178	4	2735	
3816	29718	4291	9	5144	5	2566	
3817	US 312 (HC)	5262	3	4197		2905	
3818	29734	4480	5	4600	10	3069	
3819	29729	4405	6	4333		4434	4
3820	29715	2321				4646	3
3821	29708	3645		4800	9	2836	
3822	Local Check (LC)	2096		4867	8		
Exp. Mean		**3993**		**4805**		**3511**	
F Value		5.81(p<0.0001)S		1.04(p=0.4439)NS		4.50(p<0.0001)S	
CD		1230		1330		993	
CV%		**18.66**		**16.59**		**17.13**	
D/S		09-06-2022		10-06-2022		.	
D/P		12-07-2022		30-07-2022		.	
Local Check Name		Pant Dhan 12		SJR-5		.	

Table No.1.17 (Contd): Grain Yield (kg/ha) in AVT 1 – IME, (Trial Not Considered) Zone 3 Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED							
		West Bengal						Uttar Pradesh	
		@Hatwara		@Malda		@Bankura		@Masodha	
3801	29822	6012		4739		5830		5931	2
3802	29188	7562	3	4344		6765	5	5395	6
3803	29808	5167		6222	8	5353		5743	3
3804	29807	5862		5278		5680		4646	
3805	29770	4979		5728		6105		3739	
3806	Gontra Bidhan-3 (NC)	5378		6344	7	5288		3924	
3807	29304	5609		6439	6	5340		5529	4
3808	29820	7272	4	6750	2	6072		4165	
3809	29219 (R)	6869	7	4694		6275		3382	
3810	Zonal Check (ZC)	5351		5361				2939	
3811	29714	6572	10	6222	8	6209	6	5524	5
3812	29726	6773	8	6778	1	6641	4	3967	
3813	29735	7067	5	6583	4	6824	4	5233	8
3814	29717	4596		6706	3	5621		3918	
3815	29738	8657	1	5361		7026	2	6173	1
3816	29718	3812		4250		6314	10	5207	9
3817	US 312 (HC)	6027		4222		6144		5126	10
3818	29734	7612	2	5472		7072	1	2888	
3819	29729	6394		6511	5	6529	8	3771	
3820	29715	4602		6022	10	6948	3	2845	
3821	29708	6698	9	5972		6549	7	5260	7
3822	Local Check (LC)	3781		5083		6333	9	4321	
3827	30698	4212		5611				3462	
3828	30699	4135		5144				4348	
3829	IR 64 (RP)	5432		4022				2877	
3835	30282	4455		5539				3849	
3836	29203	3982		4483				3892	
3837	30284	4568		4106		5608		4509	
3838	30281	4252		4578				3918	
3839	Naveen (RP)	6881	6	4711				3408	
Exp. Mean		**5686**		**5443**		**6206**		**4330**	
F Value		286.32(p<0.0001)S		66.36(p<0.0001)S		10.16(p<0.0001)S		66.36(p<0.0001)S	
CD		212		298		479		324	
CV%		**2.28**		**3.35**		**4.69**		**4.57**	
D/S		16-07-2022		22-06-2022		17-07-2022		20-06-2022	
D/P		10-08-2022		28-07-2022		10-08-2022		24-07-2022	
Local Check Name		Sahbhagidhan		Satabdi		Lalat		NDR 3112-1	

Table No. 1.17 (Contd): Grain Yield (kg/ha) in AVT 1 – IME, (Trial Not Considered) Zone- 4 Kharif 2022

ENTRY NO	IET NO	TRIAL NOT CONSIDERED TRIPURA (0) @Lembucherra	
3801	29822	3860	5
3802	29188	3674	7
3803	29808	3637	9
3804	29807	3059	
3805	29770	2776	
3806	Gontra Bidhan-3 (NC)	3124	
3807	29304	3674	8
3808	29820	3340	
3809	29219 (R)	2650	
3810	Zonal Check (ZC)	3970	3
3811	29714	3125	
3812	29726	2794	
3813	29735	4027	2
3814	29717	3860	4
3815	29738	3123	
3816	29718	3407	
3817	US 312 (HC)	3577	
3818	29734	3711	6
3819	29729	4490	1
3820	29715	3082	
3821	29708	3451	
3822	Local Check (LC)	3340	
3835	30282	3013	
3836	29203	3371	
3837	30284	2779	
3838	30281	2106	
3839	Naveen (RP)	3587	
Exp. Mean		**3356**	
F Value		24.02(p<0.0001)S	
CD		294	
CV%		**5.34**	
D/S		10-07-2022	
D/P		01-08-2022	
Local Check Name		TRIPURA NIROG	

Table No.1.17 (Contd): Grain Yield (kg/ha) in AVT 1 – IME, (Trial Not Considered) Zone- 5 Kharif 2022

ENTRY NO	IET NO	TRIAL NOT CONSIDERED Chhattisgarh @Ambikapur	
3801	29822	5006	2
3802	29188	4903	3
3803	29808	5918	1
3804	29807	2784	
3805	29770	2705	
3806	Gontra Bidhan-3 (NC)	2886	
3807	29304	4752	5
3808	29820	3756	
3809	29219 (R)	3551	
3810	Zonal Check (ZC)	3050	
3811	29714	3665	
3812	29726	4293	10
3813	29735	4426	8
3814	29717	4094	
3815	29738	3001	
3816	29718	3829	
3817	US 312 (HC)	3992	
3818	29734	4324	9
3819	29729	4444	7
3820	29715	3303	
3821	29708	3792	
3822	Local Check (LC)	3992	
3827	30698	3732	
3828	30699	3883	
3829	IR 64 (RP)	1950	
3830	30700	4825	4
3831	30701	3490	
3832	30702	2403	
3833	30703	4547	6
3834	MTU 1010 (RP)	3098	
Exp. Mean		**3813**	
F Value		10.17(p<0.0001)S	
CD		744	
CV%		**11.94**	
D/S		11-07-2022	
D/P		05-08-2022	
Local Check Name		MTU1010	

Table No. 1.17 (Contd): Grain Yield (kg/ha) in AVT 1 – IME, (Trial Not Considered) Zone- 7 Kharif 2022

ENTRY NO	IET NO	TRIAL NOT CONSIDERED Karnataka @Mandya	
3801	29822	4496	
3802	29188	4458	
3803	29808	3872	
3804	29807	4309	
3805	29770	2825	
3806	Gontra Bidhan-3 (NC)	5087	4
3807	29304	4131	
3808	29820	4578	
3809	29219 (R)	2623	
3810	Zonal Check (ZC)	3905	
3811	29714	4001	
3812	29726	4890	7
3813	29735	5918	2
3814	29717	4525	
3815	29738	4857	8
3816	29718	5126	3
3817	US 312 (HC)	4784	9
3818	29734	6149	1
3819	29729	3521	
3820	29715	3305	
3821	29708	5020	5
3822	Local Check (LC)	4962	6
3823	30695	4021	
3824	30696	4636	10
3825	30697	4343	
3826	ADT 39 (RP)	4016	
3827	30698	2080	
3828	30699	2978	
3829	IR 64 (RP)	2354	
3830	30700	2964	
3831	30701	2287	
3832	30702	2613	
3833	30703	3132	
3834	MTU 1010 (RP)	2599	
Exp. Mean		**3981**	
F Value		53.75(p<0.0001)S	
CD		395	
CV%		**6.09**	
D/S		15-07-2022	
D/P		18-08-2022	
Local Check Name		Thanu	

Table No. 1.18: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – IME, Zone 2 & 6 Kharif 2022

ENTRY NO	IET NO	ZONE II - NORTHERN												ZONE VI – WESTERN		
		Punjab (1)			Haryana (1)			Rajasthan (1)			Zone II (3)			Maharashtra		
		Ludhiana			Kaul			Kota			Mean			Karjat		
3801	29822	117	106	321	110	115	285	102	98	218	110	107	275	98	119	226
3802	29188	101	128	299	106	124	306	100	114	267	102	122	291	97	121	234
3803	29808	116	111	273	110	115	317	103	105	237	110	110	276	98	114	220
3804	29807	99	106	260	86	118	326	90	107	290	92	110	292	94	124	217
3805	29770	101	109	310	98	120	322	98	107	241	99	112	291	94	112	223
3806	Gontra Bidhan-3 (NC)	97	103	284	90	114	312	96	100	219	94	106	271	94	120	210
3807	29304	110	116	273	101	121	316	98	113	237	103	117	275	97	108	215
3808	29820	118	116	253	114	129	275	98	111	274	110	119	267	98	117	213
3809	29219 (R)							104	95	206	104	95	206	121	135	223
3810	Zonal Check (ZC)	105	97	299	98	112	289	90	93	210	98	101	266	85	124	197
3811	29714	106	116	284	99	132	323	88	106	275	98	118	294	95	125	194
3812	29726	96	115	275	90	127	337	92	120	259	93	121	290	94	123	224
3813	29735	95	112	279	88	126	299	92	109	252	92	116	277	92	98	224
3814	29717	104	108	293	92	134	327	91	108	238	96	117	286	93	116	217
3815	29738	101	113	334	91	133	303	95	112	245	96	119	294	98	121	208
3816	29718	99	110	262	90	124	312	99	108	271	96	114	281	96	120	215
3817	US 312 (HC)	102	119	319	91	130	279	98	117	234	97	122	278	96	104	211
3818	29734	107	117	266	96	143	328	96	112	291	100	124	295	97	128	235
3819	29729	102	119	304	95	141	284	93	114	233	97	125	274	92	104	226
3820	29715	99	114	312	90	131	259	92	106	222	93	117	264	92	113	200
3821	29708	104	101	260	91	122	314	97	109	278	97	111	284	98	130	249
3822	Local Check (LC)	104	105	321	98	119	310	101	119	236	101	115	289	98	96	220
Exp. Mean		**104**	**112**	**290**	**96**	**125**	**306**	**96**	**108**	**247**	**99**	**114**	**278**	**96**	**117**	**218**

Table No. 1.18 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – IME, Zone 2 & 6 Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN														
		Maharashtra						Maharashtra (3)			Gujarat					
		Shirgaon			Radhanagari			Mean			Navasari			Nawagam		
3801	29822	110	116	145	105	97	218	104	111	197	86	128	201	113	123	299
3802	29188	109	127	158	100	113	214	102	120	202	94	159	274	111	136	295
3803	29808	107	114	161	105	90	165	103	106	182	101	130	198	113	125	293
3804	29807	92	111	147	95	105	180	93	114	181	80	116	215	91	120	289
3805	29770	99	100	151	100	90	201	98	101	192	86	120	224	103	118	293
3806	Gontra Bidhan-3 (NC)	90	111	121	95	95	200	93	108	177	80	120	248	93	113	295
3807	29304	99	99	156	106	86	228	101	98	200	92	121	213	106	121	294
3808	29820	103	122	151	96	99	239	99	113	201	96	143	210	111	141	297
3809	29219 (R)	120	102	121	106	105	234	116	114	193	125	125	302	123	111	287
3810	Zonal Check (ZC)	87	85	161	91	83	244	87	97	201	80	107	255	91	93	277
3811	29714	96	113	145	97	107	215	96	115	185	85	124	204	101	134	297
3812	29726	90	116	125	97	104	175	94	114	175	84	132	181	101	127	294
3813	29735	91	110	209	96	106	287	93	105	240	81	136	240	103	122	287
3814	29717	92	112	183	92	98	212	92	109	204	80	115	200	102	104	288
3815	29738	99	110	131	104	103	215	100	111	185	84	126	199	99	124	293
3816	29718	91	101	118	97	101	294	94	107	209	80	114	191	91	118	291
3817	US 312 (HC)	93	110	120	95	96	214	95	103	182	81	128	195	101	125	290
3818	29734	96	113	158	100	112	203	97	118	199	84	130	171	104	121	294
3819	29729	90	105	132	91	114	229	91	108	196	84	127	213	103	124	289
3820	29715	87	113	121	96	106	204	92	111	175	80	116	209	97	121	285
3821	29708	92	105	158	95	108	246	95	114	218	87	129	221	102	114	295
3822	Local Check (LC)	86	94	148	94	96	231	92	96	199	84	121	209	94	123	292
Exp. Mean		**96**	**109**	**147**	**98**	**101**	**220**	**97**	**109**	**195**	**87**	**126**	**217**	**102**	**121**	**291**

Table No. 1.18 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 1 – IME, Zone 2 & 6 Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN									Overall Mean (9)		
		Gujarat			Gujarat (3)			Zone VI (6)					
		Vyara			Mean			Mean					
3801	29822	113	114	241	104	122	247	104	116	222	106	113	239
3802	29188	109	119	292	104	138	287	103	129	245	103	127	260
3803	29808	104	127	214	106	127	235	105	117	209	106	115	231
3804	29807	89	121	290	87	119	264	90	116	223	91	114	246
3805	29770	97	126	294	95	121	270	97	111	231	97	111	251
3806	Gontra Bidhan-3 (NC)	90	123	199	88	118	247	90	113	212	91	111	232
3807	29304	98	131	282	99	124	263	100	111	231	101	113	246
3808	29820	108	129	312	105	138	273	102	125	237	105	123	247
3809	29219 (R)	128	101	316	126	112	302	121	113	247	118	111	241
3810	Zonal Check (ZC)	86	99	280	86	100	271	87	98	236	90	99	246
3811	29714	93	134	287	93	130	263	95	123	224	96	121	247
3812	29726	90	140	222	92	133	232	93	124	204	93	123	233
3813	29735	90	134	242	91	131	256	92	118	248	92	117	258
3814	29717	93	135	274	92	118	254	92	113	229	93	114	248
3815	29738	92	135	311	92	128	268	96	120	226	96	120	249
3816	29718	91	132	284	87	121	255	91	114	232	93	114	249
3817	US 312 (HC)	95	133	284	92	129	256	93	116	219	95	118	238
3818	29734	96	136	264	94	129	243	96	123	221	97	124	245
3819	29729	92	141	240	93	131	247	92	119	222	94	121	239
3820	29715	87	142	266	88	126	253	90	119	214	91	118	231
3821	29708	93	138	219	94	127	245	94	121	231	95	117	249
3822	Local Check (LC)	92	134	286	90	126	262	91	111	231	94	112	250
Exp. Mean		**97**	**128**	**268**	**95**	**125**	**259**	**96**	**117**	**227**	**97**	**116**	**244**

Table No.1.18 (Contd) Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 1 – IME, Zone 3, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN														
		Odisha									Odisha (3)			Bihar		
		ICAR-NRRI (Cuttack)			Jeypore			Chiplima			Mean			Bikramganj		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3801	29822	118	112	374	102	74	313	107	99	219	109	95	302	111	126	338
3802	29188	114	121	328	102	81	282	106	109	181	107	104	264	110	127	428
3803	29808	112	100	348	100	71	253	104	84	190	105	85	264	106	113	381
3804	29807	94	103	271	92	72	253	100	94	195	95	89	239	87	109	367
3805	29770	100	111	311	107	68	266	102	90	216	103	90	265	91	127	367
3806	Gontra Bidhan-3 (NC)	96	100	226	91	67	260	97	84	219	95	83	235	87	119	363
3807	29304	107	106	312	105	70	251	106	89	182	106	88	248	97	114	418
3808	29820	114	123	315	111	84	355	105	101	220	110	103	297	111	114	439
3809	29219 (R)	114	115	369	100	67	304	97	86	258	104	89	310	114	116	347
3810	Zonal Check (ZC)	94	109	357	106	67	311	102	88	257	101	88	308	109	116	415
3811	29714	107	113	340	90	66	313	100	91	244	99	90	299	89	132	431
3812	29726	95	110	318	95	75	297	101	95	224	97	93	280	92	131	417
3813	29735	99	113	277	96	73	315	97	94	240	98	94	277	89	127	340
3814	29717	107	108	344	104	70	340	103	84	202	105	87	295	89	111	428
3815	29738	100	114	273	106	74	238	103	99	178	103	96	229	91	129	406
3816	29718	91	105	295	102	69	329	101	87	227	98	87	283	93	115	415
3817	US 312 (HC)	97	119	302	101	71	335	99	98	219	99	96	286	92	131	340
3818	29734	109	111	317	102	76	262	105	93	210	105	93	263	94	121	366
3819	29729	111	118	319	94	74	228	100	91	193	102	94	247	89	124	449
3820	29715	96	108	334	96	76	293	96	92	233	96	92	287	89	127	371
3821	29708	112	117	354	99	69	275	105	94	214	105	93	281	91	128	409
3822	Local Check (LC)	100	117	310	99	81	300	106	89	219	101	95	276	89	126	352
3827	30698	95	105	344	91	69	315	95	91	256	94	88	305	88	118	319
3828	30699	97	96	361	96	59	313	96	80	278	96	78	317	88	103	383
3829	IR 64 (RP)	96	101	306	95	66	302	95	77	309	95	81	306	87	101	365
3835	30282	101	113	299	94	71	290	101	96	225	99	93	272	89	133	413
3836	29203	98	111	300	91	72	365	97	89	206	95	91	290	89	130	447
3837	30284	99	110	341	99	69	231	96	94	214	98	91	262	90	119	410
3838	30281	93	100	339	98	84	322	97	88	241	96	91	301	89	142	417
3839	Naveen (RP)	106	119	330	95	74	317	96	97	240	99	97	296	91	130	363
Exp. Mean		**102**	**110**	**320**	**99**	**72**	**294**	**101**	**91**	**224**	**101**	**91**	**279**	**94**	**122**	**390**

Table No.1.18 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – IME, Zone 3, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN														
		Bihar						Bihar (3)			Jharkhand (1)			West bengal (1)		
		Sabour			Pantnagar			Mean			Ranchi			Chinsurah		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3801	29822	124	122	312	106	106	359	114	118	336	115	90	176	105	113	330
3802	29188	119	123	253	99	119	312	109	123	331	118	90	120	102	130	286
3803	29808	118	129	248	99	107	254	108	116	294	115	87	134	102	118	297
3804	29807	107	119	262	86	109	311	93	112	313	100	92	107	91	108	253
3805	29770	106	116	336	98	121	354	99	121	352	106	92	211	91	113	308
3806	Gontra Bidhan-3 (NC)	107	114	331	86	104	275	94	112	323	98	95	169	91	109	242
3807	29304	112	113	259	94	106	310	101	111	329	109	90	137	98	106	286
3808	29820	121	130	298	100	119	349	111	121	362	117	106	143	100	120	253
3809	29219 (R)	133	108	294	116	92	408	121	105	350	122	94	146	99	118	253
3810	Zonal Check (ZC)	106	115	276	86	111	403	100	114	365	105	92	174	95	105	429
3811	29714	110	113	283	90	112	299	96	119	338	101	97	146	97	120	319
3812	29726	107	115	280	87	127	285	95	124	327	99	102	148	92	112	275
3813	29735	108	125	285	87	111	316	95	121	314	101	93	143	96	117	275
3814	29717	106	112	301	89	116	307	95	113	345	103	93	146	94	115	220
3815	29738	107	127	270	91	114	257	96	123	311	105	98	171	94	113	319
3816	29718	106	113	273	87	116	348	95	115	345	101	95	138	91	108	319
3817	US 312 (HC)	108	112	289	86	122	330	95	122	320	101	100	153	96	109	286
3818	29734	108	119	290	87	121	342	96	120	333	106	98	129	98	113	308
3819	29729	106	123	221	86	110	333	94	119	334	102	105	112	98	121	286
3820	29715	106	112	302	86	112	352	94	117	342	99	101	170	91	115	308
3821	29708	107	117	227	94	108	365	98	118	334	103	98	131	96	114	286
3822	Local Check (LC)	96	116	264	96	101	344	94	114	320	102	101	129	99	122	341
3827	30698	106	100	285	83	113	306	93	110	303	101	87	148	91	100	253
3828	30699	104	98	371	82	109	336	92	103	363	102	88	175	90	97	264
3829	IR 64 (RP)	101	110	364	82	107	317	90	106	349	104	89	181	97	95	253
3835	30282	106	127	340	85	129	334	94	130	362	103	98	149	97	117	275
3836	29203	107	126	326	84	124	379	93	127	384	101	105	156	97	107	253
3837	30284	100	124	302	82	119	368	91	120	360	99	95	176	93	113	231
3838	30281	103	115	268	81	122	327	91	126	338	99	100	178	98	112	363
3839	Naveen (RP)	102	120	304	86	126	333	93	125	333	100	105	145	96	116	308
Exp. Mean		**109**	**117**	**290**	**90**	**114**	**331**	**98**	**118**	**337**	**105**	**96**	**151**	**96**	**113**	**289**

Table No. 1.18 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – IME, Zone 3, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN					
		Uttar Pradesh (1)			Zone III (9)		
		Varanasi			Mean		
		DFF	PH	PAN	DFF	PH	PAN
3801	29822	112	131	227	111	108	294
3802	29188	113	142	188	109	116	264
3803	29808	112	128	224	108	104	259
3804	29807	90	117	187	94	102	245
3805	29770	100	127	305	100	107	297
3806	Gontra Bidhan-3 (NC)	85	109	201	93	100	254
3807	29304	105	118	218	104	101	264
3808	29820	111	122	291	110	113	296
3809	29219 (R)	117	98	303	113	99	298
3810	Zonal Check (ZC)	99	124	294	100	103	324
3811	29714	97	110	236	98	106	290
3812	29726	92	125	236	96	110	275
3813	29735	88	129	221	96	109	268
3814	29717	118	117	209	101	103	277
3815	29738	93	124	211	99	110	258
3816	29718	90	115	216	96	103	284
3817	US 312 (HC)	92	120	213	97	109	274
3818	29734	99	123	232	101	108	273
3819	29729	88	126	225	97	110	263
3820	29715	88	116	250	94	107	290
3821	29708	90	115	218	100	107	275
3822	Local Check (LC)	100	99	296	99	106	284
3827	30698	85	123	249	93	101	275
3828	30699	87	106	286	94	93	307
3829	IR 64 (RP)	86	111	271	94	95	296
3835	30282	88	121	271	96	112	289
3836	29203	92	125	243	95	110	297
3837	30284	89	129	271	94	108	283
3838	30281	82	124	233	93	110	299
3839	Naveen (RP)	90	121	254	96	112	288
Exp. Mean		**96**	**120**	**243**	**99**	**106**	**281**

Table No.1.18 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – IME, Zone 5, Kharif 2022

ENTRY NO	IET NO	ZONE-V – CENTRAL														
		Madhya Pradesh						Madhya Pradesh (2)			Chhattisgarh					
		Waraseoni			Rewa			Mean			Raipur			Jagadalpur		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3801	29822	97	104	380	112	86	324	105	95	352	102	122	227	96	96	365
3802	29188	111	120	256	107	126	296	109	123	276	101	142	113	97	103	305
3803	29808	114	109	326	111	119	354	112	114	340	100	117	178	97	101	291
3804	29807	97	113	293	109	92	376	103	103	335	93	116	159	85	104	258
3805	29770	102	121	372	112	73	375	107	97	374	94	114	184	87	105	302
3806	Gontra Bidhan-3 (NC)	96	99	220	110	113	286	103	106	253	88	107	173	87	94	255
3807	29304	107	109	320	114	103	319	111	106	320	96	117	184	91	95	293
3808	29820	116	120	386	106	85	336	111	102	361	98	120	206	94	110	299
3809	29219 (R)	106	115	307	107	87	297	106	101	302	111	127	203	106	103	397
3810	Zonal Check (ZC)	99	96	427	106	81	313	103	88	370	79	108	208	90	87	327
3811	29714	107	115	279	111	97	353	109	106	316	88	113	209	96	88	340
3812	29726	93	123	287	104	92	307	99	107	297	88	120	203	99	97	332
3813	29735	97	124	265	107	73	326	102	98	296	88	115	191	100	95	265
3814	29717	106	113	271	108	113	338	107	113	305	86	122	178	98	93	294
3815	29738	107	133	237	99	94	297	103	114	267	92	120	144	108	97	312
3816	29718	99	110	198	105	119	343	102	114	271	86	115	203	106	104	287
3817	US 312 (HC)	105	110	301	106	96	365	106	103	333	87	118	193	102	105	299
3818	29734	106	112	205	107	81	312	106	97	258	90	111	194	105	106	318
3819	29729	103	125	345	110	89	349	106	107	347	92	113	692	96	100	321
3820	29715	106	101	247	108	108	362	107	104	305	93	120	187	98	98	281
3821	29708	102	113	223	108	91	324	105	102	274	90	108	162	107	92	297
3822	Local Check (LC)	96	104	304				96	104	304	92	113	144	92	105	337
3827	30698	98	120	284	109	107	255	104	114	269	83	119	140	92	78	341
3828	30699	98	104	352	106	97	240	102	100	296	83	110	166	96	79	353
3829	IR 64 (RP)	101	104	396	107	88	231	104	96	314	83	109	155	98	79	312
3830	30700	100	118	393	110	85	208	105	101	301	89	110	152	98	94	316
3831	30701	101	113	340	104	96	284	103	104	312	88	108	209	97	93	283
3832	30702	100	122	299	106	111	258	103	117	278	88	115	148	97	80	279
3833	30703	103	107	393	107	97	237	105	102	315	87	108	183	98	95	298
3834	MTU 1010 (RP)	105	105	261	109	98	221	107	102	241	80	108	154	90	92	335
Exp. Mean		**103**	**113**	**306**	**108**	**96**	**306**	**105**	**105**	**306**	**91**	**115**	**195**	**97**	**96**	**310**

Table No. 1.18 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – IME, Zone 5, Kharif 2022

ENTRY NO	IET NO	ZONE-V – CENTRAL														
		Chhattisgarh (2)			Maharashtra						Maharashtra (2)			Zone V (6)		
		Mean			Sakoli			Sindewahi			Mean			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3801	29822	99	109	296	107	115	300	113	120	271	110	117	286	105	107	311
3802	29188	99	122	209	109	112	262	108	130	268	109	121	265	106	122	250
3803	29808	99	109	235	110	100	216	111	116	238	110	108	227	107	110	267
3804	29807	89	110	209	96	111	272	96	124	255	96	118	264	96	110	269
3805	29770	91	110	243	98	108	213	103	110	250	101	109	232	99	105	283
3806	Gontra Bidhan-3 (NC)	88	101	214	91	102	254	99	115	250	95	109	252	95	105	240
3807	29304	94	106	239	100	108	243	106	103	318	103	105	281	102	106	280
3808	29820	96	115	252	108	115	303	108	124	299	108	120	301	105	112	305
3809	29219 (R)	109	115	300	110	109	246	116	110	231	113	109	239	109	108	280
3810	Zonal Check (ZC)	85	98	267	91	103	284	91	105	273	91	104	279	93	97	305
3811	29714	92	101	274	100	108	251	98	119	265	99	114	258	100	107	283
3812	29726	94	109	268	97	110	277	100	133	246	98	122	261	97	113	275
3813	29735	94	105	228	100	111	251	98	118	238	99	115	244	98	106	256
3814	29717	92	108	236	101	105	270	99	108	247	100	106	259	100	109	266
3815	29738	100	109	228	101	113	292	103	115	246	102	114	269	102	112	255
3816	29718	96	109	245	97	109	280	99	109	235	98	109	258	99	111	258
3817	US 312 (HC)	95	112	246	100	112	267	96	114	280	98	113	274	99	109	284
3818	29734	97	109	256	101	110	285	103	120	199	102	115	242	102	107	252
3819	29729	94	107	506	98	113	272	94	129	187	96	121	230	99	112	361
3820	29715	96	109	234				96	111	268	96	111	268	100	108	269
3821	29708	99	100	230	100	110	222	101	106	299	100	108	260	101	103	254
3822	Local Check (LC)	92	109	240	101	122	275	103	102	267	102	112	271	97	109	265
3827	30698	88	98	240	93	109	280	116	111	262	105	110	271	99	107	260
3828	30699	89	94	260	98	95	221	94	100	288	96	98	254	96	97	270
3829	IR 64 (RP)	91	94	233	96	98	225	94	96	268	95	97	247	97	96	265
3830	30700	93	102	234	93	105	239	98	111	249	96	108	244	98	104	260
3831	30701	93	101	246	95	110	234	97	105	273	96	107	253	97	104	270
3832	30702	93	98	214	92	104	213	98	106	209	95	105	211	97	106	234
3833	30703	93	101	241	95	110	253	99	125	253	97	118	253	98	107	270
3834	MTU 1010 (RP)	85	100	245	91	100	306	90	100	306	91	100	306	94	101	264
Exp. Mean		**94**	**106**	**252**	**99**	**108**	**259**	**101**	**113**	**258**	**100**	**111**	**259**	**100**	**107**	**272**

Table No. 1.18 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – IME, Zone 7, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN														
		Andhra Pradesh (1)			Telangana						Telangana (2)			Tamilnadu		
		Maruteru			Rajendranagar			Warangal			Mean			Aduthurai		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3801	29822	106	132	277	118	94	402	113	143	356	116	119	379	89	84	240
3802	29188	100	139	317	124	103	402	105	148	369	114	126	385	91	89	278
3803	29808	106	119	299	123	91	420	108	127	385	116	109	403	85	108	255
3804	29807	84	115	271	114	101	418	87	124	355	100	113	387	93	93	243
3805	29770	92	123	315	117	96	409	94	125	404	105	111	406	90	82	246
3806	Gontra Bidhan-3 (NC)	85	108	277	111	99	382	84	113	383	98	106	383	91	89	210
3807	29304	95	119	312	125	94	462	102	125	383	114	109	423	88	75	270
3808	29820	97	128	314	119	102	458	103	124	362	111	113	410	90	82	304
3809	29219 (R)	116	114	282	117	99	407	114	138	378	116	118	393	88	102	204
3810	Zonal Check (ZC)	80	113	306	110	94	473	86	116	410	98	105	442	91	95	247
3811	29714	90	120	290	117	94	482	97	137	347	107	116	414	91	86	256
3812	29726	83	129	310	112	100	427	88	138	383	100	119	405	85	91	252
3813	29735	87	123	310	113	97	462	86	125	336	100	111	399	91	78	368
3814	29717	90	112	284	113	94	418	84	126	353	98	110	385	90	86	342
3815	29738	88	122	306	121	99	382	97	127	378	109	113	380	91	96	250
3816	29718	84	118	293	110	88	482	91	115	348	101	102	415	92	100	238
3817	US 312 (HC)	92	126	308	117	91	451	94	131	365	106	111	408	89	87	206
3818	29734	92	122	302	115	100	427	97	125	378	106	113	403	90	95	211
3819	29729	88	121	277	112	105	407	115	135	360	114	120	383	91	83	237
3820	29715	89	108	269				88	119	370	88	119	370	84	100	225
3821	29708	93	119	314	114	96	464	94	124	430	104	110	447	85	91	290
3822	Local Check (LC)	112	113	262	107	95	402	106	141	369	106	118	385	91	88	213
3823	30695	116	94	308	127	91	436	116	123	385	122	107	410	92	87	254
3824	30696	117	100	286	128	94	411	123	116	474	126	105	443	90	93	268
3825	30697	117	102	308	124	96	449	116	124	385	120	110	417	92	93	254
3826	ADT 39 (RP)	112	104	273	125	91	427	113	118	429	119	105	428	91	93	239
3827	30698	84	113	273	113	91	493	81	125	384	97	108	439	89	89	233
3828	30699	84	112	308	102	94	469	82	114	404	92	104	436	91	92	312
3829	IR 64 (RP)	93	107	286	113	87	484	110	106	394	111	97	439	90	74	263
3830	30700	84	119	275	112	100	429	93	127	380	103	113	404	93	74	248
3831	30701	84	117	284	109	102	484	94	134	356	101	118	420	92	106	241
3832	30702	89	119	282	112	96	433	92	133	352	102	115	393	90	100	237
3833	30703	81	126	312	110	101	378	85	127	354	98	114	366	91	93	218
3834	MTU 1010 (RP)	84	117	279	106	88	471	85	117	375	95	103	423	89	93	220
Exp. Mean		**94**	**117**	**293**	**115**	**96**	**436**	**98**	**126**	**379**	**106**	**111**	**407**	**90**	**90**	**252**

Table No.1.18 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – IME, Zone 7, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN														
		Tamilnadu			Tamilnadu (2)			Kerala						Kerala (2)		
		Coimbatore			Mean			Moncompu			Pattambi			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3801	29822	110	112	308	100	98	274	98	110	262	99	98	465	99	104	364
3802	29188	103	118	287	97	103	283	98	117	213	99	94	428	98	105	321
3803	29808	105	99	287	95	103	271	105	101	200	115	98	405	110	99	303
3804	29807	92	97	312	93	95	278	90	111	267	118	98	475	104	105	371
3805	29770	101	107	290	96	94	268	97	98	258	117	95	473	107	96	365
3806	Gontra Bidhan-3 (NC)	94	87	305	92	88	258	90	100	269	100	95	390	95	98	330
3807	29304	103	104	307	95	90	288	92	104	256	99	101	476	96	102	366
3808	29820	94	114	280	92	98	292	90	115	238	98	95	439	94	105	339
3809	29219 (R)	97	113	289	93	108	246	90	100	244	98	96	442	94	98	343
3810	Zonal Check (ZC)		.		91	95	247	90	81	267	115	95	438	102	88	352
3811	29714	94	111	270	92	98	263	91	94	287	93	98	483	92	96	385
3812	29726	93	108	289	89	99	270	90	103	249	91	92	576	91	97	413
3813	29735	90	111	271	90	95	320	90	120	258	95	94	478	92	107	368
3814	29717	95	102	287	93	94	314	91	96	251	101	102	498	96	99	375
3815	29738	102	112	283	97	104	266	92	122	240	104	88	433	98	105	336
3816	29718	92	112	267	92	106	252	90	103	229	102	95	437	96	99	333
3817	US 312 (HC)	93	106	339	91	96	273	90	104	291	93	83	477	91	93	384
3818	29734	91	95	321	91	95	266	90	108	251	94	89	451	92	98	351
3819	29729	87	111	270	89	97	253	90	107	258	89	96	430	90	102	344
3820	29715	93	104	298	89	102	261	87	103	278	102	99	490	95	101	384
3821	29708	102	111	295	94	101	292	90	108	247	98	93	511	94	100	379
3822	Local Check (LC)	97	85	345	94	87	279	96	97	273	103	97	457	100	97	365
3823	30695	106	95	299	99	91	276	97	99	329	105	101	398	101	100	364
3824	30696	107	97	285	99	95	276	98	100	284	103	91	418	101	96	351
3825	30697	103	94	276	97	93	265	110	101	220	122	97	429	116	99	324
3826	ADT 39 (RP)	103	95	289	97	94	264	98	97	360	117	99	498	107	98	429
3827	30698	80	97	295	85	93	264	90	92	309	99	82	401	95	87	355
3828	30699	91	94	309	91	93	311	91	86	324	97	83	448	94	84	386
3829	IR 64 (RP)	85	93	285	88	83	274	90	84	320	104	93	491	97	89	406
3830	30700	90	102	277	92	88	263	93	102	207	100	89	467	97	96	337
3831	30701	89	99	314	90	102	278	90	97	262	119	97	400	104	97	331
3832	30702	92	109	273	91	105	255	90	103	280	102	94	454	96	98	367
3833	30703	91	102	290	91	97	254	92	103	238	118	94	469	105	99	353
3834	MTU 1010 (RP)	88	84	282	89	88	251	87	87	265	105	93	462	96	90	364
Exp. Mean		**95**	**102**	**293**	**93**	**96**	**272**	**93**	**102**	**264**	**103**	**94**	**456**	**98**	**98**	**360**

Table No. 1.18 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1-IME, (Trials Not Considered) Zone 2 & 6 Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED								
		Uttarakhand			Jammu Kashmir			Uttar Pradesh		
		@Pantnagar			@Chatha			@Kanpur		
3801	29822	136	124	307				61	86	305
3802	29188	132	128	241				55	92	307
3803	29808	130	111	297				52	73	331
3804	29807	99	109	252	116	102	242	48	108	312
3805	29770	112	109	313	122	92	305	63	84	315
3806	Gontra Bidhan-3 (NC)	101	114	279	116	89	295	60	71	327
3807	29304	113	116	278	128	99	287	61	73	299
3808	29820	129	126	294				52	116	306
3809	29219 (R)	145	89	316				59	90	304
3810	Zonal Check (ZC)	110	99	235	112	84	305	44	91	326
3811	29714	110	114	294	128	90	334	50	83	301
3812	29726	102	132	287	116	99	268	60	73	289
3813	29735	102	124	226	116	99	252	56	101	319
3814	29717	106	118	304	122	95	295	53	110	286
3815	29738	105	126	258	120	102	240	46	101	315
3816	29718	103	104	289	116	88	311	51	74	316
3817	US 312 (HC)	104	127	311	128	90	313	53	121	313
3818	29734	109	121	261	128	99	252	52	109	318
3819	29729	104	138	246	122	111	281	61	89	314
3820	29715	104	125	301				57	90	312
3821	29708	102	100	273	122	96	302	52	109	288
3822	Local Check (LC)	98	89	324	138	108	246			
Exp. Mean		**112**	**116**	**281**	**122**	**97**	**283**	**55**	**92**	**310**

Table No. 1.18 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1-IME, (Trials Not Considered) Zone 3, Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED											
		West Bengal									Uttar Pradesh		
		@Hatwara			@Malda			@Bankura			@Masodha		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3801	29822	109	105		97	100	310	100	95	351	108	111	266
3802	29188	108	127		95	94	328	97	110	254	104	126	257
3803	29808	105	117		99	128	308	82	80	266	111	121	264
3804	29807	91	116		98	100	369	91	90	297	87	117	257
3805	29770	99	118		96	121	344	95	80	399	93	106	278
3806	Gontra Bidhan-3 (NC)	98	104		98	130	372	90	85	295	90	100	264
3807	29304	103	112		97	122	319	93	90	416	91	112	266
3808	29820	106	123		98	99	362	94	90	371	108	105	251
3809	29219 (R)	103	121		99	102	322	108	80	406	94	98	244
3810	Zonal Check (ZC)	102	110		96	105	389				96	110	249
3811	29714	99	130		95	112	307	102	85	284	93	111	276
3812	29726	99	126		97	110	404	92	95	245	89	108	252
3813	29735	94	119		96	100	300	93	105	372	90	110	265
3814	29717	102	105		98	90	409	91	90	301	89	109	260
3815	29738	99	126		97	99	308	92	95	407	90	128	275
3816	29718	96	118		97	105	386	90	85	364	87	98	254
3817	US 312 (HC)	98	112		97	99	321	83	100	342	89	108	252
3818	29734	100	123		98	105	373	96	105	257	90	110	266
3819	29729	103	114		97	100	295	84	100	364	89	109	256
3820	29715	94	121		96	105	410	85	120	413	87	96	233
3821	29708	102	116		97	102	334	87	105	419	88	112	256
3822	Local Check (LC)	86	108		93	110	376	96	95	344	86	120	262
3827	30698	89	110		96	115	330				94	105	274
3828	30699	96	104		94	120	369				90	101	270
3829	IR 64 (RP)	97	107		95	115	344				91	90	272
3835	30282	95	115		95	105	373				98	119	253
3836	29203	96	110		96	97	378				92	118	268
3837	30284	93	115		95	118	348	91	95	251	88	111	244
3838	30281	92	110		93	119	374				86	99	156
3839	Naveen (RP)	100	121		97	111	360				89	109	244
Exp. Mean		**99**	**115**		**96**	**108**	**351**	**92**	**94**	**337**	**93**	**109**	**256**

Table No. 1.18 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1-IME, (Trials Not Considered) Zone 4, Kharif 2022

ENTRY NO	IET NO	TRIAL NOT CONSIDERED		
		TRIPURA (0)		
		@Lembucherra		
		DFF	PH	PAN
3801	29822	88	89	292
3802	29188	96	112	175
3803	29808	86	103	325
3804	29807	85	100	325
3805	29770	85	109	283
3806	Gontra Bidhan-3 (NC)	79	94	250
3807	29304	96	110	317
3808	29820	69	93	317
3809	29219 (R)	87	112	300
3810	Zonal Check (ZC)	92	94	258
3811	29714	78	106	300
3812	29726	82	119	175
3813	29735	91	105	250
3814	29717	87	120	225
3815	29738	80	113	308
3816	29718	87	100	325
3817	US 312 (HC)	82	109	292
3818	29734	88	106	158
3819	29729	82	107	192
3820	29715	88	109	275
3821	29708	82	87	283
3822	Local Check (LC)	88	105	258
3835	30282	82	123	308
3836	29203	89	104	333
3837	30284	79	104	400
3838	30281	92	112	292
3839	Naveen (RP)	73	107	350
Exp. Mean		**85**	**106**	**280**

Table No.1.18 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1-IME, (Trials Not Considered) Zone 5, Kharif 2022

ENTRY NO	IET NO	TRIAL NOT CONSIDERED		
		Chhattisgarh		
		@Ambikapur		
		DFF	PH	PAN
3801	29822	100	102	319
3802	29188	95	107	317
3803	29808	94	104	327
3804	29807	93	103	262
3805	29770	95	99	266
3806	Gontra Bidhan-3 (NC)	96	99	275
3807	29304	95	97	311
3808	29820	91	107	307
3809	29219 (R)	91	107	300
3810	Zonal Check (ZC)	93	95	273
3811	29714	90	103	288
3812	29726	93	105	310
3813	29735	90	106	307
3814	29717	91	100	315
3815	29738	92	106	274
3816	29718	90	104	299
3817	US 312 (HC)	92	99	299
3818	29734	92	106	301
3819	29729	86	108	301
3820	29715	87	105	281
3821	29708	91	105	303
3822	Local Check (LC)	87	102	297
3827	30698	88	99	296
3828	30699	86	96	303
3829	IR 64 (RP)	85	103	261
3830	30700	90	104	307
3831	30701	88	107	284
3832	30702	90	105	261
3833	30703	90	98	310
3834	MTU 1010 (RP)	86	94	280
Exp. Mean		**91**	**102**	**294**

Table No. 1.18 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1-IME, (Trials Not Considered) Zone 7, Kharif 2022

ENTRY NO	IET NO	TRIAL NOT CONSIDERED		
		Karnataka		
		@Mandya		
		DFF	PH	PAN
3801	29822	93	82	260
3802	29188	92	92	267
3803	29808	92	79	247
3804	29807	89	88	213
3805	29770	92	80	247
3806	Gontra Bidhan-3 (NC)	89	76	233
3807	29304	100	84	247
3808	29820	93	94	240
3809	29219 (R)	97	83	233
3810	Zonal Check (ZC)	104	82	260
3811	29714	104	90	247
3812	29726	99	102	227
3813	29735	100	89	227
3814	29717	97	86	227
3815	29738	92	93	227
3816	29718	94	83	240
3817	US 312 (HC)	94	92	280
3818	29734	103	93	207
3819	29729	88	97	253
3820	29715	92	93	267
3821	29708	94	89	240
3822	Local Check (LC)	93	94	280
3823	30695	91	72	240
3824	30696	100	69	280
3825	30697	94	74	253
3826	ADT 39 (RP)	94	74	307
3827	30698	93	76	327
3828	30699	96	71	333
3829	IR 64 (RP)	95	71	313
3830	30700	96	88	260
3831	30701	88	86	260
3832	30702	92	86	260
3833	30703	94	83	267
3834	MTU 1010 (RP)	94	80	280
Exp. Mean		**95**	**84**	**257**

Table No. 1.19: Grain quality characteristics of entries in AVT 1-IME, kharif 2022

Entry No.	IET No.	Hull %	Mill %	HRR %	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
3801	29822	80.9	72.2	69.4	5.65	2.12	2.66	MS	A	4.0	26.51	22
3802	29188	81.8	74.2	64.7	6.40	2.07	3.09	LS	VOC	4.0	22.82	33
3803	29808	81.9	73.4	64.1	5.52	2.06	2.67	MS	VOC	4.0	20.09	43
3804	29807	80.3	70.8	60.8	5.38	2.29	2.34	SB	VOC	5.0	22.17	22
3805	29770	80.8	72.6	65.9	5.82	2.01	3.39	SS	A	7.0	21.88	22
3806	Gontra Bidhan-3 (NC)	80.8	72.0	61.5	5.42	2.27	2.38	SB	VOC	5.0	25.81	22
3807	29304	80.1	72.5	66.6	5.64	2.07	2.72	MS	VOC	4.0	20.65	45
3808	29820	79.9	72.2	68.7	7.94	2.31	3.43	LS	VOC	4.0	25.40	22
3809	29219 ®	81.2	63.6	50.3	6.25	2.41	2.59	LB	VOC	4.0	27.87	43
3810	MTU 1010 (ZC)	79.8	69.3	55.8	6.31	1.95	3.23	LS	VOC	4.0	21.85	65
3811	29714	81.6	71.4	54.8	7.17	2.06	3.48	LS	VOC	4.0	23.70	22
3812	29726	82.5	71.9	53.9	6.71	2.12	3.16	LS	VOC	5.0	25.98	25
3813	29735	82.1	73.7	58.7	6.45	2.27	2.84	LB	VOC	5.0	25.72	25
3814	29717	81.9	71.6	55.4	6.59	1.92	3.43	LS	VOC	4.0	22.79	52
3815	29738	79.8	68.9	56.8	6.75	2.10	3.21	LS	VOC	7.0	22.55	50
3816	29718	80.5	71.4	53.0	6.25	2.37	2.63	LB	VOC	5.0	23.46	49
3817	US-312 (HC)	80.1	72.4	67.7	5.69	2.04	2.78	MS	VOC	5.0	23.02	43
3818	29734	81.8	72.3	55.8	6.33	2.37	2.67	LB	VOC	4.0	24.72	22
3819	29729	82.1	70.8	56.5	6.53	2.33	2.80	LB	VOC	5.3	23.47	48
3820	29715	80.8	72.3	59.8	7.07	1.97	3.58	LS	VOC	5.5	23.20	22
3821	29708	81.3	72.2	64.3	6.64	2.13	3.11	LS	A	5.0	22.14	48
3822	JGL 24423(LC)	81.9	70.3	55.6	5.96	2.26	2.63	MS	VOC	4.0	24.64	22
3823	30695	82.0	73.3	65.9	5.34	2.14	2.49	SB	VOC	4.0	21.73	22
3824	30696	81.9	72.3	65.5	5.28	2.14	2.46	SB	VOC	4.0	22.93	22
3825	30697	81.7	73.3	68.2	5.24	2.08	2.51	MS	VOC	4.0	22.93	24
3826	ADT 39 (RP)	81.8	70.1	60.2	5.22	1.92	2.71	MS	VOC	4.0	25.10	22
3827	30698	80.5	69.1	38.3	6.85	1.97	3.47	LS	A	4.0	24.52	55
3828	30699	79.7	68.8	53.4	6.80	2.03	3.34	LS	VOC	4.0	23.90	63
3829	IR 64	79.3	69.6	55.1	7.09	2.04	3.47	LS	VOC	5.0	25.96	49
3830	30700	81.1	71.3	57.3	6.56	1.95	3.36	LS	VOC	4.0	22.20	22
3831	30701	81.4	72.7	62.8	6.02	1.94	3.10	LS	VOC	4.0	23.40	22
3832	30702	80.3	69.5	55.3	6.39	1.96	3.26	LS	A	4.0	24.61	22
3833	30703	81.0	70.7	58.1	6.69	2.00	3.34	LS	A	4.0	25.84	39
3834	MTU 1010 (RP)	81.0	67.0	55.4	6.30	1.96	3.21	LS	VOC	7.0	23.49	65
3835	30282	80.9	70.9	56.4	5.50	2.25	2.44	SB	VOC	3.8	24.40	31
3836	29203	81.4	72.0	51.3	5.32	2.25	2.36	SB	VOC	4.0	26.98	22
3837	30284	80.3	67.7	49.9	5.51	2.19	2.51	MS	VOC	3.7	24.84	22
3838	30281	79.2	67.4	50.0	2.47	2.07	2.64	MS	VOC	3.0	24.22	22
3839	Naveen (RP)	80.6	71.3	59.3	5.40	2.09	2.50	MS	VOC	4.0	25.84	47

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. 1.20: Composition of entries in Initial Variety Trial -Irrigated Mid Early (IVT-IME), Kharif 2022

Entry No.	IET No.	Designation	Cross Combination	GT
1st year of testing:				
3901	30704	WGL 1533	WGL 32100 / MTU 1936-12-1-2-1 // MTU 1081 / HRR 2143	LS
3902	30213	BRR 2177	MTU 7029 / Taroari Basmati Dwarf Mutant 2	
3903	30705	RP Bio 4918-NPS 58-1-8	Swarna / O.nivara	MS
3904	30706	CB 18586	CO 51 / CO 52	MS
3905	29952	TRC GBPT 206-B-B-33-1	Gomati / BPT 5204	LS
3906	30707	GNV 2020-05	IR 95097 / Dasmati	LS
3907	30708	JNPT 1058	JR 201 / NPT 65 / JR 201	MS
3908	30709	HKR 17-35	IR 58025 A / IR 79253-19-3-3-5	LS
3909	30710	RP 6496-JB 211-26-6-2-1-1-1	Krisha Hamsa / IRBB60 // Krishna Hamsa / Tetep /// Krishna Hamsa // IR 8196-96-B-B-195	MB
3910	30711	JGL 38168	JGL 30865 / MTU 1156	LS
3911	30712	MTU1391 (IR18T1045)	IR13A273 / IR 58443-6B-10-3	LS
3912	30713	CR 4077-1357-5-4-2-1-1	PKV HMT / Vandana	MS
3913	30714	RNR 29320	TME 80518 / BPT 5204	LS
3914	**Gontra Bidhan-3 (NC)**			
3915	30715	BKR 465	BPT 5204 / Karahni	SB
3916	30716	RP 6529-RMS-1764-9-5-54	MTU 1010*2 / Imporved Samba Mahsuri	LS
3917	30717	KJTR 3	Selection from KJTR 3 restorer line	LS
3918	30718	NWGR-17074	Gurjari / IET 20575 / 5-2-1-1-2-1-1	MS
3919	29950	RP 6486-MAID-IR 143214-12-28-8-3-10-1-B	Naveen / IR 96321-1447-561-B-1 // Naveen / IR 87707-445-B-B //// Naveen / IRBL9 // Naveen / Aganni / 6 // Naveen / IRBB 60	LB
3920	30719	AD 19050	ADT 37 / WGL 32100	MS
3921	30720	RP 6700-SP-M-MS-KS-66-9-7-2-8-4-11	Samba Mahsuri Mutant TI-140 / BPT 5204	MS
3922	30721	TRC PSM 32-B-B-16-7	Pyzum / BPT 5204	MB
3923	30722	CR 4325 -1-3-3-2-1-1	CR 3494-21 / CR 3522-12	MB
3924	30723	R C6-2-4	Karma Mahsuri / IR 79538-1-1-1	
3925	30724	HURS-19-5	Pant Dhan 12 / NDR 97	MB
3926	29960	CR 3561-3-2-1-1-1-1	Surendra / Annapurna	MB
3927	30725	Pusa 1991-15-341-105-19	CH12 / Pusa l790-19	LS
3928	29948	NVSR-610	IRRI-AMT-301 / IET 22121	LS
3929	30726	CR3856-44-22-2-1-11-4-2-4-1	IR 73963-86-1-5-2-2 / CR 2324-1	LB
3930	30727	RNR 31679	HH Z 5-SAL 10 DT2-DT-Z- / BPT 5204	LS
3931	30062	Daftari-1	Daftari 741 / MTU 1001	LB
3932	30728	CR 4386-RGA-26	CR Dhan 202 / SR-36-2-1	MS
3933	30729	NLR 3731 (5913-3-3-1)	NLR 3041 / IR 36	MS
3934	30730	RDR-3609	MTU 1075 / MTU 1010	LS
3935	29976	ORJ 1313 (RP 5530-B-31-1)	RP Bio 226 / IRGC 48960 // MTU 1081	MB

Entry No.	IET No.	Designation	Cross Combination	GT
3936	30731	CB MAS 13056	ADT 47 / Improved Samba Mashuri	MS
3937	30732	RP 6529-1762-58-97-96	MTU 1010*2 / Improved Samba Mahsuri	LS
3938	30733	KPS 6850	RNR 15048 / JGL17004	MS
3939	30734	NVSR-467	(RP Bio-226 / IRGC 4059) / IET 8116	
3940	30735	CR 4388-RGA-202-1	CR Dhan 202 / ARIZE 8433 DT	MS
3941	**PR 113-Northern, Lalat-Eastern and North Eastern, MTU 1010-Central and Southern, Karjat 7-Western-- ZC**			
3942	30736	Super 4466	SRPG 10 / SRPG 13	
3943	29990	PAU 6359-7-1-2-1-3 (RYT 3844)	MT16 // IR 64 Sub1 / PAU 3699-13-2-2-4	LS
3944	30737	Pusa 2092-12	Pusa 44 / GSR 13-2014	MS
3945	30738	BRR 0157	Sita / IRRYC743	LS
3946	30739	UPR 4379-11-1-1-1	Jaya / UPR3763-5-1-3	LS
3947	30740	BPT 3243	BPT 5204 / Ramappa	MS
3948	30741	BRR 2151	RP 5959 / IR 91158-IR 07F289	MS
3949	30742	KNM 13584	MTU 1156 / WGL 1097 // IR 10A 199	LS
3950	30743	RP 6685-CGR 14	Samba Mahsuri*2 / Oryza rufipogon-4-IR 55423-01	LB
3951	30744	MTU 2749-20-1-1 (MTU1394)	MTU 1121 / NLR 34449	LS
3952	30745	CR 4344-18-2-2-1	MTU 1001 / Pusa 44 // IR107476-13-15-8-29-B	LS
3953	30746	NVSR 2980	GR 7 / GAR 13	LS
3954	30747	ORJ 1354 (TP 30620)	IURON 43 Ent 20	MS
3955	30748	NDR 8805-TFR-2	MTU 7029 / GB-1	MS
3956	30749	CR 3842-69-3-1-1	Gontra Bidhan / CR Dhan203	LS
3957	30750	NBU-BOT-02-22	IR 64/Patic haula	MS
3958	30751	PAU 6707-10-2-2-2 (RYT 3888)	PR 121 / IR 84678-25-5-B	LS
3959	30752	Super 4400	SRPG 13 / SRPG 19	LS
3960	30753	MTU 2510-20-1-1-1 (MTU1393)	(MTU1081 / MTU3626) / MTU1010	LS
3961	30754	CRAC 3998-325-2	Doubled haploid of 27P63	MB
3962	30755	MSN-117		
3963	30756	RP 6693-16-388	Swarna / MTU 1010	MS
3964	**Local Check**			

Table No.1.21: Grain Yield (kg/ha) in IVT – IME, Kharif 2022

ENTRY NO	IET NO	ZONE II - NORTHERN								ZONE III-EASTERN	
		Haryana (1)		Rajasthan (1)		Uttar Pradesh 1(1)		Zone II (3)		Odisha	
		Kaul		Kota		Nagina		Mean		ICAR-NRRI (Cuttack)	
3901	30704	7950	1 *	7347	4	5286		6861	2 *	5071	
3902	30213	5300		4787		2686		4258		5536	
3903	30705	4950		4987		2274		4070		6067	
3904	30706	5550		6051		3604		5068		6051	
3905	29952	6050		6882		4082		5671		4347	
3906	30707	6300		7048		3531		5626		6662	
3907	30708	6100		7114	10	6104	7 *	6439	6 *		
3908	30709	6650	10	5851		2593		5031		3651	
3909	30710	4850		7713	1	2427		4997		3583	
3910	30711	6650	10	5984		4867		5834		3972	
3911	30712	5300		6516		4461		5426		5596	
3912	30713			5718		2460		4089		6851	10
3913	30714	6650	10	6184		3863		5566		4640	
3914	Gontra Bidhan-3 (NC)	5950		6449		4867		5755		5595	
3915	30715	5400		7314	6	6077	9 *	6264	8	3695	
3916	30716	5300		5918		5027		5415		3796	
3917	30717	6150		6416		2467		5011		5749	
3918	30718	4700		5718		3158		4525		5063	
3919	29950	5500		5306		4315		5040		4213	
3920	30719			5652		2646		4149		4641	
3921	30720	6500		5053		4641		5398		5807	
3922	30721	4950		5519		5465	*	5311		4363	
3923	30722	5450		6316		3165		4977		7272	5
3924	30723	5100		6316		2447		4621		4348	
3925	30724	4950		6715		2414		4693		3871	
3926	29960	5000		5851		2726		4526		6972	9
3927	30725	5500		5253		7227	2 *	5993		4116	
3928	29948	5250		5652		3969		4957		6007	
3929	30726			6449		2387		4418		7698	3
3930	30727	6700	6	4388		5645	*	5578		4537	
3931	30062	6850	4	7314	6	5738	*	6634	5 *	4725	
3932	30728	5350		7380	3	4388		5706		6506	
3933	30729	6400		6117		5472	*	5996	10	5062	
3934	30730	6700	6	6516		6715	4 *	6644	4 *	3420	
3935	29976	6650	10	6782		3551		5661		6261	
3936	30731	4750		6516		4415		5227		4420	
3937	30732	6650	10	4654		5918	*	5741		4100	
3938	30733	4800		5984		5778	*	5521		5453	
3939	30734	5150		5884		3710		4915		3767	
3940	30735	6050		6848		6084	8 *	6327	7 *	5599	
3941	Zonal Check (ZC)	6250		7440	2	2440		5377		5236	
3942	30736	7000	3	7114	10	5938	10 *	6684	3 *	4243	
3943	29990	4450		6449		2434		4444		5145	
3944	30737	5350		5319		3677		4782		4334	
3945	30738	4400		5452		4548		4800		6044	
3946	30739	5500		4056		3025		4194		5331	
3947	30740			6117		2221		4169		7184	8
3948	30741	4500		7247	8	2414		4720		8285	1
3949	30742	7350	2 *	7114	10	6882	3 *	7115	1 *	3258	
3950	30743	4600		6383		3723		4902		4015	
3951	30744			5306		2314		3810		8071	2
3952	30745	3350		5785		2533		3889		5962	
3953	30746	5450		4641		8072	1 *	6054	9	5145	
3954	30747	4500		3723		6609	6 *	4944		6632	
3955	30748	5100		6051		5731	*	5627		4673	
3956	30749			7314	6	3624		5469			
3957	30750	6400		7048		4056		5835		3389	
3958	30751	6400		5918		2234		4851		4953	
3959	30752	6750	5	5519		5332		5867		7239	6
3960	30753			5785		3517		4651		7479	4
3961	30754	3400		5984		2507		3964		6639	
3962	30755	4200		5452		2347		4000		6329	
3963	30756	3500		6316		6642	5 *	5486		7194	7
3964	Local Check (LC)	6450		5652		2746		4949		4085	
Exp. Mean		**5596**		**6088**		**4128**		**5227**		**5322**	
F Value		**10.58(p<.0001)S**		**5.41(p<.0001)S**		**53.87(p<.0001)S**		**17.96(p<.0001)S**		**11.54(p<.0001)S**	
CD		855		1068		596		526		1072	
CV%		**7.63**		**8.78**		**7.22**		**5.03**		**10.07**	
D/S		30/06/2022		07-05-2022		07-05-2022				30/06/2022	
D/P		28/07/2022		08-03-2022		08-02-2022				17/08/2022	
Local Check Name		HKR-47		Pratap -1		Pusa 44				Lalat	

Table No. 1.21 (Contd): Grain Yield (kg/ha) in IVT – IME, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN											
		Odisha				Odisha (3)		Bihar				Bihar (2)	
		Jeypore		Chiplima		Mean		Bikaramganj		Sabour		Mean	
3901	30704	4591		6794		5485		5715		5089		5402	
3902	30213	3835		4071		4481		5818		5365		5592	
3903	30705	2796		5254		4706		6152		5733		5943	
3904	30706	4650		5897		5533		5561		6434	10	5998	
3905	29952	4315		5738		4800		6626		5761		6194	
3906	30707	4500		5143		5435		6353		5984		6169	
3907	30708	5424	5	7500	4	6462	4 *	6924		6167		6546	
3908	30709	4778		5302		4577		6795		6372		6584	
3909	30710	1735		2849		2722		3961		4590		4276	
3910	30711	4372		6286		4877		7423	7	5169		6296	
3911	30712	3872		6929	8	5466		6919		5626		6273	
3912	30713	4132		6802		5928	8 *	6965	10	6925	1	6945	3
3913	30714	3574		5492		4569		6965	10	6377		6671	10
3914	Gontra Bidhan-3 (NC)	3644		5873		5037		7526	5	6840	2	7183	1
3915	30715	3778		6056		4510		4928		5097		5013	
3916	30716	3329		4421		3849		5741		4587		5164	
3917	30717	3747		5689		5062		6445		5373		5909	
3918	30718	3272		5952		4762		6157		5308		5733	
3919	29950	4745		5587		4848		5617		5386		5502	
3920	30719	3621		6516		4926		6348		5363		5856	
3921	30720	5012	8	5508		5442		7572	4	5814		6693	9
3922	30721	3961		6825	10	5050		5571		5230		5401	
3923	30722	5080	7	6802		6385	6 *	6404		6051		6228	
3924	30723	3455		5619		4474		7485	6	6673	4	7079	2
3925	30724	2572		4524		3656		5607		3859		4733	
3926	29960	5541	4	6103		6205	7 *	6857		6597	7	6727	7
3927	30725	3498		4087		3900		5859		4268		5064	
3928	29948	3496		5722		5075		6358		6209		6284	
3929	30726	5700	3	6056		6485	3 *	6065		6050		6058	
3930	30727	3704		6079		4773		6492		6107		6300	
3931	30062	2815		5667		4402		6265		5284		5775	
3932	30728	4181		6643		5777	*	5854		5778		5816	
3933	30729	3724		6444		5077		6764		6479	8	6622	
3934	30730	3601		5040		4020		6271		5360		5816	
3935	29976	3436		7492	5	5730	*	5031		6670	5	5851	
3936	30731	2578		2071		3023		5890		5312		5601	
3937	30732	3829		7024	7	4984		6847		4890		5869	
3938	30733	3874		7659	2	5662	*	6739		5403		6071	
3939	30734	3716		5929		4471		5535		5749		5642	
3940	30735	4780	10	6048		5476		5365		4796		5081	
3941	Zonal Check (ZC)	4239		5246		4907		6317		5555		5936	
3942	30736	4029		7524	3	5265		6991	9	5147		6069	
3943	29990	3253		3675		4024		7731	2	5726		6729	6
3944	30737	3319		3762		3805		6878		5606		6242	
3945	30738	3646		6230		5307		5833		6064		5949	
3946	30739	3683		3198		4071		5952		5975		5964	
3947	30740	4239		4802		5408		7891	1	5904		6898	5
3948	30741	4210		7119	6	6538	2 *	6147		6245		6196	
3949	30742	4800	9	6079		4712		6770		5055		5913	
3950	30743	3726		4921		4221		4743		4067		4405	
3951	30744	4393		5206		5890	9 *	5741		5165		5453	
3952	30745	3420		3571		4318		4666		4995		4831	
3953	30746	3704		6468		5106		7726	3	5719		6723	8
3954	30747	4265		6373		5757	*	5972		5103		5538	
3955	30748	3498		5952		4708		5262		6809	3	6036	
3956	30749	3537		7802	1	5670	*	6553		4807		5680	
3957	30750	3204		3373		3322		5520		4147		4834	
3958	30751	3300		4643		4299		6590		6442	9	6516	
3959	30752	3405		6810		5818	10 *	6127		5218		5673	
3960	30753	6132	2	6833	9	6815	1 *	5144		5242		5193	
3961	30754	6298	1	3833		5590		4825		4501		4663	
3962	30755	4576		6333		5746	*	5468		5322		5395	
3963	30756	5311	6	6667		6391	5 *	7202	8	6610	6	6906	4
3964	Local Check (LC)	4724		6421		5077		5306		4549		4928	
Exp. Mean		**4003**		**5693**		**5013**		**6205**		**5564**		**5885**	
F Value		**7.39(p<.0001)S**		**8.84(p<.0001)S**		**18.01(p<.0001)S**		**6.28(p<.0001)S**		**9.50(p<.0001)S**		**9.555(p<.0001)S**	
CD		871		1221		575		937		668		613	
CV%		**10.88**		**10.73**		**5.74**		**7.55**		**6.01**		**5.21**	
D/S		25/07/2022		07-12-2022				07-05-2022		07-01-2022			
D/P		30/08/2022		16/08/2022				08-04-2022		08-02-2022			
Local Check Name		Kalinga Dhan 1205		MTU-1156				Sabour Deep		Rajendra Suwasini			

Table No. 1.21 (Contd): Grain Yield (kg/ha) in IVT – IME, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN											
		Jharkhand (1)		West Bengal				West Bengal (2)		Uttar Pradesh 2			
		Ranchi		Chinsurah		Bankura		Mean		Masodha		Varanasi	
3901	30704	4631		6738		5303		6021		4388		6677	
3902	30213	3704		5501		7260		6381		4335		6292	
3903	30705	3043		5794		5038		5416		4721		4823	
3904	30706	5160		6576		7664	4	7120	4 *	3923		5323	
3905	29952	5027		7129	3	6730		6930	8	3856		6385	
3906	30707	5954	2	6576		4899		5738		3923		6063	
3907	30708	4763		7324	1	6111		6718		3657		7188	
3908	30709	4498		6901	7	5707		6304		4721		5281	
3909	30710	4101		6738		7475	5	7107	6 *	5253	5	7531	9
3910	30711	4167		6576		5152		5864		4920		7219	
3911	30712	4829		6836	9.5	6313		6575		3723		7167	
3912	30713	6020	1	6868	8	5202		6035		3059		4010	
3913	30714	4167		6641		6376		6509		3923		6115	
3914	Gontra Bidhan-3 (NC)	5424	6	6478		6338		6408		4003		7865	4
3915	30715	5292	10	7031	5	5076		6054		2593		4594	
3916	30716	3969		7064	4	5884		6474		5419	2	6188	
3917	30717	4796		5957		5088		5523		4056		5354	
3918	30718	3903		6315		6427		6371		4122		4927	
3919	29950	4366		6217		5644		5931		3923		5594	
3920	30719	4366		5729		5290		5510		4688		6667	
3921	30720	4167		5924		5909		5917		5386	3	7625	6
3922	30721	4234		7259	2	7386	7	7323	1 *	4787		7010	
3923	30722	4035		6543		7879	2	7211	2 *	4388		6708	
3924	30723	5160		5924		6149		6037		3657		7573	8
3925	30724	4564		6921	6	7323	9	7122	3 *	3025		5135	
3926	29960	5424	6	6836	9.5	5745		6291		4654		4240	
3927	30725	3109		6608		5467		6038		4987	10	7896	3
3928	29948	4498		6602		6503		6553		4920		6094	
3929	30726	5490	3	6331		7273		6802		4521		4010	
3930	30727	5160		5729		5202		5466		3324		7823	5
3931	30062	4763		6217		5164		5691		4189		6344	
3932	30728	3704		6299		7361	8	6830	9	4588		7031	
3933	30729	5490	3	6185		5530		5858		5053	9	5635	
3934	30730	4564		6706		5417		6062		3391		5979	
3935	29976	4101		5566		6919		6243		2194		5771	
3936	30731	5226		5615		5063		5339		3191		6167	
3937	30732	3502		6673		6970		6822	10	3657		7438	10
3938	30733	4564		6185		7146		6666		3923		6469	
3939	30734	4101		5306		5669		5488		4654		6521	
3940	30735	3903		5566		5013		5290		4654		7271	
3941	Zonal Check (ZC)	4167		6038		6301		6170		3923		6417	
3942	30736	5094		6413		5960		6187		5652	1	6990	
3943	29990	4763		5664		5227		5446		4455		6385	
3944	30737	3386		5306		7096		6201		3324		7979	2
3945	30738	5027		5892		6881		6387		2394		4990	
3946	30739	5027		6608		6894		6751		4654		7583	7
3947	30740	4167		5762		6755		6259		5319	4	4010	
3948	30741	4697		5957		5265		5611		5120	8	6688	
3949	30742	4366		6608		6843		6726		4721		6656	
3950	30743	4961		6185		7967	1	7076	7 *	5253	5	5760	
3951	30744	2739		5566		6944		6255		4854		969	
3952	30745	3771		5436		5088		5262		4654		4010	
3953	30746	4564		5632		7803	3	6718		5186	7	6396	
3954	30747	4167		5762		5543		5653		3723		6583	
3955	30748	5358	9	6380		6338		6359		3125		8073	1
3956	30749	3175		5729		4823		5276		3391			
3957	30750	3903		5892		5593		5743		2726		5854	
3958	30751	5424	6	6380		4899		5640		4189		5719	
3959	30752	3638		6217		6490		6354		3457		6750	
3960	30753	4432		5534		7298	10	6416		3258		4115	
3961	30754	4829		5729		6856		6293		4654		4365	
3962	30755	4167		6445		5202		5824		4189		4656	
3963	30756	5424	6	6755		7475	5	7115	5 *	4654		6448	
3964	Local Check (LC)	4763		6120		5442		5781		4056		6469	
Exp. Mean		**4499**		**6250**		**6173**		**6211**		**4176**		**6093**	
F Value		**3.72(p<.0001)S**		**1.53(p<.0.0455)S**		**10.42(p<.0001)S**		**5.89(p<.0001)S**		**11.99(p<.0001)S**		**5.24(p<.0001)S**	
CD		1046		1180		800		636		641		1594	
CV%		**11.63**		**9.45**		**6.48**		**5.12**		**7.68**		**13.09**	
D/S		07-04-2022		07-08-2022		07-12-2022				07-04-2022		07-01-2022	
D/P		08-09-2022		08-09-2022		08-03-2022				08-04-2022		25/07/2022	
Local Check Name		BVD-203		Muktoshri (IET 21845)		Lalat				NDR 3112-1		HUR 4-3	

Table No. 1.21 (Contd): Grain Yield (kg/ha) in IVT – IME, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN						ZONE IV- NORTH EASTERN		ZONE V- CENTRAL	
		Uttar Pradesh 2(2)		Uttar Pradesh (3)		Zone III (10)		Tripura		Chhattisgarh (1)	
		Mean		Mean		Mean		Lembucherra		Raipur	
3901	30704	5533		5450		5500		4450		4993	
3902	30213	5314		4438		5172		9505	1 *	3941	
3903	30705	4772		3939		4942		6650	6 *	4209	
3904	30706	4623		4283		5724		4025		3558	
3905	29952	5121		4774		5591		4300		4255	
3906	30707	4993		4506		5606		6625	7 *	4766	
3907	30708	5423		5650		6118	2	6535	8 *	3943	
3908	30709	5001		4198		5401		4300		3962	
3909	30710	6392	3	5070		4782		4975		4824	
3910	30711	6070	6	5669	10	5526		4993		3859	
3911	30712	5445		5117		5781		3650		4916	
3912	30713	3535		3176		5683		4850		6439	1
3913	30714	5019		4634		5427		5385	*	4142	
3914	Gontra Bidhan-3 (NC)	5934	8	5578		5959	5	4715		5371	4
3915	30715	3594		4421		4814		4400		4437	
3916	30716	5804		5545		5040		4700		4440	
3917	30717	4705		3959		5225		4925		4717	
3918	30718	4525		4069		5145		5200		2560	
3919	29950	4759		4611		5129		5200		5131	8
3920	30719	5678		4667		5323		8600	2 *	4422	
3921	30720	6506	1	5884	7	5872	8	4285		4595	
3922	30721	5899	10	5754	8	5663		3475		5103	9
3923	30722	5548		4754		6116	3	4585		3867	
3924	30723	5615		4559		5604		4750		5774	3
3925	30724	4080		3525		4740		3550		2636	
3926	29960	4447		3873		5897	7	4725		4447	
3927	30725	6442	2	6703	1 *	4990		4200		4961	
3928	29948	5507		4994		5641		4575		3966	
3929	30726	4266		3639		5919	6	5075		4779	
3930	30727	5574		5597		5416		5200		4417	
3931	30062	5267		5424		5143		3100		4768	
3932	30728	5810		5336		5795		4550		4890	
3933	30729	5344		5387		5637		4975		4855	
3934	30730	4685		5362		4975		4300		5035	
3935	29976	3983		3839		5344		6475	9 *	4454	
3936	30731	4679		4591		4553		4725		4671	
3937	30732	5548		5671	9	5493		4643		5019	
3938	30733	5196		5390		5742		3648		5056	10
3939	30734	5588		4962		5095		4388		5807	2
3940	30735	5963	7	6003	5	5300		4975		4249	
3941	Zonal Check (ZC)	5170		4260		5344		3604		3253	
3942	30736	6321	4	6193	3	5804	10	7225	4 *	2740	
3943	29990	5420		4425		5202		4065		4348	
3944	30737	5652		4993		5099		4313		3867	
3945	30738	3692		3977		5300		5135		4666	
3946	30739	6119	5	5087		5491		5550	*	4284	
3947	30740	4665		3850		5603		5600	10 *	4652	
3948	30741	5904	9	4741		5973	4	5385	*	4048	
3949	30742	5689		6086	4	5516		7058	5 *	5265	6
3950	30743	5507		4912		5160		5013		3539	
3951	30744	2912		2712		4965		5450	*	5160	7
3952	30745	4332		3732		4557		5013		4684	
3953	30746	5791		6551	2 *	5834	9	4575		3448	
3954	30747	5153		5638		5412		4625		4707	
3955	30748	5599		5643		5547		5300	*	5302	5
3956	30749	3391		3508		4977		3800			
3957	30750	4290		4212		4360		5075		3376	
3958	30751	4954		4047		5254		3635		3955	
3959	30752	5104		5180		5535		7750	3 *	4278	
3960	30753	3687		3630		5547		5150	*	4276	
3961	30754	4510		3842		5253		3635	*	4139	
3962	30755	4423		3731		5269		4589	*	4132	
3963	30756	5551		5915	6	6374	1 * 7%	4148	*	3674	
3964	Local Check (LC)	5263		4424		5194		4435	4 *	4202	
Exp. Mean		**5114**		**4786**		**5397**		**4974**		**4416**	
F Value		**6.15(p<.0001)S**		**13.27(p<.0001)S**		**9.52(p<.0001)S**		**41.84(p<.0001)S**		**3.66(p<.0001)S**	
CD		903		667		368		514		1069	
CV%		**8.83**		**6.98**		**3.41**		**5.17**		**12.11**	
D/S								15/07/2022		29/06/2022	
D/P								08-03-2022		24/07/2022	
Local Check Name								Tripura Nirog		IGKV R 2	

Table No.1.21 (Contd): Grain Yield (kg/ha) in IVT – IME, Kharif 2022

ENTRY NO	IET NO	ZONE V- CENTRAL								ZONE VI – WESTERN			
		Maharshtra 1				Maharshtra 1 (2)		Zone V (3)		Maharashtra 2(1)		Maharashtra (3)	
		Sakoli		Sindewahi		Mean		Mean		Karjat		Mean	
3901	30704	5013		3445		4229		4484		5741		4733	
3902	30213	3728		4389		4059		4019		5639		4585	
3903	30705	3397		3182		3290		3596		4500		3693	
3904	30706	3373		4560		3967		3830		5824		4586	
3905	29952	3612		5220	3	4416		4362		5111		4648	
3906	30707	3140		3288		3214		3731		6407		4278	
3907	30708	3394		3814		3604		3717		7769	4	4992	
3908	30709	2683		4489		3586		3711		7380	10	4851	
3909	30710	3603		3516		3560		3981		3685		3601	
3910	30711	5534	2	3459		4497		4284		6620		5204	
3911	30712	3681		3935		3808		4177		6648		4755	
3912	30713	4213		5057	6	4635		5236	2	7778	3	5683	5
3913	30714	5019		4141		4580		4434		6713		5291	
3914	Gontra Bidhan-3 (NC)	4502		5071	5	4787		4981	5	7352		5642	7
3915	30715	2937		4006		3472		3793		6083		4342	
3916	30716	4087		3587		3837		4038		5870		4515	
3917	30717	3333		3530		3432		3860		6685		4516	
3918	30718	2799		4986	9	3893		3448		6074		4620	
3919	29950	4735		3530		4133		4465		5370		4545	
3920	30719			5874	1	5874	1 *	5148	3	4509		5192	
3921	30720	2690		4268		3479		3851		6389		4449	
3922	30721	4871		5007	8	4939	7	4994	4	4852		4910	
3923	30722	2606		4055		3331		3509		7167		4609	
3924	30723	3817		5036	7	4427		4876	10	7500	8	5451	9
3925	30724	3893		2898		3396		3142		8250	1	5014	
3926	29960	3127		4169		3648		3914		6176		4491	
3927	30725	3925		2813		3369		3900		4120		3619	
3928	29948	3160		3011		3086		3379		6472		4214	
3929	30726	4730		4901		4816		4803		7491	9	5707	4
3930	30727	5009		4943		4976	5	4790		5102		5018	
3931	30062	2972		4773		3873		4171		4870		4205	
3932	30728	4427		3672		4050		4330		6083		4727	
3933	30729	5148	9	4602		4875	8	4868		7509	7	5753	3
3934	30730	4327		4396		4362		4586		5972		4898	
3935	29976	5470	3	3530		4500		4485		8028	2	5676	6
3936	30731	3417		4538		3978		4209		5722		4559	
3937	30732	4247		3295		3771		4187		5074		4205	
3938	30733	5180	7	2777		3979		4338		6852		4936	
3939	30734	5090		3956		4523		4951	7	5491		4846	
3940	30735	5148	9	2933		4041		4110		6222		4768	
3941	Zonal Check (ZC)	4774		3622		4198		3883		6352		4916	
3942	30736	4597		4744		4671		4027		7093		5478	8
3943	29990	2786		3530		3158		3555		6833		4383	
3944	30737	2919		3189		3054		3325		5954		4021	
3945	30738	3861		4283		4072		4270		6491		4878	
3946	30739	3977		4517		4247		4259		6954		5149	
3947	30740	5116		4304		4710		4691		5546		4989	
3948	30741	4968		4126		4547		4381		5620		4905	
3949	30742	5084		4595		4840	10	4981	5	6333		5337	10
3950	30743	4440		3281		3861		3753		5528		4416	
3951	30744	4569		3643		4106		4457		5972		4728	
3952	30745	5251	5	4915		5083	4	4950	8	5833		5333	
3953	30746	3160		3366		3263		3325		6500		4342	
3954	30747	5212	6	4226		4719		4715		4694		4711	
3955	30748	5147		4382		4765		4944	9	7759	5	5763	2
3956	30749			5256	2	5256	2	5256	1	4361		4809	
3957	30750	5148	9	5099	4	5124	3	4541		4028		4758	
3958	30751	5277	4	4659		4968	6	4630		7750	6	5895	1
3959	30752	5598	1	4112		4855	9	4663		6296		5335	
3960	30753	4118		4979	10	4549		4458		6056		5051	
3961	30754	4400		3622		4011		4054		6685		4902	
3962	30755	3764		3303		3534		3733		4139		3735	
3963	30756	3648		4304		3976		3875		5417		4456	
3964	Local Check (LC)	4678		4091		4385		4324		6574		5114	
Exp. Mean		**4170**		**4106**		**4160**		**4246**		**6123**		**4808**	
F Value		**6.54(p<.0001)S**		**4.04(p<.0001)S**		**5.59(p<.0001)S**		**3.89(p<.0001)S**		**7.39(p<.0001)S**		**8.55(p<.0001)S**	
CD		953		1004		737		744		1122		510	
CV%		**11.43**		**12.23**		**8.87**		**8.76**		**9.17**		**5.32**	
D/S		07-02-2022		28/06/2022						28/06/2022			
D/P		08-04-2022		23/07/2022						22/07/2022			
Local Check Name		PKV Ganesh		PKV Ganesh						Karjat 3			

Table No. 1.21 (Contd): Grain Yield (kg/ha) in IVT – IME, Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN										ZONE VII – SOUTHERN	
		Gujarat						Gujarat (3)		Zone VI (4)		Telanagana	
		Navasari		Nawagam		Vyara		Mean		Mean		Rajendranagar	
3901	30704	4051		6429	6	4618		5033		5210		5807	
3902	30213	2630		3488		4375		3498		4033		6299	
3903	30705	3125		5476		3856		4152		4239		5111	
3904	30706	3571		4470		3575		3872		4360		6282	
3905	29952	3222		5542		4319		4361		4549		6951	
3906	30707	3083		5494		4225		4267		4802		7863	4
3907	30708	2755		5405		3244		3801		4793		6354	
3908	30709	4261		5935		4125		4774		5425		5553	
3909	30710	2518		4074		4814		3802		3773		4184	
3910	30711	4435		5500		5247	6	5061		5451		5788	
3911	30712	4369		6220	8	4627		5072		5466		6732	
3912	30713	2503		4351		6662	1	4505		5324		7013	10
3913	30714	4490		6714	1	3058		4754		5244		5850	
3914	Gontra Bidhan-3 (NC)	4917		6000	10	4359		5092		5657	5	5700	
3915	30715	3518		5655		4077		4417		4833		5644	
3916	30716	4253		5073		3601		4309		4699		4334	
3917	30717	4990	10	5374		5069	10	5144	10	5530	9	7225	8
3918	30718	4153		5935		4758		4949		5230		5583	
3919	29950	3994		5339		4417		4583		4780		6666	
3920	30719	4263		4560		2489		3771		3955			
3921	30720	4060		4131		5607	2	4599		5047		5232	
3922	30721	3877		5935		4697		4836		4840		5763	
3923	30722	3455		6518	4	4644		4872		5446		6405	
3924	30723	4199		6036	9	4192		4809		5482		5783	
3925	30724	2386		3292		4362		3347		4573		3833	
3926	29960	2696		6369	7	4109		4391		4838		6734	
3927	30725	3424		4185		3779		3796		3877		3889	
3928	29948	3001		4940		4046		3996		4615		6468	
3929	30726	3213		4595		5167	7	4325		5117		8651	1
3930	30727	3482		5305		3636		4141		4381		5833	
3931	30062	4027		4815		3229		4024		4235		6327	
3932	30728	4012		5486		4521		4673		5026		5998	
3933	30729	4837		5845		3955		4879		5537	8	5350	
3934	30730	4685		5758		4221		4888		5159		5032	
3935	29976	3737		4881		3167		3928		4953		8466	3
3936	30731	2737		4917		4716		4123		4523		6449	
3937	30732	4216		3198		3875		3763		4091		5224	
3938	30733	3787		5667		3466		4307		4943		5190	
3939	30734	3634		5869		4376		4626		4843		6465	
3940	30735	5386	7	4214		3907		4502		4932		5210	
3941	Zonal Check (ZC)	4635		3155		4381		4057		4631		5155	
3942	30736	5334	8	5310		5311	5	5318	5	5762	3	6171	
3943	29990	5142	9	5619		4456		5072		5513	10	5634	
3944	30737	4900		4149		3944		4331		4737		6259	
3945	30738	6193	3	4345		5160	8	5233	6	5547	7	6991	
3946	30739	4856		5631		5567	3	5351	2	5752	4	6265	
3947	30740	4832		4625		4887		4781		4973		7037	9
3948	30741	6623	1	5214		4141		5326	4	5400		8611	2
3949	30742	6328	2	4381		4812		5174	9	5464		5721	
3950	30743	4908		4583		4739		4743		4940		4385	
3951	30744	3700		4857		4396		4318		4731		6925	
3952	30745	3927		3750		3207		3628		4179		5768	
3953	30746	5549	4	5250		4198		4999		5374		6213	
3954	30747	4859		5696		4041		4865		4823		5044	
3955	30748	4365		6589	2	5074	9	5343	3	5947	2	7384	6
3956	30749	2670		5167		3917		3918		4029			
3957	30750	5502	5	4875		4229		4869		4659		5520	
3958	30751	5444	6	6536	3	4496		5492	1	6057	1	5788	
3959	30752	4974		5155		5482	4	5204	8	5477		5880	
3960	30753	4469		4958		4614		4680		5024		6590	
3961	30754	3397		4071		3992		3820		4536		4392	
3962	30755	3092		4929		3940		3987		4025		7799	5
3963	30756	3387		4565		4906		4286		4569		7284	7
3964	Local Check (LC)	4402		6440	5	4817		5220	7	5558	6	6861	
Exp. Mean		**4116**		**5138**		**4342**		**4532**		**4930**		**6079**	
F Value		**7.32(p<.0001)S**		**4.87(p<.0001)S**		**2.91(p<.0001)S**		**4.84(p<.0001)S**		**7.69(p<.0001)S**		**4.22(p<.0001)S**	
CD		1013		1214		1161		701		570		1449	
CV%		**12.31**		**11.82**		**13.38**		**7.74**		**5.78**		**11.92**	
D/S		30/06/2022		07-04-2022		29/06/2022						07-05-2022	
D/P		22/07/2022		16/08/2022		22/07/2022						08-07-2022	
Local Check Name		GNR-3		Mahisagar		GNR-3						JGL 24423	

Table No.1.21 (Contd): Grain Yield (kg/ha) in IVT – IME, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN									
		Telanagana		Telangana (2)		Tamil Nadu				Tamil Nadu (2)	
		Warangal		Mean		Aduthurai		Coimbatore		Mean	
3901	30704	5359		5583		6042		5185		5614	
3902	30213	5079		5689		6333	10	4581		5457	
3903	30705	6447	4	5779		5167		4411		4789	
3904	30706	4436		5359		5125		8549	3	6837	9
3905	29952	3972		5462		6917	3	4272		5595	
3906	30707	5082		6473	8	5708		5110		5409	
3907	30708	4526		5440		5417		8582	2	7000	8
3908	30709	5119		5336		6750	5	5276		6013	
3909	30710	4006		4095		5483		4490		4987	
3910	30711	4049		4919		6833	4	8026		7430	2
3911	30712	4881		5807		6500	7.5	5578		6039	
3912	30713	6350	5	6682	6	6333	10	8097		7215	6
3913	30714	4681		5266		5208		4831		5020	
3914	Gontra Bidhan-3 (NC)	7058	1	6379	9	5542		5438		5490	
3915	30715	3058		4351		5417		4163		4790	
3916	30716	4921		4628		4958		8292	6	6625	
3917	30717	6274	6	6750	5	5250		4460		4855	
3918	30718	4072		4828		6208		4710		5459	
3919	29950	4148		5407		5417		5176		5297	
3920	30719					4833				4833	
3921	30720	5368		5300		5708		7895		6802	
3922	30721	5878	9	5821		9083	1	8637	1	8860	1 *
3923	30722	5483		5944		5875		5679		5777	
3924	30723	5247		5515		5083		4321		4702	
3925	30724	4378		4106		6333	10	5078		5706	
3926	29960	3553		5144		5250		8217	7	6734	
3927	30725	3924		3907		5000		8141	10	6571	
3928	29948	3839		5154		5375		4530		4953	
3929	30726	5429		7040	2	5242		4642		4942	
3930	30727	3463		4648		5375		8058		6717	
3931	30062	3972		5150		5000		5601		5301	
3932	30728	4628		5313		5750		8549	3	7150	7
3933	30729	5513		5432		5125		8058		6592	
3934	30730	6500	2	5766		5375		5606		5491	
3935	29976	5480		6973	4	5500		5001		5251	
3936	30731	3833		5141		5200		4271		4736	
3937	30732	3758		4491		5167		5035		5101	
3938	30733	5631		5411		6167		8371	5	7269	5
3939	30734	4042		5254		5542		4865		5204	
3940	30735	4189		4700		5167		8176	8	6672	
3941	Zonal Check (ZC)	5258		5207		5842		5227		5535	
3942	30736	5884	8	6028		5667		7981		6824	10
3943	29990	5730		5682		5150		5354		5252	
3944	30737	3994		5127		5325		7856		6591	
3945	30738	5483		6237	10	5208		5805		5507	
3946	30739	5906	7	6086		5167		5644		5406	
3947	30740			7037	3	5750		4632		5191	
3948	30741	6449	3	7530	1 *	5000		5383		5192	
3949	30742	4444		5083		5000		5236		5118	
3950	30743	5184		4785		5583		4823		5203	
3951	30744	4090		5508		4917		7499		6208	
3952	30745	3671		4720		5750		5456		5603	
3953	30746	5276		5745		5750		4569		5160	
3954	30747			5044		5167		4791		4979	
3955	30748	4050		5717		5583		5036		5310	
3956	30749					5458				5458	
3957	30750	4252		4886		5750		5405		5578	
3958	30751	4218		5003		5583		5053		5318	
3959	30752	4486		5183		6625	6	8147	9	7386	3
3960	30753	5651		6121		6500	7	5156		5828	
3961	30754	4214		4303		5917		5447		5682	
3962	30755	3963		5881		5833		5606		5720	
3963	30756	5841	10	6563	7	6000		5107		5554	
3964	Local Check (LC)	5489		6175		8833	2	5840		7337	4
Exp. Mean		**4853**		**5485**		**5705**		**5952**		**5816**	
F Value		**5.26(p<.0001)S**		**5.82(p<.0001)S**		**2.64(p<.0001)S**		**16.31(p<.0001)S**		**6.82(p<.0001)S**	
CD		1122		899		1686		1040		974	
CV%		**11.55**		**8.2**		**14.79**		**8.74**		**8.38**	
D/S		28/06/2022				13/09/2022		18/07/2022			
D/P		31/07/2022				11-08-2022		08-11-2022			
Local Check Name		RNR 15048				TKM13		TKM 13			

Table No. 1.21 (Contd): Grain Yield (kg/ha) in IVT – IME, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN								Overall Mean (27)	
		Kerala				Kerala (2)		Zone VII (6)			
		Moncompu		Pttambi		Mean		Mean			
3901	30704	4996		4467		4732		5309		5414	
3902	30213	4313		4167		4240		5129		4924	
3903	30705	4415		4414		4415		4994		4666	
3904	30706	5735		4576		5156		5784		5189	
3905	29952	5462		5129		5296		5451		5230	
3906	30707	5322		4295		4809		5563		5309	
3907	30708	6981	2	4652		5817	4	6085	5	5683	2
3908	30709	5994	8	4533		5264		5538		5165	
3909	30710	2445		5895	8	4170		4417		4493	
3910	30711	4949		5129		5039		5796		5451	
3911	30712	5464		5995	6	5730	6	5858	9	5455	
3912	30713	5910	10	4505		5208		6368	2	5580	6
3913	30714	4704		3967		4336		4874		5180	
3914	Gontra Bidhan-3 (NC)	3995		4386		4191		5353		5602	5
3915	30715	4053		4629		4341		4494		4778	
3916	30716	3757		4557		4157		5137		4929	
3917	30717	6312	6	4290		5301		5635		5175	
3918	30718	4101		4914		4508		4931		4855	
3919	29950	5300		4667		4984		5229		5019	
3920	30719			4219		4219		4526		5014	
3921	30720	5724		4514		5119		5740		5385	
3922	30721	3852		4424		4138		6273	3	5482	
3923	30722	4810		4219		4515		5412		5387	
3924	30723	5095		4167		4631		4949		5219	
3925	30724	3194		4386		3790		4534		4443	
3926	29960	4430		4205		4318		5398		5213	
3927	30725	3543		4076		3810		4762		4735	
3928	29948	5084		4352		4718		4941		4967	
3929	30726	6725	4	4610		5668	7	5883	8	5511	10
3930	30727	4719		4881		4800		5388		5197	
3931	30062	4510		4567		4539		4996		4958	
3932	30728	4792		4862		4827		5763		5455	
3933	30729	5658		4076		4867		5630		5550	8
3934	30730	4576		4567		4572		5276		5186	
3935	29976	6265	7	4319		5292		5839		5378	
3936	30731	3534		4567		4051		4642		4612	
3937	30732	4514		4410		4462		4685		4957	
3938	30733	4536		4843		4690		5790		5376	
3939	30734	3379		5986	7	4683		5047		4984	
3940	30735	3874		5448		4661		5344		5225	
3941	Zonal Check (ZC)	5775		6395	3	6085	2	5609		5074	
3942	30736	4825		6457	2	5641	9	6164	4	5831	1
3943	29990	4284		5352		4818		5251		4950	
3944	30737	2580		5133		3857		5191		4804	
3945	30738	7058	1	4538		5798	5	5847		5282	
3946	30739	5322		5224		5273		5588		5272	
3947	30740	6743	3	6238	4	6491	1	6080	6	5373	
3948	30741	4412		6552	1	5482		6068	7	5571	7
3949	30742	5980	9	6143	5	6062	3	5421		5662	3
3950	30743	4514		5843	9	5179		5055		4914	
3951	30744	5216		4933		5075		5597		4946	
3952	30745	4247		4157		4202		4842		4551	
3953	30746	5545		4590		5068		5324		5352	
3954	30747			4886		4886		4972		5076	
3955	30748	5716		4510		5113		5380		5502	
3956	30749			5457		5457		5458		4825	
3957	30750	4620		5529		5075		5179		4797	
3958	30751	5899		4333		5116		5146		5175	
3959	30752	5128		4824		4976		5848		5618	4
3960	30753	6484	5	4743		5614	10	5854	10	5327	
3961	30754	4094		4419		4257		4747		4698	
3962	30755	5351		5314		5333		5644		4831	
3963	30756	5775		4919		5347		5821		5525	9
3964	Local Check (LC)	5738		5590	10	5664	8	6392	1	5362	
Exp. Mean		**4956**		**4858**		**4905**		**5394**		**5166**	
F Value		**4.27(p<.0001)S**		**3.04(p<.0001)S**		**3.79(p<.0001)S**		**5.09(p<.0001)S**		**12.45(p<.0001)S**	
CD		1396		1058		867		602		258	
CV%		**14.08**		**10.9**		**8.84**		**5.59**		**2.49**	
D/S		07-04-2022		16/07/2022							
D/P		27/07/2022		08-10-2022							
Local Check Name		Uma		Jyothi							

Table No. 1.21 (Contd): Grain Yield (kg/ha) in IVT – IME, Kharif 2022, (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED									
		Uttarakhand		Punjab		Bihar		West Bengal			
		@Pantnagar		@Ludhiana		@Patna-ICAR		@Hatwara		@Malda	
3901	30704	5343	7	3671	10	10310	9	5571	2	4708	
3902	30213	3444		1901		7680		4468		6200	10
3903	30705	3682				7990		3922		6733	7
3904	30706	3573		3223		7330		5460	3	6983	5
3905	29952	3694		3533		11460	1	4664	9	5167	
3906	30707	4393		2541		8810		3788		6975	6
3907	30708	4989	9	2955		10720	5	3498		5642	
3908	30709	5967	4	3058		9070		3808		4817	
3909	30710	4188		2824		9450		3010		6433	8
3910	30711	4081		2941		7190		4578		4250	
3911	30712	3750		3719	9	9610		4541		3975	
3912	30713	2496				9330		5098	7	5100	
3913	30714	4371		4298	5	11230	2	3293		4392	
3914	Gontra Bidhan-3 (NC)	4669		3533		9210		4250		4633	
3915	30715	3997		4050	6	5390		4634	10	5550	
3916	30716	3362		3216		7870		4426		5250	
3917	30717	3399		2328		8260		3918		4375	
3918	30718	3617		2259		9900		3747		4808	
3919	29950	4008		4876	2	7450		5273	6	4492	
3920	30719			3079		8710				6033	
3921	30720	5861	5	3740	8	10490	6	3198		4758	
3922	30721	3688		3003		6750		4821	8	4133	
3923	30722	4051		3003		8910		5393	4	4683	
3924	30723	4307		3030		11080	3	4292		4700	
3925	30724	3664		2307		5800		4630		5842	
3926	29960	4867	10	1928		8630		6261	1	4708	
3927	30725	4773		2528		6690		4229		5067	
3928	29948	4136		2548		10390	7	2658		5000	
3929	30726	3324				9080		3998		4575	
3930	30727	3706		2404		11080	3	3131		6092	
3931	30062	3926		2906		8830		3290		5575	
3932	30728	6191	3	3636		10000		2781		4850	
3933	30729	4367		2583		9750		4503		5475	
3934	30730	3206		3230		8310		4220		5267	
3935	29976	4687		2548		6510		2937		5558	
3936	30731	1429		1722		8600		3819		4525	
3937	30732	4683		4545	4	6490		3834		7650	2
3938	30733	4364		4787	3	9270		3598		7808	1
3939	30734	2710		2328		9270		4409		5350	
3940	30735	3636		5537	1	8890		3641		4808	
3941	Zonal Check (ZC)	4169		2528		7220		4363		5150	
3942	30736	5097	8	3361		10340	8	3778		4658	
3943	29990	2146		1398		10235		3892		7133	4
3944	30737	3983		2190		8710		3084		5667	
3945	30738	2247		1749		6080		4295		7500	3
3946	30739	2889		2569		6360		4513		6225	9
3947	30740	2891				9200		3244		4342	
3948	30741	5718	6	2300		8820		4255		5708	
3949	30742	3953		3368		10300	10	4618		4583	
3950	30743	2697		3168		7060		3671		4292	
3951	30744					6960		3188		3600	
3952	30745	2191				7740		3467		4625	
3953	30746	3639		3320		9590		5323	5	4825	
3954	30747	1942		1977		8690		4474		4542	
3955	30748	4335		3285		8220		4633		4683	
3956	30749	6364	2							4108	
3957	30750	3448		2493		7270		4003		4342	
3958	30751	1559				9350		3828		3717	
3959	30752	4665		3912	7	8170		4307		5175	
3960	30753	2816				8010		3796		6017	
3961	30754	3290		2101		8000		3328		4600	
3962	30755	7073	1	3457		9540		3899		4425	
3963	30756	3980		2266		8302		3290		4625	
3964	Local Check (LC)	3290		3450		7520		3203		4508	
Exp. Mean		**3919**		**3004**		**8627**		**4065**		**5187**	
F Value		**1.89(p=0.0069)S**		**8.65(p<.0001)S**		**29.74(p<.0001)S**		**42.20(p<.0001)S**		**27.55(p<.0001)S**	
CD		2385		805		735		322		513	
CV%		**30.43**		**13.37**		**4.26**		**3.96**		**4.95**	
D/S		07-04-2022		07-05-2022		07-07-2022		17/07/2022		28/06/2022	
D/P		08-05-2022		08-02-2022		08-02-2022		30/08/2022		08-01-2022	
Local Check Name		Pant Dhan 12		PR 130		Rajendra Sweta		Sahbhagidhan		Shatabdi	

Table No. 1.21 (Contd): Grain Yield (kg/ha) in IVT – IME, Kharif 2022, (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED									
		Madhya Pradesh		Chattisgarh		Andhra Pradesh		Karnataka (0)		Puducherry (0)	
		@Rewa		@Jagadalpur		@Maruteru		@Mandya		@Karaikal	
3901	30704	3626	10	3372		5448		1463		6310	
3902	30213	2201		3366		5743	6	4081		5952	
3903	30705	1908		3242		5712	7	3260		7262	2
3904	30706	2370		3457		5173		4124		6667	7
3905	29952	3711	8	2871		5129		5006	5	6071	
3906	30707	1048		3457		5357		4954	7	5714	
3907	30708	2884		4105		5787	4	3243		7262	2
3908	30709	3600		3060		5172		3577		5357	
3909	30710	2422		2920		5129		2841		5714	
3910	30711	4095	5	3913		5482		2542		5000	
3911	30712	2344		4209		5073		3294		6905	4
3912	30713			4655	6	5617		4150		5714	
3913	30714	3372		4098		4910		3423		4524	
3914	Gontra Bidhan-3 (NC)	2539		3333		5165		4116		5179	
3915	30715	2148		3900		4525		1326		8690	1
3916	30716	3698	9	4010		4590		1703		4048	
3917	30717	3164		4746	5	5510		3893		6429	
3918	30718	1992		3229		5098		2986		6071	
3919	29950	4870	2	4766	4	4440		4518		5595	
3920	30719	2884		3743				4116		6488	9
3921	30720	2350		4935	1	5889	1	4449		6071	
3922	30721	4421	3	3600		4800		2712		5238	
3923	30722	1471		3001		5050		4056		5000	
3924	30723	2311		4642	7	4781		4526		5238	
3925	30724	1523		3210		4746		3123		5119	
3926	29960	1777		3789		5000		4313		6786	6
3927	30725	1921		4564	8	3856		4672		5238	
3928	29948	1335		3249		5089		4313		5238	
3929	30726	1094		3496		4116		5254	3	5238	
3930	30727	2161		4115		4766		4064		5119	
3931	30062	1960		3294		4665		3970		5238	
3932	30728	4954	1	3105		5636	9	4381		6429	
3933	30729	4277	4	4277		5621	10	3072		6000	
3934	30730	1738		3359		4860		1198		5714	
3935	29976	2578		3242		5214		3508		5119	
3936	30731			4342	10	5383		2601		5714	
3937	30732	1888		3281		5018		4090		5119	
3938	30733	3177		3229		4889		1095		5952	
3939	30734	3424		4772	3	4279		3662		4881	
3940	30735	2708		3223		5170		3987		4643	
3941	Zonal Check (ZC)	2259		3646		5015		1301		5595	
3942	30736	3913	7	4219		5177		4775	9	4167	
3943	29990	2513		3411		4679		4963	6	5476	
3944	30737	3145		3307		5076		4330		2500	
3945	30738			3952		4554		4390		6905	4
3946	30739			4844	2	5017		4544		5893	
3947	30740			3301		5447		4860	8	6667	7
3948	30741	3053		2969		5647	8	5801	1	5238	
3949	30742	2624		3932		5814	2	1805		4738	
3950	30743	2591		3424		5201		4039		6071	
3951	30744			3340		5567		4578		5714	
3952	30745	1634		3809		5617		4218		6190	
3953	30746	2943		3229		4601		4655		6024	
3954	30747	2240		3105		5165		3234		5476	
3955	30748	2305		4378	9	4411		5656	2	5238	
3956	30749	1400		2910						5357	
3957	30750	3952	6	3496		5347		1532		5952	
3958	30751	846		4111		5102		3594		5595	
3959	30752	3385		4336		5779	5	2019		5214	
3960	30753	1296		3288		5793	3	3654		6310	
3961	30754	2409		3099		4963		4133		5095	
3962	30755			3626		4683		4775	9	5119	
3963	30756	2383		4287		5122		4304		5714	
3964	Local Check (LC)	2839		3828		5287		5060	4	6429	
Exp. Mean		**2626**		**3704**		**5112**		**3712**		**5668**	
F Value		**10.18(p<.0001)S**		**0.79(p=.8252)NS**		**0.73(p=.8880)S**		**112.42(p<.0001)S**		**16.31(p<.0001)S**	
CD		843		1791		1485		304		3061	
CV%		**16.02**		**24.2**		**14.52**		**4.09**		**27.03**	
D/S		07-04-2022		20/07/2022		27/06/2022		15/07/2022		09-09-2022	
D/P		30/08/2022		08-12-2022		22/07/2022		08-06-2022		14/10/2022	
Local Check Name		JR 206		IGKVR 1		MTU1121		Thanu			

Table No. 1.22: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT – IME, Kharif 2022

ENTRY NO	IET NO	ZONE II - NORTHERN												ZONE III-EASTERN		
		Haryana (1)			Rajasthan (1)			Uttar Pradesh 1(1)			Zone II (3)			Odisha		
		Kaul			Kota			Nagina			Mean			ICAR-NRRI (Cuttack)		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3901	30704	83	106	336	126	109	255	95	100	268	101	105	286	115	101	281
3902	30213	91	106	278	130	114	213	106	88	274	109	103	255	129	103	237
3903	30705	102	89	269	135	81	232	115	87	268	117	86	256	117	105	292
3904	30706	100	101	289	124	105	235	107	92	261	110	99	261	122	109	270
3905	29952	100	96	298	137	100	246	105	89	294	114	95	279	122	101	287
3906	30707	96	128	304	138	119	268	101	102	229	111	116	267	118	111	243
3907	30708	101	112	311	134	111	276	101	85	217	112	103	268		.	
3908	30709	99	103	313	128	99	229	104	80	261	110	94	268	111	99	281
3909	30710	81	85	261	129	102	305	91	84	183	100	90	250	112	84	281
3910	30711	83	100	284	133	104	253	93	92	283	103	98	273	116	90	270
3911	30712	90	107	294	135	107	289	102	97	228	109	104	270	117	102	231
3912	30713				141	88	237	108	75	235	124	81	236	126	106	327
3913	30714	90	97	299	129	95	227	97	75	236	105	89	254	117	91	264
3914	Gontra Bidhan-3 (NC)	91	103	300	130	103	272	96	85	217	105	97	263	119	106	215
3915	30715	91	126	278	135	111	310	93	113	225	106	117	271	116	110	297
3916	30716	89	122	290	126	124	231	91	97	210	102	114	244	114	93	210
3917	30717	100	107	309	124	115	251	116	78	230	113	100	263	129	105	292
3918	30718	92	104	284	137	109	233	105	99	205	111	104	240	118	112	248
3919	29950	91	102	281	135	123	158	107	84	213	111	103	217	112	100	231
3920	30719				134	110	227	89	92	194	111	101	211	118	97	264
3921	30720	91	106	293	122	107	220	96	104	197	103	106	237	121	107	226
3922	30721	97	123	269	135	119	258	94	95	224	108	112	250	117	100	242
3923	30722	99	121	296	133	123	293	107	108	301	113	117	297	119	117	220
3924	30723	88	108	281	136	118	264	89	88	210	104	105	251	115	95	248
3925	30724	94	107	263	126	98	277	104	86	247	108	97	262	112	98	264
3926	29960	101	125	279	124	100	234	108	95	203	111	107	239	120	121	237
3927	30725	83	120	297	131	110	242	95	102	260	103	111	266	113	113	215
3928	29948	91	108	274	122	109	238	95	97	280	102	105	264	123	103	259
3929	30726		.		137	104	251	116	97	244	127	100	247	128	134	275
3930	30727	87	98	313	140	117	190	89	82	240	105	99	248	111	78	220
3931	30062	96	124	334	125	93	316	104	99	218	108	105	289	117	105	209
3932	30728	95	109	288	133	122	310	98	87	219	109	106	272	119	103	314
3933	30729	99	95	323	129	98	230	99	93	267	109	95	273	118	96	231
3934	30730	88	108	344	136	89	248	89	95	235	104	97	275	115	103	193
3935	29976	95	121	330	126	113	283	98	103	273	106	112	295	120	107	270
3936	30731	101	107	281	131	111	261	105	83	262	112	100	268	124	93	264
3937	30732	90	111	328	134	100	188	97	96	229	107	102	248	113	103	231
3938	30733	86	113	277	123	108	235	93	103	273	101	108	262	110	103	259
3939	30734	93	109	276	133	100	215	103	106	252	109	105	248	111	102	231
3940	30735	94	107	307	126	121	288	96	91	256	105	106	283	117	107	264
3941	Zonal Check (ZC)	97	98	296	123	94	307	108	75	237	109	89	280	117	98	253
3942	30736	91	108	330	126	85	288	93	75	236	103	89	285	118	99	231
3943	29990	91	100	277	128	110	269	98	80	195	105	96	247	118	101	275
3944	30737	88	92	290	134	94	248	98	74	239	106	86	259	120	85	286
3945	30738	101	108	273	129	88	257	106	102	235	112	99	255	127	107	264
3946	30739	95	118	282	130	106	153	106	93	257	110	106	230	118	111	253
3947	30740				133	123	261	118	84	299	125	103	280	135	103	286
3948	30741	101	111	274	138	98	306	115	95	281	118	101	287	129	123	270
3949	30742	86	124	305	135	110	295	96	109	217	106	114	272	115	106	297
3950	30743	91	124	223	124	118	246	98	115	235	104	119	234	117	107	215
3951	30744				123	122	227	100	87	294	111	104	260	132	105	275
3952	30745	102	85	241	136	88	231	119	79	195	119	84	222	123	97	297
3953	30746	94	113	271	130	82	166	104	99	221	109	98	219	118	105	242
3954	30747	93	122	279	125	108	147	95	101	283	104	110	236	119	105	231
3955	30748	88	131	284	123	121	243	97	96	253	103	116	260	116	104	281
3956	30749				128	118	314	108	83	293	118	101	303			
3957	30750	85	101	295	126	102	307	89	93	288	100	99	297	113	95	231
3958	30751	92	94	275	138	84	240	116	74	240	115	84	251	114	103	264
3959	30752	90	109	299	127	117	249	95	89	234	104	105	260	120	108	264
3960	30753				138	110	244	108	88	229	123	99	236	130	106	220
3961	30754	91	109	228	133	103	250	90	100	234	105	104	237	121	104	226
3962	30755	98	130	248	124	116	226	112	99	220	111	115	231	121	106	264
3963	30756	96	119	254	122	105	256	106	84	258	108	103	256	120	102	248
3964	Local Check (LC)	96	112	295	132	120	237	110	68	239	112	100	257	111	102	231
Exp. Mean		**93**	**109**	**288**	**130**	**106**	**249**	**101**	**91**	**242**	**109**	**102**	**259**	**118**	**103**	**255**

Table No.1.22 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT – IME, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN											
		Odisha						Odisha (3)			Bihar		
		Jeypore			Chiplima			Mean			Bikaramganj		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3901	30704	97	82	335	98	109	221	103	97	279	87	115	373
3902	30213	104	69	342	111	104	210	115	92	263	100	122	379
3903	30705	108	53	385	108	83	294	111	80	323	101	116	386
3904	30706	103	72	315	109	103	224	111	95	270	107	115	314
3905	29952	100	66	345	110	97	275	111	88	302	99	103	374
3906	30707	106	84	465	110	107	186	111	101	298	98	134	389
3907	30708	107	74	456	105	104	190	106	89	323	94	117	335
3908	30709	105	70	371	105	103	259	107	91	303	96	115	372
3909	30710	96	51	381	87	85	317	98	73	326	90	99	369
3910	30711	104	66	355	98	96	227	106	84	284	91	109	371
3911	30712	106	72	302	105	99	188	109	91	240	106	115	345
3912	30713	107	64	345	114	81	286	116	84	319	115	84	394
3913	30714	106	63	357	97	84	234	107	79	285	93	99	370
3914	Gontra Bidhan-3 (NC)	92	69	395	95	105	221	102	94	277	93	119	367
3915	30715	96	88	375	103	115	260	105	104	311	92	137	384
3916	30716	99	77	382	95	102	206	103	90	266	87	108	337
3917	30717	114	74	402	113	100	305	118	93	333	106	118	362
3918	30718	101	77	369	110	106	233	110	99	283	98	112	359
3919	29950	104	70	349	104	89	272	107	86	284	95	110	363
3920	30719	105	71	354	102	108	196	108	92	271	96	127	368
3921	30720	106	81	341	104	108	144	110	99	237	95	115	362
3922	30721	109	80	347	103	105	203	110	95	264	96	131	389
3923	30722	101	85	368	104	106	212	108	103	267	103	111	348
3924	30723	98	69	378	98	95	229	103	87	285	87	118	357
3925	30724	99	74	427	106	89	314	105	87	335	97	116	382
3926	29960	105	76	377	108	109	245	111	102	286	103	117	375
3927	30725	99	70	316	95	101	174	102	95	235	91	122	386
3928	29948	118	70	388	109	104	256	117	92	301	99	113	330
3929	30726	102	89	362	119	127	149	116	117	262	114	130	398
3930	30727	105	65	364	96	82	256	104	75	280	91	102	317
3931	30062	93	73	331	113	104	248	107	94	263	96	122	384
3932	30728	105	73	368	106	100	207	110	92	296	98	106	379
3933	30729	105	61	335	106	82	267	110	80	278	97	105	410
3934	30730	105	78	418	102	95	229	107	92	280	87	124	359
3935	29976	94	64	432	106	104	198	107	92	300	83	107	359
3936	30731	103	67	335	108	96	243	112	85	281	102	121	368
3937	30732	107	79	358	101	103	205	107	95	265	90	112	370
3938	30733	102	72	357	97	108	262	103	94	292	115	110	338
3939	30734	94	74	306	99	105	227	101	94	255	94	116	364
3940	30735	104	77	348	106	101	242	109	95	285	115	103	362
3941	Zonal Check (ZC)	105	75	385	106	97	335	109	90	324	99	113	372
3942	30736	101	77	341	102	110	195	107	95	256	87	121	328
3943	29990	99	67	322	105	88	214	107	85	270	98	115	328
3944	30737	116	62	368	103	72	295	113	73	316	94	86	364
3945	30738	105	77	339	109	97	213	113	94	272	107	106	383
3946	30739	98	76	382	102	101	208	106	96	281	100	125	377
3947	30740	101	72	382	122	99	202	119	91	290	120	107	374
3948	30741	103	88	341	112	109	245	115	107	285	105	121	395
3949	30742	97	83	358	104	111	183	105	100	279	103	130	322
3950	30743	102	82	338	102	125	157	107	105	236	91	130	328
3951	30744	103	65	349	120	100	221	118	90	282	94	101	378
3952	30745	115	75	368	111	89	192	116	87	286	105	101	391
3953	30746	94	72	368	105	108	208	106	95	273	98	122	362
3954	30747	100	92	342	100	105	213	106	101	262	92	121	320
3955	30748	106	70	355	96	107	244	106	94	293	94	127	345
3956	30749	106	64	375	105	109	208	106	86	291	92	125	360
3957	30750	100	69	388	99	100	257	104	88	292	88	97	350
3958	30751	98	65	392	112	83	294	108	84	316	108	100	383
3959	30752	103	71	372	100	108	215	108	96	284	91	118	359
3960	30753	101	87	392	104	107	193	112	100	268	107	115	346
3961	30754	103	76	278	104	99	203	109	93	236	98	104	382
3962	30755	103	86	385	120	118	213	115	103	287	108	119	371
3963	30756	107	72	402	112	106	215	113	93	288	100	122	320
3964	Local Check (LC)	103	77	369	102	108	211	105	96	270	91	126	352
Exp. Mean		**103**	**73**	**364**	**105**	**101**	**229**	**109**	**92**	**283**	**97**	**114**	**363**

Table No. 1.22 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT – IME, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN														
		Bihar			Bihar (2)			Jharkhand (1)			West Bengal					
		Sabour			Mean			Ranchi			Chinsurah			Bankura		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3901	30704	88	100	290	88	107	331	97	100	191	96	108	248	82	105	399
3902	30213	107	115	305	103	118	342	107	102	155	103	118	215	96	100	242
3903	30705	105	109	348	103	112	367	109	77	142	100	106	248	99	70	273
3904	30706	103	119	384	105	117	349	109	96	193	99	114	264	97	80	304
3905	29952	98	121	328	98	112	351	106	88	237	93	113	314	94	70	354
3906	30707	95	130	323	96	132	356	103	105	203	100	126	264	102	95	401
3907	30708	97	112	268	95	114	301	103	92	147	96	115	347	94	105	382
3908	30709	99	116	343	97	116	357	109	90	166	93	116	281	97	110	389
3909	30710	93	95	357	91	97	363	93	82	182	92	97	314	94	95	359
3910	30711	87	94	317	89	101	344	98	94	172	91	99	248	92	90	300
3911	30712	95	107	320	100	111	332	104	97	192	100	116	314	94	100	337
3912	30713	107	102	414	111	93	404	111	79	217	94	99	330	101	80	331
3913	30714	91	92	324	92	96	347	102	82	194	90	104	380	85	95	309
3914	Gontra Bidhan-3 (NC)	93	110	333	93	114	350	100	93	180	89	109	314	90	95	328
3915	30715	88	124	322	90	130	353	93	114	198	95	123	330	96	105	354
3916	30716	91	116	287	89	112	312	97	95	174	90	119	297	85	90	343
3917	30717	109	115	339	107	117	350	97	92	207	104	118	314	101	90	268
3918	30718	100	117	261	99	114	310	107	97	247	98	123	281	91	95	346
3919	29950	93	104	457	94	107	410	98	95	200	90	113	314	94	85	348
3920	30719	98	112	240	97	119	304	98	98	168	93	110	231	94	75	327
3921	30720	96	118	175	95	116	268	101	98	100	100	116	215	91	95	291
3922	30721	92	119	286	94	125	337	100	104	139	99	116	330	89	110	411
3923	30722	97	113	319	100	112	333	109	95	148	95	114	314	92	100	286
3924	30723	91	107	331	89	113	344	101	94	182	94	108	264	82	95	408
3925	30724	98	104	300	97	110	341	103	95	227	100	113	347	91	90	418
3926	29960	103	115	367	103	116	371	109	97	210	103	105	314	101	95	373
3927	30725	88	108	216	89	115	301	98	99	105	91	112	264	80	70	348
3928	29948	94	115	443	96	114	386	103	92	185	104	109	264	91	95	361
3929	30726	116	124	278	115	127	338	116	98	151	105	122	215	106	90	386
3930	30727	91	99	305	91	101	311	99	79	185	91	104	248	89	80	396
3931	30062	95	110	332	95	116	358	103	107	223	100	114	297	89	110	402
3932	30728	95	100	320	96	103	349	102	88	143	100	120	215	88	90	287
3933	30729	108	108	382	102	107	396	101	83	247	99	105	264	87	70	413
3934	30730	86	107	393	86	116	376	95	99	215	92	101	396	84	100	409
3935	29976	99	112	305	91	110	332	95	94	178	91	103	281	82	105	260
3936	30731	104	114	306	103	117	337	109	95	199	95	111	231	97	95	399
3937	30732	91	106	292	90	109	331	98	100	175	92	108	314	93	80	274
3938	30733	87	101	323	101	105	330	101	93	163	91	110	264	91	105	357
3939	30734	94	114	284	94	115	324	98	96	189	92	120	248	94	100	349
3940	30735	94	112	269	104	108	316	101	88	168	96	114	248	94	85	348
3941	Zonal Check (ZC)	95	112	359	97	112	365	101	89	242	99	108	264	92	90	394
3942	30736	90	97	306	89	109	317	98	95	141	92	104	215	93	100	359
3943	29990	99	107	281	98	111	304	109	92	164	97	109	248	96	100	343
3944	30737	91	94	350	92	90	357	102	87	232	92	93	281	91	75	352
3945	30738	108	113	384	107	110	384	106	92	202	105	110	330	97	80	361
3946	30739	103	120	329	101	122	353	109	100	186	97	116	347	87	120	382
3947	30740	116	107	388	118	107	381	122	88	179	104	104	314	96	80	369
3948	30741	111	129	264	108	125	329	111	101	146	104	121	264	101	95	269
3949	30742	90	110	306	96	120	314	97	101	132	99	115	297	84	105	408
3950	30743	93	126	262	92	128	295	100	113	146	98	110	314	84	120	360
3951	30744	117	112	359	105	106	368	122	87	164	100	103	215	106	85	275
3952	30745	107	112	264	106	107	327	122	83	165	100	100	281	94	85	418
3953	30746	101	111	223	99	117	292	103	97	183	98	119	248	84	105	274
3954	30747	92	112	292	92	116	306	97	101	199	93	125	297	92	85	259
3955	30748	91	122	276	92	124	310	103	102	184	90	122	314	90	90	405
3956	30749	102	118	202	97	122	281	108	100	152	93	97	264	103	85	335
3957	30750	88	198	273	88	147	311	95	94	172	91	101	281	83	85	374
3958	30751	94	103	289	101	102	336	109	85	226	96	105	297	92	90	374
3959	30752	90	116	271	90	117	315	98	94	171	104	110	281	91	95	329
3960	30753	113	115	281	110	115	313	111	98	171	105	105	264	101	95	298
3961	30754	101	98	289	99	101	335	106	90	151	99	119	231	92	115	351
3962	30755	105	118	342	106	118	356	110	97	195	100	109	330	95	105	358
3963	30756	96	116	332	98	119	326	103	102	175	100	117	363	92	95	431
3964	Local Check (LC)	98	107	352	94	116	352	100	107	175	99	119	314	95	90	321
Exp. Mean		**97**	**112**	**313**	**97**	**113**	**338**	**103**	**95**	**180**	**96**	**111**	**285**	**93**	**93**	**348**

Table No.1.22 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT – IME, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN														
		West Bengal (2)			Uttar Pradesh 2						Uttar Pradesh 2(2)			Uttar Pradesh (3)		
		Mean			Masodha			Varanasi			Mean			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3901	30704	89	107	323	97	101	251	85	117	188	91	109	220	92	106	236
3902	30213	99	109	228	86	103	228	97	121	200	92	112	214	96	104	234
3903	30705	100	88	260	87	101	301	102	99	204	95	100	253	101	95	258
3904	30706	98	97	284	85	105	276	95	120	228	90	113	252	96	106	255
3905	29952	94	91	334	83	84	249	95	120	267	89	102	258	94	98	270
3906	30707	101	110	332	85	105	276	93	136	227	89	121	252	93	114	244
3907	30708	95	110	364	86	95	236	91	119	153	88	107	194	93	100	202
3908	30709	95	113	335	83	109	260	100	115	201	91	112	231	95	101	241
3909	30710	93	96	336	93	103	279	89	106	244	91	105	261	91	98	235
3910	30711	91	94	274	97	94	289	88	116	203	92	105	246	92	101	258
3911	30712	97	108	325	99	105	225	92	119	190	95	112	208	97	107	214
3912	30713	97	90	331	84	116	256	103	97	254	94	107	255	98	96	248
3913	30714	88	100	344	88	103	253	89	99	189	88	101	221	91	92	226
3914	Gontra Bidhan-3 (NC)	89	102	321	88	103	251	87	114	217	87	108	234	90	101	228
3915	30715	95	114	342	87	92	257	91	146	227	89	119	242	90	117	236
3916	30716	87	105	320	88	115	307	86	112	173	87	114	240	88	108	230
3917	30717	103	104	291	89	106	261	98	126	185	93	116	223	101	103	225
3918	30718	95	109	313	90	101	248	96	122	193	93	112	220	97	107	215
3919	29950	92	99	331	87	120	263	93	118	228	90	119	246	95	107	235
3920	30719	94	92	279	85	101	298	94	109	228	89	105	263	89	101	240
3921	30720	95	105	253	89	98	260	87	121	137	88	110	198	90	108	198
3922	30721	94	113	370	91	78	277	89	131	214	90	105	245	91	101	238
3923	30722	94	107	300	91	140	281	92	123	201	91	131	241	96	124	261
3924	30723	88	101	336	87	138	241	82	101	180	84	120	210	86	109	210
3925	30724	95	102	382	83	100	268	92	113	209	88	106	238	93	100	241
3926	29960	102	100	343	92	96	255	98	132	201	95	114	228	99	108	219
3927	30725	85	91	306	95	116	276	87	124	181	91	120	228	92	114	239
3928	29948	98	102	312	93	116	277	94	119	232	93	118	255	94	111	263
3929	30726	105	106	300	95	92	242	105	123	247	100	108	245	105	104	244
3930	30727	90	92	322	86	102	255	89	103	223	88	103	239	88	96	239
3931	30062	94	112	349	99	100	259	93	133	237	96	116	248	99	111	238
3932	30728	94	105	251	93	120	269	94	113	179	94	117	224	95	107	222
3933	30729	93	87	338	97	101	222	95	101	230	96	101	226	97	98	239
3934	30730	88	101	402	86	101	240	85	112	200	85	107	220	86	103	225
3935	29976	86	104	270	108	114	207	82	111	199	95	112	203	96	109	226
3936	30731	96	103	315	91	117	258	99	123	233	95	120	245	98	108	251
3937	30732	93	94	294	84	98	223	91	122	173	87	110	198	90	105	208
3938	30733	91	108	311	88	88	382	84	113	201	86	101	292	88	101	285
3939	30734	93	110	298	84	100	260	97	122	208	90	111	234	94	109	240
3940	30735	95	99	298	91	108	250	91	109	228	91	108	239	93	103	244
3941	Zonal Check (ZC)	96	99	329	99	123	241	92	116	235	95	120	238	99	105	237
3942	30736	92	102	287	85	98	308	90	116	160	87	107	234	89	97	234
3943	29990	96	104	295	97	100	257	94	108	162	96	104	210	96	96	205
3944	30737	91	84	316	95	88	260	90	96	228	92	92	244	94	86	242
3945	30738	101	95	346	87	86	196	93	121	228	90	104	212	95	103	220
3946	30739	92	118	364	90	106	269	94	125	179	92	115	224	96	108	235
3947	30740	100	92	341	89	116	277	107	119	216	98	117	247	104	106	264
3948	30741	102	108	267	87	102	258	103	132	195	95	117	226	101	110	245
3949	30742	92	110	352	92	108	258	88	137	203	90	123	230	92	118	226
3950	30743	91	115	337	85	96	312	94	130	195	89	113	253	92	114	247
3951	30744	103	94	245	96	107	296	105	213	196	100	160	246	100	135	262
3952	30745	97	92	349	82	99	274	99	102	220	90	100	247	100	93	230
3953	30746	91	112	261	88	125	250	93	121	185	90	123	217	95	115	218
3954	30747	93	105	278	84	111	251	92	117	199	88	114	225	90	109	244
3955	30748	90	106	359	102	102	251	91	128	202	97	115	226	97	109	235
3956	30749	98	91	299	87	103	248				87	103		97	93	
3957	30750	87	93	327	107	110	221	92	107	216	99	109	218	96	103	242
3958	30751	94	98	336	88	97	270	99	104	205	93	101	237	101	92	238
3959	30752	97	103	305	85	93	228	91	102	201	88	97	214	90	94	221
3960	30753	103	100	281	88	103	252	102	110	167	95	107	209	99	101	216
3961	30754	95	117	291	94	96	251	90	111	219	92	103	235	91	102	234
3962	30755	97	107	344	89	88	228	99	124	231	94	106	229	100	104	226
3963	30756	96	106	397	89	102	248	93	106	199	91	104	223	96	97	235
3964	Local Check (LC)	97	104	317	93	110	281	95	99	237	94	105	259	99	93	252
Exp. Mean		**94**	**102**	**316**	**90**	**104**	**260**	**93**	**118**	**206**	**91**	**111**	**233**	**95**	**104**	**236**

Table No. 1.22 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT – IME, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN			ZONE IV- NORTH EASTERN			ZONE V- CENTRAL								
		Zone III (10)			Tripura			Chhattisgarh (1)			Maharshtra 1					
		Mean			Lembucherra			Raipur			Sakoli			Sindewahi		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3901	30704	94	104	278	86	85	338	120	106	160	93	109	294	94	108	241
3902	30213	104	106	251	95	96	313	100	122	162	101	110	225	107	94	291
3903	30705	103	92	287	79	77	342	103	107	157	103	101	240	113	97	268
3904	30706	103	103	277	86	80	225	101	116	154	102	114	258	94	114	230
3905	29952	100	96	303	59	79	279	98	112	165	100	112	250	106	98	305
3906	30707	101	113	298	97	84	358	96	119	179	98	117	229	97	118	366
3907	30708	97	103	279	90	97	313	96	116	168	96	109	189	107	108	247
3908	30709	100	104	292	86	86	329	96	119	135	100	114	256	103	109	270
3909	30710	94	90	308	81	69	338	87	101	166	89	93	307	91	108	275
3910	30711	96	95	275	111	85	267	89	96	152	93	106	320	93	93	240
3911	30712	102	103	264	82	90	271	94	116	116	97	112	212	100	95	201
3912	30713	106	91	315	89	84	363	102	108	148	108	109	214	111	97	304
3913	30714	96	91	287	76	79	383	90	97	160	94	98	268	98	78	338
3914	Gontra Bidhan-3 (NC)	94	102	282	77	87	283	87	104	182	93	106	263	95	86	350
3915	30715	95	115	300	83	100	258	90	117	167	96	112	148	98	95	224
3916	30716	93	103	271	77	90	400	87	112	121	92	107	228	94	115	225
3917	30717	106	104	293	83	92	283	104	120	182	107	112	183	90	92	268
3918	30718	101	106	278	87	103	279	98	122	146	96	112	158	112	113	233
3919	29950	97	100	302	80	92	354	90	101	142	95	109	290	100	97	260
3920	30719	98	101	267	80	94	350	93	110	161				95	111	291
3921	30720	99	106	225	63	83	342	91	117	143	92	112	109	99	100	327
3922	30721	98	107	284	83	105	275	94	121	195	97	112	252	99	111	283
3923	30722	100	110	270	90		267	97	114	189	99	110	120	103	100	285
3924	30723	93	102	282	87	78	304	94	108	191	91	117	233	95	103	287
3925	30724	98	99	315	92	84	342	93	114	200	96	102	279	103	86	283
3926	29960	104	106	295	89	100	246	101	121	192	98	112	178	105	118	244
3927	30725	94	104	248	78	90	313	93	114	171	89	115	237	100	102	260
3928	29948	103	104	299	95	93	325	101	107	156	101	109	208	105	110	272
3929	30726	110	113	270	94	102	342	107	149	185	107	120	288	111	127	258
3930	30727	95	89	277	101	75	317	91	99	202	87	91	298	98	85	267
3931	30062	100	108	292	89	105	454	94	242	171	96	121	191	102	119	353
3932	30728	100	101	268	88	90	358	95	108	150	99	104	276	98	93	221
3933	30729	101	91	300	84	88	246	97	97	160	101	105	300	106	84	254
3934	30730	93	102	305	81	88	217	87	108	171	91	109	224	91	92	273
3935	29976	96	102	269	74	80	479	97	114	163	96	111	305	90	109	227
3936	30731	103	103	283	79	94	367	102	113	132	103	108	165	105	107	196
3937	30732	96	101	261	86	90	304	89	108	189	93	113	218	93	109	267
3938	30733	96	100	290	81	87	233	90	106	142	91	110	298	96	119	345
3939	30734	95	105	266	79	77	300	97	107	178	96	112	295	98	108	252
3940	30735	101	100	273	79	85	308	95	98	159	95	108	303	100	85	278
3941	Zonal Check (ZC)	100	102	308	83	90	296	86	101	208	89	106	285	88	96	204
3942	30736	95	102	258	84	85	271	88	111	142	94	111	274	92	101	318
3943	29990	101	99	259	78	84	313	96	108	160	103	96	198	105	85	206
3944	30737	99	84	301	91	72	300	91	87	142	99	88	208	95	96	231
3945	30738	104	99	290	89	88	321	101	118	192	101	110	209	106	106	270
3946	30739	100	110	291	77	90	279	97	107	176	99	113	219	104	108	222
3947	30740	111	100	298	103	84	263	110	118	141	110	111	278	114	107	254
3948	30741	106	112	264	86	92	438	104	130	128	106	119	278	108	130	322
3949	30742	97	111	276	82	99	458	87	109	186	95	118	277	91	108	251
3950	30743	96	114	262	69	97	321	93	128	162	93	117	241	97	118	206
3951	30744	109	108	273	86	94	275	110	113	177	109	111	230	118	95	240
3952	30745	106	94	287	84	88	329	101	100	131	107	97	305	114	76	252
3953	30746	98	108	254	83	102	450	95	115	179	100	107	146	97	121	256
3954	30747	96	107	260	83	82	242	90	106	180	94	109	293	92	85	234
3955	30748	98	107	285	83	83	317	94	117	198	96	111	288	99	89	214
3956	30749	99	100		87	96	342							107	107	299
3957	30750	95	105	276	87	84	313	86	100	197	91	96	268	90	94	207
3958	30751	101	94	299	85	100	263	101	88	182	102	101	297	105	94	330
3959	30752	97	102	269	85	93	225	90	108	110	95	106	315	95	102	317
3960	30753	106	104	258	95	92	288	99	119	189	109	111	205	114	110	240
3961	30754	100	101	258	79	78	333	105	111	163	100	109	230	105	114	347
3962	30755	105	107	291	87	95	319	105	118	179	111	109	253	113	107	257
3963	30756	101	104	293	84	88	321	97	117	183	103	111	177	104	105	232
3964	Local Check (LC)	98	104	284	93		442	88	110	172	100	119	308	102	132	250
Exp. Mean		**100**	**102**	**281**	**84**	**89**	**318**	**95**	**113**	**165**	**98**	**109**	**243**	**101**	**103**	**266**

Table No. 1.22 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT – IME, Kharif 2022

ENTRY NO	IET NO	ZONE V- CENTRAL						ZONE VI – WESTERN								
		Maharshtra 1 (2)			Zone V (3)			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
3901	30704	93	108	267	102	108	231	92	119	199	93	112	244	90	97	210
3902	30213	104	102	258	102	108	226	96	129	195	101	111	237	97	86	235
3903	30705	108	99	254	106	102	222	98	119	207	105	106	238	100	76	249
3904	30706	98	114	244	99	115	214	95	119	217	97	115	235	88	98	294
3905	29952	103	105	277	101	107	240	98	116	221	101	108	259	98	114	310
3906	30707	97	118	297	97	118	258	95	139	230	96	125	275	99	124	227
3907	30708	101	109	218	99	111	201	96	111	179	99	109	205	100	121	328
3908	30709	101	111	263	99	114	220	97	125	238	100	116	254	90	80	266
3909	30710	90	100	291	89	101	249	90	109	222	90	103	268	86	103	298
3910	30711	93	99	280	91	98	237	91	110	212	92	103	257	88	101	289
3911	30712	98	103	207	97	108	176	96	118	221	97	108	211	93	119	281
3912	30713	109	103	259	107	104	222	97	108	234	105	104	250	107	102	196
3913	30714	96	88	303	94	91	255	92	97	185	95	91	263	89	89	254
3914	Gontra Bidhan-3 (NC)	94	96	307	91	99	265	94	108	210	94	100	274	89	88	304
3915	30715	97	104	186	95	108	179	90	129	234	95	112	202	88	127	291
3916	30716	93	111	226	91	111	191	94	115	225	93	112	226	87	139	261
3917	30717	98	102	225	100	108	211	110	129	220	102	111	224	94	132	319
3918	30718	104	113	195	102	116	179	96	125	206	101	117	199	87	147	279
3919	29950	97	103	275	95	102	231	95	114	226	96	107	259	90	124	327
3920	30719	95	111	291	94	111	226	95	120	219	95	115	255	85	127	230
3921	30720	96	106	218	94	109	193	96	125	219	96	112	218	91	124	206
3922	30721	98	112	267	97	115	243	94	125	191	97	116	242	93	146	290
3923	30722	101	105	202	99	108	198	97	139	265	100	116	223	94	143	201
3924	30723	93	110	260	93	109	237	95	113	276	93	111	265	88	121	229
3925	30724	99	94	281	97	101	254	96	107	211	98	98	258	91	140	247
3926	29960	101	115	211	101	117	204	97	139	215	100	123	212	99	151	187
3927	30725	94	108	248	94	110	223	92	123	195	93	113	231	85	132	250
3928	29948	103	110	240	102	109	212	95	127	227	100	115	235	91	113	300
3929	30726	109	124	273	108	132	243	117	151	204	112	133	250	103	160	206
3930	30727	92	88	282	92	92	255	92	105	214	92	93	259	89	107	260
3931	30062	99	120	272	97	161	238	96	128	200	98	122	248	98	134	258
3932	30728	98	98	248	97	101	216	96	108	205	97	102	234	94	129	219
3933	30729	103	95	277	101	96	238	95	104	200	100	98	251	96	126	320
3934	30730	91	100	248	89	103	222	93	124	209	91	108	235	84	128	300
3935	29976	93	110	266	94	111	231	95	136	223	94	119	251	81	125	236
3936	30731	104	108	181	103	109	164	95	140	210	101	118	190	95	131	230
3937	30732	93	111	242	91	110	224	94	125	256	93	116	247	86	152	208
3938	30733	93	115	321	92	112	262	95	120	229	94	116	290	88	126	267
3939	30734	97	110	273	97	109	241	92	165	230	95	128	259	81	127	334
3940	30735	97	96	290	96	97	246	97	119	220	97	104	267	91	142	281
3941	Zonal Check (ZC)	88	101	245	87	101	232	90	106	234	89	103	241	86	116	342
3942	30736	93	106	296	91	108	245	94	154	223	93	122	271	86	125	269
3943	29990	104	91	202	101	96	188	97	106	209	101	96	204	92	122	297
3944	30737	97	92	219	95	90	193	94	99	192	96	94	210	86	104	278
3945	30738	104	108	239	103	111	223	96	106	190	101	107	223	99	129	324
3946	30739	101	111	220	100	109	205	95	138	217	99	120	219	85	142	290
3947	30740	112	109	266	111	112	224	117	120	192	114	112	241	106	128	242
3948	30741	107	124	300	106	126	242	95	132	209	103	127	269	96	161	302
3949	30742	93	113	264	91	112	238	94	132	202	93	119	243	86	148	233
3950	30743	95	117	223	94	121	203	95	132	191	95	122	213	87	158	340
3951	30744	113	103	235	112	106	216	109	129	214	112	111	228	101	124	243
3952	30745	110	86	279	107	91	229	104	114	204	108	95	254	100	142	283
3953	30746	99	114	201	97	114	193	96	123	206	98	117	203	91	143	160
3954	30747	93	97	264	92	100	236	95	113	205	94	102	244	89	143	276
3955	30748	97	100	251	96	106	233	95	131	214	97	110	238	86	146	339
3956	30749	107	107	299	107	107	299	96	108	211	101	107	255	93	139	229
3957	30750	90	95	237	89	97	224	91	115	208	91	102	227	82	126	334
3958	30751	103	98	313	102	94	269	98	103	204	102	99	277	96	127	285
3959	30752	95	104	316	93	105	247	97	116	218	95	108	283	86	121	310
3960	30753	111	110	222	107	113	211	102	136	207	108	119	217	100	135	336
3961	30754	102	111	289	103	111	247	95	126	225	100	116	267	80	155	290
3962	30755	112	108	255	109	111	230	102	149	209	108	122	240	96	160	333
3963	30756	103	108	204	101	111	197	98	125	195	101	114	201	95	138	296
3964	Local Check (LC)	101	126	279	96	120	243	95	146	205	99	132	254	88	127	307
Exp. Mean		**99**	**106**	**255**	**98**	**108**	**226**	**96**	**122**	**214**	**98**	**111**	**241**	**91**	**127**	**272**

Table No. 1.22 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT – IME, Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN												ZONE VII – SOUTHERN		
		Gujarat						Gujarat (3)			Zone VI (4)			Telanagana		
		Nawagam			Vyara			Mean			Mean			Rajendranagar		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3901	30704	102	103	277	99	137	257	97	112	248	95	114	236	99	95	467
3902	30213	114	97	263	91	119	224	100	101	241	99	108	229	106	101	480
3903	30705	115	88	273	84	102	230	100	89	250	99	96	240	112	88	500
3904	30706	110	99	268	83	121	246	93	106	269	94	109	256	99	98	407
3905	29952	109	93	274	89	132	243	98	113	276	98	113	262	117	95	520
3906	30707	114	110	276	88	123	228	100	119	244	99	124	240	114	103	427
3907	30708	115	103	274	86	116	230	100	113	277	99	112	253	112	96	447
3908	30709	103	97	275	93	115	233	95	98	258	95	105	253	112	95	453
3909	30710	95	84	267	86	109	264	89	99	276	89	101	263	99	82	537
3910	30711	101	95	273	82	115	255	90	104	272	90	105	257	99	95	400
3911	30712	110	102	278	89	141	207	97	121	255	97	120	247	104	96	377
3912	30713	116	90	269	102	104	248	108	99	237	105	101	236	104	84	400
3913	30714	95	91	279	83	112	227	89	97	253	90	97	236	99	95	407
3914	Gontra Bidhan-3 (NC)	100	91	275	85	132	195	91	104	258	92	105	246	99	93	443
3915	30715	109	108	272	81	135	257	92	123	273	92	125	263	99	103	413
3916	30716	101	98	272	81	110	210	90	116	248	91	115	242	100	99	427
3917	30717	116	102	272	98	121	242	102	118	277	104	121	263	103	104	540
3918	30718	108	105	275	91	132	276	95	128	277	95	127	259	101	100	430
3919	29950	102	95	273	84	114	255	92	111	285	92	111	270	99	100	443
3920	30719	94	99	269	86	119	188	88	115	229	90	116	226			
3921	30720	114	107	267	102	132	191	102	121	221	101	122	220	99	103	387
3922	30721	108	107	276	85	132	267	95	128	278	95	127	256	108	100	493
3923	30722	109	113	278	89	122	216	97	126	232	97	129	240	105	102	457
3924	30723	97	87	268	85	121	212	90	110	236	91	111	246	102	95	453
3925	30724	110	88	265	90	121	222	97	116	245	96	114	236	104	93	467
3926	29960	113	110	277	96	121	264	103	127	243	101	130	236	107	104	537
3927	30725	110	102	267	87	131	231	94	122	249	93	122	236	101	97	373
3928	29948	119	95	271	86	122	225	98	110	265	97	114	256	112	103	473
3929	30726	121	109	269	102	152	240	108	140	238	110	143	230	118	103	410
3930	30727	95	84	271	85	105	269	89	99	267	90	100	253	103	84	427
3931	30062	110	99	269	90	121	236	99	118	254	98	121	240	112	99	397
3932	30728	109	101	274	88	117	171	97	116	221	97	114	217	109	100	360
3933	30729	114	86	276	85	101	264	98	104	287	97	104	265	100	88	473
3934	30730	98	92	272	81	124	231	87	115	268	89	117	253	99	96	427
3935	29976	94	92	270	83	127	216	86	115	241	88	120	236	104	102	497
3936	30731	110	92	273	95	121	230	100	114	244	98	121	236	110	97	457
3937	30732	92	91	263	83	126	224	87	123	232	89	123	238	99	104	453
3938	30733	102	88	274	80	117	203	90	110	248	91	113	243	99	96	403
3939	30734	95	99	275	87	123	186	87	116	265	89	129	256	99	96	450
3940	30735	119	91	272	77	108	222	95	114	258	96	115	249	110	96	443
3941	Zonal Check (ZC)	97	76	264	82	117	330	88	103	312	89	104	292	99	93	453
3942	30736	96	97	267	81	119	213	88	114	249	89	124	243	104	94	420
3943	29990	107	88	274	89	119	224	96	110	265	96	109	251	112	85	370
3944	30737	98	84	267	95	122	312	93	103	286	93	102	262	104	84	457
3945	30738	120	101	268	87	119	225	102	116	272	101	114	251	104	104	450
3946	30739	107	105	274	97	128	230	96	125	265	96	128	253	106	100	373
3947	30740	125	92	269	105	114	209	112	111	240	113	113	228	127	92	497
3948	30741	118	104	273	100	128	230	104	131	268	102	131	253	118	103	460
3949	30742	101	105	269	85	132	230	90	128	244	91	129	233	100	102	450
3950	30743	103	114	270	86	126	177	92	133	262	92	133	244	101	107	420
3951	30744	121	95	270	84	133	171	102	117	228	103	120	224	117	96	383
3952	30745	119	84	265	99	113	194	106	113	247	105	113	236	118	90	380
3953	30746	119	105	274	85	125	263	98	124	232	97	124	225	102	99	447
3954	30747	117	105	276	83	120	236	96	122	262	96	120	248	104	100	367
3955	30748	109	99	281	87	123	251	94	123	290	94	125	271	105	105	427
3956	30749	107	103	271	94	85	200	98	109	233	97	109	228			
3957	30750	101	89	272	85	121	233	89	112	280	90	113	262	100	88	457
3958	30751	110	86	281	96	101	243	100	105	270	100	104	253	109	82	457
3959	30752	112	99	271	82	114	209	93	111	263	94	112	252	99	94	430
3960	30753	121	106	271	100	125	212	107	122	273	106	125	256	117	100	527
3961	30754	110	93	267	85	137	230	91	128	262	92	128	253	99	101	420
3962	30755	109	104	273	79	119	212	94	128	273	96	133	257	118	107	373
3963	30756	109	93	269	91	120	207	98	117	257	98	119	242	108	94	443
3964	Local Check (LC)	90	84	279	90	112	216	89	107	267	90	117	252	97	96	543
Exp. Mean		**107**	**97**	**272**	**88**	**121**	**229**	**96**	**115**	**258**	**96**	**117**	**247**	**105**	**97**	**441**

Table No. 1.22 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT – IME, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN														
		Telanagana			Telangana (2)			Tamil Nadu						Tamil Nadu (2)		
		Warangal			Mean			Aduthurai			Coimbatore			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3901	30704	96	111	384	97	103	426	83	92	203	80	106	262	81	99	232
3902	30213	106	138	384	106	119	432	85	81	233	95	104	293	90	92	263
3903	30705	101	105	375	106	97	437	88	89	238	103	92	288	95	90	263
3904	30706	98	118	386	99	108	396	89	97	235	90	109	275	89	103	255
3905	29952	103	114	384	110	104	452	88	93	233	101	97	306	94	95	269
3906	30707	106	142	384	110	123	406	88	91	208	97	122	304	92	107	256
3907	30708	103	114	548	108	105	497	91	95	220	94	96	255	92	96	238
3908	30709	97	115	376	104	105	415	91	91	258	94	102	299	92	96	278
3909	30710	109	100	383	104	91	460	90	92	230	79	84	290	84	88	260
3910	30711	94	114	388	96	104	394	91	98	243	90	95	326	90	97	284
3911	30712	98	125	386	101	111	381	92	100	246	99	107	306	95	104	276
3912	30713	109	119	389	106	101	395	92	95	247	96	89	332	94	92	290
3913	30714	93	105	371	96	100	389	90	94	210	100	88	295	95	91	252
3914	Gontra Bidhan-3 (NC)	93	104	351	96	99	397	90	93	235	94	94	271	92	93	253
3915	30715	100	147	388	100	125	401	91	84	215	87	123	246	89	104	231
3916	30716	97	110	371	98	104	399	93	87	220	80	96	251	86	91	235
3917	30717	109	133	378	106	118	459	92	84	223	104	113	323	98	99	273
3918	30718	97	134	384	99	117	407	91	83	233	93	98	308	92	90	270
3919	29950	95	124	373	97	112	408	91	81	223	88	96	273	89	89	248
3920	30719							94	79	218				94	79	218
3921	30720	97	115	376	98	109	381	92	80	220	97	108	257	94	94	239
3922	30721	96	139	370	102	120	431	95	80	335	92	114	306	93	97	320
3923	30722	100	129	363	102	116	410	92	91	270	95	99	288	93	95	279
3924	30723	90	109	375	96	102	414	91	90	205	98	97	273	94	94	239
3925	30724	95	105	376	100	99	421	93	82	278	101	94	286	97	88	282
3926	29960	107	148	376	107	126	456	94	90	210	99	114	315	96	102	262
3927	30725	92	113	376	97	105	375	95	85	208	94	104	268	94	94	238
3928	29948	100	113	368	106	108	421	91	78	233	99	103	262	95	91	247
3929	30726	111	132	378	114	118	394	96	84	205	102	111	301	99	97	253
3930	30727	90	100	386	96	92	406	91	81	198	95	92	295	93	86	246
3931	30062	101	119	371	107	109	384	89	92	233	98	112	279	93	102	256
3932	30728	97	113	365	103	107	362	90	95	233	93	88	271	91	91	252
3933	30729	101	114	378	100	101	426	86	80	198	89	85	253	87	83	225
3934	30730	93	112	376	96	104	401	91	83	183	85	95	242	88	89	212
3935	29976	98	127	380	101	115	438	95	83	215	85	98	306	90	90	260
3936	30731	102	125	388	106	111	422	94	82	203	101	99	301	97	91	252
3937	30732	93	111	376	96	107	415	96	82	208	92	105	271	94	94	239
3938	30733	92	116	368	95	106	386	95	91	270	96	93	339	95	92	304
3939	30734	91	135	376	95	115	413	92	80	231	92	105	279	92	93	255
3940	30735	95	123	378	102	110	411	91	81	223	97	104	286	94	92	254
3941	Zonal Check (ZC)	91	108	365	95	101	409	93	80	250	87	95	297	90	88	274
3942	30736	94	113	365	99	104	392	91	79	205	91	92	284	91	85	244
3943	29990	95	107	366	104	96	368	91	81	203	102	89	273	96	85	238
3944	30737	90	98	371	97	91	414	91	80	195	95	88	301	93	84	248
3945	30738	101	127	394	103	116	422	90	81	233	100	105	306	95	93	269
3946	30739	92	133	376	99	117	375	91	89	230	89	119	321	90	104	276
3947	30740		.		127	92	497	89	81	250	104	96	317	97	89	283
3948	30741	109	138	365	113	121	412	86	82	238	100	116	282	93	99	260
3949	30742	95	131	399	98	116	425	91	78	220	90	118	286	90	98	253
3950	30743	95	153	376	98	130	398	93	84	248	93	124	282	93	104	265
3951	30744	110	118	399	113	107	391	91	84	233	104	104	262	97	94	247
3952	30745	103	110	368	111	100	374	91	84	223	109	98	293	100	91	258
3953	30746	96	119	375	99	109	411	93	89	218	91	110	306	92	99	262
3954	30747				104	100	367	93	84	208	91	105	299	92	95	253
3955	30748	91	123	388	98	114	407	95	85	198	99	112	279	97	99	238
3956	30749							95	81	205				95	81	205
3957	30750	97	112	384	98	100	421	94	89	230	89	89	295	91	89	262
3958	30751	102	104	378	105	93	417	92	84	238	104	94	288	98	89	263
3959	30752	95	119	389	97	106	410	91	84	218	87	96	284	89	90	251
3960	30753	109	119	370	113	109	448	90	83	238	108	105	260	99	94	249
3961	30754	96	123	388	97	112	404	89	84	233	98	105	286	93	95	259
3962	30755	102	135	381	110	121	377	83	81	218	104	127	238	93	104	228
3963	30756	103	128	380	106	111	411	91	84	258	113	117	290	102	101	274
3964	Local Check (LC)	104	133	363	100	115	453	94	88	335	100	77	363	97	82	349
Exp. Mean		**98**	**120**	**380**	**102**	**108**	**412**	**91**	**86**	**229**	**95**	**102**	**288**	**93**	**93**	**257**

Table No. 1.22 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT – IME, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN												Overall Mean (27)		
		Kerala						Kerala (2)			Zone 7(6)					
		Moncompu			Pattambi			Mean			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3901	30704	91	108	243	100	91	441	95	99	342	91	100	333	95	104	282
3902	30213	102	117	270	101	92	398	102	105	334	99	105	343	102	106	268
3903	30705	102	99	320	100	86	440	101	92	380	101	93	360	103	93	288
3904	30706	101	112	323	101	89	330	101	100	326	96	104	326	100	104	274
3905	29952	100	106	250	100	96	335	100	101	293	101	100	338	100	100	294
3906	30707	100	123	380	101	94	410	100	109	395	101	113	352	101	115	296
3907	30708	95	110	207	101	101	424	98	105	315	99	102	350	99	105	282
3908	30709	95	115	290	100	90	322	97	102	306	98	101	333	99	103	286
3909	30710	84	80	360	99	103	335	92	92	347	93	90	356	93	92	300
3910	30711	88	93	210	101	80	414	94	86	312	94	96	330	95	97	280
3911	30712	93	117	347	102	86	403	97	101	375	98	105	344	99	106	270
3912	30713	101	106	460	100	80	385	100	93	423	100	95	369	105	94	300
3913	30714	92	97	267	104	85	354	98	91	311	96	94	317	95	92	283
3914	Gontra Bidhan-3 (NC)	95	114	254	100	93	455	97	103	354	95	98	335	94	100	284
3915	30715	96	127	237	101	95	366	98	111	301	95	113	311	96	115	279
3916	30716	91	110	203	101	98	322	96	104	262	93	100	299	93	106	266
3917	30717	100	116	217	101	91	407	100	103	312	101	107	348	104	107	288
3918	30718	100	120	274	101	96	421	100	108	347	97	105	342	100	110	274
3919	29950	95	114	320	102	88	370	98	101	345	95	100	334	96	102	289
3920	30719				100	92	415	100	92	415	97	85	316	96	103	259
3921	30720	92	121	210	101	90	421	96	106	316	96	103	312	97	107	246
3922	30721	92	119	194	99	92	435	95	105	314	97	107	355	98	112	287
3923	30722	93	120	317	100	97	410	97	108	364	97	106	351	100	113	278
3924	30723	93	105	240	101	92	365	97	98	303	95	98	318	94	103	277
3925	30724	94	108	227	101	87	360	98	97	294	98	95	332	98	100	296
3926	29960	100	120	254	100	102	405	100	111	329	101	113	349	103	112	280
3927	30725	91	112	187	102	94	370	97	103	279	96	101	297	94	107	259
3928	29948	97	113	290	101	102	410	99	108	350	100	102	339	101	105	289
3929	30726	109	128	210	100	87	371	105	107	291	106	107	313	110	117	272
3930	30727	91	93	284	100	98	375	95	95	329	95	91	327	95	92	280
3931	30062	95	117	247	100	89	371	97	103	309	99	104	316	100	114	289
3932	30728	98	108	254	99	82	415	98	95	334	97	97	316	99	102	269
3933	30729	92	96	224	100	88	385	96	92	304	94	92	318	99	94	287
3934	30730	92	99	307	100	95	385	96	97	346	93	97	320	93	102	285
3935	29976	95	116	237	100	98	344	97	107	290	96	104	330	95	106	284
3936	30731	102	112	227	100	93	405	101	102	316	101	101	330	102	105	275
3937	30732	90	111	210	101	94	331	96	102	270	95	101	308	95	105	264
3938	30733	91	103	213	100	97	357	96	100	285	95	99	325	95	103	283
3939	30734	91	107	253	102	93	351	96	100	302	94	103	323	95	107	274
3940	30735	93	106	193	100	93	400	97	99	297	97	100	320	98	102	279
3941	Zonal Check (ZC)	90	97	297	100	99	420	95	98	358	93	95	347	96	99	302
3942	30736	91	111	207	100	95	400	96	103	304	95	97	313	94	103	270
3943	29990	89	107	304	100	85	304	94	96	304	98	92	303	99	98	260
3944	30737	92	80	230	100	81	395	96	81	313	95	85	325	97	87	284
3945	30738	92	116	324	101	86	326	96	101	325	98	103	339	102	103	285
3946	30739	98	109	267	102	100	372	100	104	319	96	108	323	99	111	276
3947	30740	122	107	314	100	105	432	111	106	373	108	96	362	112	102	288
3948	30741	101	128	263	101	93	401	101	110	332	102	110	335	105	114	285
3949	30742	94	115	297	101	98	344	97	106	320	95	107	333	95	113	284
3950	30743	93	126	177	102	102	410	97	114	293	96	116	319	95	118	265
3951	30744	122	107	240	101	93	381	111	100	310	107	100	316	107	107	268
3952	30745	92	108	313	100	102	417	96	105	365	102	98	332	106	96	277
3953	30746	93	109	227	101	93	437	97	101	332	96	103	335	98	109	264
3954	30747				102	100	366	102	100	366	97	97	310	96	106	260
3955	30748	97	122	290	101	89	395	99	105	343	98	106	329	97	110	285
3956	30749				100	97	425	100	97	425	97	89	315	100	101	274
3957	30750	89	89	287	100	94	380	94	91	333	95	93	339	94	101	286
3958	30751	101	96	287	100	100	460	100	98	373	101	93	351	102	94	294
3959	30752	91	115	297	100	108	406	96	112	351	94	103	337	96	104	277
3960	30753	102	116	260	101	98	340	102	107	300	104	103	332	106	107	269
3961	30754	111	103	253	101	107	380	106	105	317	99	104	327	99	106	272
3962	30755	122	126	230	101	107	420	112	116	325	105	114	310	104	113	278
3963	30756	100	114	240	100	103	335	100	108	288	102	107	324	101	107	279
3964	Local Check (LC)	97	106	320	100	88	395	98	97	358	98	98	387	98	106	300
Exp. Mean		**96**	**110**	**264**	**100**	**94**	**387**	**98**	**101**	**329**	**98**	**101**	**331**	**99**	**104**	**279**

Table No. 1.22 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT-IME, (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED														
		Uttarakhand			Punjab			Bihar			West Bengal					
		@Pantnagar			@Ludhiana			@Patna-ICAR			@Hatwara			@Malda		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3901	30704	97	109	272	94	99	211	83	107	350	106	95		100	112	382
3902	30213	108	104	267	113	78	261	97	121	357	110	100		111	115	301
3903	30705	110	91	328				98	104	414	110	95		100	102	408
3904	30706	108	107	317	107	82	215	92	115	341	110	90		93	100	309
3905	29952	102	94	339	109	79	314	80	113	326	109	83		92	99	388
3906	30707	100	123	266	106	101	248	92	136	377	110	105		101	121	294
3907	30708	98	105	261	112	88	234	91	113	335	107	105		96	109	417
3908	30709	100	96	286	106	76	264	91	111	333	107	98		101	105	314
3909	30710	92	98	286	91	75	290	89	103	311	101	85		102	95	386
3910	30711	95	96	263	99	82	254	82	111	343	102	93		97	100	412
3911	30712	99	109	329	102	93	205	90	108	398	109	95		97	100	321
3912	30713	123	79	322				104	98	429	109	85		98	90	382
3913	30714	96	87	255	100	84	228	86	99	374	105	88		97	95	291
3914	Gontra Bidhan-3 (NC)	95	92	241	96	86	231	86	113	323	109	92		93	94	353
3915	30715	98	121	252	97	102	257	84	135	342	106	107		92	130	313
3916	30716	94	112	244	90	95	238	83	118	262	99	103		95	118	351
3917	30717	111	101	283	116	80	281	103	104	338	115	91		107	110	287
3918	30718	103	115	273	108	84	198	92	117	374	109	90		93	129	403
3919	29950	102	102	307	106	92	261	86	115	410	105	100		94	119	331
3920	30719				98	92	271	86	115	291				95	126	375
3921	30720	97	105	238	100	97	198	87	118	231	108	113		91	107	281
3922	30721	98	113	263	103	98	261	87	112	222	107	99		94	116	427
3923	30722	105	128	268	109	100	254	89	131	310	106	112		93	116	314
3924	30723	95	99	261	98	78	277	85	109	347	105	84		101	108	352
3925	30724	100	99	253	106	87	228	92	112	343	109	99		97	98	318
3926	29960	111	108	304	113	89	251	96	134	324	109	97		92	102	314
3927	30725	95	111	226	101	88	221	86	120	281	107	95		100	107	345
3928	29948	104	108	301	110	81	277	91	108	394	110	82		97	113	278
3929	30726	120	107	263		.		104	126	316	110	96		91	130	290
3930	30727	97	92	251	102	75	261	83	102	335	100	83		92	90	370
3931	30062	101	104	273	108	97	317	92	122	363	115	78		97	114	280
3932	30728	99	100	238	104	84	215	90	112	243	109	85		101	105	315
3933	30729	101	96	312	107	72	287	91	104	258	105	93		101	105	394
3934	30730	97	98	282	97	84	257	80	116	307	101	96		91	100	347
3935	29976	91	102	270	87	83	271	77	110	326	98	98		98	88	279
3936	30731	110	88	246	115	73	238	100	118	330	109	96		94	102	382
3937	30732	97	106	194	95	101	297	84	118	341	101	97		98	100	281
3938	30733	98	99	273	95	92	274	82	104	367	105	85		94	101	284
3939	30734	99	109	251	100	95	224	91	126	342	104	98		91	105	391
3940	30735	100	100	197	103	96	290	87	105	273	108	99		94	92	315
3941	Zonal Check (ZC)	101	95	245	99	76	277	87	116	425	99	105		101	103	328
3942	30736	96	113	263	93	98	234	85	123	266	103	90		102	105	289
3943	29990	100	95	330	113	75	205	91	109	332	110	88		109	99	391
3944	30737	96	83	295	98	77	215	85	93	363	105	74		99	93	327
3945	30738	109	104	240	107	93	277	101	116	386	109	97		96	126	400
3946	30739	104	105	280	101	94	271	92	116	334	106	95		93	106	288
3947	30740	124	89	274				107	109	380	113	83		91	110	367
3948	30741	115	114	276	116	103	264	99	122	382	109	91		93	116	353
3949	30742	96	109	269	97	99	215	82	125	306	106	102		92	125	302
3950	30743	97	123	254	95	121	185	85	134	260	104	107		99	123	282
3951	30744	125	97	278				114	109	357	110	85		94	127	314
3952	30745	113	90	227				105	99	322	109	82		98	100	284
3953	30746	102	121	274	103	88	244	91	113	319	106	96		96	115	321
3954	30747	97	107	275	100	95	264	85	111	320	110	105		91	110	374
3955	30748	95	116	248	98	91	254	86	124	365	104	97		94	105	320
3956	30749	92	119	172								.		91	90	377
3957	30750	89	106	249	92	82	271	80	108	259	101	83		90	110	303
3958	30751	110	97	282				92	105	372	110	80		93	116	405
3959	30752	95	106	267	97	86	241	85	97	333	110	91		94	103	319
3960	30753	120	100	270				85	124	243	111	95		95	108	387
3961	30754	102	108	306	107	96	287	92	115	378	111	81		89	112	300
3962	30755	110	119	349	113	86	294	93	130	355	109	100		96	124	376
3963	30756	101	114	261	107	83	284	96	118	409	115	70		101	118	326
3964	Local Check (LC)	88	104	276	107	82	294	102	94	358	101	95		92	105	307
Exp. Mean		**102**	**104**	**270**	**102**	**88**	**253**	**90**	**114**	**335**	**107**	**93**		**96**	**108**	**337**

Table No. 1.22 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT-IME, (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED														
		Madhya Pradesh			Chattisgarh			Andhra Pradesh (0)			Karnataka (0)			Puducherry (0)		
		@Rewa			@Jagadalpur			@Maruteru			@Mandya			@Karaikal		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
3901	30704	97	93	254	83	95	238	84	127	267	90	90	244	93	103	630
3902	30213	110	83	272	105	82	218	97	134	323	95	93	257	94	131	791
3903	30705	109	84	316	105	78	201	97	121	310	110	84	244	91	107	535
3904	30706	110	87	248	99	79	167	88	128	320	98	86	217	94	88	654
3905	29952	106	75	328	101	81	261	88	126	350	103	83	244	97	104	630
3906	30707	109	86	284	97	94	259	87	127	333	94	105	230	99	100	710
3907	30708	106	93	260	97	92	214	93	120	304	92	89	257	99	105	632
3908	30709	102	89	301	102	85	205	90	129	323	105	91	284	95	107	622
3909	30710	96	85	282	89	80	185	81	110	317	93	87	250	92	76	485
3910	30711	100	89	316	92	104	195	83	111	281	91	83	217	96	119	804
3911	30712	107	89	338	98	102	270	88	127	310	105	82	257	93	109	654
3912	30713				101	76	238	104	115	320	102	73	264	95	90	654
3913	30714	100	83	284	90	79	162	81	105	284	102	78	244	97	104	514
3914	Gontra Bidhan-3 (NC)	104	92	287	90	82	160	81	109	277	102	80	217	97	107	548
3915	30715	102	98	311	90	119	205	82	127	307	91	101	237	97	123	758
3916	30716	99	93	316	93	94	176	81	118	307	91	89	257	94	99	708
3917	30717	109	104	295	108	92	258	97	129	343	117	98	271	96	126	507
3918	30718	104	93	308	99	93	260	90	120	327	106	81	244	94	122	713
3919	29950	96	74	303	92	89	240	86	132	307	94	84	298	95	110	446
3920	30719	101	93	248	88	88	188				107	102	250	96	101	456
3921	30720	111	92	243	96	98	180	94	111	264	97	87	196	95	131	404
3922	30721	100	99	337	101	94	263	88	110	333	94	96	338	95	133	544
3923	30722	110	95	265	99	95	216	87	130	343	99	89	230	95	129	532
3924	30723	102	87	239	96	83	200	82	116	290	102	85	210	94	107	540
3925	30724	106	87	364	97	96	248	86	122	290	100	72	244	95	124	560
3926	29960	98	87	245	98	112	203	96	114	310	98	94	250	95	125	695
3927	30725	103	97	280	95	95	223	87	120	251	98	99	176	96	100	443
3928	29948	105	87	263	99	83	170	90	118	327	102	90	257	100	112	631
3929	30726	111	85	308	105	92	200	101	155	343	102	106	230	93	121	643
3930	30727	104	89	249	99	79	216	85	97	320	98	80	237	97	89	901
3931	30062	108	78	303	89	96	200	92	128	317	97	96	244	92	145	663
3932	30728	103	82	209	98	83	191	97	118	314	96	86	217	97	110	403
3933	30729	95		291	98	85	240	91	119	297	92	78	271	99	109	530
3934	30730	105	89	209	88	96	188	87	117	314	90	87	244	95	109	678
3935	29976	101	91	274	98	77	213	93	129	333	94	83	257	98	97	545
3936	30731		84		100	74	203	97	129	327	98	83	298	95	120	448
3937	30732	106	97	209	89	99	260	87	117	267	94	92	237	96	109	631
3938	30733	102	90	278	90	88	215	86	120	310	84	85	244	95	109	656
3939	30734	104	97	288	90	95	220	85	137	343	97	95	230	95	121	542
3940	30735	98	87	282	97	86	225	92	118	353	97	83	230	96	111	649
3941	Zonal Check (ZC)	101	74	226	88	89	181	84	116	353	88	86	244	95	84	578
3942	30736	101	85	350	97	88	201	82	119	327	90	89	277	95	96	499
3943	29990	103	65	323	99	73	171	90	114	300	106	80	244	95	114	463
3944	30737	107	83		95	77	189	94	132	340	102	71	284	93	117	566
3945	30738		87		98	96	248	83	100	310	96	71	311	98	123	536
3946	30739		91		96	86	210	87	125	314	111	92	237	98	124	672
3947	30740		89		108	92	253	106	123	297	107	85	264	96	119	650
3948	30741	107	.	337	104	98	230	97	150	333	102	104	277	96	133	531
3949	30742	104	93	262	88	85	267	85	135	340	91	98	230	96	122	653
3950	30743	101	94	233	93	112	208	80	147	320	105	98	250	98	133	644
3951	30744		.		110	91	243	96	132	343	106	81	223	96	118	510
3952	30745	110	83	274	107	91	253	97	113	307	111	79	223	95	106	457
3953	30746	106	92	221	92	90	236	94	128	337	96	95	291	96	108	441
3954	30747	101	91	273	92	106	270	85	106	314	96	92	250	94	118	846
3955	30748	105	87	342	97	97	225	80	121	297	104	106	264	96	129	566
3956	30749	107	84	246	87	101	226							98	160	404
3957	30750	94	84	337	89	88	250	84	112	297	91	90	264	100	100	619
3958	30751	109	75	267	98	71	164	97	106	317	109	73	325	97	101	718
3959	30752	104	77	296	102	70	133	87	123	307	90	80	264	100	111	502
3960	30753	111	92	301	89	86	176	101	135	353	103	89	244	93	111	569
3961	30754	104	85	285	107	87	223	95	143	327	102	83	223	95	122	732
3962	30755		92		98	92	275	97	136	343	112	105	277	94	129	561
3963	30756	97	80	232	108	93	241	97	130	317	103	93	264	96	115	500
3964	Local Check (LC)	96	85	243	95	80	203	112	117	310	108	99	271	99	113	479
Exp. Mean		**103**	**88**	**281**	**97**	**89**	**216**	**90**	**123**	**315**	**99**	**88**	**251**	**95**	**113**	**590**

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

Locations: 50 **Test Entries: 15**

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: 1.23**

AVT-2-IM trial constituted with 19 entries (15 test entries and 4 checks) was sent to 50 locations covering 6 zones (II, III, IV, V, VI and VII) across the country. Among the total test entries, 7 are hybrid entries and 8 are varietal entries 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) and a local check (LC). Data was not received from five locations namely Bhubaneswar, ICAR-NRRI (Cuttack), Gorakhpur, Gerua-ICAR and Mugad. Data from few locations such as Pantnagar due to low experimental mean; Patna, Nagina, Malda, Masoda, Titabar, Arundhutinagar, Lembucherra and Mandya due to low CV % and Tirur due to high CV % was not included in the analysis.

Experimental mean across the locations ranged from 4297 kg/ha at Pattambi to 9022 kg/ha at Ragolu. Overall entry mean varied from 5293 kg/ha (Zonal check) to 6853 kg/ha (IET 29000). CV ranged from as low as 5.2 % at Bankura to as high as 19.11% at Jagadalpur. Days to fifty percent flowering (DFF) ranged from 97 days for IET 29014 to 114 days for IET 29301, plant height from 102.22 cm (NDR 359:NC) to 120.81cm (IET 29284) and panicles/m^2 ranged from 273 (IET 29284) to 305 (IET 28489, HRI 174 and IET 29000). The data pertaining to yield, days to 50% flowering, plant height, panicles/m^2 and quality are presented in tables 1.254, 1.25 and 1.26 respectively.

All the 15 test entries are in third year of testing and performance of these entries are discussed below.

IET 29256 (BPT 3050), a varietal entry has completed three years of testing from 2020, 2021 and 2022. In 2020, it recorded mean grain yield of 5838 kg/ha in Haryana, Maharashtra with yield advantage of 8 % over the BVC. In 2021, it recorded grain yield was 6428 and 5849 kg/ha in Assam and Gujarat states with yield advantage of 18 and 8 % over the BVC. In 2022, it recorded 8292 kg/ha in zone II but not in any state. 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 not observed. ***Hence, the varietal entry IET 29256 is recommended for Repeat.***

IET 29290 (HURS 19-3), a varietal entry has completed three years of testing from 2020, 2021 and 2022. In 2020, it recorded mean grain yield of 7197 kg/ha in Andhra Pradesh state with yield advantage of 29 % over the BVC. In 2021, it recorded grain yield of 6425 and 5248 kg/ha in Zone II and V respectively but not in any state. In 2022, it did not record any significant yield performance in any state. ***Hence, the varietal entry IET 29290 is recommended for Repeat.***

Three-year performance of entries during Kharif 2022

IET No.	Year	Zone	No. of Locations	Yield (kg/ha)	Yield adv. Over BVC/ HC (%)	States	No. of Locations	Yield (Kg/ha)	Yield adv. Over BVC/ HC (%)	Remarks
IET 29256	2020	V	4	5838	18	MA 1	2	5838	8	Repeat
	2021	IV	2	5630	8	AS	1	6428	18	
		VI	4	5839	8	GU	2	5849	8	
	2022	II	1	8292	35	-	-	-	-	
IET 29290	2020	VII	7	6664	6	AP	2	7197	29	Repeat
	2021	II	3	6425	8	-	-	-	-	
		V	6	5248	6					
	2022	-	-	-	-	-	-	-	-	
IET 29301	2020	VII	7	6652	6	AP	2	6878	23	Repeat
						TE	1	9829	34	
	2021	II	3	6901	16	-	-	-	-	
		IV	2	5765	11	TR	1	6495	18	
		V	6	5315	7	-	-	-	-	
	2022	-	-	-	-	-	-	-	-	
IET 29257	2020	V	4	5415	9	MP	1	6981	15	Repeat
	2021	II	3	6352	7	PU	1	5486	20	
	2022	-	-	-	-	-	-	-	-	
IET 28489	2019	II	3	6625	15.90	-	-	-	-	**Promising for the states if Chhattisgarh and Bihar**
		III	7	6321	9.89	OD	3	6905	13	
						BI	2	6745	12	
		V	5	5998	11.42	MP	1	6888	34	
						CH	2	6626	9	
		VI	5	6091	13.49	GU	3	6416	16	
	2021	II	3	6489	9	-	-	-	-	
		III	6	6296	5	UP	1	8346	18	
		V	6	5451	10	CH	4	5557	5	
	2022	II	3	7801	27	-	-	-	-	
		III	8	6818	14	BI	2	8464	29.41	
		V	7	5601	13	CH	4	6155	22	
		VI	4	6172	8.7	MH	4	5409	12	
		VII	13	6877	14	KA	2	6306	12	
						TN	2	7171	10	
						TE	4	7047	24.72	
IET 29268	2020	III	3	5791	8	OD	3	5791	8	**Promising for the state of Odisha only**
		VII	7	7195	14	AP	2	6954	24	
						TE	1	9231	26	
						KA	2	7523	11	
	2021	VI	4	5672	5	MA2	2	5951	9	
	2022	III	8	6656	11	OD	2	6131	12	
						BI	2	7063	8	
						WB	2	7382	11	
IET 29284	2020	III	3	6270	17	OD	3	6270	17	Repeat
		V	4	5552	12	MA1	2	6165	14	
		VII	7	6875	9	TE	1	9487	29	
	2021	VII	13	6598	4.73	AP	2	6633	10	

IET No.	Year	Zone	No. of Locations	Yield (kg/ha)	Yield adv. Over BVC/ HC (%)	States	No. of Locations	Yield (Kg/ha)	Yield adv. Over BVC/ HC (%)	Remarks
						KA	3	6768	13	
	2022	II	3	6661	9	-	-	-	-	
		III	8	6527	9	BI	2	7345	12	
						WB	2	7155	8	
		V	7	5250	6	CH	4	5938	18	
IET 27908	2020	VII	7	6650	6	AP	2	6409	15	**Promising for the state of Telangana only**
						TE	1	8889	21	
	2021	II	3	8074	35.8	-	-	-	-	
		IV	2	7098	37	AS	1	6428	18	
						TR	1	7767	41	
	2022	II	3	7310	19	-	-	-	-	
		VI	4	6264	10	MA	4	5614	14	
		VII	13	6803	12	TE	4	6330	12	
						TN	2	7594	16	
						PY	2	7852	8.67	
IET 29001	2020	VII	6	6790	22, 10	AP	2	5734	17.2, 32.7	**Promising for the state of Andhra Pradesh only**
						KA	1	10435	40, 19	
	2021	VI	4	6715	25, 11	GU	2	6727	24, 11	
	2022	VII	13	6874	14, 16	AP	2	8633	6, 47	
						TE	4	6989	24, 14	
						TN	2	7242	11, 15	
IET 29014	2020	IV	2	6123	22, 42	-	-	-	-	Repeat
		V	7	7083	11, 9	CH	3	7565	17.5, 8.5	
						MP	2	7343	12.5, 13	
	2021	II	3	6610	11,23	J&K	1	6422	25, 60	
	2022	-	-	-	-	-	-	-	-	
IET 29009	2020	VI	5	6068	12, 17	GU	2	6963	13, 50.9	Repeat
	2021	II	3	6928	17,28	PU	1	6244	37,32	
						HA	1	9029	10,21	
	2022	-	-	-	-	-	-	-	-	
IET 29004	2020	III	5	7172	15, 12	-	-	-	-	Repeat
	2021	VI	4	6438	19,7	MH (2)	2	6750	24,13	
	2022	III	8	7212	20.2,9.9	OD	2	6709	22, 22	
						BI	2	7082	13, 15	
						JH	1	6556	24, 17	
IET 28997	2020	VII	6	6761	22,10	TS	2	7246	37.9,18.6	**Promising for the state of Punjab only**
						KA	1	10266	37.8,17.2	
	2021	II	3	6703	13,24	PU	1	6528	43,38	
		III	6	6818	14,19	OD	2	7540	18,65	
						JK	1	6337	42,28	
		V	6	5617	13,14	CH	4	6219	18,15	
	2022	II	3	6977	14, 13	PB	1	7674	32, 38	
IET 29002	2020	V	7	7531	18, 15	CH	3	7930	23.2, 13.8	Repeat
	2021	II	3	6624	11,23	PB	1	5536	21,17	
	2022	-	-	-	-	-	-	-	-	
IET	2020	VII	6	6672	20, 9	TE	2	6862	30.6,	Repeat

IET No.	Year	Zone	No. of Locations	Yield (kg/ha)	Yield adv. Over BVC/ HC (%)	States	No. of Locations	Yield (Kg/ha)	Yield adv. Over BVC/ HC (%)	Remarks
29000									12.3	
	2021	III	6	6764	13,18	JH	1	6163	38,25	
	2022	II	3	7470	22, 21	-	-	-	-	
		III	8	7256	21, 11	BI	2	7414	13, 16	
		V	7	5768	16.7, 9	MH	1	6204	26, 52	
		VII	13	6917	14, 17	TN	2	8612	32, 36	

IET 29301 (AD 16124), a varietal entry has completed three years of testing from 2020, 2021 and 2022. It recorded mean grain yield of 6878 and 9829 kg/ha in Andhra Pradesh and Telangana states with yield advantage of 23 and 34 % over the BVC. In 2021, it recorded grain yield of 6495 kg/ha in Tripura state (Zone IV). In 2022, it did not record any significant yield performance in any state. ***Hence, the varietal entry IET 29301 is recommended for Repeat.***

IET 29257 (RNR 28399), a varietal entry has completed three years of testing from 2020, 2021 and 2022. It recorded mean grain yield of 6981 kg/ha in Madhya Pradesh state, with yield advantage of 15 % over the BVC. In 2021, it recorded mean grain yield 5486 kg/ha in Punjab state with yield advantage of 20 % over the BVC. In 2022, it did not record any significant yield performance in any state. ***Hence, the varietal entry IET 29257 is recommended for Repeat.***

IET 28489 (BRR 2141), a varietal entry has completed three years of testing from 2019, 2021 and 2022. In 2019, it recorded mean grain yield of 6905, 6745, 6888, 6626 and 6416 kg/ha in Odisha, Bihar, Madhya Pradesh, Chhattisgarh and Gujarat in Zone III, V and VI respectively with yield advantage of 13, 12, 34, 9 and 16% over the BVC. In 2021, it recorded grain yield of 8346 and 5557 kg/ha in Uttar Pradesh and Chhattisgarh states in zone III and V respectively with yield advantage of 18 and 5% over the BVC. In 2022, it recorded grain yield of 8464, 6155, 5409, 6306, 7171 and 7047 kg/ha in Bihar, Chhattisgarh, Maharashtra, Karnataka, Tamil Nadu and Telangana in Zones III, V, VI and VII respectively, with yield advantage of 29.41, 22, 12, 12, 10 and 24.72% over the BVC. Also, 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 a two states, Chhattisgarh and Bihar States. Further, IET 28489 recorded acceptable grain quality with MS grain type, HRR of 63.7 %, AC of 27.82 %, GC of 43.5 mm and an ASV of 4.0. ***Hence, the Varietal entry IET 28489 is considered promising for the states of Chhattisgarh and Bihar states only.***

IET 29268 (OROI-8-IR-88228-33-3-5-2), a varietal entry has completed three years of testing from 2020, 2021 and 2022. In 2020, it recorded mean grain yield of 5791, 6954, 9231 and 7523 kg/ha in Odisha, Andhra Pradesh, Telangana and Karnataka in Zones III and VII respectively, with yield advantage of 8, 24, 26 and 11% over the BVC. In 2021, it recorded grain yield of 5951 kg/ha in Maharashtra State with yield advantage of 9 % over the BVC. In 2022, it recorded grain yield of 6131, 7063 and 7382 kg/ha in Odisha, Bihar and West Bengal states, with yield advantage of 12, 8 and 11% over the BVC. Also, 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 a one state, Odisha. Further, IET 29268 recorded grain quality parameters with LS grain type, HRR of 55 %, AC of 26.69 %, GC of 22 mm and an ASV of 4.0. ***Hence, the varietal entry IET 29268 is considered promising for the state of Odisha only.***

IET 29284 (MTU 1348), a varietal entry has completed three years of testing from 2020, 2021 and 2022. 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, with yield advantage of 17, 14 and 29 % over the BVC. In 2021, it recorded grain yield of 6633 and 6768 kg/ha in Andhra Pradesh and Karnataka state with yield advantage of 10 and 13 % over the BVC. In 2022, it recorded grain yield of 7345, 7155 and 5938 kg/ha in Bihar, West Bengal and Chhattisgarh states in zone II and V, with yield advantage of 12, 8 and 18% over the BVC. 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 not observed. ***Hence, the varietal entry IET 29284 is recommended for Repeat.***

IET 27908 (MTU 1275), a varietal entry has completed three years of testing from 2020, 2021 and 2022. In 2020, it recorded mean grain yield of 6409 and 8889 kg/ha in Andhra Pradesh and Telangana in Zones VII, with yield advantage of 15 and 21% over the BVC. In 2021, it recorded grain yield of 6428 and 7767 kg/ha in Assam and Tripura states with yield advantage of 18 and 41 % over the BVC. In 2022, it recorded grain yield of 5614, 6330, 7594 and 7852 kg/ha in Maharashtra, Telangana, Tamil Nadu and Puducherry in zone VI and VII, with yield advantage of 14, 12, 16 and 8.6 % over the BVC. Also, 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 a one state, Telangana. Further, IET 27908 recorded grain quality parameters with MS grain type, HRR of 63.6 %, AC of 26.26 %, GC of 22 mm and an ASV of 5.0. ***Hence, the varietal entry IET 27908 is considered promising for the state of Telangana only.***

IET 29001 (*S-7004*), a hybrid entry has completed three years of testing from 2020, 2021 and 2022. In 2020, it recorded mean grain yield of 5734 and 10435 kg/ha in Andhra Pradesh and Karnataka with yield advantage of 17.2, 32.7 % and 40, 19 % over the BVC and HC respectively. In 2021, it recorded grain yield of 6727 kg/ha in Gujarat with yield advantage of 24 and 11% over the BVC and HC respectively. In 2022, it recorded grain yield of 8633, 6989 and 7242 kg/ha in Andhra Pradesh, Telangana and Tamil Nadu with yield advantage of 6, 27%; 24, 14% and 11, 15% over the BVC and HC respectively. Despite its superior performance over the BVC and HC in several states across the years, consistent performance at least in two years with required yield advantage over BVC and HC was observed only in a single state, Andhra Pradesh. Further, IET 29001 recorded acceptable grain quality with LB grain type, HRR of 55.7 %, AC of 25.705 %, GC of 22 mm and an ASV of 7.0. ***Hence, the hybrid entry IET 29001 is considered promising for the state of Andhra Pradesh only.***

IET 29014 (*MEPH-159*), a hybrid entry has completed three years of testing from 2020, 2021 and 2022. In 2020, it recorded mean grain yield of 7565 and 7343 kg/ha in Chhattisgarh and Madhya Pradesh states with yield advantage of 17.5, 8.5 and 12.5, 13% over the BVC and HC respectively. In 2021, it recorded grain yield of 6422 kg/ha in Jammu & Kashmir with yield advantage of 25 and 60 % over the BVC and HC respectively. In 2022, it did not record significant yield performance in any state. Despite its superior performance over the BVC and HC in several states across the years, consistent performance at least in

two years with required yield advantage over BVC and HC was not observed. ***Hence, the hybrid entry IET 29014 is recommended for Repeat.***

IET 29009 (*US-375*), a hybrid entry has completed three years of testing from 2020, 2021 and 2022. In 2020, it recorded mean grain yield of 6963 kg/ha in Gujarat with yield advantage of 25 and 50.9% over the BVC and HC respectively. In 2021, it recorded grain yield of 6244 and 9029 kg/ha in Punjab and Haryana states with yield advantage of 37, 32% and10, and 21 % over the BVC and HC respectively. In 2022, it did not record significant yield performance in any state. Despite its superior performance over the BVC and HC in several states across the years, consistent performance at least in two years with required yield advantage over BVC and HC was not observed. ***Hence, the hybrid entry IET 29009 is recommended for Repeat.***

IET 29004 (*PHI-20107*), a hybrid entry has completed three years of testing from 2020, 2021 and 2022. In 2020, it recorded mean grain yield of 7172 kg/ha in Zone III but not in any state. In 2021, it recorded grain yield of 6750 kg/ha in Maharashtra state with yield advantage of 24 and 13 % over the BVC and HC respectively. In 2022, it recorded grain yield of 6709, 7082 and 6556 kg/ha in Odisha, Bihar and Jharkhand with yield advantage of 22, 22%; 13, 15% and 24, 17% over the BVC and HC respectively. Also, despite its superior performance over the BVC and HC in several states across the years, consistent performance at least in two years with required yield advantage over BVC and HC was not observed. ***Hence, the hybrid entry IET 29004 is recommended for Repeat.***

IET 28997 (*HRI-204*), a hybrid entry has completed three years of testing from 2020, 2021 and 2022. In 2020, it recorded mean grain yield of 7246 and 10266 kg/ha in Telangana and Karnataka with yield advantage of 37.9, 18.6 % and 37.8, 17.2 % over the BVC and HC respectively. In 2021, it recorded grain yield of 6528, 7540, 6337 and 6219 kg/ha in Punjab, Odisha, Jharkhand and Chhattisgarh in zone II, III and V respectively with yield advantage of 43, 38 %; 18, 65 %; 42, 28 % and 18, 15 % over the BVC and HC respectively. In 2022, it recorded grain yield of 7674 kg/ha in Punjab with yield advantage of 32 and 38%, over the BVC and HC respectively. Despite its superior performance over the BVC and HC in several states across the years, consistent performance at least in two years with required yield advantage over BVC and HC was observed only in a single state, Punjab. Further, IET 28997 recorded acceptable grain quality with LB grain type, HRR of 58.7 %, AC of 22.82 %, GC of 45 mm and an ASV of 4.0. ***Hence, the hybrid entry IET 28997 is considered promising for the state of Punjab only.***

IET 29002 (*PHI-20106*), a hybrid entry has completed three years of testing from 2020, 2021 and 2022. In 2020, it recorded mean grain yield of 7930 kg/ha in Chhattisgarh state with yield advantage of 23.2 and 13.8% over the BVC and HC respectively. In 2021, it recorded grain yield of 5536 kg/ha in Punjab state with yield advantage of 21 and 17% over the BVC and HC respectively. In 2022, it did not record significant yield performance in any state. Despite its superior performance over the BVC and HC in several states across the years, consistent performance at least in two years with required yield advantage over BVC and HC was not observed. ***Hence, the hybrid entry IET 29002 is recommended for Repeat.***

IET 29000 (*HRI-205*), a hybrid entry has completed three years of testing from 2020, 2021 and 2022. In 2020, it recorded a mean grain yield of 6862 kg/ha in Telangana state with yield advantage of 30.6 and 12.3% over the BVC and HC respectively. In 2021, it recorded grain yield of 6163 kg/ha in Jharkhand state with yield advantage of 38 and 25 % over the

BVC and HC respectively. In 2022, it recorded grain yield of 7414, 6204 and 8612 kg/ha in Bihar, Maharashtra and Tamil Nadu in Zone III, V and VII respectively, with yield advantage of 13, 16%; 26, 52% and 32, 36% over the BVC and HC respectively. Despite its superior performance over the BVC and HC in several states across the years, consistent performance at least in two years with required yield advantage over BVC and HC was not observed. ***Hence, the hybrid entry IET 29000 is recommended for Repeat.***

.

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

Three varietal entries viz., IET 28489, 29268 and 27908 and two hybrid entries namely IET 29001 and IET 28997 are found promising for different states. Details are given below.

- IET 28489, a varietal entry is considered promising for the states of Chhattisgarh and Bihar.
- IET 29268, a varietal entry is considered promising for the state of Odisha only.
- IET 27908, a varietal entry is considered promising for the state of Telangana only.
- IET 29001, a hybrid entry is considered promising for the state of Andhra Pradesh only.
- IET 28997, a hybrid entry is considered promising for the state of Punjab only.

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

Locations: 50 **Test Entries: 44**

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: 1.27**

AVT-1-IM trial constituted with 44 entries was sent to 50 locations covering 6 zones (II, III, IV, V, VI and VII) across the country. Among the total test entries, 25 are varietal test entries, 7 are hybrid entries, 5 Near Isogenic lines, 3 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 seven locations namely ICAR-NRRI (Cuttack), Gerua-ICAR, Arundathinagar, Waraseoni, Bilaspur, Kunaram and Mugad. Data from following locations were not included in analysis due to low CV (Malda, Titabar and Lembucherra), low experimental mean yield (Pantnagar, Brahmavar and Lembucherra), based on F value significance (Pattambi and Kurumbapet). The data pertaining to yield, days to 50% flowering, plant height, panicles/m^2 and quality are presented in tables 1.28, 1.29 and 1.30 respectively.

Zone wise performance of the entries is discussed here under:

Northern Zone (II)

Twenty-five varietal and seven hybrid entries were tested across five locations *viz*., Pantnagar (Uttarakhand), Ludhiana (Punjab), Kaul (Haryana), Chatha (Jammu &Kashmir) and Nagina (Uttar Pradesh). Data from Pantnagar (Uttarakhand) is not included in the analysis due to low experimental mean yield (2436kg/ha). In Zone II, the mean yield of the entries varied from 3377 kg/ha (IET 29873) to 6408 kg/ha (IET 29743) and days to 50%flowering ranged from 108 days (IET's 29843, 29837 and29834) to 128 days (IET 29287). Plant height ranged from 91cm (IET 29287) to 121 cm (IET 29868) whereas panicles/m^2ranged from 253 (IET 29287) to 337 (IET 29749). In this zone II, only one entry IET 29743(Hybrid) recorded significant superior yield performance over best varietal check (Local check) and hybrid check. It had desirable quality parameters viz., high HRR of 61 %, intermediate AC (24.69 %) and GC of 35. ***Hence, IET 29743 is promoted to 3rd year of testing (AVT-2-IM) in Zone II.***

Eastern Zone (III)

In the Eastern Zone, twenty-five varietal and seven hybrid entries were tested across thirteen locations(Bhubaneswar, Jeypore, Chiplima (Odisha); Bikramganj, Sabour, Patna-ICAR(Bihar);Ranchi (Jharkhand); Chinsurah, Malda, Bankura (Westbengal); Masoda, Varanasi, Gorakpur (Uttar Pradesh).However, data from Malda(West bengal) was not included in analysis due to low CV. Zonal mean ranged from 5790kg/ha (IET 29865)to 7752kg/ha (IET 29741); Mean 50 % flowering duration ranged from 102 days (IET's 29742, 29837,29741 and 29748) to 119 days (IET 29875 and IET 29287); Plant height ranged from 92 cm (IET 28442) to 126 cm(IET 29748) and panicles per meter square ranged from 238(IET 29748) to 293 (IET 29868). In this zone III, three hybrids (IET 29741, 29742 and

29743) recorded significant superior yield performance over best varietal check (Local check) and hybrid check. Eight varietal entries viz.,IET's29833, 29843, 29860, 28523,29825, 29845, 29868 and 29877 recorded significant superior yield performance over best varietal check (Local check). Six varietal entries had undesirable quality parameters viz., IET 29843 had low HRR of 37.8%, AC of 26.10% and hard GC of 22; IET 29860 had low HRR (40.8 %), IET 29825 recorded low HRR (44.60 %); IET 29845 had high AC of 26.42 and hard GC (22); IET 29868 showed low HRR (43.9%), AC of 27.33% and GC of 22; IET 29877 had low HRR (44%).

The three hybrid entries IET 29741, 29742 and IET 29743, two varietal entries IET 29833 and IET 28523 showed significant superior performance over checks and had acceptable quality parameters, ***Hence, IET's 29741, 29742, 29743, 29833 and 28523 are promoted to AVT-2 -IM in Eastern zone.***

North Eastern Zone (IV)

In the North Eastern Zone, twenty-five varietal and seven hybrid entries were tested across tested two locations Titabar (Assam) and Lembucherra (Tripura).However, data was not considered from both locations due to low CV and low experimental yield. ***Therefore, none of the varietal and hybrid entries are promoted in North Eastern zone to AVT-2-IM.***

Central Zone (V)

Twenty-five varietal and seven hybrid entries were tested in central zone at 5 locations Raipur, Ambhikapur, Jagadalpur (Chhattisgarh); Sakoli, Sindewahi (Maharashtra). Zonal mean yield ranged from 3802 kg/ha (IET 29873) to 5504 kg/ha (IET 29743). Days to 50% flowering ranged from 97 days (IET 29865 and IET 29837) to 112 days (IET 29826). The plant height ranged from87 cm (IET 28442) to 120 cm (IET 29860) while panicles per metre square ranged from227 (IET 29879) to 274 (IET 29743). Among the varietal checks, the local check is the superior check (4787 kg/ha) followed by zonal check (4637 kg/ha) and the national check (4633Kg/ha). One varietal entry IET 29878 showed significant yield superiority over best varietal check (local check) but had undesirable quality parameters such as low HRR (43.2%) high AC (28.07%) and hard GC of 22, hence dropped. IET 29743, a hybrid entry recorded significant yield advantage over best varietal check and hybrid check and had acceptable quality parameters viz., high HRR (61%), intermediate AC (24.69%) and GC of 35, ***Therefore, IET 29743is promoted to 3rdyear of testing in central zone to AVT-2-IM.***

Western Zone (VI)

Twenty-five varietal and seven hybrid entries were tested in the Western Zone (Zone VI) across four locations namely Karjat, Shirgaon (Maharashtra); Nawagam and Navasari (Gujarat). Experimental mean yield at the locations ranged from 4771 kg/ha (Shirgaon) to 6877 kg/ha (Nawagam) and CV % ranged from 10.23% (Navasari) to 18.38 (Shirgaon). Zonal mean yield ranged from4418 kg/ha (IET 29831) to6970 kg/ha (HRI 174).Days to 50% flowering ranged from 97 days (IET's 29869, 29837 and 29741) to 118 days (IET 29287).Plant height ranged from 100cm (IET 28442) to132 cm (IET 29860) while panicles per square metre from to 198 (IET 29752) to 244 (IET29845).Hybrid check HRI 174 recorded highest yiled in the zone, hence none of the hybrids recorded significant yield superiority over hybrid check. Among varieties, four entries IET's 29833, 29859, 29825 and 29878 showed significant yield superiority over best varietal check (local check), except IET 29833 all other three entries had

unacceptable quality parameters viz., IET 29859 had low HRR (47.1%) High AC (29.50%) and hard GC 25; IET 29825 recorded low HRR (44.6%) and high AC (27.33%) and GC of 33; IET 29878 had low HRR (43.2%) and high AC (28.07%) and hard GC (22), hence dropped. ***Therefore, IET 29833 is promoted to 3rd year of testing in western zone to AVT-2-IM.***

Southern Zone (Zone VII)

Twenty-five varietal, seven hybrid, five near isogenic lines and three recurrent parents were tested in the Southern Zone (Zone VII) across fourteen locations viz., Maruteru, Ragolu (Andhra Pradesh); Rajendranagar, Warangal, Jagtial (Telangana); Coimbatore, Aduturai, Tirur (Tamil Nadu); Pattambi (Kerala); Mandya, Brahmavar and Gangavathi (Karnataka); Kurumbapet and Karaikal (Puducherry). Due to high CV%,the data from Brahmavar (3216 kg/ha); Pattambi and Kurumbapet due to non-significant F value are not included in analysis. Zonal mean yield ranged from 4593 kg/ha (IET 30304) to 6753 kg/ha (IET 29825). Days to 50% flowering ranged from 97 days (IET 29865) to 115 days (Zonal check); Plant height ranged from 92 cm (IET 28442) to 145 cm (IET 28523) and panicles per metre square from 302 (IET 29843) to 362 (Zonal check). Among hybrids, IET 29743 recorded significant yield advantage over best varietal and hybrid check and has acceptable quality parameters. Four varietal entries viz., IET's 29833, 29860, 29825 and 29877 showed significant yield advantage over best varietal check (NDR 359:NC). Except IET 29833, all other three entries IET 29860, 29825 and 29877 had unacceptable quality parameters IET 29860 had low HRR (40.8%); IET 29825 recorded low HRR (44.6%) and high AC (27.33%) and GC of 33; IET 29877 had low HRR (44%), hence dropped. ***Therefore, IET 29743 and IET 29833 are promoted to next year of testing in southern zone to AVT-2-IM.***

Promoted only based on zonal mean basis:

Zone		Promoted to AVT 2-IM
II (Northern)	:	IET 29743
III (Eastern)	:	IET's 29741, 29742, 29743, 29833 and 28523
IV (North Eastern)	:	None
V (Central)	:	IET 29743
VI (Western)	:	IET 29833
VII (Southern)	:	IET 29743 and IET 29833

Entries promoted to AVT 2-IM:

IET 29743, IET 29741, IET 29833 and IET 28523

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 Gangavati Sona, one each NIL's in WGL 14 and WGL 32100 were nominated and tested in AVT 1-IM.

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

A total of three NILs were evaluated in AVT 1-IM. Three NIL's viz., IET 30757, IET 30758 and IET 30759 are in first year of testing. IET30757 (RP 6697-P.N.24-14), IET30758 (RP 6697-P.N.36-20) and IET 30759 (RP 6697-P.N.14-MSA-4-5) are the sister lines derived from the cross of Gangavati Sona*2/Improved Samba Mahsuri possessing genes for Bacterial Leaf Blight resistance. Both IET 30758 and IET 30759 had on par to superior yield performance compared to recurrent parent but showed susceptible disease reaction to bacterial leaf blight with a severity index of 5.8 and 5.6 respectively, compared to recurrent parent (5.6) and resistant check (4.4) and had low HRR of 33.8 % and 40.7 % respectively. ***Hence, dropped.***

IET30757 showed on par yield performance to recurrent parent and showed resistance reaction to bacterial leaf blight with a severity index of 4.6. It had unacceptable quality parameter viz., had low HRR of 48.4 %, ***and hence dropped.***

Performance of the NIL entries during Kharif 2022

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	2	4560	4711	+3.31 %	5.6	4.6	Dropped due to low HRR
30758	Gangavati Sona	KA	2	4560	4523	-0.81%	5.6	5.8	Dropped due to susceptible reaction to BLB and low HRR
30759	Gangavati Sona	KA	2	4560	5116	+12.19%	5.6	5.6	Dropped due to susceptible reaction to BLB and low HRR

RP: Recurrent Parent; TC: Tolerant Check; * Plus CD value; # Minus CD value

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

IET 30304 (RP 6494-MAID-162-27-9-3-1-1-1) is in first year of testing, derived from the cross WGL 14/Improved samba Mahsuri//WGL 14/RP Bio Patho-2///WGL 14/ RP 5925-23//WGL 14/ IR 96321-1447-561-B-1) possessing *Xa5* and *Xa21* genes for Bacterial leaf blight resistance. It had inferior yield compared to recurrent parent but showed susceptible disease reaction to BLB with a severity index of 5.8 and unacceptable quality parameters viz., high AC of 26.07% and hard GC 22. ***Hence, dropped.***

IET No	Recurrent Parent (RP) and genes	Gazette notified states	No. of locations	Normal condition (CD:625)			Severity Index (%) from hot spots		Remarks
				RP Yield	NIL Yield	% over RP	Bacterial leaf blight		
							RP	NIL	
30304	WGL 14	AP KE@	2	5553	4795	-13.65#	4.3	5.8	Dropped due to inferior yield compared to recurrent parent, susceptible reaction to BLB and had unacceptable quality parameters viz., high AC of 26.07% and hard GC 22

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

Near Isogenic Line (NIL) in the genetic background of WGL 32100 (Warangal Sannalu)

IET 30760(WGL 1590) is in first year of testing, derived from the cross WGL 32100/Swarna//2*WGL 32100) possessing *Pup 1 QTL* for low phosphorus tolerance. It had inferior yield compared to recurrent parent in low P condition. ***Hence, dropped.***

S. No	IET No	Recurrent Parent (RP) and genes	Gazette notified states	No. of locations	Normal condition (CD:625)			Stress condition				Remarks
								P 0% level		P 50% level		
					RP Yield	NIL Yield	% over RP	RP Yield	NIL Yield	RP Yield	NIL Yield	
1	30760	WGL 32100	AP TE Overall	2 3 5	5163 6206 5789	4741 7185 6207	-8.2 15.8 7.2	4192	4070	4466	4341	**Dropped due to inferior yield performance over recurrent parent**

RP: Recurrent Parent; * Plus CD value; # Minus CD value, TC: Tolerant check

Disease reaction of the entries to Bacterial leaf blight disease during Kharif 2022

IET No	Locations																						
	CHT	CHN	CHP	CBT	CTK	GNV	IIRR	JGL	KJT	LDN	MSD	MNC	NVS	NWG	NLR	NDL	PNT	RPR	SBR	TTB	VRN	WGL	SI
30304	3	5	7	5	7	7	7	7	5	7	7	0	5	7	9	7	9	7	7	5	5	3	6.0
WGL 14 (RP)	5	9	-	-	-	7	1	-	3	3	-	1	3	5	3	5	-	5	9	-	5	1	4.3
30757	3	3	7	3	7	7	7	7	7	3	5	1	5	5	3	7	7	7	3	3		1	4.8
30758	3	7	9	5	7	5	7	7	7	7	5	3	7	9	3	5	7	7	7	5	5	1	5.8
30759		7	9	5	5	5	7	7	5	3	5	3	3	5	9	7	5	7	3	5	7	9	5.8
Gangavati Sona (RP)	3	7	7	7	5	5	7	7	7	7	5	1	7	7	7	5	3	9	7	5	3	5	5.7
TN1 (Susceptible check)	7	9	9	7	9	9	7	7	9	9	9	5	9	9	7	7	9	9	5	7	7	9	7.9
RP-Bio-226 (Resistant check)	5	3	1	3	3	3	1	3	7	3	3	5	1	5	7	5	3	5	7	7	5	7	4.2

INITIAL VARIETAL TRIAL – IRRIGATED MEDIUM (IVT-IM)

Locations: **50** **Test Entries: 61**

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:1.31**

Initial Varietal Trial – Irrigated Medium (IVT-IM) was constituted with 64 test entries and three checks namely national check – NDR 359, respective zonal checks and local checks. The trial was sent to 50 locations across all zones and the data was received from 39 locations. Data not received from 11 centers viz. Nagina, Titabar, Gerua, Arundhuti nagar, Bilaspur, Shirgaon, Ragolu, Kunaram, Jagtial, Mugad, Kurumbapet. While, data from 12 centres viz. Pantnagar, Chatha, Patna, Malda, Gorakhpur, Lembucherra, Waraseoni, Ambikapur, Jagdalpur, Tirur, Pattambi, Karaikal were not considered from analysis due to either low (<5%) or high CV (20%) or low experimental yield (< 3000 Kg/ha) or non-significant F variance ratio between treatments.

Overall performance of the entries

The overall mean (considering 26 centres) yield (kg/ha) varied from 4197 kg/ha of IET 30820 to 6767 kg/ha of IET 30819. The days to 50% flowering varied from 93 days (IET 30778) to 114 days (IET 30817), panicles/m^2 varied from 259 (IET 30765) to 305 (IET 30817), the plant height varied from 90 cm (IET 30812) to 121 cm (IET 30808). The data pertaining to yield, days to 50% flowering, plant height and panicles/m^2 are presented in tables 1.32 and 1.33 respectively.

Based on the overall mean performance the entry IET 30819 recorded a significant superiority in yield of 6167 kg/ha with days to fifty percent flowering 105 over the best check i.e. Local check which yielded 5831 kg/ha with 103 DFF. ***Hence the entry IET 30819 is promoted to AVT-I on overall mean basis.***

Overall Performance of the promising entries/ entry IVT-IM KHARIF 2022

IET No/Designation/Cross combination	Grain Yield (Kg/ha	% Yield superiority over best NC/ZC/LC	Days to 50% flowering	Remarks
IET 30819 PNPG 114 PNP 115/PNP 310	6167*	5.76	105	Promoted To AVT-I
NDR 359 (NC)	5467		98	
Zonal Check (ZC)	4850		105	
Local Check (LC)	5831		103	
CD	221			
Exp Mean			104	

Zone II Northern

The Northern zone's overall mean yield (kg/ha) varied from 2685 kg/ha for IET 30784 to 7012 kg/ ha for IET 30772. The days to 50% flowering varied from days for 92 days for IET 30804 to 124 days for IET 30784, panicles/m^2 varied from 218 panicles/m^2 for IET 30784 to 306 panicles/m^2 for IET 30772, the plant height varied from 72 cm for IET 30812 to 138 cm for IET 30777. The data concerning yield, days to 50% flowering, are presented in the following Table. IET 30772 showed a significantly superior yield (7012 Kg/ha) over the best check Local check (5703 Kg/ha) with 50 % days to flowering are also in the range of the designated period (101 days) of irrigated medium duration. ***Hence the entry IET 30772 is promoted to AVT -IM.***

IET No/Designation/Cross combination	Grain Yield (Kg/ha)	% yield superiority over BEST NC/ZC/LC	Days to 50% flowering	Remarks
IET 30772 TRC GTS 739-B-B-4-1 Gomati/ Tripura Sharat	7012*	22.95	101	Promoted to AVT -IM
NDR 359 (NC)	**3341**		100	
Zonal Check (ZC) PR 121	3421		102	
Local Check (LC)	5703		96	
CD	675			

*Significantly superior

Zone III Eastern

The Eastern zone's overall mean yield (kg/ha) varied from 3587 kg/ha of IET 30786 to 6756 kg/ha of IET 30771. The days to 50% flowering varied from 114 days (IET 30767) to 97 days (IET 30778; IET 30800), panicles/m^2 varied from 228 (IET 30788) to 300 (IET 30772), the plant height varied from 111 cm (IET 30795) to 90 cm (IET 30802). The data concerning yield, days to 50% flowering, are presented in the following Table.

The entries IET 30771 (6756 kg/ha), IET 30772 (6601 kg/ ha), IET 30790 (6476 kg/ha), IET 30762 (6322 kg/ha) showed significantly superior yields over the best check - Local check (5942 Kg/ha). The 50 % days to flowering are also in the range of the designated period (101 days) of irrigated medium duration. ***Hence the above-mentioned four entries are promoted to AVT -IM.***

Performance of the entries in ZONE III Eastern

Rank	IET No/ Designation/ Cross combination	Grain Yield (Kg/ha)	% yield superiority over BEST NC/ZC/LC	Days to 50% flowering	Remarks
1	IET 30771 JGL 38206 JGL 24423/MTU 365-32-1-1/ MTU 1121	6756*	13.69	99	Promoted to AVT - IM
2	IET 30772 TRC GTS 739-B-B-4-1 Gomati/ Tripura Sharat	6601*	11.09	101	Promoted to AVT - IM

Rank	IET No/ Designation/ Cross combination	Grain Yield (Kg/ha)	% yield superiority over BEST NC/ZC/LC	Days to 50% flowering	Remarks
3	IET 30790 NVSR 624 GNR-4/GNR-2	6476*	8.98	107	Promoted to AVT - IM
4	IET 30762 PUSA 5358-3-1-1-1-1-1 MTU 1010/ ET 2-12	6322*	6.39	102	Promoted to AVT - IM
	NDR 359 (NC)	**5827**		98	
	Zonal Check (ZC) CR Dhan 300	4917		111	
	Local Check (LC)	5942		104	
	CD	314			

*Significantly superior

Zone IV North Eastern

This North Eastern trial was conducted in only one centre - Lembucherra. The centre data was not considered for analysis due to either low (<5%) or high CV (20%) or low experimental yield (< 3000 Kg/ha) or non-significant F variance ratio between treatments.
Hence no entry was promoted from the North Eastern zone.

Zone V Central

The Central zone's overall mean yield (kg/ha) varied from 2915 kg/ha (IET 30820) to 5580 kg/ ha (IET 30804). The days to 50% flowering varied from 116 days (IET 30773) to 85 days (IET 30778), panicles/m2 varied from 173 (IET 30811) to 288 (IET 30815), the plant height varied from 139 cm (IET 30777) to 98 cm (IET 30778 & IET 308070). The data concerning yield, days to 50% flowering, are presented in the following Table.

The entries IET 30804 (5580 kg/ha), IET 30771 (5386 kg/ ha), IET 30794 (5328 kg/ha), IET 30798 (5257 kg/ha) showed significantly superior yields over the best check - Local check (4549 Kg/ha).

The 50 % days to flowering for the two entries IET 30804 and IET 30771 are 94 and 89 that does not accommodate in the range of the designated period (101-110 days) of irrigated medium duration. ***Hence the two entries IET 30804 (94 days 50% DFF) and IET 30771 (89 days 50% DFF) may be shifted to irrigated medium early / irrigated mid-early duration trails.***

The 50 % days to flowering for the entries IET 30794 (105) and IET 30798 (105) are well within the designated duration of the IVT-IM trail and ***hence promoted to the AVT -IM.***

Performance of the entries in ZONE V Central

Rank	IET No/ Designation/ Cross combination	Grain Yield (Kg/ha)/ days to 50% flowering/ grain type	% yield superiority over BEST NC/ZC/LC	Days to 50% flowering	Remarks
1	IET 30804 GNV 2188-1 Selection from traditional variety Asaleeya	5580*	22.66	94	Shift to medium early duration
2	IET 30771 JGL 38206 JGL 24423/MTU 365-32-1-1/ MTU 1121	5386*	18.39	89	Shift to medium early duration
3	IET 30794 PRNP 10027 PRNP 101/ PRNP 127	5328*	17.12	105	Promoted to AVT -IM
4	IET 30798 TTBDR 106-2-4 Malbhog/ Aghoni	5257*	15.56	105	Promoted to AVT -IM
	NDR 359 (NC)	**4387**		98	
	Zonal Check (ZC) KARMA MAHSURI	4035		102	
	Local Check (LC)	4549		103	
	CD	603			

*Significantly superior

Zone VI

The Western zone's overall mean yield (kg/ha) varied from 3011 kg/ha (IET 30786) to 7509 kg/ ha (IET 30796). The days to 50% flowering varied from 92days (IET 30800, 30804, 30820) to 118 days (IET 30818), panicles/m2 varied from 203 (IET 30767) to 271 (IET 30785), the plant height varied from 84 cm (IET 30778) to 120 cm (IET 30777 and IET 30808).

Zone VII

The Central zone's overall mean yield (kg/ha) varied from 3890 kg/ha (IET 30811) to 6404 kg/ ha (IET 30819). The days to 50% flowering varied from 93 days (IET 30778) to 114 days (IET 30817), panicles/m2 varied from 313 (IET 30765) to 386 (IET 30808), the plant height varied from 139 cm (IET 30777) to 98 cm (IET 30778 & IET 308070).

None of the entries in Zone VI and Zone VII recorded significant superior yields and hence none promoted.

List of entries promoted for the AVT IM

Overall: IET 30819
Zone II: **IET** 30772
Zone III: IETs 30771, 30772, 30790 and 30762
Zone IV: IETs 30794, 30798

Entries Proposed for Shift to IME

IET 30804 and IET 30771.

Table No. 1.23: Composition of entries in Advance Variety Trial 2-Irrigated Medium (AVT 2-IM), Kharif 2022

Entry No.	IET No.	Designation	Cross Combination	GT
3rd year of testing				
4001	29256	BPT 3050	BPT 5204 / BPT 3291	LB
4002	29290	HURS 19-3	CR 2407 / IR 64	SB
4003	29301	AD 16124	CO (R) 50 /AD 08132	SB
4004	29257	RNR 28399	BPT 5204 / IR 79216-141-1-3-3-3	LS
4005	28489	BRR 2141	TTB 680-2-35-2 Selection	MS
4006	29268	OROI-8- IR 88228-33-3-5-2	IR 80410-B-197-4 / IR 64-Sub 1 // NCIC RC 158	LS
4007	**NDR 359 (NC)**			
4008	29284	MTU 1348 (MTU 2689-45-1-1)	MTU 1010 / MTU 7029	MS
4009	29001	***S-7004 (Hybrid)***	-	LB
4010	29014	***MEPH-159 (Hybrid)***	-	LS
4011	27908	MTU 1275 (MTU 2385-123-1-2-3)	MTU 1075 / MTU 1081 // MTU 1121	MS
4012	29009	***US-375 (Hybrid)***	-	SB
4013	**PR 121 (Northern), CR Dhan 300 (Eastern & North Eastern), Karma Mahsuri (Central), Akshayadhan (Western), Jaya (Southern)—ZC**			
4014	29004	***PHI-20107 (Hybrid)***	-	LB
4015	28997	***HRI-204 (Hybrid)***	-	LB
4016	29002	***PHI-20106 (Hybrid)***	-	LB
4017	**HRI 174 (HC)**			
4018	29000	***HRI-205 (Hybrid)***	-	LB
4019	**Local Check (LC)**			

Table No. 1.24: Grain Yield (kg/ha) in AVT 2 – IM, Kharif 2022

ENTRY NO	IET NO	ZONE - II - NORTHERN											
		PUNJAB (1)			HARYANA (1)			JAMMU KASHMIR (1)		Zone II (3)			
		LUDHIANA			KAUL			CHATHA		Mean			
4001	29256				8292	6				8292	1 *	35% #	35%
4002	29290	2211			5674					3943			
4003	29301				5346					5346			
4004	29257	5594	5		7092			4000		5562			
4005	28489				7801	8				7801	2 *	27% #	27%
4006	29268	4715	8		7583					6149	8		
4007	NDR 359 (NC)	4198			6328			4822	4	5116			
4008	29284	5683	4		7638	10				6661	6	9%	
4009	29001	4425	9		8483	3	6%	4278	9	5729			
4010	29014	4055			7501			5367	1	11%	5641		
4011	27908				7310					7310	4 *	19% #	19%
4012	29009	3391			8347	5		4479	8	5406			
4013	Zonal Check (ZC)	4221	10		5046			4644	6	4637			
4014	29004	5127	7		7474			4767	5	5789	10		
4015	28997	7674	1 *	32% #	38%	9002	1 *	13% #	16%	4256	10	6977	5 * 14% # 13%
4016	29002	3607				8374	4			5044	3	5675	
4017	HRI 174 (HC)	5575	6			7747	9			5167	2	6163	7
4018	29000	6238	2	7%	12%	8702	2	9% #	12%			7470	3 * 22% # 21%
4019	Local Check (LC)	5826	3			7992	7			4556	7	6125	9
Exp. Mean		**4836**				**7460**				**4671**		**6094**	
CD		828				784				605		657	
CV%		**10.24**				**6.35**				**7.61**		**6.51**	
D/S		01-06-2022				03-06-2022				01-06-2022			
D/P		01-07-2022				03-07-2022				18-07-2022			
Local Check Name		PR 121				HKR-128				SJR-5			

Table No. 1.24 (Contd): Grain Yield (kg/ha) in AVT 2 – IM, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN															
		ODISHA				ODISHA (2)				BIHAR				BIHAR (2)			
		JEYPORE		CHIPLIMA		Mean				BIKRAMGANJ (Dhangain)		Sabour		Mean			
4001	29256	5271	10	4119		4695				6237		7572	3	6905	6%		
4002	29290	4851		5101		4976				5833		5629		5731			
4003	29301	4603		5592	5	5098				5907		6197		6052			
4004	29257	4806		6301	1	5554	6			7807	6	4498		6153			
4005	28489	5267		4774		5021				9124	1	7803	2	8464	1 *	29% #	32%
4006	29268	6261	6	6001	4	6131	2	12%	12%	7630	8	6496	7	7063	6	8% #	10%
4007	NDR 359 (NC)	4754		6219	3	5487	9			7090		5708		6399			
4008	29284	5696	9	5374	7	5535	7			7516	9	7173	5	7345	4 *	12% #	14%
4009	29001	6312	5	4746		5529	8			7137		5461		6299			
4010	29014	6443	4	5128	9	5786	5	5%		7706	7	6272	10	6989	9	7%	
4011	27908	4800		5128	9	4964				6776		7279	4	7028	7	7% #	
4012	29009	4748		4828		4788				7865	5	6424	9	7145	5 *	9% #	11%
4013	Zonal Check (ZC)	5088		5592	5	5340				6304		6775	6	6540			
4014	29004	7116	2	6301	1	6709	1 *	22% #	22%	8571	2	6192		7382	3 *	13% #	15%
4015	28997	7724	1	4255		5990	3	9%		7914	4	5980		6947	10	6%	
4016	29002	6159	8	4283		5221				7939	3	6085		7012	8	7%	
4017	HRI 174 (HC)	6242	7	4719		5481	10			7491	10	5346		6419			
4018	29000	6825	3	4992		5909	4	8%		6855		7972	1	7414	2 *	13% #	16%
4019	Local Check (LC)	4622		5346	8	4984				5381		6464	8	5923			
Exp. Mean		**5662**		**5200**		**5431**				**7215**		**6386**		**6800**			
CD		654		1154		729				757		1051		604			
CV%		**6.98**		**13.4**		**8.1**				**6.34**		**9.94**		**5.37**			
D/S		06-07-2022		19-07-2022						22-06-2022		06-06-2022					
D/P		05-08-2022		19-08-2022						22-07-2022		11-07-2022					
Local Check Name		Kalinga Dhan 1203		Pratikshya						R. Sweta		Sabour Shree					

Table No. 1.24 (Contd): Grain Yield (kg/ha) in AVT 2 – IM, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN															
		JHARKHAND (1)				WEST BENGAL				WEST BENGAL (2)					UTTAR PRADESH 2 (1)		
		RANCHI				CHINSURAH		BANKURA		Mean				VARANASI	Mean		
4001	29256	4489				7567	4	7425		7496	4 *	13%		6799	6799		
4002	29290	5533	7			7090	9	7784	7	7437	5 *	12%		7909	10	7909	10
4003	29301	4422				5807		6238		6023				5192	5192		
4004	29257	4178				6862		6267		6565				7774	7774		
4005	28489	5156	10			7231	6	6198		6715				8987	2	8987	2 6%
4006	29268	5556	6	5%		6673		8090	3	7382	7 *	11%		6538	6538		
4007	NDR 359 (NC)	2867				6348		6493		6421				8462	3	8462	3
4008	29284	5333	8			6416		7894	5	7155	8%			6812	6812		
4009	29001	4889				7054	10	6169		6612				6697	6697		
4010	29014	3578				5576		7969	4	6773				8278	5	8278	5
4011	27908	4533				6615		7795	6	7205	10	9%		6359	6359		
4012	29009	5578	5	5%		7712	2	8472	2	8092	1 *	22% #		7744	7744		
4013	Zonal Check (ZC)	5289	9			5459		7784	7	6622				5705	5705		
4014	29004	6556	2 *	24% #	17%	7767	1	6962		7365	8 *	11%		8231	6	8231	6
4015	28997	7267	1 *	37% #	30%	7611	3	6898		7255	9	9%		7915	9	7915	9
4016	29002	4889				7156	8	8981	1	8069	2 *	22%		8214	8	8214	8
4017	HRI 174 (HC)	5600	4	6%		7225	7	7546	10	7386	6 *	11%		8329	4	8329	4
4018	29000	6267	3 *	18%	12%	7529	5	7743	9	7636	3 *	15%		9863	1 #	9863	1 17% # 18%
4019	Local Check (LC)	4389				6579		6696		6638				8222	7	8222	7
Exp. Mean		**5072**				**6857**		**7337**		**7097**				**7580**		**7580**	
CD		741				1432		632		696				1415		1415	
CV%		**8.82**				**12.62**		**5.2**		**5.92**				**11.28**		**11.28**	
D/S		22-06-2022				21-06-2022		25-07-2022						03-06-2022			
D/P		27-07-2022				30-07-2022		08-08-2022						25-06-2022			
Local Check Name		Naveen				PRATIKSHYA		Kunti						HUR - 105			

Table No. 1.24 (Contd): Grain Yield (kg/ha) in AVT 2 – IM, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN		ZONE V-CENTRAL									
		Zone III (8)		MADHYA PRADESH (1)				CHHATTISGARH					
		Mean		Waraseoni				Raipur		Ambikhapur		Jagdalpur	
4001	29256	6185		3917				4577	10	3747		5970	
4002	29290	6216		3441				3959		5323	5	5453	
4003	29301	5495		4271				4449		3208		6108	10
4004	29257	6062		5799	2 *	18% #	42%	4019		5299	6	6036	
4005	28489	6818	4 * 14%	4899	7		20%	5582	1	4948	10	6958	2
4006	29268	6656	7 * 11%	4750	8		16%	4108		5486	4	6293	6
4007	NDR 359 (NC)	5993		3817				3781		3587		4045	
4008	29284	6527	9 * 9%	4604	9		13%	4886	6	4934		5900	
4009	29001	6058		5783	3 *	18% #	41%	4564		6347	2	6691	4
4010	29014	6369	10 * 6%	3906				5066	4	4142		6536	5
4011	27908	6161		4558	10		11%	3738		3444		7284	1
4012	29009	6671	6 * 11%	5115	4	#	25%	4608	9	5608	3	5537	
4013	Zonal Check (ZC)	6000		3579				3559		4417		4808	
4014	29004	7212	2 * 20% #	4271				5264	2	4378		6135	8
4015	28997	6946	3 * 16% #	5031	5	#	23%	5216	3	5160	7	6217	7
4016	29002	6713	5 * 12%	4393				4858	8	6566	1	6126	9
4017	HRI 174 (HC)	6562	8	4088				5059	5	5059	9	5342	
4018	29000	7256	1 * 21% # 11%	6204	1 *	26% #	52%	4883	7	5073	8	6056	
4019	Local Check (LC)	5962		4907	6			3855		3830		6872	3
Exp. Mean		**6414**		**4597**				**4528**		**4766**		**6019**	
CD		357		827				1116		1158		1905	
CV%		**3.36**		**10.86**				**14.88**		**14.67**		**19.11**	
D/S				20-06-2022				29-06-2022		11-07-2022		16-06-2022	
D/P				02-08-2022				28-07-2022		30-07-2022		08-07-2022	
Local Check Name				JR 206				IGKV R 1244		MTU1010		IGKVR 1244	

Table No. 1.24 (Contd): Grain Yield (kg/ha) in AVT 2 – IM, Kharif 2022

ENTRY NO	IET NO	ZONE V-CENTRAL													
		CHHATTISGARH		CHHATTISGARH (4)				MAHARASHTRA 1 (2)				MAHARASHTRA 1 (2)				Zone V (7)			
		Bilaspur		Mean				SAKOLI		Sindewahi		Mean				Mean			
4001	29256	6633		5232				4500	10	3846		4173				4741			
4002	29290	6667		5351	6%			5164	4	4848	5	5006	2	5%		4979			
4003	29301	5867		4908				5286	2	4079		4683	7			4753			
4004	29257	7683	9	5759	*	14%		4879	6	3514		4197				5318	7	8%	
4005	28489	7133		6155	3 *	22%		5382	1	4307		4845	3			5601	4 *	13%	
4006	29268	7300		5797	*	15%		4531	9	4309		4420	10			5254	9	6%	
4007	NDR 359 (NC)	7600		4753				3355		3613		3484				4257			
4008	29284	8033	6	5938	8 *	18%		3785		4610	7	4198				5250	10	6%	
4009	29001	8067	5	6417	2 *	27%		3844		4720	6	4282				5717	2 *	16%	
4010	29014	7900	7	5911	9 *	17%		3380		4414	10	3897				5049			
4011	27908	6500		5242				5063	5	3759		4411				4907			
4012	29009	8400	2	6038	5 *	20%		2958		4435	9	3697				5237	6%		
4013	Zonal Check (ZC)	6867		4913				4776	8	4202		4489	9			4601			
4014	29004	8300	3	6019	6 *	19%		4334		5038	3	4686	6			5389	5	9%	
4015	28997	7683	9	6069	4 *	20%		3626		4443	8	4035				5339	6	8%	
4016	29002	8700	1	6563	1 *	30%	11%	4272		4927	4	4600	8			5692	3 *	15%	
4017	HRI 174 (HC)	8100	4	5890	10			3787		5603	1	4695	5			5291	8		
4018	29000	7867	8	5970	7 *	18%		4814	7	5481	2	5148	1	8%		5768	1 *	17% #	
4019	Local Check (LC)	5633		5048				5273	3	4231		4752	4			4943			
Exp. Mean		**7418**		**5683**				**4369**		**4441**		**4405**				**5162**			
CD		902		706				786		770		561				455			
CV%		**7.34**		**7.51**				**10.87**		**10.47**		**7.69**				**5.32**			
D/S		15-06-2022						01-07-2022		27-06-2022									
D/P		07-07-2022						04-08-2022		28-07-2022									
Local Check Name		Chandrahasini						PDKV Kisan		Sindewahi-2001									

Table No. 1.24 (Contd): Grain Yield (kg/ha) in AVT 2 – IM, Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN													
		MAHARASHTRA 2				MAHARASHTRA 2 (2)			MAHARASHTRA (4)			GUJARAT			
		KARJAT		Shirgaon		Mean			Mean			NAVSARI		NAWAGAM	
4001	29256	6770		4670		5720			4947			5612	3	6853	
4002	29290	6133		4475		5304			5155			4848	7	6584	
4003	29301	5615		4516		5066			4874			4452		5400	
4004	29257	6170		3531		4851			4524			4765	9	8373	9
4005	28489	7230	10	4715		5973	6%		5409	9	*12%	4291		8452	6
4006	29268	8519	1	5416	10	6968	7 *	24%	5694	7	*18%	4612		9562	1
4007	NDR 359 (NC)	6289		4979		5634			4559			3883		5683	
4008	29284	7101		5420	9	6261	10	11%	5229		9%	3992		7759	
4009	29001	7800	4	6965	4	7383	3 *	31%	5832	5	*21%	4975	6	7391	
4010	29014	7444	8	4790		6117	9%		5007			4566		8416	8
4011	27908	7956	3	5676	8	6816	8 *	21%	5614	8	*17%	3609		7816	
4012	29009	7348	9	6276	7	6812	9 *	21%	5254	10	* 9%	4671	10	7070	
4013	Zonal Check (ZC)	5859		4597		5228			4859			4170		8084	10
4014	29004	7207		7033	2	7120	6 *	26%	5903	4	*23%	5407	4	8437	7
4015	28997	8370	2	6807	5	7589	1 *	35%	5812	6	*21%	4650		8820	3
4016	29002	7674	6	6985	3	7330	4 *	30%	5965	2	*24%	5220	5	8571	5
4017	HRI 174 (HC)	7681	5	6585	6	7133	5		5914	3		6095	1	8903	2
4018	29000	7637	7	7344	1	7491	2 *	33%	6319	1	*31%	7%	5922	2 *	8799	4
4019	Local Check (LC)	5456		4310		4883			4818				4771	8	7919	
Exp. Mean		**7066**		**5531**		**6299**			**5352**				**4764**		**7836**	
CD		1329		1123		828			448				857		1734	
CV%		**11.35**		**12.26**		**7.94**			**5.05**				**10.86**		**10.53**	
D/S		15-06-2022		14-06-2022									11-06-2022		18-06-2022	
D/P		11-07-2022		08-07-2022									03-07-2022		27-07-2022	
Local Check Name		Karjat 5		Ratnagiri 6									GNR-5		GAR 13	

Table No. 1.24 (Contd): Grain Yield (kg/ha) in AVT 2 – IM, Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN						ZONE VII – SOUTHERN											
		GUJARAT (2)			Zone VI (4)			ANDHRA PRADESH				ANDHRA PRADESH (2)					TELANGANA		
		Mean			Mean			MARUTERU		Ragolu		Mean					RAJENDRANAGAR		
4001	29256	6233			5976	5%		5097		9718	7	7408	#	26%			6245		
4002	29290	5716			5510			5078		7338		6208					6372		
4003	29301	4926			4996			6037	7	7602		6820	#	16%			5814		
4004	29257	6569	7		5710			5109		10394	5	7752	6	#	32%		5804		
4005	28489	6372	9		6172	9%		7236	4	8981	10	8109	4	#	38%		7049	7	
4006	29268	7087	3	12%	7027	5 *	24%	4334		10667	4	7501	8	#	28%		5874		
4007	NDR 359 (NC)	4783			5209			7341	2	8921		8131	3				6025		
4008	29284	5876			6068	7%		4932		9176	9	7054	#	20%			6456		
4009	29001	6183			6783	7 *	19%	5697	8	11569	1	8633	1	6% #	47%		7062	6	
4010	29014	6491	8		6304	9	11%	7898	1	7741		7820	5	#	33%		6947	8	
4011	27908	5713			6264	10	10%	6570	5	9958	6	8264	2	#	40%		5417		
4012	29009	5871			6341	8 *	12%	5552	9	9500	8	7526	7	#	28%		7123	5	
4013	Zonal Check (ZC)	6127			5678			5416	10	5356		5386					4097		
4014	29004	6922	4	9%	7021	6 *	24%	5026		7639		6333					7432	2	
4015	28997	6735	6	6%	7162	3 *	26%	4008		10852	3	7430	#	26%			6933	9	
4016	29002	6896	5	9%	7113	4 *	25%	3528		11287	2	7408	#	26%			7510	1	
4017	HRI 174 (HC)	7499	1		7316	2		3204		8560		5882					7256	3	
4018	29000	7361	2 *	16%	7426	1 *	31%	7331	3	7546		7439	10	#	26%		7254	4	
4019	Local Check (LC)	6345	10		5614			6345	6	8611		7478	9				6531	10	
Exp. Mean		**5817**			**6135**			**5565**		**9022**		**7294**					**6484**		
CD		834			650			756		1151		714					869		
CV%		**8.66**			**6.4**			**8.2**		**7.7**		**5.92**					**8.09**		
D/S								25-06-2022		02-07-2022							20-06-2022		
D/P								25-07-2022		29-07-2022							26-07-2022		
Local Check Name								MTU 1239		MTU 1121							MTU 1001		

Table No. 1.24 (Contd): Grain Yield (kg/ha) in AVT 2 – IM, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN											
		TELANGANA						TELANGANA (4)			TAMIL NADU		
		Kunaram		WARANGAL		Jagtial		Mean			ADUTHURAI		COIMBATORE	
4001	29256	6014	6	4966		7346	8	6143	9 *	9%	6285		7313	7
4002	29290	4394		4867		6733		5592			8715	3	6791	
4003	29301	6315	3	5006		6975	10	6028	7%		5556		5717	
4004	29257	3984		6542	1	6349		5670			5486		7274	9
4005	28489	6421	2	6369	3	8348	5	7047	3 *	25% # 15%	5417		8925	1
4006	29268	5035		5806	8	6349		5766			5535		6980	10
4007	NDR 359 (NC)	4730		5132		6690		5644			5347		4666	
4008	29284	3596		5494	10	7293	9	5710			5972		6821	
4009	29001	6896	1	5919	7	8077	7	6989	4 *	24% # 14%	8576	4	5907	
4010	29014	5431	7	5707	9	6885		6243	8 *	10%	6319	10	7287	8
4011	27908	5239	9	6179	4	8485	3	6330	7 *	12%	7778	6	7410	6
4012	29009	5184	10	4899		8466	4	6418	5 *	14%	7049	7	8675	2
4013	Zonal Check (ZC)	5025		4548		5446		4779			6382	9	4743	
4014	29004	5369	8	5382		10613	1	7199	1 *	27% # 18%	5403		7787	5
4015	28997	4643		4401		8291	6	6067	7%		9132	1	8191	4
4016	29002	6276	5	6031	5	8946	2	7191	2 *	27% # 18%	6069		5062	
4017	HRI 174 (HC)	4027		6399	2	6752		6109	10		8472	5	4153	
4018	29000	6302	4	5942	6	5916		6354	6 *	12%	8819	2	8405	3
4019	Local Check (LC)	5045		5107		5916		5650			6493	8	6584	
Exp. Mean		**5259**		**5510**		**7362**		**6154**			**6779**		**6773**	
CD		787		739		997		454			938		1001	
CV%		**9.04**		**8.1**		**8.18**		**4.45**			**6.59**		**8.92**	
D/S		25-06-2022		16-06-2022		16-06-2022					09-09-2022		02-06-2022	
D/P		23-07-2022		14-07-2022		15-07-2022					27-10-2022		24-06-2022	
Local Check Name		JGL 11727		WGL 347 (Somnath		JGL 11470					ADT54		CO 50	

Table No. 1.24 (Contd): Grain Yield (kg/ha) in AVT 2 – IM, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN											
		TAMIL NADU (2)			KERALA (1)			KARNATAKA				KARNATAKA (2)		
		Mean			PATTAMBI			BRAHMAVAR		GANGAVATI		Mean		
4001	29256	6799	9		4251			4932	5	5936	9	5434	7	# 16%
4002	29290	7753	4 *	19% # 23%	4160			3064		6442	5	4753		
4003	29301	5637			4138			4308		5590		4949		
4004	29257	6380			4489	5		2597		7244	3	4921		
4005	28489	7171	7	10% 14%	4293	10		4823	7	7788	2	6306	1 *	12% # 35%
4006	29268	6258			4076			3905		7891	1	5898	2	# 26%
4007	NDR 359 (NC)	5007			4382	8		3764		6327	6	5046		
4008	29284	6397			4833	1	6% # 15%	5004	3	5382		5193	10	11%
4009	29001	7242	6	11% 15%	3660			5189	2	5712		5451	6	# 17%
4010	29014	6803	8		4404	7		5326	1	5692		5509	5	# 18%
4011	27908	7594	5 *	16% # 20%	4369	9		4238		7096	4	5667	3	# 21%
4012	29009	7862	3 *	20% # 25%	4544	3		4730	9	4506		4618		
4013	Zonal Check (ZC)	5563			4540	4		4771	8	6060	8	5416	8	
4014	29004	6595	10		4091			3808		5365		4587		
4015	28997	8662	1 *	32% # 37%	4042			3692		4545		4119		
4016	29002	5566			3960			4018		5551		4785		
4017	HRI 174 (HC)	6313			4218			4650	10	4686		4668		
4018	29000	8612	2 *	32% # 36%	4711	2	12%	4871	6	5782	10	5327	9	# 14%
4019	Local Check (LC)	6539			4482	6		4974	4	6285	7	5630	4	
Exp. Mean		**6765**			**4297**			**4351**		**5994**		**5172**		
CD		1043			566			684		1161		644		
CV%		**9.31**			**7.95**			**7.478**		**9.22**		**7.51**		
D/S					20-06-2022			13-06-2022		11-07-2022				
D/P					16-07-2022			11-07-2022		15-08-2022				
Local Check Name								MO-4		BPT-5204				

Table No.1.24 (Contd): Grain Yield (kg/ha) in AVT 2 – IM, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN										Overall Mean(35)	
		PUDUCHERRY				PUDUCHERRY (2)		Zone VII (13)					
		KURUMBAPET		Karaikal		Mean		Mean					
4001	29256	6365		5714		6040		6168	#			5911	
4002	29290	5871		8690	2	7281	8	6040				5677	
4003	29301	7435	3	7143		7289	7	5972				5460	
4004	29257	6310		7857	6	7084		6111				5848	
4005	28489	6968	6	6786		6877		6877	2 *	14% #	16%	6535	2 * 13% #
4006	29268	7215	5	7500		7358	6	6244	9	#		6223	7 * 8%
4007	NDR 359 (NC)	6831	9	7619		7225	9	5983				5477	
4008	29284	6776		5238		6007		5921				5986	*
4009	29001	7243	4	7857	6	7550	3	6874	3 *	14% #	16%	6347	5 * 10% #
4010	29014	4472		8929	1	6701		6388	6 *	5% #		6042	*
4011	27908	7490	2	8214	4	7852	2 9%	6803	4 *	12% #	15%	6195	8 * 7%
4012	29009	6914	7	7810	8	7362	5	6535	5 *	8% #	11%	6188	9 * 7%
4013	Zonal Check (ZC)	4280		7762	9	6021		5264				5293	
4014	29004	6831	9	8012	5	7422	4	6366	7 *	5% #		6389	4 * 11% #
4015	28997	6914	7	5595		6255		6249	8	#		6393	3 * 11% #
4016	29002	6283		6060		6172		6199	10	#		6274	6 * 9%
4017	HRI 174 (HC)	6639		7738	10	7189	10	5904				6116	10
4018	29000	8779	1	8262	3	8521	1 * 18% #	19%	6917	1 *	14% #	17%	6853	1 * 19% # 12%
4019	Local Check (LC)	6283		6071		6177			6056				5767	
Exp. Mean		**6626**		**7308**		**6862**			**6276**				**6026**	
CD		1457		1647		1097			243				159	
CV%		**13.28**		**10.73**		**9.65**			**2.34**				**1.59**	
D/S		17-08-2022		30-08-2022										
D/P		23-09-2022		07-10-2022										
Local Check Name		CR1009sub1		ADT 46										

Table No.1.24 (Contd): Grain Yield (kg/ha) in AVT 2 – IM, (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED									
		UTTARAKHAND		UTTAR PRADESH 1		BIHAR		WEST BENGAL		UTTAR PRADESH 2	
		@PANTNAGAR		@NAGINA		@Patna-ICAR		@Malda		@MASODHA	
4001	29256	2238		3232		10524		5267	8	5813	6
4002	29290	3150		5409		10831		4717		6119	3
4003	29301	1589		2954		8154		7311	1	4509	
4004	29257	4068	7	4520		9346		4744		4227	
4005	28489	2447		3115		10951	10	6539	3	4750	
4006	29268	3363		6225	9	11782	4	4339		5985	4
4007	NDR 359 (NC)	3464	10	7730	4	10779		4678		4858	9
4008	29284	4249	6	6015	10	11283	7	5239	9	4563	
4009	29001	3940	8	7709	5	9559		6233	6	6253	2
4010	29014	3287		7840	2	10803		4728		4563	
4011	27908	1860		3235		11723	5	6044	7	4804	10
4012	29009	4785	4	7799	3	12173	3	4583		4418	
4013	Zonal Check (ZC)	2968		3301		11310	6	6456	4	4348	
4014	29004	5402	2	7417	7	12663	1	4622		5985	4
4015	28997	5159	3	7684	6	8927		4889	10	5153	8
4016	29002	3917	9	8262	1	12272	2	6811	2	5582	7
4017	HRI 174 (HC)	4734	5	7002	8	10982	9	6283	5	3167	
4018	29000	5461	1	3513		11087	8	4728		6334	1
4019	Local Check (LC)	2686		4694		7132		4850		4189	
Exp. Mean		**3619**		**5666**		**10646**		**5424**		**5033**	
CD		1142		404		710		339		350	
CV%		**19.05**		**4.31**		**4.03**		**3.78**		**4.19**	
D/S		08-06-2022		18-06-2022		24-06-2022		28-06-2022		16-06-2022	
D/P		11-07-2022		15-07-2022		23-07-2022		29-07-2022		17-07-2022	
Local Check Name		Pant Dhan4		NDR 359		Rajendra Sweta		Bhupesh		NDR 2065	

Table No. 1.24 (Contd): Grain Yield (kg/ha) in AVT 2 – IM, (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED									
		ASSAM		TRIPURA				TAMILNADU		KARNATAKKA	
		@TITABAR		@ARUNDHUTI NAGAR		@Lembucherra		@Tirur		@MANDYA	
4001	29256	5944	8	4671		3915		5340		5791	1
4002	29290	5000		3323		3154		5715	9	3545	
4003	29301	5889	9	5843	3	4342	1	5250		3833	
4004	29257	3903		5773	5	3570		5595		3251	
4005	28489	6317	2	6235	1	3960	9	5438		4674	8
4006	29268	4733		5138	7	3069		5633		4256	
4007	NDR 359 (NC)	4883		3467		3722		6150	7	4203	
4008	29284	6167	4	6099	2	4262	2	5828	8	4033	
4009	29001	5568				4008	8	6233	6	5232	4
4010	29014	5317		4718		4082	6	6480	3	4368	10
4011	27908	5517		5264	6	3928		6585	2	5297	3
4012	29009	6061	6			3952	10	6450	4	5209	5
4013	Zonal Check (ZC)	3900		4424		3062		5025		3962	
4014	29004	5667	10	5819	4	3759		6713	1	4150	
4015	28997	6250	3	4779	10	4238	4	6285	5	4450	9
4016	29002	6167	4	5101	8	4027	7	4928		3104	
4017	HRI 174 (HC)	6000	7	2589		4249	3	5228		4903	6
4018	29000	6650	1	4447		4231	5	5325		4856	7
4019	Local Check (LC)	4867		4783	9	3359		5688	10	5367	2
Exp. Mean		**5516**		**4851**		**3836**		**5783**		**4447**	
CD		391		371		240		2260		363	
CV%		**4.29**		**4.6**		**3.78**		**23.6**		**4.94**	
D/S		10-06-2022		11-08-2022		11-07-2022		31-07-2022		04-07-2022	
D/P		08-07-2022		01-09-2022		01-08-2022		29-08-2022		26-07-2022	
Local Check Name		Shraboni		Tripura Nirog Dhan		GOMATI		CO 52		BR-2655	

Table No. 1.25: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 – IM, Kharif 2022

ENTRY NO	IET NO	ZONE II - NORTHERN												ZONE III-EASTERN		
		PUNJAB (1)			HARYANA (1)			JAMMU KASHMIR (1)			Zone II (3)			ODISHA		
		LUDHIANA			KAUL			CHATHA			Mean			JEYPORE		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4001	29256				118	132	329				118	132	329	107	90	306
4002	29290	121	104	273	109	128	273				115	116	273	117	76	244
4003	29301				122	121	263				122	121	263	119	80	322
4004	29257	106	113	275	100	123	307	108	97	258	105	111	280	104	81	380
4005	28489				122	116	325				122	116	325	117	74	349
4006	29268	118	117	270	117	138	304				117	127	287	110	97	357
4007	NDR 359 (NC)	109	100	277	100	112	274	108	89	337	106	100	296	112	74	249
4008	29284	118	128	257	117	143	316				117	135	287	113	92	220
4009	29001	109	121	301	101	134	338	108	99	337	106	118	325	104	97	340
4010	29014	106	119	264	101	133	312	107	104	318	105	119	298	101	91	297
4011	27908				120	123	306				120	123	306	116	86	255
4012	29009	110	129	302	103	142	319	110	112	234	108	128	285	108	95	271
4013	Zonal Check (ZC)	110	89	266	100	95	259	101	79	283	104	88	270	118	87	314
4014	29004	109	117	286	101	127	309	109	106	283	106	116	293	105	82	233
4015	28997	112	121	290	105	138	342	112	104	235	110	121	289	108	90	375
4016	29002	108	123	279	101	140	323	110	98	264	106	120	289	106	90	222
4017	HRI 174 (HC)	109	119	295	104	137	331	110	107	325	108	121	317	103	85	354
4018	29000	117	116	270	110	135	336				114	125		113	83	329
4019	Local Check (LC)	110	86	275	102	118	313	110	109		107	104	294	106	78	363
Exp. Mean		**112**	**113**	**279**	**108**	**128**	**309**	**108**	**100**	**287**	**111**	**118**	**295**	**110**	**86**	**304**

Table No. 1.25 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 – IM, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN														
		ODISHA			ODISHA (2)			BIHAR						BIHAR (2)		
		CHIPLIMA			Mean			BIKRAMGANJ (Dhangain			Sabour			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4001	29256	94	86	179	101	88	242	113	129	386	124	120	268	118	125	327
4002	29290	102	85	194	110	80	219	78	121	328	111	110	281	95	116	305
4003	29301	99	80	213	109	80	267	128	107	339	140	113	273	134	110	306
4004	29257	108	78	193	106	80	286	96	107	363	112	105	297	104	106	330
4005	28489	113	83	166	115	78	258	111	116	380	125	117	277	118	116	328
4006	29268	102	86	204	106	91	281	111	124	369	117	130	343	114	127	356
4007	NDR 359 (NC)	111	77	193	112	75	221	98	122	405	109	108	256	104	115	331
4008	29284	103	65	185	108	78	202	111	138	393	119	128	264	115	133	329
4009	29001	97	84	172	101	90	256	97	117	389	109	114	262	103	115	326
4010	29014	103	89	186	102	90	242	97	126	390	101	113	282	99	119	336
4011	27908	99	87	213	107	86	234	121	114	352	131	124	320	126	119	336
4012	29009	94	83	214	101	89	242	99	108	407	111	125	248	105	117	328
4013	Zonal Check (ZC)	104	79	230	111	83	272	119	126	398	133	124	291	126	125	345
4014	29004	96	90	204	100	86	219	98	108	380	108	114	248	103	111	314
4015	28997	100	76	170	104	83	273	101	116	411	108	120	340	105	118	376
4016	29002	109	85	191	107	88	206	97	109	390	107	117	268	102	113	329
4017	HRI 174 (HC)	97	69	190	100	77	272	99	118	376	108	110	329	104	114	352
4018	29000	101	67	192	107	75	260	113	111	379	120	122	294	117	116	337
4019	Local Check (LC)	112	92	216	109	85	290	109	96	364	118	123	398	113	109	381
Exp. Mean		**102**	**81**	**195**	**106**	**83**	**250**	**105**	**116**	**379**	**116**	**118**	**292**	**111**	**117**	**335**

Table No1.25 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 – IM, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN														
		JHARKHAND (1)			WEST BENGAL (2)						WEST BENGAL (2)			UTTAR PRADESH 2 (1)		
		RANCHI			CHINSURAH			BANKURA			Mean			VARANASI		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4001	29256	121	93	176	115	123	341	95	122	330	105	122	336	120	118	212
4002	29290	119	103	205	109	102	308	97	122	293	103	112	301	107	112	221
4003	29301	130	93	215	126	117	242	96	113	282	111	115	262	128	116	267
4004	29257	112	94	191	99	110	297	95	98	279	97	104	288	102	106	279
4005	28489	122	91	200	119	120	308	94	117	304	106	119	306	120	122	236
4006	29268	119	108	227	110	134	275	79	133	341	95	134	308	112	132	211
4007	NDR 359 (NC)	112	96	178	102	110	275	98	109	264	100	110	270	97	107	197
4008	29284	119	113	137	108	137	286	90	123	249	99	130	268	118	132	199
4009	29001	113	103	144	104	130	286	97	117	271	101	123	279	103	103	206
4010	29014	110	104	161	103	128	231	78	117	290	90	123	260	90	113	145
4011	27908	126	99	156	119	124	264	96	118	268	108	121	266	127	120	213
4012	29009	112	109	177	102	135	352	102	118	286	102	126	319	96	131	201
4013	Zonal Check (ZC)	126	102	181	121	128	220	97	128	301	109	128	260	114	112	192
4014	29004	109	102	178	101	116	363	74	108	249	88	112	306	93	115	212
4015	28997	110	106	221	104	119	341	72	117	297	88	118	319	90	120	239
4016	29002	104	106	202	102	120	308	75	121	315	89	121	312	100	114	187
4017	HRI 174 (HC)	113	108	222	103	124	319	87	118	260	95	121	290	102	107	217
4018	29000	123	101	217	110	126	341	96	119	293	103	122	317	108	133	202
4019	Local Check (LC)	108	108	206	108	127	264	105	128	293	107	128	279	106	113	249
Exp. Mean		**116**	**102**	**189**	**109**	**123**	**296**	**91**	**118**	**288**	**100**	**120**	**292**	**107**	**117**	**215**

Table No. 1.25 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 – IM, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN			ZONE - V - CENTRAL											
		Zone III (8)			MADHYA PRADESH (1)			CHHATTISGARH								
		Mean			Waraseoni			RAIPUR			Ambikhapur			JAGADALPUR		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4001	29256	111	110	275	112	101	203	107	124	172	92	115	296	112	78	286
4002	29290	105	104	259	116	112	251	100	121	133	90	129	331	107	79	232
4003	29301	121	102	269	122	122	349	118	120	171	93	117	293	110	89	305
4004	29257	103	97	285	99	113	314	98	115	163	89	112	333	106	87	282
4005	28489	115	105	278	113	98	289	106	121	150	92	114	322	115	80	374
4006	29268	108	118	291	110	124	245	104	135	146	90	131	336	109	94	295
4007	NDR 359 (NC)	105	100	252	100	100	224	98	116	144	89	105	292	102	73	329
4008	29284	110	116	242	99	122	195	103	143	163	92	126	328	111	96	280
4009	29001	103	108	259	102	118	277	96	118	153	90	116	353	102	88	277
4010	29014	98	110	248	98	111	215	93	120	146	89	103	305	99	80	302
4011	27908	117	109	255	112	109	189	112	119	167	91	107	289	112	85	269
4012	29009	103	113	270	101	124	246	104	124	133	90	124	339	103	91	302
4013	Zonal Check (ZC)	116	111	266	100	100	279	103	110	157	91	95	314	102	66	283
4014	29004	98	104	258	97	113	206	95	120	134	90	108	310	99	85	270
4015	28997	99	108	299	94	119	254	99	124	177	88	117	331	102	90	334
4016	29002	100	108	260	100	113	226	93	121	145	90	113	358	98	79	275
4017	HRI 174 (HC)	102	105	283	102	108	254	101	125	168	90	107	328	102	83	302
4018	29000	111	108	281	113	112	231	108	128	182	90	115	331	114	86	346
4019	Local Check (LC)	109	108	294	97	98	291	104	118	153	90	107	299	99	85	232
Exp. Mean		**107**	**108**	**270**	**105**	**111**	**250**	**102**	**122**	**156**	**90**	**114**	**320**	**105**	**84**	**293**

Table No1.25 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 – IM, Kharif 2022

ENTRY NO	IET NO	ZONE - V - CENTRAL														
		CHHATTISGARH			CHHATTISGARH (4)			MAHARASHTRA 1 (2)						MAHARASHTRA 1 (2)		
		Bilaspur			Mean			SAKOLI			Sindewahi			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4001	29256	106	128		104	111	251	104	119	294	119	95	310	111	107	302
4002	29290	105	118		101	112	232	103	118	305	114	103	258	109	110	282
4003	29301	118	117		110	111	256	113	109	315	122	73	193	117	91	254
4004	29257	101	113		98	107	259	92	110	242	114	87	237	103	98	240
4005	28489	114	114		107	107	282	103	113	318	112	107	224	107	110	271
4006	29268	106	133		102	123	259	100	132	295	112	93	226	106	113	261
4007	NDR 359 (NC)	100	119		97	103	255	96	94	215	107	85	212	102	90	213
4008	29284	107	134		103	125	257	101	117	241	116	77	255	109	97	248
4009	29001	97	130		96	113	261	98	113	207	113	118	244	105	116	226
4010	29014	95	118		94	105	251	93	103	167	101	120	298	97	112	233
4011	27908	114	118		107	107	242	104	114	293	120	86	200	112	100	247
4012	29009	98	134		99	118	258	95	123	136	112	116	181	104	119	159
4013	Zonal Check (ZC)	96	109		98	95	251	99	96	291	108	101	258	104	98	275
4014	29004	96	123		95	109	238	95	102	227	106	90	187	101	96	207
4015	28997	98	128		97	115	281	98	92	172	113	93	179	105	92	176
4016	29002	92	129		93	110	259	92	98	214	107	109	266	100	104	240
4017	HRI 174 (HC)	96	126		97	110	266	98	103	173	110	116	303	104	110	238
4018	29000	108	135		105	116	286	102	108	271	119	105	290	111	106	281
4019	Local Check (LC)	94	110		97	105	228	101	112	308	111	76	199	106	94	254
Exp. Mean		**102**	**123**		**100**	**111**	**256**	**99**	**109**	**246**	**112**	**97**	**238**	**106**	**103**	**242**

Table No. 1.25 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 – IM, Kharif 2022

ENTRY NO	IET NO	ZONE - V - CENTRAL			ZONE VI – WESTERN											
		Zone V (7)			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
4001	29256	107	109	260	106	124	221	113	115	188	109	119	205	110	113	253
4002	29290	105	111	252	97	110	168	104	109	135	101	109	151	105	110	216
4003	29301	114	107	271	111	117	214	120	116	129	115	116	171	116	104	213
4004	29257	100	105	262	97	106	196	96	97	117	97	102	157	100	100	198
4005	28489	108	107	280	98	116	203	114	109	148	106	113	175	107	111	223
4006	29268	105	120	257	97	127	244	104	126	184	101	127	214	104	120	237
4007	NDR 359 (NC)	99	99	236	98	112	222	92	93	127	95	103	174	98	96	194
4008	29284	104	116	244	96	124	213	107	117	124	102	121	168	105	109	208
4009	29001	100	114	252	96	128	224	96	120	140	96	124	182	101	120	204
4010	29014	95	108	239	96	127	223	92	119	150	94	123	186	95	117	209
4011	27908	109	106	235	96	133	204	114	112	141	105	123	173	108	111	210
4012	29009	101	119	223	98	126	225	98	120	157	98	123	191	101	121	175
4013	Zonal Check (ZC)	100	97	264	97	132	211	98	115	119	97	124	165	100	111	220
4014	29004	97	106	222	97	114	233	97	112	127	97	113	180	99	104	193
4015	28997	99	109	241	98	119	230	97	120	139	97	120	185	101	106	180
4016	29002	96	109	247	96	127	254	96	124	141	96	126	198	98	115	219
4017	HRI 174 (HC)	100	110	255	96	118	238	96	111	175	96	115	206	100	112	222
4018	29000	108	113	275	102	118	220	113	115	112	107	117	166	109	112	223
4019	Local Check (LC)	99	101	247	98	106	198	94	99	150	96	102	174	101	98	214
Exp. Mean		**102**	**109**	**251**	**98**	**120**	**218**	**102**	**113**	**142**	**100**	**117**	**180**	**103**	**110**	**211**

Table No. 1.25 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 – IM, Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN												ZONE VII – SOUTHERN		
		GUJARAT						GUJARAT (2)			Zone VI (4)			ANDHRA PRADESH		
		NAVSARI			NAWAGAM			Mean			Mean			MARUTERU		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4001	29256	103	114	199	113	134	274	108	124	236	109	122	220	107	123	308
4002	29290	93	129	155	113	115	271	103	122	213	102	115	182	102	124	319
4003	29301	115	139	188	120	110	267	118	124	227	117	120	199	117	128	308
4004	29257	94	120	201	100	118	284	97	119	242	97	110	200	96	118	319
4005	28489	113	131	198	115	116	292	114	124	245	110	118	210	109	121	286
4006	29268	94	141	167	113	147	294	104	144	231	102	135	222	109	133	319
4007	NDR 359 (NC)	90	127	188	104	98	274	97	112	231	96	107	203	91	121	308
4008	29284	100	167	165	117	137	277	109	152	221	105	136	195	105	143	308
4009	29001	91	138	212	103	132	276	97	135	244	97	130	213	91	123	341
4010	29014	92	141	237	104	119	285	98	130	261	96	127	224	92	127	308
4011	27908	109	148	165	118	117	278	114	133	221	109	128	197	112	128	319
4012	29009	95	146	191	104	127	273	99	136	232	99	130	212	94	129	308
4013	Zonal Check (ZC)	93	161	211	104	128	284	98	144	247	98	134	206	114	148	319
4014	29004	92	126	237	105	114	292	98	120	264	98	116	222	93	126	319
4015	28997	93	146	198	106	127	294	99	137	246	98	128	215	94	121	297
4016	29002	92	153	205	105	117	287	99	135	246	97	130	222	92	113	308
4017	HRI 174 (HC)	91	129	214	105	127	289	98	128	251	97	121	229	95	122	341
4018	29000	102	144	248	113	133	290	108	138	269	108	128	217	104	129	297
4019	Local Check (LC)	92	136	175	106	109	282	99	123	228	97	113	201	111	116	330
Exp. Mean		**97**	**139**	**198**	**109**	**122**	**282**	**103**	**130**	**240**	**102**	**124**	**210**	**101**	**126**	**314**

Table No. 1.25 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 – IM, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN														
		ANDHRA PRADESH			ANDHRA PRADESH (2)			TELANGANA								
		Ragolu			Mean			RAJENDRANAGAR			Kunaram			WARANGAL		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4001	29256	101	131	385	104	127	347	113	102	402	106	132	295	117	133	452
4002	29290	95	122	352	99	123	336	109	96	398	99	120	279	117	137	411
4003	29301	116	120	358	117	124	333	119	100	384	111	126	299	123	118	377
4004	29257	88	124	314	92	121	317	106	94	373	96	108	235	101	119	384
4005	28489	106	123	341	108	122	314	117	100	351	106	117	257	119	132	443
4006	29268	97	140	350	103	136	335	112	106	456	100	134	282	113	133	375
4007	NDR 359 (NC)	89	114	302	90	118	305	106	98	331	92	116	277	101	126	377
4008	29284	97	145	321	101	144	315	113	107	298	101	138	238	115	142	360
4009	29001	90	124	321	90	124	331	108	103	333	96	127	251	102	131	395
4010	29014	90	130	319	91	128	314	102	104	367	91	119	238	100	124	411
4011	27908	107	125	295	109	127	307	119	102	418	109	127	240	119	130	388
4012	29009	90	137	295	92	133	301	108	104	349	96	127	240	103	137	391
4013	Zonal Check (ZC)	116	141	359	115	144	339	128	106	402	113	149	262	125	124	388
4014	29004	90	125	264	92	126	292	106	102	371	92	123	266	101	130	406
4015	28997	90	133	350	92	127	324	108	102	373	95	122	268	106	125	406
4016	29002	87	132	337	90	122	322	102	103	296	93	129	282	101	125	397
4017	HRI 174 (HC)	95	126	315	95	124	328	106	102	396	96	120	266	103	137	448
4018	29000	105	130	356	105	129	327	115	103	333	111	129	290	120	136	448
4019	Local Check (LC)	104	122	321	108	119	326	114	101	351	102	134	268	109	122	383
Exp. Mean		**98**	**129**	**329**	**99**	**127**	**322**	**111**	**102**	**367**	**100**	**126**	**265**	**110**	**129**	**402**

Table No. 1.25 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 – IM, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN														
		TELANGANA			TELANGANA (4)			TAMIL NADU						TAMIL NADU (2)		
		Jagtial			Mean			ADUTHURAI			COIMBATORE			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4001	29256	118	124	367	114	123	379	111	80	238	112	106	286	112	93	262
4002	29290	116	122	417	111	119	376	106	80	253	105	109	314	105	95	283
4003	29301	126	117	393	120	115	364	102	90	269	108	108	257	105	99	263
4004	29257	104	105	425	102	106	354	108	80	250	102	96	343	105	88	297
4005	28489	120	127	362	116	119	354	110	70	278	113	109	365	112	89	321
4006	29268	116	128	308	110	125	355	109	85	243	106	115	270	107	100	256
4007	NDR 359 (NC)	106	114	370	101	114	339	108	75	205	102	94	355	105	85	280
4008	29284	117	132	324	111	130	305	98	95	274	113	117	282	105	106	278
4009	29001	104	120	340	103	120	330	99	90	305	106	107	274	102	98	290
4010	29014	102	126	315	99	118	333	98	80	263	95	112	298	97	96	280
4011	27908	122	118	371	117	119	354	108	104	258	114	108	308	111	106	283
4012	29009	115	128	329	105	124	327	109	101	280	106	124	273	108	113	276
4013	Zonal Check (ZC)	127	131	358	123	128	353	108	108	243	121	135	290	115	122	266
4014	29004	105	125	324	101	120	342	109	109	262	102	109	286	105	109	274
4015	28997	114	124	356	106	118	351	114	110	289	107	111	274	110	111	282
4016	29002	103	121	331	100	119	326	112	65	243	102	113	268	107	89	256
4017	HRI 174 (HC)	104	122	324	102	120	358	110	80	273	106	103	308	108	92	291
4018	29000	117	122	361	116	122	358	113	88	294	115	123	282	114	106	288
4019	Local Check (LC)	119	111	375	111	117	344	109	90	266	110	113	326	109	102	296
Exp. Mean		**113**	**122**	**355**	**109**	**120**	**347**	**107**	**88**	**262**	**108**	**111**	**298**	**107**	**100**	**280**

Table No.1.25 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 – IM, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN														
		KERALA (1)			KARNATAKA (2)						KARNATAKA (2)			PUDUCHERRY		
		PATTAMBI			BRAHMAVAR			GANGAVATI			Mean			KURUMBAPET		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4001	29256	96	95	419	108	92	403	113	96	395	110	94	399	100	119	403
4002	29290	97	97	442	109	81	364	112	106	405	110	93	384	103	102	440
4003	29301	92	89	482	109	86	401	112	105	410	110	95	405	83	104	460
4004	29257	90	96	499	106	99	346	112	94	363	109	96	354	96	112	510
4005	28489	98	94	418	106	92	385	110	94	381	108	93	383	98	104	483
4006	29268	97	92	397	98	80	375	109	104	364	104	92	369	97	124	487
4007	NDR 359 (NC)	95	99	445	100	87	390	108	82	395	104	84	392	99	114	367
4008	29284	94	93	466	112	100	399	109	100	340	111	100	370	99	113	390
4009	29001	102	95	434	109	86	409	109	91	370	109	88	389	98	111	447
4010	29014	102	94	454	107	98	418	99	97	349	103	97	384	94	114	410
4011	27908	94	95	503	104	90	389	113	99	375	108	94	382	101	114	452
4012	29009	93	98	444	97	80	400	109	94	375	103	87	387	98	100	427
4013	Zonal Check (ZC)	96	95	475	102	81	398	121	109	392	111	95	395	115	103	533
4014	29004	103	97	439	108	89	363	107	93	354	107	91	359	97	111	417
4015	28997	94	92	517	107	114	374	109	99	340	108	106	357	98	112	413
4016	29002	102	92	469	107	97	399	104	98	358	105	98	378	93	105	457
4017	HRI 174 (HC)	110	93	446	105	83	401	105	98	316	105	90	359	98	104	485
4018	29000	99	98	427	101	86	391	116	93	355	108	89	373	111	102	423
4019	Local Check (LC)	101	96	457	109	80	400	116	86	379	113	83	390	118	113	443
Exp. Mean		**98**	**95**	**454**	**105**	**89**	**390**	**110**	**96**	**369**	**108**	**93**	**379**	**100**	**110**	**445**

Table No. 1.25 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 – IM, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN									Overall Mean(35)		
		PUDUCHERRY			PUDUCHERRY (2)			Zone VII (13)					
		Karaikal			Mean			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4001	29256	98	120	347	99	119	375	108	112	361	109	113	302
4002	29290	89	125	415	96	113	428	104	109	370	105	110	293
4003	29301	109	130	366	96	117	413	110	109	367	114	109	300
4004	29257	95	110	400	95	111	455	100	104	366	101	104	301
4005	28489	107	105	332	102	105	408	109	107	360	111	108	305
4006	29268	93	127	392	95	125	439	104	115	355	106	120	302
4007	NDR 359 (NC)	94	110	353	97	112	360	99	104	344	101	102	283
4008	29284	93	124	248	96	118	319	105	119	327	107	121	273
4009	29001	108	120	286	103	115	366	102	110	347	101	113	292
4010	29014	80	117	428	87	115	419	96	111	352	97	113	288
4011	27908	104	121	358	102	117	405	110	112	359	112	112	288
4012	29009	94	120	364	96	110	395	101	114	344	102	118	284
4013	Zonal Check (ZC)	96	137	432	105	120	482	114	120	373	109	112	300
4014	29004	76	107	416	86	109	416	99	111	345	99	110	284
4015	28997	86	115	370	92	114	391	102	114	356	101	114	300
4016	29002	82	124	369	88	114	413	99	109	347	99	112	289
4017	HRI 174 (HC)	100	114	396	99	109	440	102	108	363	102	110	305
4018	29000	104	123	431	107	113	427	110	112	361	110	114	305
4019	Local Check (LC)	109	111	311	113	112	377	110	107	355	106	107	298
Exp. Mean		**95**	**119**	**369**	**98**	**114**	**407**	**104**	**111**	**355**	**105**	**112**	**294**

Table No. 1.25 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2-IM, (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIAL NOT CONSIDERED														
		UTTARAKHAND			UTTAR PRADESH 1			BIHAR			WEST BENGAL			UTTAR PRADESH 2		
		@PANTNAGAR			@NAGINA			@Patna-ICAR			@Malda			@MASODHA		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4001	29256	135	114	309	133	96	304	117	121	388	100	111	372	113	108	301
4002	29290	122	114	268	124	91	214	101	125	304	102	95	363	103	104	278
4003	29301	145	90	325	140	79	232	132	114	414	99	112	355	109	120	292
4004	29257	112	112	331	118	98	226	106	109	318	98	115	284	99	108	301
4005	28489	139	101	281	135	76	248	121	118	389	99	91	418	108	98	261
4006	29268	132	121	308	131	95	199	113	131	296	102	100	374	109	119	254
4007	NDR 359 (NC)	113	111	269	114	102	221	103	114	271	98	111	285	99	102	261
4008	29284	130	126	245	132	107	219	113	142	302	97	110	272	110	119	274
4009	29001	115	121	260	118	94	245	101	131	370	99	111	327	98	117	275
4010	29014	111	124	229	110	104	215	101	131	273	98	100	276	95	108	265
4011	27908	144	95	249	141	76	212	123	116	368	101	110	293	111	98	287
4012	29009	114	138	288	119	99	295	103	135	259	98	110	314	95	123	278
4013	Zonal Check (ZC)	118	86	279	116	76	302	121	120	387	102	118	282	112	91	253
4014	29004	111	125	303	112	102	219	101	121	302	100	99	395	105	104	281
4015	28997	113	121	323	120	103	249	101	135	351	97	100	311	106	112	276
4016	29002	111	134	252	111	109	195	100	132	325	99	99	290	93	117	270
4017	HRI 174 (HC)	113	119	260	115	90	212	107	115	375	102	111	282	105	82	264
4018	29000	128	129	317	130	101	227	112	131	391	98	101	359	109	119	274
4019	Local Check (LC)	107	95	286	113	96	214	121	101	368	97	95	324	99	118	291
Exp. Mean		**122**	**115**	**283**	**123**	**94**	**234**	**110**	**123**	**340**	**99**	**105**	**325**	**104**	**109**	**276**

Table No. 1.25 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2-IM, (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIAL NOT CONSIDERED														
		ASSAM (0)			TRIPURA (0)						TAMILNADU			KARNATAKA		
		@TITABAR			@ARUNDHUTI NAGAR			@Lembucherra			@Tirur			@MANDYA		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4001	29256	123	130	257	88	103	246	94	102	258	96	111	378	108	84	367
4002	29290	129	124	230	87	97	181	89	95	300	96	102	323	103	86	273
4003	29301	132	123	273	70	97	190	95	101	358	102	110	396	108	85	293
4004	29257	101	111	260	81	97	232	89	84	242	100	98	397	111	76	300
4005	28489	131	131	314	84	96	221	89	97	183	104	112	367	108	89	247
4006	29268	125	138	238	83	110	251	94	110	375	101	123	382	108	93	247
4007	NDR 359 (NC)	100	115	273	83	96	212	85	88	350	100	109	352	108	69	247
4008	29284	129	139	232	83	115	271	88	112	525	101	120	392	111	86	233
4009	29001	99	130	277				89	102	250	100	112	369	109	85	280
4010	29014	99	124	233	77	107	207	84	102	400	96	107	385	100	95	253
4011	27908	132	129	240	87	104	230	91	85	300	102	107	370	109	86	260
4012	29009	110	141	248				94	101	242	95	115	392	109	94	240
4013	Zonal Check (ZC)	126	133	223	91	108	222	95	93	150	114	124	349	123	99	253
4014	29004	107	123	257	80	111	191	93	87	333	102	112	419	103	89	273
4015	28997	113	124	257	87	110	153	87	93	400	102	108	404	104	96	253
4016	29002	105	129	255	80	113	214	90	113	275	102	102	349	99	92	267
4017	HRI 174 (HC)	110	129	265	76	108	171	88	100	250	105	100	359	104	94	320
4018	29000	122	133	231	80	106	229	87	95	275	108	97	348	110	96	240
4019	Local Check (LC)	112	143	267	88	103	261	90	84	450	103	108	342	110	108	287
Exp. Mean		**116**	**129**	**254**	**82**	**105**	**216**	**90**	**97**	**311**	**101**	**109**	**372**	**108**	**90**	**270**

Table No. 1.26: Grain quality characteristics of entries in AVT 2-IM, kharif 2022

Entry No.	IET No.	Hull %	Mill %	HRR %	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
4001	29256	80.6	72.5	66.4	6.19	2.24	2.76	LB	VOC	4.0	24.78	22
4002	29290	79.7	70.2	56.3	5.31	2.39	2.22	SB	VOC	7.0	25.90	22
4003	29301	79.7	71.0	55.2	5.08	2.20	2.30	SB	VOC	5.0	25.96	22
4004	29257	81.5	68.8	55.8	6.21	2.02	3.07	LS	OC	4.0	21.61	47
4005	28489	80.8	70.9	63.7	5.53	2.04	2.71	MS	A	4.0	27.83	42
4006	29268	80.1	69.2	55.0	6.82	2.20	3.10	LS	VOC	4.0	26.54	22
4007	NDR 359 (NC)	80.3	68.7	55.1	6.44	2.44	2.63	LB	OC	4.0	24.28	35
4008	29284	82.1	72.8	59.6	5.62	2.07	2.71	MS	VOC	4.0	22.61	22
4009	29001	79.7	66.8	55.7	6.33	2.41	2.62	LB	VOC	7.0	25.54	22
4010	29014	82.5	68.0	56.1	6.50	2.10	3.09	LS	VOC	4.0	22.85	42
4011	27908	79.5	70.0	63.6	5.70	2.08	2.74	MS	VOC	5.0	25.93	22
4012	29009	81.7	70.1	57.6	5.76	2.33	2.47	SB	VOC	7.0	22.96	22
4013	Jaya (ZC)	78.9	70.7	68.2	5.75	2.09	2.75	MS	VOC	4.0	25.37	35
4014	29004	80.8	72.9	55.2	6.15	2.35	2.61	LB	OC	4.0	25.52	22
4015	28997	81.6	70.2	58.7	6.27	2.25	2.78	LB	VOC	4.0	22.82	45
4016	29002	82.8	71.2	52.3	6.23	2.33	2.67	LB	VOC	4.0	27.83	22
4017	HRI-174 (HC)	82.1	70.5	55.4	6.34	2.28	2.78	LB	VOC	4.0	25.54	50
4018	29000	82.1	72.9	63.9	6.08	2.28	2.66	LB	VOC	4.0	25.96	47
4019	MTU 1001 (LC)	81.2	72.4	55.2	5.93	2.35	2.52	MS	VOC	7.0	23.96	73

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. 1.27: Composition of entries in Advance Variety Trial 1-Irrigated Medium (AVT 1-IM), Kharif 2022

Entry No.	IET No.	Designation	Cross Combination	GT
2nd year of testing				
4101	29826	AD 17746	ADT (R)46 / AD 09495	SB
4102	29833	JGL 34560	JGL 20171 / MTU 1075	LB
4103	29843	UPR 4397-10-1-1-1	Pant Dhan 16 / UPR 3778-17-2-1	SB
4104	29855	Sahydri Kempumukthi	Jyothi / KPR-1 (Back cross derivative)	LB
4105	29831	RP 6520-IR16A 4938 (R 107982-B-B RGA-B RGA-134	IR 10F559 / IRRI 119	MS
4106	29865	TRC H2TS 208-B-B-33-6	Hakuchuk 2 / Tripura Sarat	LS
4107	29861	PAU 7021-10-1-1 (RYT 3951)	PR 122 / PR 123	LS
4108	29860	CR 3856-44-22-2-1-11-4-1-1	IR 73963-86-1-5-2-2 / CR 2324-1	SB
4109	29850	HKR 16-58	HKR 48 / IRRI-DS-12	LS
4110	**NDR 359 (NC)**			
4111	29875	BRR 2074	IR 11 A 257-Sel.	SB
4112	29873	BPT 3152	BPT 5204*2 / O.longistaminata // B95-1 / Swarna Sub-1	MS
4113	29869	YNPG 114	NPG 10 / NPG 6	SB
4114	29859	RP 6488-MAID-1-180-119-1-1-1-1	Krishna Hamsa / IRBB60 // Krishna Hamsa / Tetep /// Krishna Hamsa / DSB2	LS
4115	28523	CR 3564-1-1-4-2-2-1	Vijetha / N22	MS
4116	29825	OR 2546-5-1	OR 2006-23 / PSBRC 68	LB
4117	29845	RNR 28359	Bhadrakali / NSN 20894	LB
4118	29287	RP 5405-13-1-3-1-1-1-1	RP 5405: Swarna / IRGC 4105 //	MS

Entry No.	IET No.	Designation	Cross Combination	GT
			Swarna	
4119	**PR 121 (Northern), CR Dhan 300 (Eastern & North Eastern), Karma Mahsuri (Central), Akshayadhan (Western), Jaya (Southern)—ZC**			
4120	29879	WGL 1513	TNAU CO 50 / JGL 17183	MS
4121	29857	NVSR 2968	GR 7 / GAR 13	LB
4122	29742	***RRX-338 (Hybrid)***	-	LB
4123	29749	***VNR-230 (Hybrid)***	-	LB
4124	29752	***CRHR-156 (Hybrid)***	-	LS
4125	28442 (R)	Pusa 1824-12-84-17-7-2	Pusa 44/ PAU 201	MS
4126	29744	***RRX-438 (Hybrid)***	-	LS
4127	29868	MSN 116	KMR 3 / CR 2711-76 (10-1-B)	SB
4128	29743	***HRI-211 (Hybrid)***	-	LB
4129	**HRI 174 (HC)**			
4130	29877	CR 4313-1-1-2-1-1-1	CR 3511-32 / CR 3561-31	SB
4131	29837	TRC CTSM 1723-B-B-32-1	CT 9993-5-10-1-M / 2 / BPT 5204	SB
4132	29741	***HRI-209 (Hybrid)***	-	MS
4133	29834	RP 6487-MAID-471-47-23-3-2-2-1	Krishna Hamsa / IRBB60 // Krishna Hamsa / Pi9	LS
4134	29748	***US-384 (Hybrid)***	-	LB
4135	29878	IGKV DH 105	Safri-17 / RP Bio 226	SB
4136	**Local Check (LC)**			
4137	30304	RP 6494-MAID-162-27-9-3-1-1-1	WGL 14 / Improved Samba Mahsuri // WGL 14 / RP Bio Patho-2 /// WGL14 / RP 5925-23 // WGL14 / IR 96321-1447-561-B-1	MS
4138	**WGL 14 (RP)**			MS
4139	30757	RP 6697-P.N.24-14	Gangavati Sona*2 / Improved Samba Mahsuri	MS
4140	30758	RP 6697-P.N. 36-20	Gangavati Sona*2 / Improved Samba Mahsuri	MS
4141	30759	RP 6697-P.N. 14-MSA-4-5	Gangavati Sona*2 / Improved Samba Mahsuri	MS
4142	**Gangavati Sona (RP)**			MS
4143	30760	WGL 1590	WGL 32100 / Swarna // 2* WGL 32100	MS
4144	**WGL 32100 (RP)**			MS

Table No. 1.28: Grain Yield (kg/ha) in AVT 1 – IM, Zone 2 to 6 Kharif 2022

ENTRY NO	IET NO	ZONE II - NORTHERN										ZONE III-EASTERN	
		Punjab (1)		Haryana (1)		Jammu Kashmir (1)		Uttara Pradesh 1(1)		Zone II (4)		Odisha	
		Ludhiana		Kaul		Chatha		Nagina		Mean		Bhubaneswar	
4101	29826			4637				5128	8 *	4883		7138	
4102	29833	4733		6710				5431	5 * #	5625	9	8273	8
4103	29843	4423		5592				4727	*	4914		4288	
4104	29855	2115		5183		4711	4 *	4855	*	4216		6338	
4105	29831	5198		5674		3956		5382	6 * #	5053		6689	
4106	29865	6287	6	5674		5456	1 * #	5717	3 * #	5784	6	4545	
4107	29861	6202	7	6519		4789	3 *	5035	10 *	5636	8	7253	
4108	29860	4119		6001		4033		4651	*	4701		8384	7
4109	29850	5518		7119	7	3911		5349	7 * #	5474		4296	
4110	NDR 359 (NC)	2559		5619		3933		4228		4085		4806	
4111	29875	4311		4910		4989	2 *	4975	*	4796		6286	
4112	29873	2030		3110		4256		4111		3377		8847	4
4113	29869	6800	3	6765	10	4356		4422		5586	10	4958	
4114	29859	5385		6983	8	4222		4081		5168		7221	
4115	28523	4391		5319		4567	6	5734	2 * #	5003		6855	
4116	29825	5860	9	7692	3 #			3863		5805	5	9461	1
4117	29845	5000		6301		4378		4018		4924		6402	
4118	29287			3273				5117	9 *	4195		7973	9
4119	Zonal Check (ZC)	2623		5837				4029		4163		7513	
4120	29879	4765		5701		4500	8	4094		4765		4429	
4121	29857	5449		6383		4489	9	5854	1 * #	5544		6987	
4122	29742	5604		6492				3699		5265		6330	
4123	29749	5892	8	7474	4 #			3819		5728	7	5816	
4124	29752	3654		6574				3928		4719		8391	6
4125	28442 (R)	5337		6519				3093		4983		4515	
4126	29744	5860	9	6819	9			3606		5428		5796	
4127	29868	2634		5483		4389		4984	*	4373		8869	3
4128	29743	8018	1 *	8620	1 * #	4411	10	4583		6408	1 * #	9455	2
4129	HRI 174 (HC)	7666	2	6710		4567	6	4935	*	5970	3	6109	
4130	29877	5438		6356				2990		4928		7843	
4131	29837	5395		6519				4233		5382		7163	
4132	29741	5540		7965	2 #			4146		5884	4	8702	5
4133	29834	2821		5210				4932	*	4321		5976	
4134	29748	6592	5	7474	4 #	4589	5*	5456	4 * #	6028	2 *	7882	10
4135	29878	4813		6247		4333		4053		4862		7692	
4136	Local Check (LC)	6779	4	7283	6	4011		4043		5529		7579	
Exp. Mean		**4994**		**6187**		**4421**		**4536**		**5097**		**6863**	
F Value		20.75(p<0.0001)S		20.91(p<0.0001)S		4.99(p<0.0001)S		26.20(p<0.0001)S		20.45(p<0.0001)S		6.81(p<0.0001)S	
CD		911		708		572		392		402		1607	
CV%		**11.18**		**7.02**		**7.84**		**5.31**		**4.84**		**14.38**	
D/S		08-06-2022		11-06-2022		10-06-2022		17-06-2022				11-07-2022	
D/P		09-07-2022		11-07-2022		29-09-2022		16-07-2022				24-08-2022	
Local Check Name		PR 130		HKR-128		SJR-5		NDR 359				Hiranmayee	

Table No. 1.28 (Contd): Grain Yield (kg/ha) in AVT 1 – IM, Zone 2 to 6 Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN													
		Odisha				Odisha (3)		Bihar						Bihar (3)	
		Jeypore		Chiplima		Mean		Bikaramganj		Sabour		Patna-ICAR		Mean	
4101	29826	7141		5823		6701	10	5023		5183		9213		6473	
4102	29833	4762		5482		6172		7292	10	5751	9	11375	3	8139	5 *
4103	29843	7037		6220		5848		5116		5029		10367	9	6837	
4104	29855	6732		5426		6165		6757		4511		8452		6573	
4105	29831	5052		5213		5651		5667		4861		9508		6679	
4106	29865	4288		4738		4524		5618		4381		7305		5768	
4107	29861	5569		4596		5806		6447		4597		9116		6720	
4108	29860	5261		6206		6617		7368	9	4470		10279		7372	
4109	29850	5791		6326	9	5471		6424		3453		9453		6443	
4110	NDR 359 (NC)	4384		4950		4713		7081		4905		9879		7288	
4111	29875	5170		5645		5700		6259		4612		9748		6873	
4112	29873	5621		5404		6624		9093	1	4859		9256		7736	8 *
4113	29869	5246		5199		5134		7097		4515		10370	8	7327	
4114	29859	6261		6262	10	6581		4412		5080		8039		5844	
4115	28523	7588	6	5376		6606		5755		5502		9329		6862	
4116	29825	7150	10	7064	2	7892	2 * #	7829	5	6071	6	10991	4	8297	3 *
4117	29845	4601		6376	6	5793		6412		4754		9449		6872	
4118	29287	5795		5028		6265		4183		5216		9998		6466	
4119	Zonal Check (ZC)	5320		4440		5758		6326		4211		8091		6209	
4120	29879	5052		5404		4962		3796		4548		8866		5737	
4121	29857	5134		6454	4	6192		5764		5216		9917		6966	
4122	29742	8578	3	8667	1	7858	3 * #	7109		6275	3	10817	5	8067	6 *
4123	29749	8791	2	5433		6680		8637	2	4549		8115		7100	
4124	29752	7288	8	5574		7084	7	6618		6285	2	11754	1	8219	4 *
4125	28442 (R)	4810		4518		4614		5053		4143		8566		5921	
4126	29744	5569		6340	7	5902		7627	7	5793	7	11487	2	8302	2 *
4127	29868	5523		6340	7	6911	8	5644		5019		10005		6889	
4128	29743	7134		6596	3	7728	4 * #	8248	4	5784	8	8871		7634	10
4129	HRI 174 (HC)	8503	4	4943		6518		7650	6	6251	4	10086		7996	7
4130	29877	8083	5	6390	5	7439	5 #	5998		6544	1	10475	7	7672	9
4131	29837	5895		5794		6284		6063		3692		8931		6229	
4132	29741	9647	1	5454		7934	1 * #	8292	3	6113	5	10657	6	8354	1 *
4133	29834	6350		5858		6061		4528		5637	10	9421		6529	
4134	29748	7530	7	6262	10	7225	6	7465	8	5309		8997		7257	
4135	29878	7281	9	4255		6409		6859		4199		10319	10	7126	
4136	Local Check (LC)	6838		5979		6799	9	4481		4309		7518		5436	
Exp. Mean		**6299**		**5723**		**6295**		**6389**		**5045**		**9584**		**7006**	
F Value		15.94(p<0.0001)S		4.87(p<0.0001)S		11.90(p<0.0001)S		16.06(p<0.0001)S		6.10(p<0.0001)S		8.88(p<0.0001)S		26.69(p<0.0001)S	
CD		947		1073		716		898		864		1001		429	
CV%		**9.23**		**11.51**		**6.98**		**8.63**		**10.52**		**6.42**		**3.76**	
D/S		08-07-2022		13-07-2022				19-06-2022		13-06-2022		24-06-2022			
D/P		08-08-2022		18-08-2022				23-07-2022		17-06-2022		19-07-2022			
Local Check Name		Kalinga Dhan 1203		Pratikshya				R. Sweta		Rajendra Sweta		Rajendra Sweta			

Table No. 1.28 (Contd): Grain Yield (kg/ha) in AVT 1 – IM, Zone 2 to 6 Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN															
		Jharkhand (1)		West Bengal				West Bengal (2)		Uttar Pradesh 2						Uttar Pradesh 2 (3)	
		Ranchi		Chinsurah		Bankura		Mean		Masodha		Varanasi		Gorakpur		Mean	
4101	29826	5200	8	6422		8148		7285		4160		4715		4356		4410	
4102	29833	5156		7614	10	8794		8204		4348		7306		3590		5081	
4103	29843	4378		7448		9288		8368		5958	4	8736		5098		6597	
4104	29855	5178	10	6868		10285		8577		3113		6938		3856		4636	
4105	29831	4089		5983		11225	4	8604		4965		7236		4920		5707	
4106	29865	3978		7021		10997	8	9009	8	5743	10	5993		4876		5537	
4107	29861	4822		7045		8680		7863		5341		8486		4827		6218	
4108	29860	5044		7623	8	10133		8878		5770	8	5847		5275	10	5631	
4109	29850	4578		7295		10361		8828		4777		7146		5275	10	5733	
4110	NDR 359 (NC)	4422		7541		7407		7474		5180		9125		3989		6098	
4111	29875	4333		7617	9	9905		8761		5233		8583		4876		6231	
4112	29873	4533		6960		9164		8062		4321		4507		3856		4228	
4113	29869	4467		7335		8917		8126		4917		9264		4211		6131	
4114	29859	4444		7550		12118	1	9834	1 #	4147		8007		4876		5677	
4115	28523	4622		7692	6	9554		8623		5663		8361		5195		6406	
4116	29825	4978		7164		11738	2	9451	2 #	4254		9750	8	5984	3	6663	9
4117	29845	4556		8254	1	10532		9393	3 #	5931	5	7222		5629	6	6261	
4118	29287	3978		7875	3	7550		7713		3221		6819		4610		4883	
4119	Zonal Check (ZC)	4533		7484		11263	3	9374	4 #	3650		6229		4965		4948	
4120	29879	4489		7594		10180		8887	10	6039	3	7042		4566		5882	
4121	29857	3711		7491		7066		7279		5475		8743		5762	4	6660	10
4122	29742	5622	3 *	7374		10541		8958	9	6092	2	10264	3	5098		7151	2
4123	29749	5422	4.5 *	7784	5	9620		8702		5770	8	9618	10	5275	10	6888	4
4124	29752	5844	2 *	8184	2	10256		9220	6 #	4348		9403		3768		5840	
4125	28442 (R)	5000		6301		10570	10	8436		4160		8208		5679	5	6016	
4126	29744	4356		6798		8243		7521		4482		11042	1	4920		6815	6
4127	29868	5178	10	6865		9687		8276		5072		7653		6206	2	6310	
4128	29743	5422	4 *	7506		11045	7	9276	5 #	6146	1	10208	4	6339	1	7564	1 * #
4129	HRI 174 (HC)	5200	8	7692	6	9240		8466		5931	5	9819	6	4787		6846	5
4130	29877	5356	6	7326		9516		8421		5395		9889	5	4743		6676	8
4131	29837	6000	1 *	6044		10579	9	8312		4393		7569		5319	8	5760	
4132	29741	4733		7052		11149	6	9101	7	5921	7	9764	7	5541	7	7075	3
4133	29834	4356		7785	4	9829		8807		4724		7597		5009		5777	
4134	29748	5244	7	5380		11206	5	8293		5717		9632	9	3475		6275	
4135	29878	4733		7241		8091		7666		5421				3036		4229	
4136	Local Check (LC)	3778		6447		7854		7151		4965		10799	2	4592		6785	7
Exp. Mean		**4770**		**7213**		**9743**		**8478**		**5021**		**8215**		**4844**		**5990**	
F Value		3.32(p<0.0001)S		2.92(p<0.0001)S		14.46(p<0.0001)S		6.78(p<0.0001)S		21.48(p<0.0001)S		18.42(p<0.0001)S		4.18(p<0.0001)S		19.87(p<0.0001)S	
CD		846		1022		928		716		489		1054		1029		517	
CV%		**10.89**		**8.7**		**5.85**		**5.19**		**5.98**		**7.87**		**13.05**		**5.3**	
D/S		18-06-2022		21-06-2022		27-07-2022				26-06-2022		13-06-2022		26-06-2022			
D/P		25-07-2022		26-07-2022		30-08-2022				28-07-2022		09-07-2022		06-08-2022			
Local Check Name		BVS-1		PRATIKSHYA		Kunti				NDR 2065		HUR-105		Samba Sub-1			

Table No. 1.28 (Contd): Grain Yield (kg/ha) in AVT 1 – IM, Zone 2 to 6 Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN				ZONE-V – CENTRAL							
		Uttar Pradesh (4)		Zone III (12)		Chhattisgarh						Chhattisgarh (3)	
		Mean		Mean		Raipur		Ambikhapur		Jagadalpur		Mean	
4101	29826	4590		6044		3807		3688		5490		4328	
4102	29833	5169		6645	*	4447		4428		6645	9	5173	
4103	29843	6130	7	6580	*	4755		4899	8	5479		5044	
4104	29855	4691		6205		5298	2	5007	6	5678		5328	8
4105	29831	5626		6284		4009		4181		5462		4551	
4106	29865	5582		5790		3747		4051		4956		4251	
4107	29861	5922		6398		3700		4522		5154		4459	
4108	29860	5386		6805	*	5076	6	4239		6386		5234	10
4109	29850	5637		6265		3767		4464		5385		4539	
4110	NDR 359 (NC)	5631		6139		4402		4572	10	6676	8	5217	
4111	29875	5917		6522		4633		3652		6100		4795	
4112	29873	4199		6368		3192		3138		4957		3762	
4113	29869	5704		6375		4877		4384		5899		5053	
4114	29859	5278		6535		4643		3964		5665		4757	
4115	28523	6238	6	6791	*	4190		3174		6193		4519	
4116	29825	5963		7703	4 * #	5009	9	3522		6301		4944	
4117	29845	5700		6677	*	4048		3899		5528		4492	
4118	29287	4942		6021		4335		3413		6544	10	4764	
4119	Zonal Check (ZC)	4718		6169		4790		3203		5759		4584	
4120	29879	5435		6000		3560		2877		4645		3694	
4121	29857	6459	2	6477		4745		3891		5509		4715	
4122	29742	6288	5	7731	2 * #	5169	4	4493		6190		5284	9
4123	29749	6121	8	7069	8 *	4780		5334	3	7607	2	5907	1 *
4124	29752	5362		7309	5 *	5022	8	5145	5	6402		5523	5
4125	28442 (R)	5285		5960		4220		3862		6940	4	5007	
4126	29744	6013		6871	10 *	5121	5	5290	4	6090		5500	6
4127	29868	5979		6838	*	4753		4732	9	5593		5026	
4128	29743	6819	1 * #	7730	3 * #	5188	3	4370		7770	1	5776	2 *
4129	HRI 174 (HC)	6368	3	7184	7 *	5056	7	3957		7210	3	5408	7
4130	29877	5754		7297	6 *	4795		3768		6258		4940	
4131	29837	5379		6454		4454		3464		6043		4654	
4132	29741	6343	4	7752	1 * #	6154	1	4080		6691	7	5642	4
4133	29834	5566		6423		3991		4993	7	5442		4809	
4134	29748	6070	10	7008	9 *	4992	10	3797		6764	5	5184	
4135	29878	4170		6284		4352		6022	1	6756	6	5710	3
4136	Local Check (LC)	6100	9	6262		3829		5370	2	5661		4953	
Exp. Mean		**5626**		**6638**		**4525**		**4218**		**6051**		**4931**	
F Value		20.37(p<0.0001)S		28.16(p<0.0001)S		3.77(p<0.0001)S		3.41(p<0.0001)S		2.80(p=0.0001)S		(p<0.0001)S	
CD		380		281		897		1101		1208		548	
CV%		**4.14**		**2.6**		**12.17**		**16.03**		**12.26**		**6.82**	
D/S						29-06-2022		11-07-2022		16-06-2022			
D/P						29-07-2022		05-08-2022		12-07-2022			
Local Check Name						IGKV R 1244		MTU1010		IGKVR 1244			

Table No. 1.28 (Contd): Grain Yield (kg/ha) in AVT 1 – IM, Zone 2 to 6 Kharif 2022

ENTRY NO	IET NO	ZONE-V – CENTRAL								ZONE VI – WESTERN			
		Maharashtra 1				Maharashtra 1 (2)		Zone 5(5)		Maharashtra 2			
		Sakoli		Sindewahi		Mean		Mean		Karjat		Shirgaon	
4101	29826	5113	3	3983		4548	9	4416		7352		3348	
4102	29833	4184		4496		4340		4840		7793	5	5620	
4103	29843	2490		4604		3547		4445		5848		3235	
4104	29855	3652		3735		3694		4674		5095		5726	9
4105	29831	4071		4321		4196		4409		4007		2861	
4106	29865	3151		4575		3863		4096		4104		3991	
4107	29861	4252		4950	6	4601	8	4516		7715	7	2687	
4108	29860	4394		5003	5	4699	7	5020	8	7244		6130	4
4109	29850	3570		4688	10	4129		4375		7622		4266	
4110	NDR 359 (NC)	3382		4132		3757		4633		5733		4952	
4111	29875	4375		4458		4417		4644		6578		4533	
4112	29873	2804		4921	7	3863		3802		6707		2863	
4113	29869	3476		5437	2	4457		4815		7652	10	2745	
4114	29859	4675	10	4799	8	4737	4	4749		7285		5253	
4115	28523	3372		5280	3	4326		4442		6726		4456	
4116	29825	4940	5	5603	1	5272	1 #	5075	5	7659	9	6334	3
4117	29845	3711		4409		4060		4319		6067		5525	
4118	29287	5090	4	4709	9	4900	3	4818		6430		5356	
4119	Zonal Check (ZC)	4743	9	4688	10	4716	6	4637		4467		5276	
4120	29879	4438		4321		4380		3968		6537		5697	10
4121	29857	4758	8	4280		4519		4637		5807		4700	
4122	29742	4850	7	4225		4538	10.5	4985	9	9141	1	4294	
4123	29749	5290	2	4172		4731	5	5437	2 *	7985	4	6074	5
4124	29752	4536		4315		4426		5084	4	8437	2	4590	
4125	28442 (R)	4193		4580		4387		4759		7218		3817	
4126	29744	4585		3779		4182		4973	10	7563		5599	
4127	29868	4428		4589		4509		4819		6281		3708	
4128	29743	5660	1	4534		5097	2 #	5504	1 * #	7778	6	5952	6
4129	HRI 174 (HC)	4281		4601		4441		5021	7	8200	3	5882	7
4130	29877	3982		4001		3992		4561		6926		5848	8
4131	29837	3725		5245	4	4485		4586		4637		6456	2
4132	29741	3856		4409		4133		5038	6	7455		4876	
4133	29834	3723		3881		3802		4406		6374		3744	
4134	29748	4152		3884		4018		4718		6793		4175	
4135	29878	4940	5	3977		4459		5209	3 *	7715	7	6460	1
4136	Local Check (LC)	4407		4668		4538	10.5	4787		5730		4727	
Exp. Mean		**4201**		**4507**		**4354**		**4700**		**6741**		**4771**	
F Value		6.48(p<0.0001)S		3.17(p<0.0001)S		3.58(p<0.0001)S		5.91(p<0.0001)S		8.24(p<0.0001)S		4.98(p<0.0001)S	
CD		761		704		563		417		1176		1428	
CV%		**11.12**		**9.59**		**7.94**		**5.45**		**10.72**		**18.38**	
D/S		30-06-2022		27-06-2022						15-06-2022		16-07-2022	
D/P		28-07-2022		27-07-2022						10-07-2022		26-07-2022	
Local Check Name		PDKV Kisan		Sindewahi-2001						Karjat 5		Ratnagiri 6	

Table No.1.28 (Contd): Grain Yield (kg/ha) in AVT 1 – IM, Zone 2 to 6 Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN												Overall Mean (25)	
		Maharashtra 2(2)		Maharashtra (4)		Gujarat				Gujarat (2)		Zone VI (4)			
		Mean		Mean		Navasari		Nawagam		Mean		Mean			
4101	29826	5350		4949		3307		4369		3838		4594		5337	
4102	29833	6707	7 *	5523	8 *	4713		7772	9	6243		6475	10 *	6113	*
4103	29843	4542		4044		5052		3759		4406		4474		5576	
4104	29855	5411		4552		5735	9	6873		6304		5857		5525	
4105	29831	3434		3815		4540		6263		5402		4418		5413	
4106	29865	4048		3955		5130		7078		6104		5076		5336	
4107	29861	5201		4901		5616		7987	3	6802	7	6001		5836	
4108	29860	6687	8 *	5693	6 *	4514		6264		5389		6038		5989	*
4109	29850	5944		5037		5518		7195		6357		6150		5742	
4110	NDR 359 (NC)	5343		4550		5336		5264		5300		5321		5378	
4111	29875	5556		4986		4328		6118		5223		5389		5689	
4112	29873	4785		4324		4682		4099		4391		4588		5092	
4113	29869	5199		4828		5724	10	6584		6154		5676		5825	
4114	29859	6269	*	5503	9 *	5223		7775	8	6499		6384	*	5935	
4115	28523	5591		4959		4670		7899	6	6285		5938		5899	
4116	29825	6997	4 *	6134	1 *	5659		7335		6497		6747	7 *	6759	3 * #
4117	29845	5796		4928		5762	7	7686		6724	8	6260		5858	
4118	29287	5893		5396		3368		8009	2	5689		5791		5560	
4119	Zonal Check (ZC)	4872		4794		5042		7481		6262		5567		5498	
4120	29879	6117		5248		3907		7907	5	5907		6012		5398	
4121	29857	5254		4886		5239		7086		6163		5708		5836	
4122	29742	6718	6 *	5628	7 *	6076	5	7529		6803	6	6760	5 *	6689	4 *
4123	29749	7030	3 *	5880	3 *	6178	4	7484		6831	4	6930	2 *	6538	5 *
4124	29752	6514	10 *	5470	10 *	5359		8292	1	6826	5	6670	8 *	6415	7 *
4125	28442 (R)	5518		4952		3888		3349		3619		4568		5356	
4126	29744	6581	9 *	5382		6203	3	7171		6687	9	6634	9 *	6256	9 *
4127	29868	4995		4752		5104		7909	4	6507		5751		5866	
4128	29743	6865	5 *	5981	2 *	6552	2	7282		6917	2	6891	3 *	6939	1 * #
4129	HRI 174 (HC)	7041	2	5741	5	6038	6	7759	10	6899	3	6970	1	6523	6
4130	29877	6387	*	5189		5191		7143		6167		6277		6261	8 *
4131	29837	5547		5016		5610		7680		6645	10	6096		5871	
4132	29741	6166		5149		7161	1	7534		7348	1 *	6757	6 *	6787	2 * #
4133	29834	5059		4431		4884		5129		5007		5033		5508	
4134	29748	5484		4751		5739	8	7156		6448		5966		6226	10 *
4135	29878	7088	1 *	5773	4 *	5335		7899	6	6617		6852	4 *	5918	
4136	Local Check (LC)	5229		4883		4773		7453		6113		5671		5755	
Exp. Mean		**5756**		**5055**		**5199**		**6877**		**5728**		**5794**		**5903**	
F Value		8.76(p<0.0001)S		8.18(p<0.0001)S		7.09(p<0.0001)S		3.37(p=0.0002)S		6.08(p<0.0001)S		9.91(p<0.0001)S		31.34(p<0.0001)S	
CD		827		539		866		2038		1061		647		208	
CV%		**8.83**		**6.54**		**10.23**		**14.59**		**11.37**		**6.86**		**2.17**	
D/S						17-06-2022		18-06-2022							
D/P						02-07-2022		28-07-2022							
Local Check Name						GNR-5		GAR 13							

Table No. 1.28 (Contd): Grain Yield (kg/ha) in AVT 1 – IM, Zone 7, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN											
		Andhra Pradesh				Andhra Pradesh (2)		Telangana					
		Maruteru		Ragolu		Mean		Rajendranagar		Warangal		Jagityal	
4101	29826	7158	6	5144		6151		7707		5139		4345	
4102	29833	7254	3	7338	5	7296	3 * #	7979		6717	7	8086	4
4103	29843	6052		5942		5997		7222		5342		7626	8
4104	29855	6175		5739		5957		7435		5683		6890	
4105	29831	5849		5949		5899		6983		5443		6287	
4106	29865	5150		4219		4685		5388		5772		6097	
4107	29861	6052		5526		5789		6538		6186		4891	
4108	29860	7233	4	5575		6404	9	6404		7338	2	7635	7
4109	29850	5737		7226	8	6482	7	6160		5519		5935	
4110	NDR 359 (NC)	6132		6017		6075		7638		5918		6339	
4111	29875	7196	5	7458	4	7327	2 * #	6997		5332		6144	
4112	29873	6587		6784		6686	5 #	6935		6211		5370	
4113	29869	5788		5447		5618		7630		6493	9	7151	
4114	29859	5462		4029		4746		5974		5770		6035	
4115	28523	5572		6758		6165		6883		5974		6083	
4116	29825	5228		7024	10	6126		8159	8	5922		8001	5
4117	29845	5406		5309		5358		6656		6998	4	7915	6
4118	29287	6259		3942		5101		7924		7276	3	6500	
4119	Zonal Check (ZC)	5299		2628		3964		7669		4097		4867	
4120	29879	6784	10	3216		5000		5262		5103		7113	
4121	29857	6106		4878		5492		6742		6161		6966	
4122	29742	6528		4826		5677		9666	1	5980		8628	1
4123	29749	5011		7226	8	6119		9642	2	6860	5	7626	8
4124	29752	5593		6859		6226		9488	3	6781	6	4972	
4125	28442 (R)	5486		7334	6	6410	8	6746		6431		5760	
4126	29744	5025		6236		5631		8342	7	5131		7270	
4127	29868	5183		7563	3	6373	10	7771		5416		5774	
4128	29743	6840	8	7256	7	7048	4 * #	8863	4	6481		8566	3
4129	HRI 174 (HC)	5724		6159		5942		7776		6250		7298	
4130	29877	7265	2	10696	1	8981	1 * #	8496	6	5559		6529	
4131	29837	5920		6754		6337		5163		4155		7507	
4132	29741	5683		7600	2	6642	6 #	8067	9	7562	1	8599	2
4133	29834	5214		5133		5174		6040		3966		6610	
4134	29748	4796		4785		4791		8006	10	6540	8	7308	
4135	29878	7350	1	5309		6330		6729		6478		7028	
4136	Local Check (LC)	6506		6129		6318		7904		6370		5337	
4137	30304	6968	7	2621		4795		5392		4715		6092	
4138	WGL 14 (RP)	5553				5553						6638	
4139	30757	6811	9	4875		5843		6566		5702		7583	10
4140	30758	5753		5009		5381		6629		5208		5233	
4141	30759	5638		6953		6296		7044		5787		6752	
4142	Gangavati Sona (RP)	5297		6728		6013		7171		5251		4539	
4143	30760	5340		4141		4741		8609	5	6493	9.5	6453	
4144	WGL 32100 (RP)	5128		5197		5163		5718		6424		6477	
Exp. Mean		**5979**		**5850**		**5911**		**7258**		**5905**		**6610**	
F Value		4.52(p<0.0001)S		39.34(p<0.0001)S		14.80(p<0.0001)S		5.00(p<0.0001)S		7.12(p<0.0001)S		8.30(p<0.0001)S	
CD		1040		667		625		1398		854		1056	
CV%		**10.72**		**7.02**		**6.51**		**11.87**		**8.91**		**9.84**	
D/S		25-06-2022		02-07-2022				20-06-2022		17-06-2022		16-06-2022	
D/P		01-08-2022		29-07-2022				18-07-2022		13-07-2022		15-07-2022	
Local Check Name		MTU 1239		MTU 1121				MTU 1001		WGL 347 (Somnath		JGL 11470	

Table No. 1.28 (Contd): Grain Yield (kg/ha) in AVT 1 – IM, Zone 7, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN											
		Telangana (3)		Tamil Nadu						Tamil Nadu (3)		Karnataka	
		Mean		Aduthurai		Coimbatore		Tirur		Mean		Mandya	
4101	29826	5730		6528	8	5110		4982		5540		3710	
4102	29833	7594	5 *	6273	9	6420	6	6446	5	6380	3 * #	4563	
4103	29843	6730		4259		4468		5227		4651		3479	
4104	29855	6669		3843		4219		6854	1	4972		3968	
4105	29831	6238		4190		4175		5752		4706		3208	
4106	29865	5752		4005		3777		5098		4293		2798	
4107	29861	5872		4861		5063		4923		4949		4279	
4108	29860	7126		4676		6232	8	5828		5579		4742	
4109	29850	5871		4074		5149		4673		4632		3208	
4110	NDR 359 (NC)	6632		5139		4178		5058		4792		4616	
4111	29875	6158		6852	7	3652		5419		5308		4299	
4112	29873	6172		7130	6	5580		5524		6078	6 * #	3452	
4113	29869	7091		4861		5107		5128		5032		3208	
4114	29859	5926		8056	3	5370		5291		6239	4 * #	3241	
4115	28523	6313		8102	2	5257		4690		6016	7 *	3876	
4116	29825	7361	6 *	8495	1	7049	2	5711		7085	1 * #	4180	
4117	29845	7190	9	4491		3929		5151		4524		4537	
4118	29287	7233	8	4282		6063	10	5270		5205		4861	
4119	Zonal Check (ZC)	5544		4514		3824		5017		4452		2831	
4120	29879	5826		4417		3468		6650	3	4845		2877	
4121	29857	6623		4514		5387		5356		5086		4894	
4122	29742	8091	1 * #	5926		5775		5268		5656		7308	1
4123	29749	8043	3 * #	7269	5	6693	4	6609	4	6857	2 * #	5066	9
4124	29752	7080		4907		5584		6749	2	5747	9 *	5602	4
4125	28442 (R)	6312		7454	4	3192		5139		5262		4716	
4126	29744	6914		6019	10	4172		5682		5291		5370	5
4127	29868	6320		5787		5691		6043	9	5840	8 *	5205	7
4128	29743	7970	4 * #	4282		7659	1	6434	6	6125	5 * #	5212	6
4129	HRI 174 (HC)	7108		5324		6069	9	4993		5462		4689	
4130	29877	6861		4491		6726	3	4684		5300		4742	
4131	29837	5608		4167		2681		6183	8	4344		3882	
4132	29741	8076	2 * #	4653		5151		4130		4645		5066	9
4133	29834	5539		4306		3916		5495		4572		3750	
4134	29748	7285	7 *	4259		6402	7	5128		5263		4544	
4135	29878	6745		2338		3688		5034		3687		2639	
4136	Local Check (LC)	6537		4722		4861		5650		5078		5701	3
4137	30304	5400		4653		3653		4142		4149		3049	
4138	WGL 14 (RP)	6638		4167		4266		5985		4806		3399	
4139	30757	6617		5000		6536	5	5297		5611		3915	
4140	30758	5690		5185		5887		6032	10	5701	10 *	3519	
4141	30759	6528		4769		5829		5256		5285		4193	
4142	Gangavati Sona (RP)	5654		4421		4963		6271	7	5218		3664	
4143	30760	7185	10	4606		5307		5256		5056		5159	8
4144	WGL 32100 (RP)	6206		4630		5686		4148		4821		5754	2 #
Exp. Mean		**6592**		**5157**		**5088**		**5447**		**5230**		**4249**	
F Value		10.69(p<0.0001)S		10.52(p<0.0001)S		8.39(p<0.0001)S		4.06(p<0.0001)S		10.14(p<0.0001)S		22.81(p<0.0001)S	
CD		624		1110		1086		930		605		563	
CV%		**5.83**		**13.26**		**13.15**		**10.52**		**7.12**		**8.16**	
D/S				10-09-2022		10-06-2022		31-07-2022				04-07-2022	
D/P				27-10-2022		07-07-2022		28-08-2022				26-07-2022	
Local Check Name				ADT54		CO 50		CO 52				BR-2655	

Table No. 1.28 (Contd): Grain Yield (kg/ha) in AVT 1 – IM, Zone 7, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN							
		Karnataka		Karnataka (2)		Puducherry (1)		Zone VII (11)	
		Gangavathi		Mean		Karaikal		Mean	
4101	29826	6462		5086		3810		5463	
4102	29833	6801	9	5682	10	5357		6658	3 * #
4103	29843	6365		4922		4762		5522	
4104	29855	6609		5289		7548	9	5906	
4105	29831	5622		4415		4762		5293	
4106	29865	5423		4111		3810		4685	
4107	29861	4760		4520		6905		5453	
4108	29860	7782	3	6262	3 #	7321	10	6433	5 *
4109	29850	5135		4172		6905		5429	
4110	NDR 359 (NC)	8519	2	6568	2	6310		5988	
4111	29875	5372		4836		6905		5966	
4112	29873	5256		4354		6786		5965	
4113	29869	6269		4739		5476		5687	
4114	29859	7231	7	5236		6786		5750	
4115	28523	6571		5224		8571	2	6212	
4116	29825	7250	6	5715	9	7262		6753	1 * #
4117	29845	8782	1	6660	1 #	4643		5802	
4118	29287	7436	4	6149	4 #	8214	4	6184	
4119	Zonal Check (ZC)	7071	8	4951		8095	5	5083	
4120	29879	4731		3804		4762		4944	
4121	29857	5712		5303		5000		5611	
4122	29742	4269		5789	7	5595		6343	8 *
4123	29749	4782		4924		4762		6504	4 *
4124	29752	5619		5611		5952		6191	
4125	28442 (R)	4462		4589		7976	7.5	5881	
4126	29744	5404		5387		5714		5851	
4127	29868	6301		5753	8	8333	3	6279	10
4128	29743	5994		5603		5714		6664	2 * #
4129	HRI 174 (HC)	5346		5018		9762	1	6308	9
4130	29877	6026		5384		5476		6426	6 *
4131	29837	5077		4480		5000		5135	
4132	29741	6006		5536		8095	5	6419	7 *
4133	29834	4462		4106		5952		4986	
4134	29748	5199		4872		5119		5644	
4135	29878	6679	10	4659		4048		5211	
4136	Local Check (LC)	6093		5897	5	4881		5832	
4137	30304	5192		4121		4048		4593	
4138	WGL 14 (RP)	7417	5	5408		4881		5288	
4139	30757	5506		4711		5952		5795	
4140	30758	5526		4523		6548		5503	
4141	30759	6038		5116		7976	7.5	6021	
4142	Gangavati Sona (RP)	5455		4560		5119		5353	
4143	30760	6154		5657		4762		5662	
4144	WGL 32100 (RP)	5917		5836	6	6798		5625	
Exp. Mean		**6002**		**4822**		**6101**		**5759**	
F Value		5.28(p<0.0001)S		6.72(p<0.0001)S		6.61(p<0.0001)S		21.74(p<0.0001)S	
CD		1275		894		1660.97		319.49	
CV%		**10.533**		**11.42**		16.77		3.42	
D/S		11-07-2022				26-08-2022			
D/P		16-08-2022				29-09-2022			
Local Check Name		BPT-5204				Improved White Ponni			

Table No. 1.28 (Contd): Grain Yield (kg/ha) in AVT 1 – IM, (Trial Not Considered) Zone 2 to 6, Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED							
		Uttarakhand		West Bengal		Assam		Tripura	
		@Pantnagar		@Malda		@Titabar		@Lembucherra	
4101	29826			6761	3	5529	9	2938	
4102	29833	2046		5322		5637	6	2670	
4103	29843	1071		4756		4830		2485	
4104	29855	198		6122	9	4944		2292	
4105	29831			6017		4923		3717	2
4106	29865	2385		4589		3681		3420	8
4107	29861	1849		4717		4092		2519	
4108	29860	2067		6817	1	5916	3	2864	
4109	29850	3683	6	6200	7	4995		3717	2
4110	NDR 359 (NC)	2412		4678		4617		1928	
4111	29875	1767		4239		5799	5	2567	
4112	29873	845		6039	10	4608		2671	
4113	29869	3268	9	5433		4851		2975	
4114	29859	3097	10	5256		3987		1958	
4115	28523	1521		4717		5505		2670	
4116	29825	2455		6728	5	5376		3376	
4117	29845	2252		6739	4	3756		2492	
4118	29287	245		5567		5625	7	2492	
4119	Zonal Check (ZC)	1993		4794		4953		2455	
4120	29879	2595		4600		3951		2158	
4121	29857	1877		6161	8	3945		2196	
4122	29742	4168	4	5411		5181		2196	
4123	29749	2987		4511		5094		3123	
4124	29752	1394		4944		5394		2938	
4125	28442 (R)	3017		4389		4332		3606	4
4126	29744	2730		5828		4635		3536	6
4127	29868	957		6678	6	4956		2715	
4128	29743	5148	1	5628		5526	10	3383	9
4129	HRI 174 (HC)	3663	7	4522		5889	4	3049	
4130	29877	689		4511		5546	8	3383	9
4131	29837	3453	8	5256		3930		3606	4
4132	29741	4879	2	6789	2	6026	1	3494	7
4133	29834	1233		4733		3113		2982	
4134	29748	4263	3	5017		4864		2121	
4135	29878	3831	5	5100		5955	2	4534	1
4136	Local Check (LC)	2775		4572		4572		3309	
Exp. Mean		**2436**		**5393**		**4904**		**2904**	
F Value		19.15(p<0.0001)S		42.25(p<0.0001)S		100.09(p<0.0001)S		53.26(p<0.0001)S	
CD		788		347		204		229	
CV%		**19.86**		**3.95**		**2.56**		**4.83**	
D/S		11-06-2022		29-06-2022		15-06-2022		12-07-2022	
D/P		29-07-2022		29-07-2022		11-07-2022		01-08-2022	
Local Check Name		Pant Dhan 4		Bhupesh		Shraboni		GOMATI	

Table No1.28 (Contd): Grain Yield (kg/ha) in AVT 1 – IM, (Trial Not Considered) Zone 7, Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED					
		Kerala		Karnataka		Puducherry	
		@ Pattambi		@Brahmwar		@ Kurumbapet	
4101	29826	4804		4883	3	6351	9
4102	29833	4464		4680	7	6470	7
4103	29843	5071		5000	1	5903	
4104	29855	4720		4879	4	6052	
4105	29831	4789		3647		5370	
4106	29865	5058		3172		5307	
4107	29861	4982		3253		6798	3
4108	29860	5140		2540		4830	
4109	29850	5016		3281		5993	
4110	NDR 359 (NC)	5107		4851	6	5903	
4111	29875	5067		4126	8	5993	
4112	29873	5233		3100		5754	
4113	29869	4969		2508		5039	
4114	29859	5327	9	2556		6082	
4115	28523	4849		2814		6291	
4116	29825	5258		4855	5	5426	
4117	29845	4873		3341		5844	
4118	29287	5564	2	2476		6470	7
4119	Zonal Check (ZC)	5360	8	3849		6112	
4120	29879	5367	7	3945	10	6231	
4121	29857	5018		2882		5754	
4122	29742	5411	4	4006	9	5695	
4123	29749	4967		2923		5635	
4124	29752	5067		2597		5844	
4125	28442 (R)	4982		3502		6291	
4126	29744	5113		2878		7185	2
4127	29868	5291		3567		5307	
4128	29743	5056		3804		7543	1
4129	HRI 174 (HC)	4949		2490		6023	
4130	29877	5369	6	2637		5814	
4131	29837	5191		2766		6470	7
4132	29741	5507	3	3017		6321	10
4133	29834	5398	5	3804		6023	
4134	29748	4382		2838		6500	5
4135	29878	5671	1	2991		5575	
4136	Local Check (LC)	5322	10	4891	2	5963	
4137	30304	4569		2508		4800	
4138	WGL 14 (RP)	4893		3527		5546	
4139	30757	5293		1550		6052	
4140	30758	4376		1522		6202	
4141	30759	4889		1550		5307	
4142	Gangavati Sona (RP)	4984		1483		6619	4
4143	30760	5140		1679		6082	
4144	WGL 32100 (RP)	5218		2347		5128	
Exp. Mean		**5070**		**3216**		**5952**	
F Value		0.74(p=0.8626)NS		12.50(p<0.0001)S		1.17(p=0.2583)NS	
CD		949		788		1529	
CV%		**11.54**		**12.146**		**15.82**	
D/S		20-06-2022		13-06-2022		13-09-2022	
D/P		14-07-2022		06-07-2022		21-10-2022	
Local Check Name		SWETHA		MO-4		PY-7	

Table No. 1.29 : Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 1 – IM, Zone 2 to 6 Kharif 2022

ENTRY NO	IET NO	ZONE II - NORTHERN														
		Punjab (1)			Haryana (1)			Jammu Kashmir (1)			Uttara Pradesh 1(1)			Zone II (4)		
		Ludhiana			Kaul			Chatha			Nagina			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4101	29826				117	112	257				121	87	297	119	100	277
4102	29833	120	106	354	114	122	296				132	98	221	122	109	291
4103	29843	107	110	295	95	119	274				123	96	295	108	108	288
4104	29855	116	114	301	115	124	277	120	104	253	128	71	221	120	103	263
4105	29831	115	106	326	104	107	300	120	97	234	123	81	297	116	98	289
4106	29865	106	110	295	94	118	302	120	97	335	125	88	234	111	103	291
4107	29861	115	107	268	103	124	314	120	100	258	123	100	235	116	108	269
4108	29860	118	121	275	118	131	295	120	84	313	131	84	220	122	105	276
4109	29850	101	103	301	100	124	335	129	94	271	119	91	226	112	103	283
4110	NDR 359 (NC)	105	96	286	100	118	293	129	81	212	123	87	241	115	96	258
4111	29875	123	90	396	118	107	272	129	108	331	117	97	253	122	100	313
4112	29873	125	106	292	122	112	259	120	89	228	119	92	264	121	100	261
4113	29869	103	95	341	101	116	303	128	76	217	122	99	296	113	96	289
4114	29859	116	102	315	109	115	319	129	108	247	126	82	218	120	102	275
4115	28523	116	123	224	106	124	270	129	93	265	122	102	298	118	110	264
4116	29825	118	117	273	110	119	326				121	85	264	116	107	287
4117	29845	117	110	297	103	118	307	120	85	253	118	94	223	115	102	270
4118	29287				127	110	245				128	72	260	128	91	253
4119	Zonal Check (ZC)	108	83	319	102	111	284				123	84	293	111	92	299
4120	29879	113	122	310	114	128	289	129	95	391	124	92	252	120	109	310
4121	29857	110	113	286	107	116	309	122	101	234	126	97	255	117	107	271
4122	29742	110	120	257	101	125	318				121	98	273	111	114	283
4123	29749	110	108	383	101	132	331				122	88	298	111	109	337
4124	29752	116	103	253	113	116	299				124	99	267	118	106	273
4125	28442 (R)	113	89	275	106	104	308				120	114	296	113	102	293
4126	29744	107	109	266	103	133	317				126	77	229	112	106	271
4127	29868	111	136	347	107	142	281	129	90	252	116	115	301	116	121	295
4128	29743	107	116	306	100	134	340	120	95	246	124	99	245	113	111	284
4129	HRI 174 (HC)	107	113	330	101	133	296	120	85	318	126	91	250	114	105	299
4130	29877	112	113	321	112	125	305				120	87	302	115	108	309
4131	29837	103	106	346	100	114	316				121	80	269	108	100	310
4132	29741	105	117	306	101	130	335				125	88	287	110	112	309
4133	29834	109	100	354	101	104	270				114	92	268	108	99	297
4134	29748	103	114	264	101	129	319	120	85	258	120	97	268	111	106	277
4135	29878	115	117	268	112	125	292	122	94	258	118	84	267	117	105	272
4136	Local Check (LC)	106	97	360	103	122	302	124	107	235	116	99	245	112	106	286
Exp. Mean		**111**	**109**	**306**	**107**	**121**	**299**	**124**	**94**	**267**	**123**	**91**	**262**	**115**	**104**	**285**

Table No. 1.29 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 1 – IM, Zone 2 to 6 Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN														
		Odisha									Odisha (3)			Bihar		
		Bhubaneswar			Jeypore			Chiplima			Mean			Bikaramganj		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4101	29826	113	104	226	109	91	344	115	104	191	112	100	254	115	123	355
4102	29833	113	92	220	107	87	364	108	97	175	109	92	253	115	126	373
4103	29843	108	96	201	103	96	273	113	98	182	108	96	219	99	125	384
4104	29855	112	102	224	113	89	362	116	106	202	114	99	263	115	126	344
4105	29831	114	95	312	112	77	318	153	88	261	126	87	297	108	113	383
4106	29865	109	89	234	109	76	462	117	90	261	112	85	319	99	110	399
4107	29861	113	91	241	105	78	335	116	94	248	111	88	275	107	119	376
4108	29860	114	123	224	98	104	258	110	108	154	107	112	212	116	133	352
4109	29850	109	89	335	107	81	362	109	97	269	108	89	322	97	113	405
4110	NDR 359 (NC)	103	87	258	110	77	380	120	91	173	111	85	270	99	108	360
4111	29875	113	92	241	113	75	376	117	95	191	114	88	269	115	123	388
4112	29873	112	102	254	111	83	355	108	96	228	111	93	279	114	122	403
4113	29869	105	89	295	113	80	337	113	86	331	110	85	321	99	106	356
4114	29859	107	95	309	99	78	342	113	96	219	106	89	290	105	111	375
4115	28523	111	107	224	100	101	332	113	96	216	108	101	257	108	135	405
4116	29825	111	100	297	113	81	528	114	92	233	113	91	353	107	126	361
4117	29845	109	98	256	107	90	321	120	96	210	112	95	262	111	127	350
4118	29287	116	103	244	105	87	349	124	98	193	115	96	262	120	123	352
4119	Zonal Check (ZC)	114	105	257	108	95	384	112	103	181	112	101	274	122	106	360
4120	29879	108	94	289	100	96	271	108	97	202	105	96	254	106	136	339
4121	29857	107	89	268	104	83	348	109	93	223	106	88	280	104	117	384
4122	29742	105	102	251	101	87	331	109	91	227	105	93	269	104	116	394
4123	29749	105	92	285	103	88	424	113	98	214	107	93	308	99	138	378
4124	29752	113	94	262	113	90	455	114	105	181	113	96	299	111	113	373
4125	28442 (R)	110	85	284	108	72	380	110	75	218	109	77	294	104	107	332
4126	29744	107	93	216	105	95	360	109	94	177	107	94	251	98	116	378
4127	29868	108	116	252	106	108	366	110	106	248	108	110	289	107	131	328
4128	29743	106	98	256	106	89	466	110	99	248	107	95	324	102	135	391
4129	HRI 174 (HC)	108	86	283	107	89	384	112	91	191	109	89	286	101	127	387
4130	29877	108	87	307	98	86	379	113	95	134	106	90	273	106	127	374
4131	29837	105	82	263	100	82	337	105	91	288	104	85	296	102	107	325
4132	29741	105	86	233	107	100	374	111	97	201	108	94	269	99	124	415
4133	29834	105	88	269	103	82	409	109	99	204	106	90	294	104	116	380
4134	29748	107	95	273	101	92	361	110	95	206	106	94	280	98	109	391
4135	29878	110	101	249	113	93	246	113	94	179	112	96	225	107	122	382
4136	Local Check (LC)	112	109	277	107	89	278	114	95	191	111	98	249	110	110	342
Exp. Mean		**109**	**96**	**260**	**106**	**87**	**360**	**114**	**96**	**212**	**110**	**93**	**277**	**107**	**120**	**372**

Table No. 1.29 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 1 – IM, Zone 2 to 6 Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN														
		Bihar						Bihar (3)			Jharkhand (1)			West Bengal		
		Sabour			Patna-ICAR			Mean			Ranchi			Chinsurah		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4101	29826	126	113	297	112	128	377	118	121	343	120	94	158	117	124	231
4102	29833	126	107	298	108	119	380	116	117	350	119	97	164	116	110	319
4103	29843	106	115	241	92	110	249	99	116	292	108	92	129	100	112	286
4104	29855	122	112	237	106	126	299	114	121	293	116	99	158	110	125	242
4105	29831	122	102	292	102	108	312	111	108	329	112	87	194	113	109	187
4106	29865	110	102	222	91	108	364	100	107	328	111	90	199	104	103	264
4107	29861	121	109	278	99	114	280	109	114	311	121	94	178	107	118	198
4108	29860	126	123	228	111	138	300	117	131	293	120	103	141	115	136	286
4109	29850	106	107	226	96	120	322	100	113	318	113	95	156	101	110	209
4110	NDR 359 (NC)	107	100	277	95	113	230	101	107	289	110	89	169	103	106	297
4111	29875	126	102	272	110	115	305	117	113	322	123	86	180	118	125	275
4112	29873	125	120	272	108	117	305	116	120	327	116	96	146	109	109	231
4113	29869	109	91	283	92	104	314	100	100	318	108	85	199	101	75	286
4114	29859	115	104	269	97	115	277	106	110	307	116	90	166	105	115	297
4115	28523	117	116	345	98	136	311	108	129	354	112	93	173	111	140	264
4116	29825	117	115	234	99	113	285	108	118	293	116	85	150	108	126	253
4117	29845	114	99	227	98	110	314	108	112	297	110	90	170	102	108	385
4118	29287	136	110	294	118	124	339	125	119	328	121	91	192	118	126	319
4119	Zonal Check (ZC)	131	109	231	117	122	298	124	112	297	120	95	177	119	147	253
4120	29879	116	113	268	101	132	288	108	127	299	114	102	182	103	125	264
4121	29857	114	108	307	97	123	340	105	116	344	112	87	161	104	113	253
4122	29742	112	113	260	97	127	249	104	119	301	109	104	167	72	128	264
4123	29749	110	116	270	96	132	254	102	129	301	108	98	163	102	121	308
4124	29752	119	117	237	106	125	210	112	118	273	122	101	148	109	125	385
4125	28442 (R)	114	92	236	95	104	301	104	101	290	114	87	176	104	94	253
4126	29744	109	114	282	95	130	215	101	120	292	108	99	159	103	125	264
4127	29868	114	120	308	96	136	338	106	129	325	107	104	233	106	129	264
4128	29743	84	111	306	95	122	283	94	123	327	111	93	164	104	114	308
4129	HRI 174 (HC)	107	111	264	96	123	250	101	120	301	113	92	187	101	117	319
4130	29877	119	112	293	100	121	329	108	120	332	117	90	233	105	117	264
4131	29837	108	90	260	93	100	237	101	99	274	107	88	185	99	111	231
4132	29741	110	110	270	90	123	211	100	119	299	106	100	159	100	118	308
4133	29834	108	106	309	92	115	297	101	113	329	104	91	177	101	102	286
4134	29748	106	112	246	92	125	245	99	115	294	108	98	179	99	113	176
4135	29878	119	113	155	105	120	239	110	118	259	115	106	147	105	113	231
4136	Local Check (LC)	111	96	306	111	102	397	110	103	348	100	106	147	116	118	220
Exp. Mean		**115**	**109**	**267**	**100**	**119**	**293**	**107**	**116**	**310**	**113**	**94**	**171**	**106**	**117**	**269**

Table No. 1.29 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 1 – IM, Zone 2 to 6 Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN														
		West Bengal			West Bengal (2)			Uttar Pradesh 2								
		Bankura			Mean			Masodha			Varanasi			Gorakpur		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4101	29826	105	100	298	111	112	265	119	122	231	117	118	215	126	104	265
4102	29833	106	100	300	111	105	310	117	113	246	113	104	228	125	99	274
4103	29843	98	115	308	99	113	297	105	109	314	97	114	176	103	102	205
4104	29855	105	110	407	107	118	325	119	115	236	112	122	200	117	102	279
4105	29831	102	90	254	107	99	221	110	107	287	107	105	232	115	101	246
4106	29865	94	80	264	99	92	264	108	97	322	92	101	211	104	102	264
4107	29861	102	100	248	105	109	223	110	112	307	104	113	207	112	101	255
4108	29860	96	120	278	106	128	282	108	128	312	113	128	193	124	124	213
4109	29850	98	100	262	99	105	236	112	245	276	98	112	208	108	97	267
4110	NDR 359 (NC)	98	95	246	100	101	272	113	112	303	94	107	216	105	100	303
4111	29875	105	100	283	112	112	279	113	109	258	154	105	240	122	90	218
4112	29873	100	120	255	104	114	243	122	113	246	113	116	186	117	109	248
4113	29869	96	80	281	99	78	284	107	131	261	103	103	284	104	87	265
4114	29859	102	80	344	104	97	321	118	118	235	102	106	249	103	103	236
4115	28523	103	110	249	107	125	257	112	122	305	104	124	220	113	108	330
4116	29825	98	105	277	103	116	265	109	114	239	108	122	208	113	103	220
4117	29845	101	100	263	101	104	324	113	109	297	111	103	243	111	104	242
4118	29287	106	95	259	112	110	289	120	108	234	119	110	260	124	103	321
4119	Zonal Check (ZC)	105	100	262	112	124	258	117	117	270	114	123	211	121	103	217
4120	29879	102	110	367	103	118	316	103	118	323	108	129	205	107	109	229
4121	29857	96	115	260	100	114	257	109	112	294	107	111	208	105	105	316
4122	29742	101	105	316	87	117	290	113	124	309	98	123	268	105	108	237
4123	29749	96	95	386	99	108	347	110	106	305	105	124	228	105	112	203
4124	29752	102	100	254	106	113	320	109	121	264	105	112	187	116	107	203
4125	28442 (R)	102	95	343	103	94	298	119	96	247	108	100	215	113	92	210
4126	29744	99	105	274	101	115	269	117	109	258	103	124	203	104	108	316
4127	29868	96	115	271	101	122	268	114	129	259	107	116	192	110	117	243
4128	29743	102	110	263	103	112	286	106	119	325	103	113	233	107	104	271
4129	HRI 174 (HC)	96	100	252	99	109	286	110	117	310	107	113	228	106	113	301
4130	29877	100	80	254	103	99	259	113	124	329	113	109	217	110	100	308
4131	29837	99	90	300	99	101	265	107	102	257	99	107	285	105	97	240
4132	29741	92	105	264	96	111	286	107	128	319	99	110	175	103	108	234
4133	29834	92	80	258	96	91	272	113	111	265	103	106	260	106	98	270
4134	29748	96	100	280	98	106	228	108	316	298	99	125	191	103	115	189
4135	29878	102	115	286	104	114	258	113	294	302		.		114	109	198
4136	Local Check (LC)	105	120	270	111	119	245	111	276	280	104	113	286	116	92	342
Exp. Mean		**100**	**101**	**284**	**103**	**109**	**277**	**112**	**133**	**281**	**107**	**113**	**222**	**111**	**104**	**255**

Table No. 1.29 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 1 – IM, Zone 2 to 6 Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN									ZONE-V – CENTRAL					
		Uttar Pradesh 2 (3)			Uttar Pradesh (4)			Zone III (12)			Chhattisgarh					
		Mean			Mean			Mean			Raipur			Ambikhapur		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4101	29826	121	115	237	121	108	252	116	111	266	118	89	145	102	109	280
4102	29833	119	105	249	122	103	242	114	104	278	111	88	130	101	104	291
4103	29843	102	109	232	107	105	248	103	107	246	100	107	109	93	104	300
4104	29855	116	113	238	119	103	234	114	111	266	107	115	160	96	108	298
4105	29831	111	104	255	114	98	265	114	99	273	110	104	162	102	94	283
4106	29865	101	100	266	107	97	258	104	96	289	100	100	124	90	93	282
4107	29861	109	109	256	113	107	251	110	104	262	116	99	107	101	100	291
4108	29860	115	127	239	119	116	234	113	122	245	115	108	112	94	106	287
4109	29850	106	152	250	109	136	244	104	114	275	106	108	105	102	94	292
4110	NDR 359 (NC)	104	106	274	109	101	266	105	99	268	106	87	119	85	99	293
4111	29875	130	101	239	127	100	242	119	101	269	112	103	133	101	100	280
4112	29873	117	113	227	118	107	236	113	108	261	118	97	96	96	99	275
4113	29869	105	107	270	109	105	277	104	93	291	103	88	117	94	97	286
4114	29859	107	109	240	112	102	234	107	101	276	104	106	112	94	98	281
4115	28523	110	118	285	113	114	288	109	116	281	108	106	115	93	105	268
4116	29825	110	113	222	113	106	233	109	107	274	104	115	114	93	105	277
4117	29845	112	105	261	113	102	251	109	103	273	107	99	108	92	105	279
4118	29287	121	107	272	123	98	269	119	106	280	121	104	156	102	96	275
4119	Zonal Check (ZC)	117	114	233	119	107	248	117	110	259	109	97	142	93	93	272
4120	29879	106	119	252	111	112	252	106	113	269	102	106	146	92	108	263
4121	29857	107	109	273	112	106	268	106	105	280	104	96	157	94	105	281
4122	29742	105	118	271	109	113	272	102	111	273	107	116	145	91	106	297
4123	29749	107	114	245	111	107	259	104	110	285	104	98	127	92	107	305
4124	29752	110	113	218	113	110	230	112	109	263	111	116	133	100	104	305
4125	28442 (R)	113	96	224	115	100	242	108	92	266	108	86	147	100	93	288
4126	29744	108	114	259	113	105	252	105	109	259	101	115	115	94	104	308
4127	29868	110	121	231	112	119	249	107	119	275	107	109	120	92	133	292
4128	29743	105	112	276	110	109	269	103	109	293	105	115	141	92	104	290
4129	HRI 174 (HC)	108	114	280	113	108	272	105	107	280	104	99	125	96	105	295
4130	29877	112	111	285	114	105	289	109	104	285	109	87	181	100	105	281
4131	29837	104	102	261	108	97	263	102	96	267	100	86	100	92	93	271
4132	29741	103	116	243	109	109	254	102	109	264	100	107	164	92	117	295
4133	29834	107	105	265	109	102	266	103	100	282	99	88	159	94	95	303
4134	29748	103	185	226	107	163	236	102	124	253	103	102	126	92	114	288
4135	29878	114	201	250	115	162	256	111	126	238	107	114	109	92	117	321
4136	Local Check (LC)	110	160	303	112	145	288	110	119	278	101	111	118	92	118	308
Exp. Mean		**110**	**118**	**253**	**113**	**111**	**255**	**108**	**108**	**271**	**107**	**102**	**130**	**95**	**104**	**288**

Table No. 1.29 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 1 – IM, Zone 2 to 6 Kharif 2022

ENTRY NO	IET NO	ZONE-V – CENTRAL														
		Chhattisgarh			Chhattisgarh (3)			Maharashtra 1						Maharashtra 1 (2)		
		Jagadalpur			Mean			Sakoli			Sindewahi			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4101	29826	116	86	321	112	95	248	111	116	311	115	115	253	113	116	282
4102	29833	110	64	333	107	85	251	108	124	282	112	108	232	110	116	257
4103	29843	102	78	282	98	96	230	102	114	261	99	79	233	101	96	247
4104	29855	106	93	324	103	105	261	106	124	266	109	109	289	108	117	277
4105	29831	111	63	331	107	87	259	107	105	282	111	95	304	109	100	293
4106	29865	102	65	365	97	86	257	100	109	223	95	84	329	97	96	276
4107	29861	117	71	357	111	90	251	110	115	292	113	108	266	112	112	279
4108	29860	115	102	268	108	105	222	98	145	293	114	137	283	106	141	288
4109	29850	110	84	301	106	95	233	103	108	258	106	102	317	105	105	288
4110	NDR 359 (NC)	105	76	358	98	87	257	97	95	242	103	101	314	100	98	278
4111	29875	120	77	284	111	93	232	109	104	273	112	87	269	111	96	271
4112	29873	108	85	355	107	94	242	105	123	200	113	93	281	109	108	241
4113	29869	107	71	370	101	85	258	98	107	269	104	99	301	101	103	285
4114	29859	111	83	362	103	96	252	101	115	298	107	111	313	104	113	306
4115	28523	107	96	305	103	103	229	98	114	276	109	111	250	104	112	263
4116	29825	118	86	278	105	102	223	102	106	298	109	100	275	106	103	287
4117	29845	107	84	320	102	96	236	92	114	270	106	104	268	99	109	269
4118	29287	119	76	300	114	92	244	110	115	307	116	109	248	113	112	277
4119	Zonal Check (ZC)	106	112	304	103	101	239	97	107	284	109	93	240	103	100	262
4120	29879	99	73	240	98	96	216	100	116	276	102	114	211	101	115	244
4121	29857	106	76	306	101	92	248	98	109	291	105	99	291	101	104	291
4122	29742	102	90	283	100	104	242	100	115	283	107	103	220	104	109	251
4123	29749	106	82	340	101	96	257	96	107	301	102	119	269	99	113	285
4124	29752	118	89	320	110	103	253	107	124	275	110	100	250	109	112	263
4125	28442 (R)	111	63	337	106	80	257	105	103	254	109	93	242	107	98	248
4126	29744	105	84	297	100	101	240	99	118	275	102	111	273	101	114	274
4127	29868	112	94	274	104	112	228	104	135	273	102	133	285	103	134	279
4128	29743	107	91	316	101	103	249	96	118	317	104	119	308	100	119	313
4129	HRI 174 (HC)	102	81	340	101	95	253	100	114	266	104	83	272	102	99	269
4130	29877	112	89	322	107	94	261	102	113	253	104	108	250	103	111	252
4131	29837	98	67	278	97	82	216	95	114	246	101	105	300	98	110	273
4132	29741	107	94	262	100	106	240	97	96	233	100	131	325	99	113	279
4133	29834	107	68	330	100	84	264	101	117	249	103	100	303	102	109	276
4134	29748	102	90	300	99	102	238	96	125	293	101	109	220	99	117	257
4135	29878	109	89	262	103	107	231	102	118	294	107	106	204	105	112	249
4136	Local Check (LC)	102	85	328	99	104	251	105	111	285	103	105	322	104	108	304
Exp. Mean		**108**	**82**	**313**	**103**	**96**	**244**	**102**	**114**	**274**	**106**	**105**	**273**	**104**	**110**	**273**

Table No. 1.29 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 1 – IM, Zone 2 to 6 Kharif 2022

ENTRY NO	IET NO	ZONE-V – CENTRAL			ZONE VI – WESTERN											
		Zone V (5)			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
4101	29826	112	103	262	98	133	222	117	113	116	107	123	169	110	119	225
4102	29833	108	98	254	108	121	241	116	113	129	112	117	185	111	116	221
4103	29843	99	96	237	97	126	212	106	97	136	102	112	174	101	104	210
4104	29855	105	110	267	98	114	191	115	108	132	107	111	162	107	114	220
4105	29831	108	92	272	98	101	200	107	87	127	102	94	163	106	97	228
4106	29865	97	90	265	94	103	195	106	100	119	100	102	157	99	99	217
4107	29861	111	99	262	113	116	218	117	94	119	115	105	168	113	108	224
4108	29860	107	120	249	98	120	228	119	128	112	108	124	170	107	133	229
4109	29850	105	99	255	97	118	210	104	102	127	101	110	168	103	107	228
4110	NDR 359 (NC)	99	92	265	97	111	214	103	105	132	100	108	173	100	103	225
4111	29875	111	94	248	98	106	204	116	93	125	107	100	164	109	98	218
4112	29873	108	99	242	95	113	215	116	130	130	106	121	172	107	115	206
4113	29869	101	92	269	97	106	210	97	86	127	97	96	168	99	100	227
4114	29859	103	103	273	98	117	194	98	107	114	98	112	154	101	112	230
4115	28523	103	106	243	95	126	241	108	123	106	102	125	174	103	118	218
4116	29825	105	102	248	95	117	213	109	118	118	102	118	165	104	110	226
4117	29845	101	101	249	94	114	211	105	93	164	99	103	187	99	106	228
4118	29287	113	100	257	114	122	227	117	124	112	115	123	170	114	117	223
4119	Zonal Check (ZC)	103	100	249	96	119	205	104	124	125	100	121	165	101	111	214
4120	29879	99	103	227	98	117	225	96	109	119	97	113	172	99	114	208
4121	29857	101	97	265	97	115	208	106	101	132	102	108	170	101	106	230
4122	29742	101	106	245	94	121	223	106	115	133	100	118	178	102	114	215
4123	29749	100	103	268	97	116	224	104	113	132	101	115	178	100	114	232
4124	29752	109	107	257	112	134	202	116	121	106	114	128	154	111	120	208
4125	28442 (R)	107	87	254	96	102	208	105	81	146	101	91	177	104	95	213
4126	29744	100	106	254	98	128	226	106	93	134	102	111	180	101	113	227
4127	29868	104	121	249	95	125	194	105	126	136	100	126	165	102	130	222
4128	29743	101	109	274	97	113	185	104	115	133	101	114	159	100	116	236
4129	HRI 174 (HC)	101	97	260	97	113	236	103	122	111	100	117	173	101	108	221
4130	29877	106	101	257	98	127	220	113	115	136	106	121	178	104	116	215
4131	29837	97	93	239	97	101	182	102	110	120	99	106	151	99	108	212
4132	29741	99	109	256	96	118	211	103	118	126	100	118	169	99	116	224
4133	29834	101	94	269	93	116	234	115	91	128	104	104	181	103	106	229
4134	29748	99	108	245	95	126	222	106	88	121	100	107	171	99	112	214
4135	29878	104	109	238	96	115	230	115	132	128	105	124	179	105	118	214
4136	Local Check (LC)	101	106	272	98	116	204	102	100	112	100	108	158	102	108	231
Exp. Mean		**104**	**101**	**255**	**98**	**117**	**213**	**108**	**108**	**126**	**103**	**113**	**170**	**103**	**111**	**221**

Table No. 1.29 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 1 – IM, Zone 2 to 6 Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN												Overall Mean (25)		
		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
4101	29826	113	122	205	114	113	283	114	117	244	110	120	206	115	110	256
4102	29833	109	131	220	113	121	286	111	126	253	111	122	219	114	106	265
4103	29843	93	122	268	99	112	258	96	117	263	99	114	219	102	106	245
4104	29855	102	130	219	115	137	286	109	134	252	108	122	207	112	111	256
4105	29831	101	108	273	115	121	276	108	114	274	105	104	219	112	98	267
4106	29865	88	119	254	101	114	288	95	117	271	97	109	214	103	98	273
4107	29861	99	116	218	111	122	281	105	119	250	110	112	209	111	105	255
4108	29860	109	134	233	115	146	275	112	140	254	110	132	212	113	120	245
4109	29850	93	124	293	103	118	286	98	121	289	99	115	229	105	109	265
4110	NDR 359 (NC)	90	116	263	114	119	289	102	117	276	101	113	225	105	99	259
4111	29875	111	114	299	115	119	286	113	116	292	110	108	228	116	101	265
4112	29873	106	121	265	103	120	292	105	120	278	105	121	225	112	107	251
4113	29869	91	120	258	102	102	275	96	111	266	97	104	217	104	95	275
4114	29859	94	123	297	104	121	292	99	122	295	98	117	224	107	104	267
4115	28523	97	122	258	115	140	292	106	131	275	104	128	224	108	115	262
4116	29825	98	121	263	132	140	289	115	130	276	108	124	221	109	109	261
4117	29845	95	122	312	103	111	292	99	117	302	99	110	244	107	103	263
4118	29287	115	124	249	125	137	290	120	130	269	118	127	219	118	107	262
4119	Zonal Check (ZC)	95	131	226	103	133	292	99	132	259	99	127	212	110	109	254
4120	29879	96	129	241	103	137	294	100	133	267	98	123	220	106	112	259
4121	29857	96	119	230	100	111	296	98	115	263	100	112	216	106	105	266
4122	29742	93	128	256	105	125	299	99	126	277	99	122	228	103	112	261
4123	29749	91	132	265	109	127	281	100	130	273	100	122	225	104	110	278
4124	29752	105	130	197	114	130	287	109	130	242	112	129	198	112	111	252
4125	28442 (R)	95	113	237	104	106	252	99	110	245	100	100	211	107	93	258
4126	29744	91	124	180	101	111	280	96	117	230	99	114	205	104	109	250
4127	29868	92	145	212	111	107	286	102	126	249	101	126	207	107	121	262
4128	29743	93	133	223	106	152	288	100	143	256	100	128	207	104	112	274
4129	HRI 174 (HC)	92	130	279	101	135	284	96	132	282	98	125	228	105	107	270
4130	29877	100	119	243	101	125	287	100	122	265	103	122	222	108	107	272
4131	29837	90	110	254	101	120	286	95	115	270	97	110	211	101	98	257
4132	29741	91	127	258	99	134	282	95	130	270	97	124	219	102	112	260
4133	29834	90	123	228	94	106	275	92	115	251	98	109	216	103	100	270
4134	29748	91	125	203	101	129	292	96	127	247	98	117	209	102	117	248
4135	29878	90	125	226	101	131	293	95	128	259	100	126	219	108	119	240
4136	Local Check (LC)	93	128	235	104	120	289	99	124	262	99	116	210	107	114	267
Exp. Mean		**97**	**124**	**246**	**107**	**124**	**285**	**102**	**124**	**265**	**102**	**118**	**217**	**107**	**108**	**261**

Table No. 1.29 : Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 1 – IM, Zone 7 Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN														
		Andhra Pradesh						Andhra Pradesh (2)			Telangana					
		Maruteru			Ragolu			Mean			Rajendranagar			Warangal		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4101	29826	117	116	319	109	129	298	113	123	309	114	107	396	121	127	481
4102	29833	111	125	341	104	132	305	108	128	323	114	104	396	115	132	451
4103	29843	96	120	341	88	115	271	92	117	306	99	99	347	101	123	453
4104	29855	112	132	352	99	133	264	105	132	308	109	105	322	115	133	468
4105	29831	110	119	330	97	117	291	104	118	311	103	91	396	110	113	480
4106	29865	102	125	319	83	108	314	92	116	316	99	99	358	102	118	499
4107	29861	108	123	352	102	116	315	105	120	333	103	99	351	109	115	462
4108	29860	116	140	319	104	151	294	110	146	306	99	117	396	116	146	380
4109	29850	101	119	330	91	130	315	96	125	322	104	97	389	100	118	463
4110	NDR 359 (NC)	99	120	308	89	106	320	94	113	314	107	99	373	100	122	446
4111	29875	112	119	330	105	119	295	108	119	313	110	101	436	116	126	484
4112	29873	109	125	319	101	125	259	105	125	289	108	101	338	111	124	425
4113	29869	99	120	330	89	102	318	94	111	324	100	97	460	100	111	470
4114	29859	103	123	319	87	119	325	95	121	322	102	101	456	106	113	482
4115	28523	105	131	330	97	150	308	101	141	319	100	106	347	106	136	435
4116	29825	107	120	308	88	126	308	98	123	308	106	106	431	113	124	418
4117	29845	107	116	330	103	115	308	105	115	319	99	101	429	99	113	449
4118	29287	120	129	330	111	126	297	115	127	314	101	106	453	122	128	482
4119	Zonal Check (ZC)	124	122	319	116	144	293	120	133	306	115	114	520	125	147	431
4120	29879	99	128	341	96	122	279	98	125	310	99	107	353	103	137	414
4121	29857	99	130	363	95	122	301	97	126	332	104	102	369	103	123	448
4122	29742	102	128	352	96	131	312	99	130	332	96	104	427	101	129	449
4123	29749	99	130	330	91	131	311	95	131	321	102	106	416	103	132	466
4124	29752	105	129	352	101	123	296	103	126	324	108	103	296	114	138	475
4125	28442 (R)	101	113	308	97	100	310	99	106	309	99	92	407	103	96	466
4126	29744	105	128	363	91	116	307	98	122	335	103	104	387	102	128	418
4127	29868	101	137	319	97	151	289	99	144	304	99	117	384	103	143	470
4128	29743	101	135	363	91	116	299	96	125	331	102	104	384	103	132	460
4129	HRI 174 (HC)	100	128	363	91	123	305	96	126	334	100	105	416	102	128	460
4130	29877	102	117	308	95	127	315	99	122	311	108	101	402	107	131	443
4131	29837	100	115	319	93	119	334	97	117	327	95	89	460	122	113	429
4132	29741	101	129	330	93	122	294	97	126	312	103	106	376	101	136	454
4133	29834	114	120	330	95	115	292	105	117	311	87	97	393	114	111	454
4134	29748	103	129	352	90	119	305	96	124	328	99	104	376	98	123	460
4135	29878	103	137	352	95	137	284	99	137	318	104	105	349	112	138	468
4136	Local Check (LC)	109	116	330	100	120	251	104	118	290	107	100	427	110	119	413
4137	30304	118	120	385	116	111	275	117	115	330	96	102	431	107	115	396
4138	WGL 14 (RP)	104	134	319		.		104	134	319					.	
4139	30757	100	130	319	96	125	252	98	128	286	107	101	378	104	127	443
4140	30758	102	134	352	96	120	276	99	127	314	107	101	380	104	123	428
4141	30759	102	131	341	96	124	236	99	127	289	107	99	320	108	128	428
4142	Gangavati Sona (RP)	102	129	330	96	124	269	99	126	299	102	102	431	107	127	408
4143	30760	100	120	319	96	109	242	98	115	280	105	101	460	104	114	449
4144	WGL 32100 (RP)	101	120	341	96	108	237	99	114	289	106	96	400	106	114	475
Exp. Mean		**105**	**125**	**334**	**97**	**123**	**292**	**101**	**124**	**314**	**103**	**102**	**396**	**108**	**125**	**450**

Table No. 1.29 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 1 – IM, Zone 7 Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN														
		Telangana			Telangana (3)			Tamil Nadu								
		Jagtial			Mean			Aduthurai			Coimbatore			Tirur		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4101	29826	119	120	386	118	118	421	99	95	243	112	108	282	110	113	344
4102	29833	116	123	415	115	120	421	90	85	282	112	106	270	100	112	378
4103	29843	104	120	309	101	114	370	100	82	248	105	98	264	100	110	310
4104	29855	110	127	411	112	122	400	99	83	299	105	111	304	94	108	322
4105	29831	104	107	449	106	104	441	96	74	274	107	86	333	109	89	316
4106	29865	100	103	365	100	107	407	105	82	253	105	96	320	100	99	335
4107	29861	114	105	421	109	106	411	94	84	258	113	96	264	105	102	340
4108	29860	117	147	340	111	137	372	101	80	247	112	128	280	106	123	353
4109	29850	104	109	383	103	108	412	95	80	269	110	96	295	100	95	288
4110	NDR 359 (NC)	104	111	386	104	110	402	99	74	276	105	92	326	98	101	341
4111	29875	117	110	444	114	112	455	95	75	255	118	112	323	102	97	331
4112	29873	117	120	378	112	115	380	89	84	255	109	106	317	101	103	342
4113	29869	104	111	378	101	106	436	95	80	252	105	98	311	97	98	319
4114	29859	104	108	377	104	107	438	93	80	261	105	102	301	102	94	337
4115	28523	115	131	362	107	124	381	97	80	282	108	469	261	105	106	333
4116	29825	104	116	406	108	116	418	95	85	247	106	104	257	103	101	322
4117	29845	100	108	351	99	108	409	100	92	259	101	87	324	97	107	335
4118	29287	122	114	351	115	116	429	93	94	286	121	112	261	108	114	388
4119	Zonal Check (ZC)	116	131	323	118	130	425	92	98	260	124	130	353	116	130	379
4120	29879	103	129	378	102	125	382	116	80	244	100	107	290	91	112	444
4121	29857	103	110	380	104	112	399	93	74	264	107	100	263	99	103	291
4122	29742	100	125	331	99	119	402	98	82	288	96	109	280	91	112	264
4123	29749	103	122	399	103	120	427	98	85	323	107	111	298	101	119	418
4124	29752	117	127	359	113	123	377	89	80	264	112	110	298	112	117	408
4125	28442 (R)	104	100	355	102	96	409	96	80	328	102	84	282	97	83	284
4126	29744	103	124	412	103	118	406	96	85	284	105	97	304	97	118	312
4127	29868	114	141	395	105	134	416	99	84	274	101	128	326	99	104	404
4128	29743	102	119	441	103	118	429	95	72	278	108	105	340	105	112	411
4129	HRI 174 (HC)	105	123	386	102	119	420	99	85	265	109	109	340	106	104	321
4130	29877	106	121	358	107	118	401	93	88	281	109	102	345	95	95	349
4131	29837	100	105	324	106	102	404	95	64	250	98	91	320	100	97	374
4132	29741	103	132	375	103	125	402	93	85	268	109	114	324	101	102	243
4133	29834	99	108	377	100	105	408	101	85	285	98	104	312	100	84	359
4134	29748	102	113	340	100	113	392	97	80	301	107	97	279	99	103	356
4135	29878	104	132	351	107	125	389	101	83	252	107	111	302	90	109	334
4136	Local Check (LC)	122	114	320	113	111	386	101	105	310	114	122	289	101	109	360
4137	30304	104	115	397	102	111	408	95	90	267	114	113	308	103	107	316
4138	WGL 14 (RP)	104	130	402	104	130	402	96	85	263	106	114	283	108	110	379
4139	30757	105	120	358	105	116	393	94	80	268	110	103	368	98	95	387
4140	30758	103	112	361	105	112	390	94	82	260	108	96	287	97	107	399
4141	30759	104	116	331	106	114	360	101	84	254	111	106	326	99	113	374
4142	Gangavati Sona (RP)	104	110	348	104	113	396	94	78	252	110	104	315	107	100	417
4143	30760	105	110	351	105	108	420	111	80	240	105	91	271	109	91	340
4144	WGL 32100 (RP)	104	109	466	105	106	447	90	80	258	106	84	333	94	88	394
Exp. Mean		**107**	**118**	**376**	**106**	**115**	**407**	**97**	**83**	**269**	**108**	**112**	**303**	**101**	**104**	**349**

Table No. 1.29 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 1 – IM, Zone 7 Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN								
		Tamil Nadu (3)			Karnataka					
		Mean			Mandya			Gangavathi		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4101	29826	107	105	289	104	98	267	111	99	294
4102	29833	101	101	310	103	97	247	108	101	314
4103	29843	101	96	274	103	94	253	101	94	299
4104	29855	99	101	308	100	92	280	104	101	262
4105	29831	104	83	308	103	78	287	108	81	315
4106	29865	103	93	303	100	74	320	102	86	330
4107	29861	104	94	287	111	84	247	121	94	315
4108	29860	106	110	293	104	99	233	110	118	295
4109	29850	101	91	284	108	86	287	112	94	279
4110	NDR 359 (NC)	101	89	314	115	76	260	110	94	308
4111	29875	105	94	303	115	68	307	115	89	319
4112	29873	99	98	305	110	83	273	108	92	297
4113	29869	99	92	294	111	72	380	104	83	342
4114	29859	100	92	300	108	81	313	105	84	284
4115	28523	103	218	292	103	85	353	102	89	334
4116	29825	101	97	275	105	89	313	111	93	303
4117	29845	99	95	306	105	84	333	102	94	308
4118	29287	107	107	312	114	80	273	113	92	325
4119	Zonal Check (ZC)	111	119	331	127	97	400	120	112	349
4120	29879	102	100	326	103	86	247	100	99	316
4121	29857	100	92	273	105	79	307	104	93	300
4122	29742	95	101	277	104	83	260	102	89	318
4123	29749	102	105	346	102	96	313	105	97	295
4124	29752	104	103	323	111	98	280	109	98	316
4125	28442 (R)	98	82	298	105	74	333	105	75	314
4126	29744	99	100	300	105	95	280	106	96	314
4127	29868	100	105	335	104	105	353	103	117	317
4128	29743	103	96	343	107	91	327	107	94	325
4129	HRI 174 (HC)	105	99	309	106	86	327	108	93	273
4130	29877	99	95	325	107	81	240	110	94	283
4131	29837	98	84	315	99	77	373	104	88	339
4132	29741	101	100	278	103	94	267	109	100	292
4133	29834	99	91	319	105	79	340	100	89	281
4134	29748	101	93	312	105	94	253	107	95	291
4135	29878	100	101	296	100	83	233	99	101	309
4136	Local Check (LC)	105	112	319	116	106	300	113	85	348
4137	30304	104	103	297	115	83	253	112	89	308
4138	WGL 14 (RP)	103	103	308	114	89	267	103	98	333
4139	30757	101	93	341	111	81	267	105	94	322
4140	30758	100	95	315	109	84	307	103	98	305
4141	30759	104	101	318	111	82	320	108	98	321
4142	Gangavati Sona (RP)	103	94	328	110	76	320	109	99	303
4143	30760	108	87	284	106	78	320	109	88	347
4144	WGL 32100 (RP)	97	84	328	107	71	347	111	89	325
Exp. Mean		**102**	**100**	**307**	**107**	**86**	**297**	**107**	**94**	**310**

Table No. 1.29 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 1 – IM, Zone 7 Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN								
		Karnataka (2)			Puducherry (1)			Zone VII (11)		
		Mean			Karaikal			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4101	29826	108	98	280	90	121	109	110	112	311
4102	29833	105	99	280	85	121	247	105	112	331
4103	29843	102	94	276	78	125	231	98	107	302
4104	29855	102	96	271	74	127	403	102	114	335
4105	29831	105	79	301	84	98	181	103	96	332
4106	29865	101	80	325	75	89	139	97	98	323
4107	29861	116	89	281	91	114	226	106	103	323
4108	29860	107	108	264	76	131	228	105	125	306
4109	29850	110	90	283	74	113	291	100	103	326
4110	NDR 359 (NC)	112	85	284	84	124	302	101	102	331
4111	29875	115	78	313	92	92	349	109	101	352
4112	29873	109	88	285	89	106	299	105	106	318
4113	29869	107	77	361	79	107	206	98	98	342
4114	29859	107	82	299	75	102	303	99	100	341
4115	28523	103	87	344	76	112	382	101	145	339
4116	29825	108	91	308	67	124	333	100	108	331
4117	29845	103	89	321	87	117	250	100	103	334
4118	29287	114	86	299	96	126	249	111	111	336
4119	Zonal Check (ZC)	124	105	374	95	131	356	115	123	362
4120	29879	102	92	281	80	104	202	99	110	319
4121	29857	104	86	303	74	108	188	99	104	316
4122	29742	103	86	289	88	124	180	98	111	314
4123	29749	104	97	304	94	122	209	100	114	343
4124	29752	110	98	298	95	108	237	107	112	325
4125	28442 (R)	105	75	323	85	116	371	99	92	342
4126	29744	106	95	297	89	134	299	100	111	334
4127	29868	103	111	335	77	131	364	100	123	354
4128	29743	107	92	326	96	114	215	102	108	349
4129	HRI 174 (HC)	107	89	300	77	124	384	100	110	349
4130	29877	108	87	261	76	152	217	101	110	322
4131	29837	102	82	356	85	108	219	99	97	340
4132	29741	106	97	279	89	120	319	100	113	322
4133	29834	102	84	310	74	111	333	99	100	341
4134	29748	106	94	272	84	118	209	99	107	320
4135	29878	100	92	271	86	117	190	100	114	311
4136	Local Check (LC)	114	96	324	96	117	228	108	110	325
4137	30304	113	86	281	94	108	181	107	105	320
4138	WGL 14 (RP)	109	93	300	96	110	206	104	109	306
4139	30757	108	87	294	89	108	220	102	106	326
4140	30758	106	91	306	77	117	275	100	107	330
4141	30759	110	90	320	91	106	342	103	108	327
4142	Gangavati Sona (RP)	109	87	311	98	103	261	103	105	332
4143	30760	108	83	333	82	112	238	103	99	325
4144	WGL 32100 (RP)	109	80	336	87	113	296	101	97	352
Exp. Mean		**107**	**90**	**304**	**84**	**116**	**260**	**102**	**108**	**330**

Table No. 1.29 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 1-IM, (Trials Not Considered) Zone 2 to 6 Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED											
		Uttarakhand			West Bengal			Assam (0)			Tripura (0)		
		@Pantnagar			@Malda			@Titabar			@Lembucherra		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4101	29826	146	107	357	104	140	371	123	131	268	94	106	275
4102	29833	140	103	313	103	112	311	122	125	238	88	96	300
4103	29843	117	99	275	99	102	344	97	119	263	81	114	283
4104	29855	138	100	313	99	130	330	121	130	300	82	94	225
4105	29831				103	130	400	115	116	277	88	87	325
4106	29865	116	114	376	104	120	303	100	112	270	82	96	333
4107	29861	127	99	346	106	121	358	104	116	277	92	89	300
4108	29860	132	123	287	99	125	365	130	155	273	88	118	183
4109	29850	112	114	309	99	106	404	95	114	271	84	98	325
4110	NDR 359 (NC)	114	98	313	99	125	339	97	112	275	88	101	250
4111	29875	139	87	343	97	112	304	123	132	316	88	94	183
4112	29873	138	108	324	99	107	357	123	115	269	86	91	183
4113	29869	116	95	375	97	103	377	93	113	266	82	77	300
4114	29859	128	102	308	98	113	330	102	116	254	87	91	233
4115	28523	128	119	330	101	99	361	104	131	322	90	96	283
4116	29825	133	108	307	97	103	383	113	116	271	88	101	142
4117	29845	131	102	362	95	123	349	106	110	220	86	92	300
4118	29287	148	95	315	98	120	321	131	127	257	96	88	117
4119	Zonal Check (ZC)	119	88	188	97	119	287	117	134	273	98	89	175
4120	29879	129	124	262	101	126	313	111	132	213	93	108	183
4121	29857	123	106	230	103	120	379	111	113	256	79	93	158
4122	29742	127	116	295	99	116	356	98	128	247	80	105	242
4123	29749	119	107	303	97	121	311	108	126	252	87	105	175
4124	29752	139	100	334	98	107	332	116	124	256	87	87	325
4125	28442 (R)	130	99	362	99	114	378	114	107	294	80	83	217
4126	29744	118	109	248	100	100	359	95	128	279	81	113	408
4127	29868	131	126	309	131	105	333	112	133	260	91	103	175
4128	29743	118	116	352	97	130	334	122	120	282	86	100	417
4129	HRI 174 (HC)	117	115	217	98	127	371	97	127	251	79	98	250
4130	29877	131	102	317	100	125	395	111	115	275	82	95	300
4131	29837	119	105	330	99	131	335	99	108	291	81	90	367
4132	29741	117	113	308	98	120	384	90	131	250	87	100	275
4133	29834	125	96	367	99	132	372	87	121	265	87	96	267
4134	29748	115	116	306	101	106	361	100	121	232	81	102	342
4135	29878	131	113	271	104	115	336	116	134	286	84	107	325
4136	Local Check (LC)	113	99	320	98	94	349	116	132	271	90	92	308
Exp. Mean		**126**	**106**	**311**	**100**	**117**	**350**	**109**	**123**	**267**	**86**	**97**	**263**

Table No.1.29 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 1-IM, (Trials Not Considered) Zone 7, Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED								
		Kerala			Karnataka			Puducherry		
		@ Pattambi			@Brahmwar			@ Kurumbapet		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4101	29826	98	92	471	114	86	386	105	107	413
4102	29833	112	104	483	112	85	388	101	91	387
4103	29843	99	97	506	98	91	424	103	106	407
4104	29855	99	95	512	106	97	416	95	97	403
4105	29831	99	96	525	107	74	342	97	89	380
4106	29865	102	104	547	87	86	364	102	98	397
4107	29861	99	92	528	107	101	369	105	96	417
4108	29860	101	95	479	107	81	312	101	109	393
4109	29850	106	89	518	102	76	391	101	96	387
4110	NDR 359 (NC)	99	94	514	100	83	405	103	95	377
4111	29875	96	94	515	116	87	399	99	94	390
4112	29873	101	102	461	109	85	403	100	95	380
4113	29869	99	94	525	101	79	370	101	97	447
4114	29859	101	101	507	98	76	379	101	95	407
4115	28523	99	95	470	97	81	383	97	101	417
4116	29825	99	95	476	100	89	386	98	99	407
4117	29845	98	97	421	102	88	382	97	98	397
4118	29287	99	96	505	100	96	368	105	101	407
4119	Zonal Check (ZC)	102	94	530	116	101	386	112	122	420
4120	29879	99	93	561	104	86	400	90	94	373
4121	29857	98	95	485	104	92	370	90	96	373
4122	29742	111	100	508	103	82	396	91	100	397
4123	29749	102	99	501	100	96	358	100	97	427
4124	29752	99	98	527	113	97	369	102	108	377
4125	28442 (R)	101	98	486	113	72	390	99	88	410
4126	29744	101	91	499	103	75	359	101	102	383
4127	29868	99	101	475	101	96	404	107	106	393
4128	29743	101	93	497	100	94	390	103	99	413
4129	HRI 174 (HC)	101	90	484	99	81	361	92	108	380
4130	29877	102	94	426	98	75	348	95	96	347
4131	29837	103	101	427	99	63	372	91	87	367
4132	29741	103	102	430	100	91	368	96	104	370
4133	29834	99	97	485	100	99	390	100	92	393
4134	29748	98	91	548	99	75	371	101	105	373
4135	29878	103	100	474	107	95	379	89	100	377
4136	Local Check (LC)	103	88	477	109	75	393	106	90	397
4137	30304	102	90	441	105	74	370	106	99	380
4138	WGL 14 (RP)	103	97	557	106	93	400	106	94	380
4139	30757	102	104	480	108	91	316	102	106	403
4140	30758	99	83	569	107	95	340	99	96	390
4141	30759	102	91	497	108	98	329	94	98	377
4142	Gangavati Sona (RP)	113	91	472	109	96	339	96	99	387
4143	30760	114	90	534	108	85	370	94	93	383
4144	WGL 32100 (RP)	99	97	549	105	91	378	95	89	390
Exp. Mean		**101**	**95**	**497**	**104**	**86**	**375**	**99**	**98**	**393**

Table No. 1.30: Grain quality characteristics of entries in AVT 1-IM, kharif 2022

Entry No.	IET No.	Hull	Mill	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
4101	29826	81.5	72.0	54.4	5.31	2.17	2.44	SB	VOC	4.0	24.31	22
4102	29833	82.0	69.9	58.3	6.25	2.20	2.84	LB	VOC	4.0	25.60	43
4103	29843	82.3	69.4	37.8	5.35	2.39	2.23	SB	OC	4.0	26.10	22
4104	29855	79.2	64.8	36.1	6.37	2.36	2.69	LB	VOC	7.0	27.92	41
4105	29831	80.8	70.5	53.3	5.11	1.81	2.82	MS	A	4.0	24.11	22
4106	29865	80.2	64.0	55.2	6.73	2.07	3.25	LS	VOC	4.0	26.40	30
4107	29861	80.3	69.2	55.9	6.61	2.04	3.24	LS	VOC	7.0	27.60	22
4108	29860	81.8	69.3	40.8	5.14	2.52	2.03	SB	VOC	4.0	25.19	38
4109	29850	81.0	69.3	48.6	6.55	2.01	3.25	LS	VOC	7.0	24.34	41
4110	NDR-359 (NC)	81.2	69.7	57.7	6.46	2.51	2.57	LB	VOC	4.0	27.13	44
4111	29875	81.1	70.0	48.4	5.07	2.24	2.26	SB	VOC	4.0	26.25	24
4112	29873	83.2	70.8	59.2	5.53	1.96	2.82	MS	A	5.0	27.66	25
4113	29869	81.5	68.1	41.9	5.22	2.34	2.23	SB	VOC	4.0	28.04	22
4114	29859	80.2	65.0	47.1	6.90	2.08	3.31	LS	OC	4.0	29.50	25
4115	28523	81.1	73.3	62.1	5.21	2.06	2.52	MS	VOC	4.0	25.08	22
4116	29825	80.9	68.1	44.6	6.31	2.34	2.69	LB	VOC	4.0	27.33	33
4117	29845	80.6	67.3	56.3	6.71	2.25	2.98	LB	VOC	7.0	26.42	22
4118	29287	75.2	65.4	60.3	5.36	2.05	2.61	MS	VOC	4.0	25.25	40
4119	Jaya (ZC)	81.2	71.6	62.5	5.35	2.19	2.44	SB	VOC	7.0	25.84	22
4120	29879	82.1	70.0	55.5	5.15	1.87	2.75	MS	VOC	4.0	24.99	22
4121	29857	80.7	67.6	47.0	6.17	2.21	2.79	LB	VOC	4.0	25.19	22
4122	29742	82.4	68.8	56.9	6.17	2.38	2.59	LB	VOC	4.0	23.23	43
4123	29749	82.8	73.0	41.7	6.37	2.29	2.78	LB	VOC	5.0	24.08	51
4124	29752	83.0	71.4	55.3	6.91	2.20	3.14	LS	VOC	5.0	27.51	46
4125	28442 (R)	82.5	69.2	56.1	5.04	1.92	2.62	MS	VOC	4.0	24.49	22
4126	29744	83.4	68.9	41.8	6.65	2.14	3.10	LS	VOC	5.0	22.79	62
4127	29868	82.1	70.2	43.9	5.63	2.49	2.26	SB	VOC	5.0	27.33	22
4128	29743	82.2	72.2	61.0	6.07	2.39	2.53	LB	VOC	6.0	24.69	35
4129	HRI-174 (HC)	83.6	70.1	56.6	6.26	2.28	2.74	LB	VOC	4.0	26.07	52
4130	29877	82.2	70.5	44.0	5.11	2.09	2.44	SB	VOC	4.0	27.36	42
4131	29837	80.7	68.2	36.8	5.14	2.07	2.48	SB	VOC	4.0	22.96	52
4132	29741	83.3	71.7	58.0	5.57	2.18	2.55	MS	VOC	5.0	23.55	45
4133	29834	79.5	67.6	55.8	6.49	2.05	3.16	LS	VOC	4.0	28.16	43
4134	29748	82.1	71.3	37.7	6.32	2.24	2.82	LB	VOC	5.5	25.54	33
4135	29878	82.0	70.5	43.2	5.47	2.54	2.15	SB	VOC	7.0	28.07	22
4136	MTU 1001 (LC)	80.6	70.8	59.8	5.85	2.35	2.48	SB	VOC	7.0	26.86	30
4137	30304	81.0	67.9	55.9	5.08	1.84	2.76	MS	A	4.0	26.07	22
4138	WGL 14 (RP)											
4139	30757	80.1	69.3	48.4	5.18	1.80	2.87	MS	VOC	4.0	22.61	46
4140	30758	80.8	65.0	33.8	4.95	1.84	2.69	MS	VOC	4.0	21.26	23
4141	30759	80.9	70.5	40.7	5.00	1.83	2.73	MS	VOC	4.0	23.81	36
4142	Gangavati Sona (RP)	80.9	68.6	55.0	5.13	1.82	2.81	MS	VOC	4.0	22.93	53
4143	30760	82.9	72.4	57.4	5.00	1.83	2.73	MS	VOC	4.0	24.02	22
4144	WGL 32100 (RP)	82.1	71.3	59.3	4.73	1.88	2.51	MS	VOC	4.0	24.75	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. 1.31: Composition of entries in Initial Variety Trial -Irrigated Medium (IVT-IM), Kharif 2022

Entry No.	IET No.	Designation	Cross Combination	GT
1st year of testing:				
4201	30761	BRR 2228	BRR 2028 / S.Shree	MB
4202	30762	Pusa 5358-3-1-1-1-1-1	MTU 1010 / ET 2-12	MS
4203	30763	RP 6246-7-44-33-55	Samba Mahsuri*3 / ST 12	MS
4204	30764	BMDK-2-2-8-2	KMLT 4 / KPR-2	
4205	30765	JR 11-1	Kranti / Danteshwari	MB
4206	30766	RP 6616-CGR 15	BPT 5204*2 / Oryza rufipogon (VN 90-1032-58(3))	MB
4207	30767	AD 18545	ADT 46 / AD 09391	SB
4208	30768	CB 19136	CB 05022 / CB 04044	SB
4209	30769	RP 6701-MS-SS-125(B)-2-6-44-3-5-3	Samba Mahsuri Mutant 125 / BPT 5204	MS
4210	30770	RP 6696-MASC-29-37	[BC2F12 [PR114 / *O. longistaminata* (104301A) // 2*PR 114] / IR 64	LB
4211	30771	JGL 38206	JGL 24423 / MTU 365-32-1-1) / MTU 1121	LB
4212	30772	TRC GTS 739-B-B-4-1	Gomati / Tripura Sharat	LS
4213	30773	MTU 1375 (MTU 2658-13-1-1)	MTU 1075 / MTU 1001	MS
4214	30774	CR 4379-13-1-1-1-1-1	CR Dhan 307 / MTU 1010	LS
4215	30775	PRR 3013 / PS 7-12-7-8-3-2	Lalat / IR64	LS
4216	30776	KAU-PTB-0615-15-16-8	Pranava / Chettadi	LB
4217	30777	CR 4070-1311-1-1-4-6-5-1-1-3	IET 22704 / Pyari	LS
4218	30778	TRC GTS 699-B-B-5-2	Gomati / Tripura Sharat	LS
4219	30779	HURS-22-1	NDR97 / HUR105	LB
4220	30780	R 2296-341-1-212-1	R1546-1328-1-40-1 / Samaleshwari	
4221	30781	RNR 39026	IR13G1138	LS
4222	**NDR 359 (NC)**			
4223	30782	ORJ 1353 (TP 30606)	IIRON 43 Ent 10	MS
4224	30783	MTU 1395 (MTU 2404-94-1-2-1)	MTU 1064 / MTU 1075	MS
4225	30784	CR 4376-1-1-1-2-2-1	CR 3553-15-1-1-1-1-1 / CR 3759-1-1-2-1-1	MS
4226	30785	RCPR 87-RP5528-85	RP Bio-226 / IRGC 39111 // Samba Mahsuri *sub1*	MS
4227	30786	BPT 3034	BPT 2231 / MTU 1075	LB
4228	30787	RP 6489-JB 88-13-1-1-1-1	WGL 14 / Improved Samba Mahsuri// WGL 14 / Rathuheenati /// WGL 14 / RP 5925-24 // WGL 14 / IR 96321-1-1447-561-B-1 //// WGL 14 / IR 81896-96-B-B-195	MS
4229	30788	JR 13	MTU 1081 / NPT 26-1	LS
4230	30789	HKR 17-29	IR 58025A / IR 79253-19-3-3-5	LS
4231	30790	NVSR 624	GNR-4 / GNR-2	
4232	30791	CR 3842-52-1-2-1-1	Gontra Bidhan / CR Dhan203	LS
4233	30792	KAU-PTB-0627-2-24-1	Swetha / Kuruka	SB
4234	30793	CR 3856-1-8-1-1-1-2-1-1	IR 73963-86-1-5-2-2 / CR 2324-1	LB
4235	30794	PRNP 10027	PRNP 101 / PRNP 127	SB

Entry No.	IET No.	Designation	Cross Combination	GT
4236	30795	BRR 0158	IRRYC 743 / OR 2523-6	
4237	**PR 121 (Northern), CR Dhan 300 (Eastern & North Eastern), Karma Mahsuri (Central), Akshayadhan (Western), Jaya (Southern)—ZC**			
4238	30796	UPR 4565-17-2-1-1	IR 22082-41-2 / UPR3877-2-1-1	LS
4239	30797	NWGR 16058	NWGR 3119 / Pusa Basmati / 53-1-2-1-1-1-1	MS
4240	30798	TTBDR 106-2-4	Malbhog / Aghoni	MS
4241	30799	RP 5084-58-33-2-2-3-B	Sona / Malaysia	SB
4242	30800	BKR 380	BPT 5204 / Karahni	SB
4243	30801	HUR 22-4	HUBR 10-9 / HUBR 16-6-1-2	LS
4244	30802	CR 4150-31-3-2-1	Swarna / ST 12 // Swarna / Habataki /// Swarna	MS
4245	30803	KNM 12445	KNM 1638 / IET 23993 // MTU 1156	MS
4246	30804	GNV 2188-1	Selection from traditional variety asaleeya	LB
4247	30805	RP 5976-45-30-12-16	Improved Samba Mahsuri / Wazuhophek	SB
4248	30806	RNR 31753	CT 18615-1-5-1-2-1 / MTU 1010	LS
4249	30807	ACM 20003		
4250	30808	JR 29	IR64 / Mahsuri 4500	LS
4251	30809	CR 4237-2-2-B-1	MTU 1010 / ARC 10063	MS
4252	30810	RP 6502-GSY-7-4-1-5	IET 27134 / IET 27296	MS
4253	30811	CAU- R5	CAU R1 / Akhanphou	LB
4254	30812	RAU 710-99-22-1	Sita / Katarni	MS
4255	30813	WGL 1791	WGL 1100 / JGL 19618	LS
4256	30814	CRAC 3998-104-2-2	Doubled haploid of 27P63	MB
4257	30815	2k13/14-524-1-1-6-5 (RYT 4036)	PR 121*^{2} // PR 121 / *O.nivara* (CR 100204)	LS
4258	30816	IGP-13-12-19	IGP-13-12-19 (Pedigree Pusa 33-IR 28)	LS
4259	30817	RDR-3608	MTU 1075 / MTU 1010	LS
4260	30818	ACK 20002	Mutant of CR 1009 (Early)	SB
4261	30819	PNPG 114	PNP 115/PNP 310	SB
4262	29805	RP 5976-78-26-6-2	Improved Samba Mahsuri / Wazuhophek	SB
4263	30820	RTN 15M6-52	Mutant of Super Basmati	LS
4264	**Local Check (LC)**			

Table No. 1.32: Grain Yield (kg/ha) in IVT – IM, Kharif 2022

ENTRY NO	IET NO	ZONE II - NORTHERN						ZONE III-EASTERN					
		Punjab (1)		Haryana (1)		Zone II (2)		Odisha					
		Ludhiana		Kaul		Mean		Bhubaneswar		Jeypore		Chiplima	
4201	30761	2926		5650		4288		2899		2361		5601	
4202	30762	3537		5550		4544		5696		6167	7	4548	
4203	30763	4333		5750		5042		6928	7	4811		5947	10
4204	30764	3407		6150	7	4779		5229		3350		5090	
4205	30765	4259		5300		4780		6585	9	4506		5069	
4206	30766	2954		4150		3552		6356	10	5367		5011	
4207	30767							7984	3	2658		5372	
4208	30768	5472	6	4250		4861		7206	6	3944		7048	1
4209	30769	3778		5200		4489		3575		3417		2771	
4210	30770	3185		3450		3318		6340		2342		4447	
4211	30771	3472		5850		4661		8389	1	7492	2	4399	
4212	30772	7574	1 *	6450	3	7012	1 *	7647	5	4794		6245	7
4213	30773							5471		5092			
4214	30774	6324	3	6150	7	6237	3	7716	4	2819		4654	
4215	30775	4991		4800		4896		3912		2836		4553	
4216	30776							5121		2822		3601	
4217	30777	4574		6300	4	5437	7	2984		4400		5218	
4218	30778	3935		5500		4718		3552		4758		4793	
4219	30779	2778		4700		3739		4239		5006		5559	
4220	30780	5833	5	5600		5717	5	4801		4833		6064	9
4221	30781	4528		4100		4314		5415		7819	1	5495	
4222	NDR 359 (NC)	2981		3700		3341		5225		6047	8	2803	
4223	30782	4269		6100	10	5185	9	5490		4708		4979	
4224	30783							4248		2819		4362	
4225	30784	2685				2685		3827		3092		5681	
4226	30785	4657		4800		4729		4958		3400		5404	
4227	30786							3778		3231		3261	
4228	30787	4935		4750		4843		4082		3533		4122	
4229	30788	2611		6100	10	4356		3895		5106		4867	
4230	30789	2676		5850		4263		5163		6528	5	6255	6
4231	30790	5231	9	4600		4916		5500		5875	10	6500	3
4232	30791	4259		4800		4530		3356		4583		5590	
4233	30792	5102		5400		5251	8	4703		4403		5473	
4234	30793	5037				5037		3650		4367		4133	
4235	30794	4972		5100		5036		3915		4269		6702	2
4236	30795	6259	4	5600		5930	4	5706		4958		5255	
4237	Zonal Check (ZC)	3491		3350		3421		5539		4125		6447	4
4238	30796	6361	2	6200	6	6281	2	4078		6889	3	5755	
4239	30797	4926		4600		4763		5023		5653		5191	
4240	30798	4778				4778		4931		6811	4	5617	
4241	30799	3889		6300	4	5095	10	5572		2722		3160	
4242	30800	3130		6650	1	4890		4869		2931		3479	
4243	30801	3111		4650		3881		3127		2722		3287	
4244	30802	5000		4900		4950		4310		3625		4574	
4245	30803	3259		5100		4180		4212		3347		5016	
4246	30804	3769		4700		4235		5127		2678		3814	
4247	30805	4111		4050		4081		4346		2753		4559	
4248	30806	3528		6650	1	5089		5637		5500		5601	
4249	30807	2407		4300		3354		3912		3339		4495	
4250	30808	4787		5100		4944		3454		4289		4218	
4251	30809							5199		5694		5351	
4252	30810	3074		3350		3212		5121		3269		4106	
4253	30811	2556		4100		3328		4288		5228		3234	
4254	30812	3065		3450		3258		3856		2811		3255	
4255	30813	5296	8	4800		5048		5078		3800		6069	8
4256	30814	3269		4700		3985		8016	2	5253		3745	
4257	30815	2426		4950		3688		4944		5097		5452	
4258	30816	3991		6000		4996		4585		2533		3511	
4259	30817	4111		5450		4781		6154		6269	6	5670	
4260	30818							3180		2811			
4261	30819	5102		4900		5001		5775		3164		6372	5
4262	29805	5204	10	3950		4577		4203		4472		5543	
4263	30820	2833		4850		3842		5088		4756		3649	
4264	Local Check (LC)	5306	7	6100	10	5703	6	6863	8	5986	9	5059	
Exp. Mean		**4146**		**5090**		**4594**		**5032**		**4329**		**4889**	
F Value		**9.09(p<.0001)S**		**10.38(p<.0001)S**		**12.34(p<.0001)S**		**4.69(p<.0001)S**		**15.00(p<.0001)S**		**9.31(p<.0001)S**	
CD		1088		775		675		1710		991		965	
CV%		**13.1**		**7.59**		**7.33**		**17.01**		**11.45**		**9.87**	
D/S		28-06-2022		30-06-2022				09-08-2022		19-07-2022		11-07-2022	
D/P		29-07-2022		27-07-2022				10-09-2022		19-08-2022		20-08-2022	
Local Check Name		PR 126		HKR-128				Kalinga Dhan 1301		Kalinga Dhan 1203		Pratikshya	

Table No. 1.32 (Contd): Grain Yield (kg/ha) in IVT – IM, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN											
		Odisha (3)		Bihar				Bihar (2)		Jharkhand (1)		West Bengal	
		Mean		Bikaramganj		Sabour		Mean		Ranchi		Chinsurah	
4201	30761	3620		7374	9	6903	7	7139	4 *	4200		6362	6
4202	30762	5470		7167		7821	1	7494	1 *	4200		6734	2
4203	30763	5895	9	5439		6039		5739		6225	6	5766	
4204	30764	4556		6525		5684		6105		4500		6548	3
4205	30765	5387		6061		6618	10	6340		4800		5320	
4206	30766	5578		5308		4107		4708		4425		5283	
4207	30767	5338		3702		5728		4715		3975		6101	
4208	30768	6066	4	5470		4774		5122		4350		5990	
4209	30769	3254		6076		6332		6204		4125		5357	
4210	30770	4376		6980		6082		6531	*	4050		5402	
4211	30771	6760	1 *	7859	2	5812		6836	*	6850	2	6176	9
4212	30772	6229	3	7288	10	6483		6886	10 *	6775	5	6362	6
4213	30773	5282		2136		2652		2394		3075		5357	
4214	30774	5063		6182		6965	6	6574	*	6800	3	5022	
4215	30775	3767		5535		4272		4904		4875		6168	10
4216	30776	3848		6268		6044		6156		3975		5729	
4217	30777	4201		6323		5829		6076		4125		5461	
4218	30778	4368		7192		4424		5808		4425		5372	
4219	30779	4935		8394	1	5616		7005	6 *	4875		5246	
4220	30780	5233		7520	7	6807	8	7164	3 *	4875		5186	
4221	30781	6243	2	7753	3	4658		6206		4500		5357	
4222	NDR 359 (NC)	4692		6712		4776		5744		5325		5074	
4223	30782	5059		6455		5736		6096		3975		5007	
4224	30783	3810		2354		5324		3839		3750		5841	
4225	30784	4200		5783		7626	2	6705	*	3375		5766	
4226	30785	4587		6485		6420		6453		5250		5060	
4227	30786	3423		2985		3409		3197		3600		4948	
4228	30787	3912		7414	8	6370		6892	9 *	3900		6064	
4229	30788	4623		5924		4611		5268		5100		5022	
4230	30789	5982	6	7662	5	6219		6941	7 *	5625		5246	
4231	30790	5958	8	6884		6985	5	6935	8 *	5850	9	7068	1
4232	30791	4510		5869		5370		5620		3750		4829	
4233	30792	4860		6652		6369		6511	*	3450		5253	
4234	30793	4050		6414		6006		6210		3975		5804	
4235	30794	4962		6763		7379	3	7071	5 *	4200		6086	
4236	30795	5306		6444		6689	9	6567	*	5400		6399	5
4237	Zonal Check (ZC)	5370		3348		4999		4174		4125		5022	
4238	30796	5574		6995		5591		6293		5100		5097	
4239	30797	5289		6197		5753		5975		6150	7	6153	
4240	30798	5786	10	6404		6515		6460		5250		6213	8
4241	30799	3818		6636		6064		6350		6800	3	4859	
4242	30800	3760		5374		4719		5047		4500		4762	
4243	30801	3045		4162		5996		5079		4050		4792	
4244	30802	4170		6121		4446		5284		3600		5060	
4245	30803	4192		4030		4926		4478		4275		4940	
4246	30804	3873		6419		4884		5652		3525		5037	
4247	30805	3886		5490		6084		5787		4050		6057	
4248	30806	5579		6207		4984		5596		4650		5126	
4249	30807	3915		5783		5598		5691		3150		5119	
4250	30808	3987		3813		6142		4978		3600		6004	
4251	30809	5415		4510		3842		4176		3375		5766	
4252	30810	4165		5348		5802		5575		3750		4874	
4253	30811	4250		5081		5666		5374		4650		4204	
4254	30812	3307		5101		5833		5467		5100		4442	
4255	30813	4982		5747		5636		5692		4950		6049	
4256	30814	5671		5369		3156		4263		4500		5015	
4257	30815	5164		5611		6155		5883		3750		6168	10
4258	30816	3543		7727	4	4853		6290		3825		5223	
4259	30817	6031	5	7141		5381		6261		5850	9	6042	
4260	30818	2996		3045		5160		4103		5025		5238	
4261	30819	5104		7561	6	7294	4	7428	2 *	3825		6473	4
4262	29805	4739		6505		6357		6431		6100	8		
4263	30820	4498		4121		3562		3842		4050		6049	
4264	Local Check (LC)	5969	7	5515		5265		5390		6950	1	5692	
Exp. Mean		**4742**		**5917**		**5619**		**5768**		**4610**		**5544**	
F Value		**15.25(p<.0001)S**		**12.91(p<.0001)S**		**8.15(p<.0001)S**		**15.55(p<.0001)S**		**8.29(p<.0001)S**		**2.87(p<.0001)S**	
CD		651		1076		1053		748		974		1122	
CV%		**6.87**		**9.1**		**9.38**		**6.49**		**10.58**		**10.13**	
D/S				05-07-2022		29-06-2022				04-07-2022		05-07-2022	
D/P				05-08-2022		27-07-2022				18-08-2022		05-08-2022	
Local Check Name				Sabour Shree		Rajendra Sweta				NAVEEN		PRATIKSHYA	

Table No. 1.32 (Contd): Grain Yield (kg/ha) in IVT – IM, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN											
		West Bengal		West Bengal (2)		Uttar Pradesh						Uttar Pradesh (2)	
		Bankura		Mean		Masodha		Varanasi		@Gorakpur		Mean	
4201	30761	6682		6522		4428		7813		3125		6121	
4202	30762	6818		6776	2	6051	9	8021		4255		7036	8
4203	30763	4621		5194		6316	7	6458		4455	6	6387	
4204	30764	6591		6570	7	4056		7354		3790		5705	
4205	30765	7167	6	6244		4548		8906	2	3324		6727	
4206	30766	6455		5869		6449	4	5969		5186	2	6209	
4207	30767	5409		5755		4654		5271		3059		4963	
4208	30768	5227		5609		4555		6177		3504		5366	
4209	30769	5045		5201		3923		6802		3697		5363	
4210	30770	4803		5103		6516	2	5479		4322	10	5998	
4211	30771	6076		6126		6582	1	7927		3245		7255	4
4212	30772			6362		5785		8031		3790		6908	9
4213	30773	5303		5330		5685		1771		3457		3728	
4214	30774	5015		5019		4654		8281	9	3457		6468	
4215	30775	7030		6599	6	5186		5854		3258		5520	
4216	30776	7394	2	6562	8	4654		6552		4588	5	5603	
4217	30777	6530		5996		5851		7823		3790		6837	10
4218	30778	6318		5845		5838		5479		3570		5659	
4219	30779	6788		6017		4461		8323	8	5186	2	6392	
4220	30780	7121	7	6154		5798		8875	4	3457		7337	3
4221	30781	7030		6194		4574		6771		3324		5673	
4222	NDR 359 (NC)	6924		5999		6383	5	9000	1	3369		7692	1
4223	30782	6561		5784		5745		7552		3457		6649	
4224	30783	5242		5542		5851		4698		2859		5275	
4225	30784	6515		6141		4461		5521		4189		4991	
4226	30785	6652		5856		6516	2	7990		3324		7253	5
4227	30786	5379		5164		4189		1090		3989		2640	
4228	30787	5985		6025		5319		7354		2660		6337	
4229	30788	7303	4	6163		4654		5490		2992		5072	
4230	30789	6424		5835		5718		7646		4388	8	6682	
4231	30790	6894		6981	1 *	5319		7885		4189		6602	
4232	30791	6652		5741		6117	8	7385		2972		6751	
4233	30792	5818		5536		5818		6979		4255		6399	
4234	30793	6121		5963		3723		7115		3324		5419	
4235	30794	6682		6384		4056		7573		3324		5815	
4236	30795	6318		6359		5386		8896	3	5585	1	7141	7
4237	Zonal Check (ZC)	5848		5435		4588		5125		4375	9	4857	
4238	30796	5318		5208		4854				2859		4854	
4239	30797	5242		5698		6051	9	6792		3657		6422	
4240	30798	6606		6410		5898		6917		2553		6408	
4241	30799	5924		5392		4395		7896		3428		6146	
4242	30800	6712		5737		4521		4260		3524		4391	
4243	30801	6182		5487		4375		6271		3491		5323	
4244	30802	6409		5735		5918		6344		3790		6131	
4245	30803	5864		5402		5386		5375		3923		5381	
4246	30804	6985		6011		4255		6104		4122		5180	
4247	30805	5394		5726		4195		6729		3590		5462	
4248	30806	6121		5624		3723		6396		4156		5060	
4249	30807	7015		6067		5718		8698	5	5120	4	7208	6
4250	30808	7106	8	6555	9	4455		8095	10	2992		6275	
4251	30809	6379		6073		3457		3010		2859		3234	
4252	30810	6500		5687		3723		5875		2793		4799	
4253	30811	8561	1	6383		4388		7510		2660		5949	
4254	30812	7076	10	5759		5120		5271		3943		5196	
4255	30813	7045		6547	10	4521		8396	7	4436	7	6459	
4256	30814	6939		5977		5253		6240		4255		5747	
4257	30815	7333	3	6751	3	4555		7469		3285		6012	
4258	30816	7091	9	6157		4694		6010		2161		5352	
4259	30817	7258	5	6650	5	4521		7427		3590		5974	
4260	30818	6242		5740		3923		2300		2926		3112	
4261	30819	6939		6706	4	6383	5	8573	6	4122		7478	2
4262	29805	6470		6470		5186		6010		3125		5598	
4263	30820	6500		6275		5319		6094		3258		5707	
4264	Local Check (LC)	6106		5899		4854		7125		2793		5990	
Exp. Mean		**6382**		**5970**		**5063**		**6642**		**3633**		**5838**	
F Value		**3.44(p<.0001)S**		**3.34(p<.0001)S**		**10.17(p<.0001)S**		**12.15(p<.0001)S**		**4.21(p<.0001)S**		**11.58(p<.0001)S**	
CD		1182		823		739		1342		944		844	
CV%		**9.26**		**6.9**		**7.3**		**10.11**		**13**		**7.23**	
D/S		13-07-2022				28-06-2022		27-06-2022		07-01-2022			
D/P		05-08-2022				31-07-2022		21-07-2022		31/07/2022			
Local Check Name		Kunti				NDR 2065		HUR 105		SambaSub-1			

Table No. 1.32 (Contd): Grain Yield (kg/ha) in IVT – IM, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN		ZONE V – CENTRAL									
		Zone III (10)		Chhattisgarh (1)		Maharshtra 1				Maharshtra 1 (2)		Zone V (3)	
		Mean		Raipur		Sakoli		Sindewahi		Mean		Mean	
4201	30761	5462		6044	2	4677		4517		4597		5079	8
4202	30762	6322	4 *	4148		4917		3807		4362		4291	
4203	30763	5855		4183		3247		4162		3705		3864	
4204	30764	5493		4405		5117		5419	6	5268	4	4980	9
4205	30765	5958		4269		3497		4034		3766		3933	
4206	30766	5473		3226		3457		3274		3366		3319	
4207	30767	5085		6201	1	5598	3	2592		4095		4797	
4208	30768	5474		3581		4737		4560		4649		4293	
4209	30769	4742		4646		3997		5597	5	4797		4747	
4210	30770	5244		4047		4437		4006		4222		4163	
4211	30771	6756	1 *	5309	6	5451	5	5398	8	5425	2	5386	2 *
4212	30772	6601	2 *	4766		3005		4361		3683		4044	
4213	30773	4060		4625		4987		4723		4855		4778	
4214	30774	5811		4610		2741		4503		3622		3951	
4215	30775	5022		4075		3657		3892		3775		3875	
4216	30776	5216		4368		2881		3558		3220		3602	
4217	30777	5454		4269		3069		2805		2937		3381	
4218	30778	5215		2638		4207		3757		3982		3534	
4219	30779	5851		3993		3357		4858		4108		4069	
4220	30780	6188	7	5358	5	3717		4545		4131		4540	
4221	30781	5937		4148		4657		5036		4847		4614	
4222	NDR 359 (NC)	5827		4286		3507		5369	9	4438		4387	
4223	30782	5621		4357		5197	9	1932		3565		3829	
4224	30783	4449		4135		5631	2	3970		4801		4579	
4225	30784	5165		4599		4927		5412	7	5170	7	4979	10
4226	30785	5814		5131	8	4447		4950		4699		4843	
4227	30786	3587		2884		4227		4439		4333		3850	
4228	30787	5414		4700		3907		4723		4315		4443	
4229	30788	5197		3823		3837		4034		3936		3898	
4230	30789	6249	5	2464		5680	1	3849		4765		3998	
4231	30790	6476	3 *	4076		5562	4	4183		4873		4607	
4232	30791	5350		4142		3527		4361		3944		4010	
4233	30792	5492		3973		5070		4744		4907		4596	
4234	30793	5131		4336		5317	7	3821		4569		4491	
4235	30794	5763		5604	4	5097		5284	10	5191	6	5328	3 *
4236	30795	6145	9	4786		4667		5866	4	5267	5	5106	5
4237	Zonal Check (ZC)	4917		4643		5077		2386		3732		4035	
4238	30796	5520		4648		4687		2571		3629		3969	
4239	30797	5821		4779		4327		4325		4326		4477	
4240	30798	6116	10	5110	10	4497		6165	3	5331	3	5257	4 *
4241	30799	5403		5116	9	4297		4119		4208		4511	
4242	30800	4613		3233		3847		4858		4353		3979	
4243	30801	4496		3388		3707		6243	2	4975	10	4446	
4244	30802	5041		3524		4907		3963		4435		4131	
4245	30803	4737		3902		5208	8	2933		4071		4014	
4246	30804	4883		5220	7	5177	10	6342	1	5760	1 *	5580	1 *
4247	30805	4966		4210		4257		4616		4437		4361	
4248	30806	5395		4812		4247		4112		4180		4390	
4249	30807	5283		4515		3998		3885		3942		4133	
4250	30808	5118		3320		3647		4247		3947		3738	
4251	30809	4658		5018		5103		5192		5148	8	5104	6
4252	30810	4837		3362		3157		4631		3894		3717	
4253	30811	5281		2085		2711		2663		2687		2486	
4254	30812	4787		2709		4047		2585		3316		3114	
4255	30813	5729		2935		3457		4247		3852		3546	
4256	30814	5349		3646		4627		4986		4807		4420	
4257	30815	5653		3395		5142		5000		5071	9	4512	
4258	30816	5005		3963		3007		3707		3357		3559	
4259	30817	6171	8	5068		4607		2685		3646		4120	
4260	30818	4103		3138		5397	6	3239		4318		3925	
4261	30819	6236	6	5712	3	4697		4865		4781		5091	7
4262	29805	5650		4418		4057		4226		4142		4234	
4263	30820	4919		2099		2811		3835		3323		2915	
4264	Local Check (LC)	5942		4075		4707		4865		4786		4549	
Exp. Mean		**5399**		**4191**		**4303**		**4279**		**4291**		**4258**	
F Value		**31.12(p<.0001)S**		**3.77(p<.0001)S**		**5.22(p<.0001)S**		**9.35(p<.0001)S**		**6.79(p<.0001)S**		**7.96(p<.0001)S**	
CD		314		1291		1017		887		704		603	
CV%		**2.91**		**15.41**		**11.83**		**10.38**		**8.21**		**7.09**	
D/S				29-06-2022		06-07-2022		28-06-2022					
D/P				19-07-2022		28-07-2022		22-07-2022					
Local Check Name				IGKV R 1244		PDKV Kisan		Sindewahi-2001					

Table No. 1.32 (Contd): Grain Yield (kg/ha) in IVT – IM, Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN												ZONE VII – SOUTHERN	
		Maharashtra 2(1)		Maharashtra (3)		Gujarat				Gujarat (2)		Zone VI (3)		Andhra Pradesh (1)	
		Karjat		Mean		Navasari		Nawagam		Mean		Mean		Maruteru	
4201	30761	5719		4971		4392		7246	7	5819		5786		6675	7
4202	30762	6063		4929		3892		5502		4697		5152		6093	
4203	30763	5917		4442		2993		6305		4649		5072		5494	
4204	30764	4462		4999		4508		6634		5571		5201		5952	
4205	30765	5582		4371		3821				3821		4702		6041	
4206	30766	3325		3352		3455		5718		4587		4166		5220	
4207	30767	3351		3847		4777		6190		5484		4773		7090	5
4208	30768	6261	9	5186	9	4943		6413		5678		5872		6808	6
4209	30769	4691		4762		4941		6975		5958		5536		4965	
4210	30770	3192		3878		4745		7017		5881		4985		4550	
4211	30771	7487	2	6112	1 *	6406	6	6364		6385		6752	5	3686	
4212	30772	4462		3943		6176	9	7130	9	6653	8	5923		5115	
4213	30773	3968		4559		3427		6039		4733		4478		6155	
4214	30774	6728	4	4657		4184		6558		5371		5823		5406	
4215	30775	4374		3974		4514		6180		5347		5023		5467	
4216	30776	5344		3928		4408		7473	4	5941		5742		5838	
4217	30777	6534	5	4136		5475		6015		5745		6008		5018	
4218	30778	5816		4593		4990		4865		4928		5224		5106	
4219	30779	6473	6	4896		6859	4	7219	8	7039	3	6850	4	4189	
4220	30780	4533		4265		5575		7800	2	6688	7	5969		4956	
4221	30781	6411	7	5368	6	5575		6548		6062		6178	10	4912	
4222	NDR 359 (NC)	7231	3	5369	5	5631		8041	1	6836	6	6968	3	3457	
4223	30782	4991		4040		5679		5858		5769		5509		5450	
4224	30783	1825		3809		2956		7005		4981		3929		5917	
4225	30784	4242		4860		4438		6089		5264		4923		6508	
4226	30785	6173		5190	8	5582		7468	5	6525	9	6408	8	6675	7
4227	30786	1190		3285		2121		5721		3921		3011		7218	4
4228	30787	5071		4567		5970		6131		6051		5724		5952	
4229	30788	3933		3935		4795		5346		5071		4691		3942	
4230	30789	5873		5134	10	7709	2	6364		7037	4	6649	6	5600	
4231	30790	5432		5059		4882		6623		5753		5646		6614	9
4232	30791	4211		4033		5399		5579		5489		5063		5071	
4233	30792	6323	8	5379	4	4736		6318		5527		5792		5185	
4234	30793	6032		5057		4590		5391		4991		5338		7654	1
4235	30794	6182	10	5521	3	5455		6978		6217		6205	9	5476	
4236	30795	3933		4822		4059		7051		5555		5014		5432	
4237	Zonal Check (ZC)	5009		4157		4655		7024		5840		5563		5000	
4238	30796	9744	1 *	5667	2	6063		6720		6392		7509	1	5051	
4239	30797	5966		4873		5873		6196		6035		6012		4030	
4240	30798	3430		4697		4297		6948		5623		4892		4956	
4241	30799	5600		4672		3931		7574	3	5753		5702		6146	
4242	30800	3995		4233		5691		6071		5881		5252		3818	
4243	30801	4647		4866		4400		6391		5396		5146		3485	
4244	30802	5864		4911		5621		6347		5984		5944		5150	
4245	30803	4277		4139		5424		6439		5932		5380		7513	2
4246	30804	3695		5071		5382		5920		5651		4999		3801	
4247	30805	3704		4192		5303		5797		5550		4935		4691	
4248	30806	5977		4779		5591		6916		6254		6161		4912	
4249	30807	4859		4247		6233	8	6012		6123		5701		5088	
4250	30808	5265		4386		4839		6569		5704		5558		5476	
4251	30809	3351		4549		3997		5660		4829		4336		6014	
4252	30810	3660		3816		4833		6197		5515		4897		4524	
4253	30811	4206		3193		5938		3669		4804		4604		3466	
4254	30812	5009		3880		4502		4380		4441		4630		3704	
4255	30813	5026		4243		6072	10	6926		6499	10	6008		5423	
4256	30814	4250		4621		4786		6232		5509		5089		4524	
4257	30815	3999		4714		7232	3	7083		7158	2	6105		5159	
4258	30816	4744		3819		4285		5912		5099		4980		4021	
4259	30817	5582		4291		6784	5	7089	10	6937	5	6485	7	5168	
4260	30818	3907		4181		2239		5790		4015		3979		6190	
4261	30819	6111		5224	7	7943	1	7413	6	7678	1 *	7156	2	7316	3
4262	29805	3757		4013		6281	7	6310		6296		5449		4762	
4263	30820	3871		3506		4429		4367		4398		4222		3792	
4264	Local Check (LC)	5459		5010		5955		6813		6384		6076		6517	10
Exp. Mean		**4973**		**4518**		**5041**		**6364**		**5683**		**5451**		**5322**	
F Value		**14.55(p<.0001)S**		**8.56(p<.0001)S**		**11.61(p<.0001)S**		**3.79(p<.0001)S**		**9.82(p<.0001)S**		**13.50(p<.0001)S**		**3.97(p<.0001)S**	
CD		1004		580		958		1312		766		646		1480	
CV%		**10.1**		**6.42**		**9.51**		**10.32**		**6.74**		**5.93**		**13.91**	
D/S		28-06-2022				30-06-2022		04-07-2022						25-06-2022	
D/P		25-07-2022				27-07-2022		16-08-2022						23-07-2022	
Local Check Name		Karjat 5				GNR-5		Mahisagar						MTU 1239	

Table No. 1.32 (Contd): Grain Yield (kg/ha) in IVT – IM, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN											
		Telanagana				Telangana (2)		Tamil Nadu				Tamil Nadu (2)	
		Rajendranagar		Warangal		Mean		Aduthurai		Coimbatore		Mean	
4201	30761	5769		8687	1	7228	4	5875		4578		5227	
4202	30762	5577		6819	8	6198		5250		6146		5698	
4203	30763	4952		6815	9	5884		4375		5901		5138	
4204	30764	5570		6584		6077		4917		6278		5598	
4205	30765	4596		5574		5085		4208		4469		4339	
4206	30766	4285		3976		4131		6167	7	5933		6050	10
4207	30767	5642		7396	3	6519	10	5000		5789		5395	
4208	30768	4965		5208		5087		5625		4998		5312	
4209	30769	6901	10	5910		6406		5167		5743		5455	
4210	30770	4809		4985		4897		5292		5260		5276	
4211	30771	7263	5	6103		6683	8	4458		6895	8	5677	
4212	30772	5859		5892		5876		4750		7024	7	5887	
4213	30773	5820				5820		4500		6132		5316	
4214	30774	7118	6	4846		5982		4333		4564		4449	
4215	30775	5728		4484		5106		5583		6210		5897	
4216	30776	5135		4508		4822		6667	4	7226	4	6947	2
4217	30777	5507		4437		4972		4250		5840		5045	
4218	30778	5868		5062		5465		4375		5736		5056	
4219	30779	6463		6495		6479		6458	5	5669		6064	9
4220	30780	6162		6512		6337		4375		5391		4883	
4221	30781	6261		4792		5527		4583		4154		4369	
4222	NDR 359 (NC)	7533	1	5873		6703	7	4750		4664		4707	
4223	30782	6912	9	6447		6680	9	5208		6089		5649	
4224	30783	5890				5890		4750		6693	10	5722	
4225	30784	5347		6014		5681		4417		4970		4694	
4226	30785	5879		5132		5506		5625		4906		5266	
4227	30786	5379		5760		5570		4400		7280	3	5840	
4228	30787	7062	7	5317		6190		4833		4947		4890	
4229	30788	4343		4388		4366		5750		5226		5488	
4230	30789	5709		5006		5358		6042	10	5552		5797	
4231	30790	5689		5901		5795		4250		5796		5023	
4232	30791	5805		5480		5643		4417		4983		4700	
4233	30792	5450		5270		5360		5167		5028		5098	
4234	30793	5739		5345		5542		6042	10	5493		5768	
4235	30794	7288	4	8005	2	7647	1	4250		6420		5335	
4236	30795	6893		5222		6058		5208		5126		5167	
4237	Zonal Check (ZC)	5183		4859		5021		5417		7184	6	6301	7
4238	30796	5777		4366		5072		4958		5005		4982	
4239	30797	5420		5372		5396		4583		4798		4691	
4240	30798	4777		6631	10	5704		4417		4919		4668	
4241	30799	7345	3	7376	4	7361	3	5000		3487		4244	
4242	30800	4994		6102		5548		5333		4704		5019	
4243	30801	4530		3799		4165		5583		5601		5592	
4244	30802	4811		4369		4590		5333		3316		4325	
4245	30803	5357		4657		5007		4875		5296		5086	
4246	30804	4909		4093		4501		4167		4248		4208	
4247	30805	6008		4855		5432		6042	10	5537		5790	
4248	30806	6060		4720		5390		5417		6066		5742	
4249	30807	5975		5636		5806		5500		5857		5679	
4250	30808	5818		3954		4886		6958	3	6780	9	6869	3
4251	30809	5720		5310		5515		7667	1	5016		6342	6
4252	30810	4934		5092		5013		7333	2	5564		6449	4
4253	30811	3892		4012		3952		6167	7	3516		4842	
4254	30812	4649		3947		4298		4583		4548		4566	
4255	30813	6622		7132	7	6877	6	5667		5288		5478	
4256	30814	6477		4048		5263		5883		5049		5466	
4257	30815	6585		5988		6287		4208		5165		4687	
4258	30816	5185		4695		4940		6458	5	5835		6147	8
4259	30817	6473		6447		6460		4583		8215	2	6399	5
4260	30818	4409		5841		5125		5125		4171		4648	
4261	30819	7509	2	7230	5	7370	2	5667		9024	1	7346	1 *
4262	29805	6014		6532		6273		6000		6012		6006	
4263	30820	4000		4077		4039		4792		5046		4919	
4264	Local Check (LC)	6960	8	7228	6	7094	5	4375		7193	5	5784	
Exp. Mean		**5743**		**5526**		**5640**		**5210**		**5555**		**5382**	
F Value		**5.61(p<.0001)S**		**7.91(p<.0001)S**		**8.68(p<.0001)S**		**3.03(p<.0001)S**		**4.25(p<.0001)S**		**4.23(p<.0001)S**	
CD		1064		1108		818		1311		1439		929	
CV%		**9.27**		**10.03**		**7.26**		**12.59**		**12.96**		**8.64**	
D/S		30-06-2022		24-06-2022				09-09-2022		05-07-2022			
D/P		03-08-2022		28-07-2022				27-10-2022		02-08-2022			
Local Check Name		RNR 11718		WGL 347 (Somnath)				ADT-54		CO 50			

Table No.1.32 (Contd): Grain Yield (kg/ha) in IVT – IM, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN										Overall Mean (26)	
		Karnataka						Karnataka (3)		Zone VI (8)			
		Mandya		Brahmawar		Gangavathi		Mean		Mean			
4201	30761	8339	2	3659		4746		5581	3	6041	3	5543	
4202	30762	5778		3212		4500		4497		5422		5539	
4203	30763	5947		3684		3926		4519		5137		5251	
4204	30764	5386		5233	1	3326		4648		5406		5318	
4205	30765	5026		3338		6197	9	4854		4931		5192	
4206	30766	3640		3243		4403		3762		4608		4660	
4207	30767	4720		4093		5187		4667		5615	8	5187	
4208	30768	6370	8	3999		6069	10	5479	6	5505		5346	
4209	30769	3799		4786	7	6028		4871		5412		5021	
4210	30770	3937		4345		3977		4086		4644		4757	
4211	30771	2148		4440		6623	6	4404		5202		5958	2
4212	30772	4646		3369		4474		4163		5141		5779	4
4213	30773	4762		4975	2	6931	4	5556	5	5611	9	4708	
4214	30774	5704		4440		5428		5191		5230		5452	
4215	30775	4931		3967		4879		4592		5156		4921	
4216	30776	4053		3715		5152		4307		5287		5104	
4217	30777	4550		4043		3608		4067		4657		5032	
4218	30778	1979		4943	3	4638		3853		4713		4829	
4219	30779	5958		3955		6321	8	5411	8	5689	6	5548	10
4220	30780	5249		3778		7331	2	5453	7	5469		5715	6
4221	30781	3693		2865		3551		3370		4351		5199	
4222	NDR 359 (NC)	5524		4282		7054	3	5620	2	5392		5467	
4223	30782	3101		2601		5003		3568		5101		5208	
4224	30783	4677		3747		7803	1	5409	9	5640	7	4760	
4225	30784	4963		3804		4008		4258		5004		4963	
4226	30785	4963		3810		4741		4505		5216		5503	
4227	30786	4339		4924	4	3674		4312		5372		4143	
4228	30787	4444		3671		3833		3983		5007		5169	
4229	30788	3683		3873		4141		3899		4418		4685	
4230	30789	4138		2487		4187		3604		4840		5449	
4231	30790	5799		3678		4797		4758		5316		5687	7
4232	30791	4021		3257		4575		3951		4701		4900	
4233	30792	5683		4282		4454		4806		5065		5273	
4234	30793	7185	5	4188		5300		5558	4	5868	4	5311	
4235	30794	7259	4	3652		3977		4963		5791	5	5716	5
4236	30795	5280		3967		6628	5	5292		5470		5670	9
4237	Zonal Check (ZC)	5365		4377		3905		4549		5161		4850	
4238	30796	3238		4282		4941		4154		4702		5372	
4239	30797	2275		4093		4295		3554		4358		5156	
4240	30798	4868		3311		3972		4050		4731		5370	
4241	30799	6212	10	3923		4751		4962		5530		5350	
4242	30800	1947		3671		3849		3156		4302		4539	
4243	30801	9016	1	3401		3679		5365	10	4887		4638	
4244	30802	5249		4503		3490		4414		4528		4875	
4245	30803	4476		4251		5712		4813		5267		4848	
4246	30804	4540		4547		6459	7	5182		4596		4838	
4247	30805	3788		4628	10	3233		3883		4848		4788	
4248	30806	5407		4660	9	4197		4755		5180		5278	
4249	30807	5630		4471		4156		4752		5289		5052	
4250	30808	5968		4484		3474		4642		5364		5072	
4251	30809	4106		3634		3392		3711		5107		4823	
4252	30810	6275	9	4093		3213		4527		5129		4679	
4253	30811	3598		2366		4100		3355		3890		4302	
4254	30812	5460		3967		3736		4388		4324		4316	
4255	30813	5238		4798	6	4074		4703		5530		5396	
4256	30814	2148		4219		3177		3181		4441		4827	
4257	30815	4741		3514		3659		3971		4877		5184	
4258	30816	4296		4880	5	2962		4046		4792		4769	
4259	30817	4148		4503		4946		4532		5560	10	5676	8
4260	30818	4201		3684		3982		3956		4700		4271	
4261	30819	6381	7	4093		4013		4829		6404	1	6167	1 *
4262	29805	6444	6	4225		3275		4648		5408		5293	
4263	30820	4063		4345		3459		3956		4197		4302	
4264	Local Check (LC)	7672	3	4780	8	4718		5723	1	6180	2	5851	3
Exp. Mean		**4882**		**4000**		**4598**		**4493**		**5105**		**5123**	
F Value		**45.68(p<.0001)S**		**4.55(p<.0001)S**		**10.61(p<.0001)S**		**16.79(p<.0001)S**		**11.45(p<.0001)S**		**31.06(p<.0001)S**	
CD		589		803		985		448		414		221	
CV%		**6.04**		**10.05**		**10.72**		**4.99**		**4.06**		**2.16**	
D/S		04-07-2022		28-06-2022		20-07-2022							
D/P		25-07-2022		26-07-2022		29-08-2022							
Local Check Name		BR-2655		MO-4		BPT-5204							

Table No. 1.32 (Contd): Grain Yield (kg/ha) in IVT – IM, Kharif 2022, (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED											
		Uttarakhand		Jammu Kashmir		Bihar		West Bengal		Uttar Pradesh		Tripura (0)	
		@Pantnagar		@Chatha		@Patna-ICAR		@Malda		@Gorakpur		@Lembucherra	
4201	30761	2301				9530	8	4642		3125		5960	5
4202	30762	3828	7			10010	3	5758		4255		5293	
4203	30763	3256	10	5000	9	8840		5358		4455	6	4834	
4204	30764	2972				8450		5208		3790		4376	
4205	30765	4756	3			8910		6708	3	3324		4584	
4206	30766	2319		4050		5730		5317		5186	2	4376	
4207	30767	509				6000		5875		3059		4293	
4208	30768	2044				8820		4833		3504		5251	
4209	30769	1085				9080		5308		3697		5084	
4210	30770	669				9600	7	5108		4322	10	4459	
4211	30771	4794	1	5850	3 *	8620		4733		3245		4168	
4212	30772	2640				10530	2	5267		3790		5418	
4213	30773					7310		6892	1	3457		4626	
4214	30774	4773	2			7850		4817		3457		4626	
4215	30775	1749		5325	7	8230		4558		3258		5626	
4216	30776	1471				6130		6333	5	4588	5	5848	7
4217	30777	3179		4600		8440		4725		3790		4543	
4218	30778	3269	9	5850	3 *	8240		5025		3570		4793	
4219	30779	2681				7840		4983		5186	2	5396	
4220	30780	3417	8			8720		5300		3457		5726	9
4221	30781	2376		4375		6540		4350		3324		4668	
4222	NDR 359 (NC)	2468				10690	1	4300		3369		4626	
4223	30782	2867				7220		5083		3457		4234	
4224	30783	985				7550		5200		2859		5626	
4225	30784	1994				9300		4433		4189		4501	
4226	30785	2631		5775	5 *	8860		4958		3324		4626	
4227	30786	119				5070		6817	2	3989		5713	10
4228	30787	1929				8650		5792		2660		6455	3
4229	30788	1532		4175		7990		4542		2992		4418	
4230	30789	816		6075	1 *	8290		4633		4388	8	5584	
4231	30790	1208				8900		4517		4189		4543	
4232	30791	3040				8830		4642		2972		4626	
4233	30792	793				9470	9	4125		4255		4793	
4234	30793	963				6530		4975		3324		5293	
4235	30794	4558	4			9090		5217		3324		4693	
4236	30795	2590				8240		5875		5585	1	5501	
4237	Zonal Check (ZC)	1141				8570		5925		4375	9	5043	
4238	30796	1899		4625		6850		4717		2859		4959	
4239	30797	2588		4450		9820	6	6667	4	3657		5326	
4240	30798	1664				6220		4833		2553		5626	
4241	30799	2530				8670		5133		3428		4543	
4242	30800	1598		4675		7610		5892		3524		5909	6
4243	30801	1056				8160		5508		3491		4959	
4244	30802	679		4250		7953		4400		3790		5672	
4245	30803	1773				8270		4583		3923		8252	1
4246	30804	2023		5900	2 *	8490		4975		4122		4709	
4247	30805	1780				7650		4675		3590		4751	
4248	30806	4242	5	5200	8	9100		6033	9	4156		5334	
4249	30807	2434		4575		9260		4717		5120	4	4209	
4250	30808	1771				6820		6092	6	2992		4209	
4251	30809	751				6880		4842		2859		4793	
4252	30810	1475				9030		4042		2793		4501	
4253	30811	2442				9170		4383		2660		5376	
4254	30812	2284				9400	10	6075	7	3943		4668	
4255	30813	2028				7650		5392		4436	7	4709	
4256	30814	3101		5350	6	6710		6008	10	4255		4251	
4257	30815	1774		4425		7940		4542		3285		4459	
4258	30816	2184				8220		4992		2161		4126	
4259	30817	2720				9990	4	4817		3590		4668	
4260	30818					5350		4683		2926		5793	8
4261	30819	4015	6			9830	5	6050	8	4122		4209	
4262	29805	2091				7130		4817		3125		5126	
4263	30820	1441		4125		7060		5908		3258		5976	4
4264	Local Check (LC)	3241		4700	10	7550		4958		2793		6685	2
Exp. Mean		**2247**		**4921**		**8179**		**5185**		**3633**		**5032**	
F Value		**3.55(p<.0001)S**		**4.03(p=.0014)S**		**19.64(p<.0001)S**		**19.15(p<.0001)S**		**4.21(p<.0001)S**		**20.54(p<.0001)S**	
CD		1676		959		786		441		944		490	
CV%		**37.31**		**9.35**		**4.81**		**4.26**		**13**		**4.87**	
D/S		02-07-2022		04-07-2022		02-07-2022		28-06-2022		07-01-2022		13-07-2022	
D/P		04-08-2022		01-08-2022		25-07-2022		28-07-2022		31/07/2022		01-08-2022	
Local Check Name		Pant Dhan 4		SJR-5		Rajendra Sweta		Bhupes		SambaSub-1		Gomati	

Table No.1.32 (Contd): Grain Yield (kg/ha) in IVT – IM, Kharif 2022, (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED											
		Madhya Pradesh		Chattisgarh				Tamilnadu		Kerala		Puducherry	
		@Waraseoni		@Ambikapur		@Jagadalpur		@Tirur		@Pttambi		@Karaikal	
4201	30761	5383		5124	4	2822		5078		4719	2	5833	
4202	30762	4963		5740	2	3418		5088		4138		4540	
4203	30763	4901		2930		3514		5588		4414		6433	
4204	30764	5123		3120		3451		5684		4224		3577	
4205	30765	6167	3	2760		3534		5213		4014		6533	8
4206	30766	4784		3520		3302		5940		4295		4213	
4207	30767	5025		3340		3732	7	6624	5	4714	3	4907	
4208	30768	5870	10	3750		3322		5118		4162		7250	1
4209	30769	5148		3390		3636		5356		4314		3577	
4210	30770	5012		3330		3176		5758		4681	4	4540	
4211	30771	5315		2290		3292		6413	8	4171		4833	
4212	30772	5877	9	4250	8	3745	6	5175		4319		6563	4
4213	30773	5944	8	2830		3072		5075		4062		5947	
4214	30774	5247		3480		3669		5524		4005		4447	
4215	30775	4623		3040		3723	8	5241		4048		6237	
4216	30776	5815		3680		3505		5138		5086	1	4917	
4217	30777	4988		3740		3661		4994		4090		4677	
4218	30778	4568		4590	5	3129		5203		4300		5700	
4219	30779	4586		3680		4073	1	5563		4390		6143	
4220	30780	4907		3460		3906	4	5200		3962		5733	
4221	30781	5204		4140	9	3263		5075		4581	6	4210	
4222	NDR 359 (NC)	5093		3970		2951		6519	6	4319		5613	
4223	30782	4728		3350		2807		6650	4	4252		6540	7
4224	30783	5062		5510	3	3132		5100		4324		4540	
4225	30784	5327		3250		3314		4825		4495	9	4210	
4226	30785	5951	7	2720		3607		6271	10	4167		4680	
4227	30786	5167		3060		3314		5408		4605	5	6563	4
4228	30787	4889		3840		3398		5788		4029		6237	
4229	30788	4784		3550		3374		6884	2	4452		3510	
4230	30789	5062		2610		2988		4319		4471	10	6447	
4231	30790	5272		4000		2991		6928	1	4033		6307	
4232	30791	5130		3860		3418		5100		4000		6550	6
4233	30792	4907		4380	6	3036		5063		3989		3710	
4234	30793	5105		4360	7	3018		5275		4217		4443	
4235	30794	5969	6	3170		3392		5506		4581	6	6513	10
4236	30795	5821		7220	1	2838		4394		4105		6083	
4237	Zonal Check (ZC)	6235	2	2990		2527		6366	9	4181		4910	
4238	30796	6475	1	2660		2816		5044		4162		5243	
4239	30797	4636		3940		3368		5125		3986		3693	
4240	30798	6019	4	3390		3031		5200		4033		3400	
4241	30799	6012	5	3450		2456		5305		4110		4210	
4242	30800	4636		2830		3416		5406		4352		5847	
4243	30801	4111		2790		3562		5425		4519	8	3353	
4244	30802	4944		3690		4003	2	5128		3990		5850	
4245	30803	4969		3320		3511		5538		4095		6113	
4246	30804	4654		3710		3719	9	5181		4019		3630	
4247	30805	5019		2730		3355		5513		4229		3710	
4248	30806	4747		3780		2443		5295		3805		4450	
4249	30807	4827		3030		3611		5544		4190		5307	
4250	30808	5216		2730		3685		5044		4276		4213	
4251	30809	5228		2660		3675		6675	3	4314		6190	
4252	30810	5031		2440		3135		5050		3819		4467	
4253	30811	4698		4010	10	3512		5056		4233		4023	
4254	30812	4938		3000		3313		6109		4176		6520	9
4255	30813	4790		3510		3760	5	5313		4305		7240	2
4256	30814	5259		2480		3559		5106		4319		4450	
4257	30815	4667		3460		3517		5863		4271		5377	
4258	30816	4833		2320		3441		6519	6	4193		4680	
4259	30817	5802		3860		3978	3	5631		3912		5327	
4260	30818	4994		3470		3710	10	5371		3981		6617	3
4261	30819	5309		2920		3512		5718		4100		5377	
4262	29805	5259		2660		2898		5413		4005		4680	
4263	30820	4475		2580		3543		5470		4205		4440	
4264	Local Check (LC)	5241		3170		3281		5800		4305		4450	
Exp. Mean		**5168**		**3478**		**3357**		**5504**		**4232**		**5164**	
F Value		**1.12(p=0.322)NS**		**6.32(p<.0001)S**		**0.84(p=0.7562)NS**		**1.41(p<=08531)NS**		**0.55(p=9914)NS**		**100.31(p<.0001)S**	
CD		1387		952		1100		1347		906		300	
CV%		**13.43**		**13.7**		**16.4**		**12.24**		**10.71**		**2.91**	
D/S		29-06-2022		11-07-2022		19-07-2022		18-07-2022		16-07-2022		31-08-2022	
D/P		23-07-2022		10-08-2022		10-08-2022		16-08-2022		10-08-2022		06-10-2022	
Local Check Name		JR 206		MU1010		IGKVR 1244		CO 52		SWETHA			

Table No. 1.33 : Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – IM, Kharif 2022

ENTRY NO	IET NO	ZONE II- NORTHERN									ZONE III-EASTERN		
		Punjab (1)			Haryana (1)			Zone 2 (2)			Odisha		
		Ludhiana			Kaul			Mean			Bhubaneswar		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4201	30761	120	97	211	107	104	328	114	100	269	109	90	227
4202	30762	101	105	238	102	112	311	101	108	274	104	86	297
4203	30763	103	98	251	104	107	333	103	103	292	108	100	305
4204	30764	106	107	271	102	121	338	104	114	304	111	86	268
4205	30765	107	98	234	102	112	306	104	105	270	97	100	218
4206	30766	96	111	228	93	120	277	95	115	252	93	91	212
4207	30767										110	90	306
4208	30768	114	101	267	105	103	289	109	102	278	102	96	298
4209	30769	119	99	224	110	113	276	114	106	250	103	94	298
4210	30770	122	89	300	112	97	268	117	93	284	104	86	275
4211	30771	98	103	211	88	109	283	93	106	247	96	85	232
4212	30772	101	99	304	101	103	309	101	101	306	100	87	317
4213	30773										111	87	257
4214	30774	115	119	257	107	124	335	111	121	296	96	91	253
4215	30775	100	103	257	101	115	273	101	109	265	98	83	282
4216	30776										110	86	218
4217	30777	100	136	254	96	139	333	98	138	294	105	110	202
4218	30778	92	97	287	88	103	277	90	100	282	108	98	244
4219	30779	100	96	274	101	104	267	100	100	270	98	85	249
4220	30780	112	100	281	105	116	287	109	108	284	107	89	241
4221	30781	94	98	257	88	106	283	91	102	270	99	85	254
4222	NDR 359 (NC)	99	98	224	101	99	247	100	98	235	98	80	272
4223	30782	100	126	267	101	128	311	100	127	289	95	95	282
4224	30783										113	91	245
4225	30784	124	84	218				124	84	218	110	85	192
4226	30785	102	109	271	100	109	263	101	109	267	94	87	231
4227	30786										112	88	317
4228	30787	113	91	251	101	100	285	107	95	268	109	80	277
4229	30788	100	103	205	101	110	279	101	107	242	109	82	248
4230	30789	99	90	205	100	101	314	99	95	259	98	77	237
4231	30790	124	86	290	102	93	281	113	90	285	102	81	275
4232	30791	99	118	238	102	109	277	100	113	257	109	101	210
4233	30792	103	120	294	101	131	299	102	126	296	109	103	256
4234	30793	124	87	294		.		124	87	294	100	86	313
4235	30794	107	101	224	94	99	269	100	100	247	103	81	235
4236	30795	114	122	261	100	130	301	107	126	281	95	100	259
4237	Zonal Check (ZC)	103	75	317	101	73	232	102	74	274	113	90	205
4238	30796	100	103	257	102	103	323	101	103	290	93	86	202
4239	30797	99	99	248	102	97	281	100	98	264	93	80	264
4240	30798	121	110	231		.		121	110	231	111	81	217
4241	30799	87	94	218	98	109	305	93	101	261	108	98	250
4242	30800	91	120	244	101	143	337	96	131	291	93	101	279
4243	30801	99	110	224	107	107	271	103	108	248	98	86	308
4244	30802	103	90	271	104	86	289	103	88	280	109	79	266
4245	30803	108	90	274	101	93	292	104	91	283	96	82	334
4246	30804	97	98	267	88	100	262	92	99	264	100	75	287
4247	30805	116	97	221	110	102	280	113	100	251	110	95	267
4248	30806	96	94	238	112	107	315	104	101	276	96	82	317
4249	30807	113	87	261	101	85	253	107	86	257	94	75	299
4250	30808	111	128	251	107	130	286	109	129	268	109	99	294
4251	30809										96	91	326
4252	30810	117	89	254	107	88	257	112	89	255	103	85	291
4253	30811	113	98	205	102	97	244	107	98	224	93	80	242
4254	30812	118	68	244	101	76	279	109	72	262	93	76	274
4255	30813	112	105	241	100	105	265	106	105	253	94	80	252
4256	30814	98	115	205	92	123	301	95	119	253	92	98	254
4257	30815	103	97	267	101	111	260	102	104	263	110	80	232
4258	30816	102	91	244	101	101	293	101	96	268	94	79	242
4259	30817	113	89	290	100	103	313	106	96	302	92	85	261
4260	30818										109	90	248
4261	30819	114	92	241	101	106	276	108	99	259	111	90	272
4262	29805	118	93	271	102	92	292	110	92	281	110	83	246
4263	30820	90	109	254	107	111	262	98	110	258	95	90	239
4264	Local Check (LC)	88	94	248	105	112	293	96	103	270	94	85	317
Exp. Mean		**106**	**100**	**251**	**101**	**107**	**288**	**104**	**103**	**269**	**102**	**88**	**262**

Table No. 1.33 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – IM, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN														
		Odisha						Odisha (3)			Bihar					
		Jeypore			Chiplima			Mean			Bikaramganj			Sabour		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4201	30761	113	81	350	122	104	212	115	92	263	107	118	305	111	109	329
4202	30762	108	90	350	115	93	193	109	89	280	102	110	381	98	111	312
4203	30763	101	80	396	123	96	204	111	92	302	106	110	357	95	112	283
4204	30764	111	89	246	117	113	186	113	96	233	109	124	402	110	110	270
4205	30765	109	79	333	108	99	191	104	93	247	105	115	354	114	112	256
4206	30766	104	83	346	108	89	263	102	88	274	115	107	391	98	112	288
4207	30767	118	80	374	124	98	268	117	89	316	122	109	313	101	127	295
4208	30768	114	87	420	122	112	327	113	98	348	109	117	346	111	107	329
4209	30769	105	83	356	122	110	219	110	96	291	114	110	340	94	106	230
4210	30770	111	79	436	121	103	265	112	89	325	112	95	361	116	120	294
4211	30771	97	83	233	107	95	310	100	88	258	106	113	374	110	105	233
4212	30772	101	80	366	114	94	294	105	87	326	106	110	364	99	99	255
4213	30773	113	81	386		.		112	84	322	99	99	318	96	122	259
4214	30774	108	92	289	114	114	238	106	99	260	109	131	354	107	115	310
4215	30775	99	80	430	108	85	243	102	83	318	108	110	378	89	97	291
4216	30776	110	84	327	123	100	217	114	90	254	118	110	373	93	113	305
4217	30777	108	99	292	116	124	211	110	111	235	103	128	362	120	103	208
4218	30778	97	78	275	101	85	252	102	87	257	100	102	346	94	104	280
4219	30779	103	79	347	114	84	243	105	83	279	103	104	381	95	112	263
4220	30780	99	88	364	123	106	251	110	94	285	114	113	336	100	129	340
4221	30781	101	77	350	108	89	270	103	84	291	103	103	316	106	111	258
4222	NDR 359 (NC)	106	75	336	103	84	295	102	80	301	104	98	327	88	126	300
4223	30782	101	99	237	109	115	295	102	103	271	100	139	381	96	106	238
4224	30783	101	78	333	109	98	231	108	89	270	97	110	354	116	111	323
4225	30784	111	77	319	119	188	237	113	117	249	115	102	375	99	113	295
4226	30785	99	84	336	113	104	223	102	92	263	104	107	350	110	112	301
4227	30786	111	83	343		.	215	112	86	292	99	103	356	108	114	298
4228	30787	101	79	403	123	84	358	111	81	346	116	105	333	99	122	300
4229	30788	105	81	253	115	100	181	110	88	227	108	118	362	100	102	178
4230	30789	116	76	356	105	94	190	106	82	261	103	107	346	95	110	288
4231	30790	101	75	420	121	98	261	108	85	318	109	103	325	103	125	329
4232	30791	104	97	383	107	90	232	107	96	275	106	107	369	89	110	273
4233	30792	104	93	316	116	110	190	109	102	254	107	116	339	106	110	244
4234	30793	118	74	473	119	89	233	112	83	339	111	109	342	102	128	262
4235	30794	115	77	253	115	92	269	111	83	252	111	102	371	123	112	280
4236	30795	107	102	330	119	122	236	107	108	275	111	114	337	109	106	308
4237	Zonal Check (ZC)	108	87	406	111	102	237	110	93	283	106	108	377	97	100	325
4238	30796	99	87	493	106	94	288	99	89	328	103	113	332	92	121	293
4239	30797	96	75	363	109	94	276	99	83	301	102	103	349	118	109	310
4240	30798	113	76	419	124	96	255	116	84	297	110	116	337	126	105	303
4241	30799	116	76	313	127	70	236	117	82	266	105	106	374	102	105	207
4242	30800	103	91	279	117	115	312	104	102	290	102	112	332	94	108	204
4243	30801	112	82	386	114	97	215	108	88	303	110	103	379	99	119	244
4244	30802	105	75	343	129	75	309	114	76	306	108	105	346	96	111	312
4245	30803	113	80	395	113	90	349	107	84	359	111	107	327	97	111	333
4246	30804	106	76	353	118	78	274	108	76	304	103	100	326	115	117	333
4247	30805	113	87	433	119	107	210	114	96	303	110	122	384	126	104	251
4248	30806	107	86	350	109	97	233	104	89	300	105	111	435	109	118	270
4249	30807	113	74	380	112	76	320	106	75	333	110	92	377	110	101	323
4250	30808	102	88	373	123	117	200	111	101	289	111	124	336	89	118	317
4251	30809	100	82	403	112	89	278	103	87	336	113	123	339	112	121	283
4252	30810	96	80	330	112	94	235	104	86	285	109	114	324	120	97	330
4253	30811	103	77	340	126	83	185	107	80	256	106	111	400	114	103	173
4254	30812	116	61	373	117	65	250	109	67	299	106	94	391	103	105	281
4255	30813	111	80	340	115	95	200	107	85	264	110	106	360	89	107	254
4256	30814	101	92	356	117	99	273	103	96	294	103	129	362	109	140	223
4257	30815	104	77	332	113	94	252	109	84	272	104	118	344	105	119	228
4258	30816	109	71	380	113	85	231	105	78	284	110	108	312	108	107	260
4259	30817	110	87	343	117	94	255	106	89	286	109	105	361	89	97	404
4260	30818	118	72	321				114	81	284	99	109	317	111	122	328
4261	30819	108	86	313	110	97	212	110	91	265	112	106	357	91	98	291
4262	29805	114	80	390	119	87	256	114	83	297	113	105	405	90	110	252
4263	30820	113	80	303	120	90	213	109	87	251	101	119	330	113	107	281
4264	Local Check (LC)	109	86	336	113	87	232	105	86	295	110	103	349	108	98	280
Exp. Mean		**107**	**82**	**352**	**115**	**97**	**246**	**108**	**89**	**287**	**107**	**110**	**354**	**104**	**111**	**281**

Table No. 1.33 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – IM, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN														
		Bihar (2)			Jharkhand (1)			West Bengal						West Bengal (2)		
		Mean			Ranchi			Chinsurah			Bankura			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4201	30761	109	114	317	126	86	190	109	132	314	111	85	283	110	108	298
4202	30762	100	110	347	112	90	189	98	114	396	91	65	273	94	90	335
4203	30763	100	111	320	109	89	151	101	125	248	112	90	294	107	107	271
4204	30764	109	117	336	109	89	178	103	136	330	95	95	282	99	116	306
4205	30765	109	114	305	110	92	216	97	130	215	95	76	257	96	103	236
4206	30766	106	109	339	108	93	196	91	121	231	91	85	348	91	103	289
4207	30767	111	118	304	129	80	227	111	141	330	113	65	272	112	103	301
4208	30768	110	112	337	124	90	202	103	142	314	109	75	262	106	108	288
4209	30769	104	108	285	128	81	155	108	150	248	107	87	278	108	118	263
4210	30770	114	108	327	127	81	201	103	132	264	111	89	250	107	111	257
4211	30771	108	109	303	103	96	164	92	122	330	96	75	323	94	99	326
4212	30772	102	105	309	111	80	237	94	125	347				94	125	347
4213	30773	97	110	288	129	88	192	113	140	198	111	90	274	112	115	236
4214	30774	108	123	332	108	92	212	102	132	231	109	83	265	105	108	248
4215	30775	98	104	334	110	78	220	97	115	297	107	72	265	102	94	281
4216	30776	105	111	339	130	80	155	111	150	281	114	85	273	113	117	277
4217	30777	111	115	285	114	96	204	94	129	281	95	75	181	94	102	231
4218	30778	97	103	313	104	89	173	91	109	264	94	72	255	93	91	259
4219	30779	99	108	322	109	81	205	94	122	215	91	97	350	92	109	282
4220	30780	107	121	338	114	90	150	102	139	231	96	75	301	99	107	266
4221	30781	104	107	287	117	86	183	90	98	248	88	88	297	89	93	272
4222	NDR 359 (NC)	96	112	313	110	84	219	94	130	198	98	73	311	96	101	255
4223	30782	98	123	309	108	89	128	93	83	182	116	73	239	104	78	210
4224	30783	107	110	338	128	76	166	118	143	297	113	86	263	115	115	280
4225	30784	107	107	335	129	60	133	105	126	264	113	111	320	109	119	292
4226	30785	107	109	325	110	96	217	97	133	248	111	77	247	104	105	247
4227	30786	103	108	327	126	76	143	93	123	264	113	80	276	103	102	270
4228	30787	107	114	316	119	74	191	108	132	347	101	76	257	105	104	302
4229	30788	104	110	270	109	98	122	97	130	248	93	78	282	95	104	265
4230	30789	99	109	317	109	87	205	95	117	281	98	85	277	97	101	279
4231	30790	106	114	327	122	72	208	105	131	429	107	93	279	106	112	354
4232	30791	97	108	321	116	83	182	97	132	198	98	90	338	97	111	268
4233	30792	106	113	292	111	88	199	101	153	231	106	75	273	104	114	252
4234	30793	106	118	302	129	76	218	109	143	314	106	88	371	108	115	342
4235	30794	117	107	325	116	71	138	101	143	297	114	89	268	108	116	282
4236	30795	110	110	322	116	94	197	105	163	330	93	75	274	99	119	302
4237	Zonal Check (ZC)	101	104	351	127	88	172	111	151	281	112	89	343	112	120	312
4238	30796	97	117	312	108	83	197	97	124	231	98	66	303	97	95	267
4239	30797	110	106	330	107	88	218	114	125	314	112	75	308	113	100	311
4240	30798	118	110	320	110	86	158	114	144	330	104	86	275	109	115	303
4241	30799	103	105	291	119	74	183	91	127	215	86	70	310	88	99	262
4242	30800	98	110	268	103	100	244	92	136	198	91	87	268	91	112	233
4243	30801	104	111	311	130	85	230	99	137	231	98	58	271	99	98	251
4244	30802	102	108	329	118	63	222	101	129	264	96	76	297	99	102	281
4245	30803	104	109	330	116	82	213	100	119	215	95	73	282	97	96	248
4246	30804	109	109	329	105	89	222	95	122	281	95	100	299	95	111	290
4247	30805	118	113	317	129	94	160	105	137	330	111	70	306	108	104	318
4248	30806	107	115	353	110	90	196	94	117	248	93	84	269	94	100	258
4249	30807	110	97	350	111	90	191	102	135	231	98	72	263	100	103	247
4250	30808	100	121	327	108	93	221	106	147	396	109	75	267	107	111	332
4251	30809	112	122	311	119	80	151	113	157	347	100	100	285	106	129	316
4252	30810	114	106	327	118	81	170	105	132	231	94	74	292	99	103	261
4253	30811	110	107	286	100	81	110	98	121	198	94	71	289	96	96	244
4254	30812	104	100	336	119	72	255	105	120	215	113	89	317	109	104	266
4255	30813	100	106	307	129	80	226	107	141	347	106	100	323	106	121	335
4256	30814	106	135	292	128	96	177	118	148	281	88	65	292	103	106	286
4257	30815	104	119	286	124	75	130	100	132	380	98	64	322	99	98	351
4258	30816	109	107	286	110	81	198	99	125	297	112	86	313	105	106	305
4259	30817	99	101	383	117	92	228	92	133	347	92	92	322	92	112	334
4260	30818	105	115	322	113	86	173	112	95	248	111	65	252	112	80	250
4261	30819	102	102	324	116	83	174	104	140	330	93	89	319	99	115	324
4262	29805	101	108	328	119	86	200				111	88	308	111	88	308
4263	30820	107	113	305	108	97	175	90	127	347	93	72	272	91	100	309
4264	Local Check (LC)	109	100	315	105	100	212	108	153	281	105	86	245	107	119	263
Exp. Mean		**105**	**111**	**318**	**116**	**85**	**188**	**101**	**131**	**278**	**102**	**81**	**287**	**102**	**106**	**283**

Table No.1.33 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – IM, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN												ZONE V – CENTRAL		
		Uttar Pradesh						Uttar Pradesh (2)			Zone III (10)			Chhattisgarh (1)		
		Masodha			Varanasi			Mean			Mean			Raipur		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4201	30761	108	110	216	104	119	213	106	114	215	112	103	264	109	146	198
4202	30762	99	95	284	92	122	177	95	108	230	102	97	285	98	119	156
4203	30763	95	98	278	100	110	162	97	104	220	105	101	268	102	120	155
4204	30764	90	101	247	102	129	182	96	115	214	106	107	259	100	131	181
4205	30765	101	80	239	99	123	173	100	101	206	103	101	245	101	124	115
4206	30766	99	98	284	92	116	179	95	107	231	100	100	274	91	120	135
4207	30767	99	89	227	113	106	229	106	98	228	114	99	284	111	131	134
4208	30768	99	76	246	103	117	146	101	96	196	109	102	289	102	135	130
4209	30769	93	87	225	105	119	158	99	103	192	108	103	251	109	126	166
4210	30770	91	93	242	104	115	247	97	104	245	110	99	283	109	117	154
4211	30771	91	77	221	91	106	160	91	92	190	99	96	258	90	118	119
4212	30772	93	101	293	95	116	234	94	108	263	101	99	300	95	118	164
4213	30773	89	90	296	117	112	190	103	101	243	108	101	263	117	130	188
4214	30774	98	98	247	104	134	229	101	116	238	105	108	263	100	134	123
4215	30775	91	95	230	95	111	188	93	103	209	100	93	282	95	111	164
4216	30776	103	88	212	106	118	184	104	103	198	112	101	254	112	120	174
4217	30777	98	76	317	92	134	209	95	105	263	104	107	246	97	155	138
4218	30778	91	85	213	87	101	221	89	93	217	97	92	252	88	101	105
4219	30779	108	101	228	97	108	187	103	104	207	101	97	266	98	109	127
4220	30780	95	87	238	103	132	208	99	109	223	105	105	266	103	136	157
4221	30781	110	98	211	85	109	185	97	103	198	101	94	257	87	109	170
4222	NDR 359 (NC)	88	101	271	96	110	199	92	106	235	98	96	273	101	114	149
4223	30782	89	88	279	93	145	228	91	116	253	100	103	249	91	130	149
4224	30783	97	89	293	114	109	235	105	99	264	110	99	274	116	115	189
4225	30784	91	72	229	106	117	195	98	94	212	110	105	256	105	115	173
4226	30785	97	90	249	98	129	242	97	109	246	103	102	264	101	135	150
4227	30786	91	109	249	115	97	238	103	103	243	107	97	270	123	114	177
4228	30787	93	97	259	105	113	233	99	105	246	107	96	296	105	119	136
4229	30788	94	98	261	94	114	145	94	106	203	102	100	228	93	123	144
4230	30789	98	83	249	99	116	219	98	100	234	101	95	264	100	110	173
4231	30790	100	107	282	103	116	214	101	111	248	107	100	302	105	118	178
4232	30791	99	91	283	98	127	212	98	109	247	102	103	268	97	127	106
4233	30792	94	95	281	102	126	197	98	110	239	105	107	252	103	131	136
4234	30793	95	92	210	110	112	188	102	102	199	110	100	292	106	133	163
4235	30794	91	101	236	104	110	186	97	105	211	109	98	253	104	115	180
4236	30795	94	86	249	106	145	202	100	115	226	105	111	272	103	138	150
4237	Zonal Check (ZC)	111	97	237	113	112	214	112	104	225	111	102	280	100	111	145
4238	30796	93	90	238				93	90	238	99	96	286	92	107	140
4239	30797	91	85	283	97	113	187	94	99	235	104	95	287	95	118	155
4240	30798	92	80	282	111	110	202	101	95	242	111	98	278	111	116	203
4241	30799	89	116	235	89	108	211	89	112	223	103	95	253	92	113	183
4242	30800	91	99	246	87	138	197	89	119	222	97	109	256	88	131	121
4243	30801	113	80	238	97	121	182	105	101	210	107	97	268	101	129	164
4244	30802	98	82	221	104	105	201	101	94	211	106	90	278	101	111	119
4245	30803	97	75	234	100	111	206	98	93	220	104	93	289	100	116	147
4246	30804	94	78	210	89	111	220	91	95	215	102	95	280	89	112	152
4247	30805	108	80	224	102	123	197	105	101	210	113	102	276	108	132	188
4248	30806	110	101	239	86	107	194	98	104	217	102	99	275	91	116	168
4249	30807	91	105	297	102	112	223	96	109	260	104	93	290	101	114	169
4250	30808	92	89	251	103	146	225	97	118	238	105	110	288	108	158	128
4251	30809	99	89	232	117	104	184	108	96	208	108	103	283	113	107	210
4252	30810	97	88	227	105	115	194	101	102	210	106	96	262	109	116	229
4253	30811	95	86	227	97	118	159	96	102	193	102	93	232	96	114	86
4254	30812	90	90	243	105	94	211	97	92	227	107	86	281	105	104	193
4255	30813	91	81	233	102	116	220	97	99	226	105	99	275	103	120	150
4256	30814	110	91	234	85	127	226	97	109	230	105	108	268	90	129	145
4257	30815	97	83	212	100	119	180	98	101	196	105	96	261	101	127	161
4258	30816	109	109	215	100	111	220	104	110	217	106	96	266	102	111	152
4259	30817	91	84	227	94	116	217	93	100	222	100	98	296	105	131	155
4260	30818	97	100	250	121	104	234	109	102	242	110	94	263	121	117	166
4261	30819	94	88	300	105	120	182	99	104	241	104	100	275	103	123	162
4262	29805	93	101	229	107	109	212	100	105	220	108	94	277	110	120	181
4263	30820	91	91	281	93	123	175	92	107	228	101	100	261	91	113	134
4264	Local Check (LC)	93	110	249	102	112	202	97	111	225	104	102	270	100	127	173
Exp. Mean		**96**	**92**	**248**	**100**	**117**	**201**	**98**	**104**	**225**	**105**	**99**	**270**	**101**	**122**	**156**

Table No. 1.33 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – IM, Kharif 2022

ENTRY NO	IET NO	ZONE V – CENTRAL												ZONE VI – WESTERN		
		Maharshtra 1						Maharshtra 1 (2)			Zone V (3)			Maharashtra 2(1)		
		Sakoli			Sindewahi			Mean			Mean			Karjat		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4201	30761	106	131	268	113	111	239	109	121	253	109	129	235	112	131	213
4202	30762	95	114	288	101	115	251	98	115	269	98	116	232	98	121	200
4203	30763	96	116	207	106	97	303	101	106	255	101	111	221	98	119	225
4204	30764	94	116	303	105	112	222	99	114	262	100	120	235	99	137	211
4205	30765	93	115	216	106	115	217	99	115	216	100	118	182	98	129	216
4206	30766	86	114	244	98	103	237	92	108	241	91	112	205	93	131	214
4207	30767	99	118	314	118	89	227	108	103	270	109	112	225	102	130	156
4208	30768	102	114	288	112	84	261	107	99	274	105	111	226	109	129	232
4209	30769	95	114	226	113	94	288	104	104	257	105	111	227	102	129	192
4210	30770	97	117	270	123	93	293	110	105	281	109	109	239	103	120	210
4211	30771	81	114	317	96	107	310	88	111	313	89	113	249	92	115	241
4212	30772	90	103	219	103	125	271	97	114	245	96	115	218	100	107	217
4213	30773	106	114	286	125	97	216	115	105	251	116	113	230	114	129	208
4214	30774	96	110	239	104	116	270	100	113	254	100	120	211	98	145	231
4215	30775	91	108	222	100	108	290	95	108	256	95	109	225	98	119	225
4216	30776	103	113	227	116	104	217	109	108	222	110	112	206	113	137	182
4217	30777	93	126	192	106	138	228	100	132	210	99	139	186	95	146	235
4218	30778	80	98	244	89	94	296	84	96	270	85	98	215	92	109	220
4219	30779	91	107	212	103	98	225	97	102	218	97	104	188	96	120	209
4220	30780	95	112	223	107	107	297	101	110	260	101	119	226	102	116	176
4221	30781	82	106	276	95	102	373	89	104	324	88	106	273	94	115	227
4222	NDR 359 (NC)	90	97	223	105	99	258	97	98	241	98	103	210	95	109	211
4223	30782	84	124	306	125	131	245	104	128	276	100	129	233	95	148	228
4224	30783	107	120	317	122	108	298	114	114	307	115	114	268	113	131	209
4225	30784	104	109	302	114	86	237	109	97	269	108	103	237	106	126	231
4226	30785	92	115	262	107	109	269	99	112	266	100	120	227	95	128	227
4227	30786	114	108	273	92	84	229	103	96	251	109	102	226	116	120	130
4228	30787	102	111	227	124	106	320	113	108	273	110	112	227	102	125	225
4229	30788	86	120	204	117	97	320	102	109	262	99	113	222	96	126	216
4230	30789	94	117	324	97	104	206	95	111	265	97	111	234	98	115	202
4231	30790	101	117	311	104	108	281	102	112	296	103	114	256	97	123	208
4232	30791	93	126	249	109	89	272	101	108	260	99	114	209	95	126	221
4233	30792	100	134	302	97	105	272	98	119	287	100	123	236	98	139	239
4234	30793	104	104	320	103	112	227	103	108	273	104	117	236	97	134	217
4235	30794	101	123	301	112	85	244	106	104	273	105	108	242	98	114	224
4236	30795	97	130	278	111	110	259	104	120	268	103	126	229	98	136	215
4237	Zonal Check (ZC)	100	99	299	106	138	214	103	118	256	102	116	219	98	133	221
4238	30796	87	116	231	105	84	226	96	100	228	94	103	199	99	109	241
4239	30797	94	102	274	104	99	278	99	101	276	97	106	236	95	107	227
4240	30798	106	113	278	99	94	322	102	103	300	105	108	268	106	119	203
4241	30799	87	104	266	116	93	281	101	98	273	98	103	243	95	113	220
4242	30800	81	121	273	98	104	240	89	113	257	89	119	211	87	131	215
4243	30801	96	124	282	95	130	292	95	127	287	97	128	246	100	129	210
4244	30802	98	102	293	103	111	240	100	107	266	100	108	217	96	95	225
4245	30803	93	107	304	105	83	225	99	95	264	99	102	225	98	116	188
4246	30804	87	111	302	107	104	282	97	107	292	94	109	245	92	104	200
4247	30805	104	120	214	111	128	197	108	124	205	108	127	199	112	140	236
4248	30806	85	109	152	95	108	321	90	108	236	90	111	213	93	114	208
4249	30807	97	97	240	111	83	263	104	90	251	103	98	224	98	99	229
4250	30808	103	135	278	111	120	235	107	127	256	107	137	213	98	129	193
4251	30809	106	114	310	117	98	251	111	106	281	112	106	257	95	129	173
4252	30810	103	112	242	112	112	299	107	112	270	108	113	256	102	126	200
4253	30811	93	106	227	99	108	206	96	107	216	96	109	173	98	130	211
4254	30812	104	104	302	111	93	298	107	98	300	106	100	264	103	216	179
4255	30813	96	113	272	108	112	245	102	113	258	102	115	222	101	126	197
4256	30814	84	129	318	91	115	326	87	122	322	88	124	263	94	143	203
4257	30815	99	115	359	107	97	344	103	106	351	102	113	288	103	119	195
4258	30816	95	101	273	106	102	270	100	101	271	101	104	231	98	109	219
4259	30817	83	116	316	96	105	275	89	110	295	94	117	248	94	129	217
4260	30818	112	122	308	123	105	210	118	114	259	119	115	228	115	138	155
4261	30819	96	116	301	113	98	218	104	107	260	104	112	227	100	121	215
4262	29805	106	111	294	117	111	257	111	111	276	111	114	244	98	116	207
4263	30820	91	113	300	97	113	210	94	113	255	93	113	214	95	125	170
4264	Local Check (LC)	103	113	303	106	103	312	104	108	307	103	114	262	97	115	206
Exp. Mean		**95**	**114**	**270**	**107**	**104**	**262**	**101**	**109**	**266**	**101**	**113**	**229**	**99**	**125**	**209**

Table No. 1.33 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – IM, Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN														
		Maharashtra (3)			Gujarat						Gujarat (2)			Zone VI (3)		
		Mean			Navasari			Nawagam			Mean			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4201	30761	110	124	240	108	117	197	120	103	285	114	110	241	113	117	231
4202	30762	98	117	246	103	106	180	115	102	275	109	104	228	105	109	218
4203	30763	100	110	245	102	102	191	114	95	269	108	99	230	105	105	228
4204	30764	99	122	245	99	127	202	110	114	273	104	120	237	102	126	229
4205	30765	99	120	216	89	118	209		.		89	118		93	124	213
4206	30766	92	116	232	91	116	204	102	107	276	96	111	240	95	118	231
4207	30767	106	112	232	118	118	176	123	107	276	121	112	226	114	118	203
4208	30768	107	109	260	105	97	220	113	103	275	109	100	247	109	109	242
4209	30769	103	112	235	106	117	161	116	103	279	111	110	220	108	116	211
4210	30770	108	110	257	102	108	229	114	102	282	108	105	255	106	110	240
4211	30771	90	112	289	90	115	291	103	98	272	96	107	281	95	109	268
4212	30772	98	112	235	97	112	200	109	97	281	103	104	241	102	105	233
4213	30773	115	113	236	126	128	261	124	107	267	125	118	264	121	122	245
4214	30774	99	124	247	99	119	180	118	113	273	108	116	227	105	126	228
4215	30775	96	111	246	98	100	205	109	98	269	103	99	237	101	106	233
4216	30776	110	118	209	108	125	226	119	108	278	114	117	252	113	124	229
4217	30777	98	136	218	94	159	235	106	133	266	100	146	251	98	146	245
4218	30778	87	100	253	86	122	221	100	86	261	93	104	241	93	106	234
4219	30779	96	108	215	88	109	193	102	95	274	95	102	234	95	108	225
4220	30780	101	112	232	96	141	251	109	106	282	102	123	267	102	121	236
4221	30781	90	108	292	88	115	272	102	96	278	95	105	275	94	109	259
4222	NDR 359 (NC)	96	101	231	93	129	218	102	92	277	97	111	248	96	110	235
4223	30782	101	134	260	89	128	239	102	115	266	95	122	253	95	130	244
4224	30783	114	120	274	124	125	196	121	107	270	122	116	233	119	121	225
4225	30784	108	107	256	105	120	221	118	89	268	111	105	244	110	112	240
4226	30785	98	117	253	98	133	308	106	108	278	102	121	293	100	123	271
4227	30786	107	104	211	88	110	250	125	105	272	107	107	261	110	112	217
4228	30787	109	114	257	103	115	279	120	103	269	111	109	274	108	114	257
4229	30788	100	114	246	92	121	177	106	107	258	99	114	217	98	118	217
4230	30789	96	112	244	86	107	234	107	96	273	96	101	254	97	106	236
4231	30790	101	116	266	103	108	217	119	93	278	111	100	248	106	108	234
4232	30791	99	114	247	91	120	206	106	110	269	98	115	237	97	119	232
4233	30792	98	126	271	96	120	271	110	107	271	103	114	271	101	122	260
4234	30793	101	117	255	106	116	237	120	97	263	113	106	250	108	116	239
4235	30794	103	107	256	95	113	264	117	92	278	106	102	271	103	106	255
4236	30795	102	125	250	96	146	281	113	117	280	104	132	280	102	133	258
4237	Zonal Check (ZC)	101	123	244	100	142	231	113	114	274	107	128	253	104	130	242
4238	30796	97	103	233	87	111	265	103	96	271	95	103	268	96	105	259
4239	30797	97	103	260	92	100	206	107	91	270	99	96	238	98	99	234
4240	30798	103	108	267	108	116	261	121	107	280	114	111	271	112	114	248
4241	30799	99	103	255	86	142	226	103	95	285	94	119	256	94	117	244
4242	30800	88	119	243	88	114	278	103	135	270	95	124	274	92	126	254
4243	30801	97	128	261	91	127	249	109	109	276	100	118	262	100	121	245
4244	30802	99	103	253	93	110	291	110	87	273	101	99	282	99	97	263
4245	30803	98	102	239	96	119	290	110	94	275	103	106	283	101	109	251
4246	30804	95	106	261	87	109	276	97	97	268	92	103	272	92	103	248
4247	30805	109	129	215	93	109	273	113	109	272	103	109	272	106	119	260
4248	30806	91	110	227	97	123	199	109	102	275	103	112	237	99	113	227
4249	30807	102	93	244	94	99	194	106	83	267	100	91	231	99	94	230
4250	30808	104	128	235	103	158	279	119	133	273	111	146	276	106	140	248
4251	30809	106	113	245	94	127	212	107	105	268	100	116	240	98	120	218
4252	30810	106	117	247	103	113	250	118	95	274	110	104	262	108	111	241
4253	30811	96	115	214	94	126	269	99	105	203	96	115	236	97	120	227
4254	30812	106	138	260	99	99	229	99	87	266	99	93	247	100	134	224
4255	30813	101	117	238	98	122	264	119	103	280	108	113	272	106	117	247
4256	30814	89	129	282	86	160	220	109	117	274	97	139	247	96	140	232
4257	30815	103	110	299	93	125	238	114	96	283	103	110	261	103	113	239
4258	30816	99	104	254	93	128	219	116	92	267	105	110	243	102	109	235
4259	30817	91	116	269	464	125	240	103	95	280	283	110	260	220	116	245
4260	30818	117	122	224	118	124	197	122	105	270	120	115	234	118	122	207
4261	30819	103	112	245	94	123	207	114	95	279	104	109	243	102	113	234
4262	29805	107	112	253	103	121	218	118	100	280	110	110	249	106	112	235
4263	30820	94	117	226	84	124	221	103	106	269	93	115	245	94	118	220
4264	Local Check (LC)	102	110	274	90	122	254	88	96	276	89	109	265	92	111	245
Exp. Mean		**100**	**114**	**247**	**103**	**120**	**232**	**110**	**103**	**272**	**106**	**112**	**252**	**104**	**116**	**238**

Table No. 1.33 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – IM, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN											
		Andhra Pradesh (1)			Telanagana						Telangana (2)		
		Maruteru			Rajendranagar			Warangal			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4201	30761	110	137	314	113	93	457	114	143	452	113	118	454
4202	30762	93	120	347	106	98	340	109	123	441	107	111	390
4203	30763	97	114	314	102	91	387	103	123	436	102	107	411
4204	30764	95	136	330	107	102	403	108	138	370	108	120	386
4205	30765	89	131	330	98	99	347	102	127	361	100	113	354
4206	30766	88	115	314	104	105	340	99	125	429	101	115	385
4207	30767	109	140	314	113	99	413	117	117	431	115	108	422
4208	30768	105	137	330	109	99	383	109	128	408	109	113	395
4209	30769	103	124	297	103	99	363	114	126	370	108	113	366
4210	30770	95	115	330	115	94	380	115	118	452	115	106	416
4211	30771	85	116	314	100	99	317	100	117	429	100	108	373
4212	30772	86	118	330	104	95	473	100	103	380	102	99	426
4213	30773	112	132	347	114	97	350		.		114	97	350
4214	30774	97	146	330	106	109	383	108	148	373	107	128	378
4215	30775	93	121	314	106	94	403	102	119	454	104	106	429
4216	30776	111	134	330	115	95	390	119	123	460	117	109	425
4217	30777	89	149	347	106	108	410	104	150	396	105	129	403
4218	30778	82	103	314	97	85	390	99	105	460	98	95	425
4219	30779	93	111	330	98	97	370	99	128	431	98	112	400
4220	30780	95	134	347	105	94	403	102	134	450	103	114	427
4221	30781	82	115	347	98	98	360	90	117	411	94	107	385
4222	NDR 359 (NC)	90	107	363	104	99	323	102	110	365	103	105	344
4223	30782	92	136	330	97	114	380	100	133	408	98	124	394
4224	30783	113	124	347	122	100	417		.		122	100	417
4225	30784	105	118	314	111	89	360	112	112	409	112	101	385
4226	30785	94	141	330	98	103	360	103	134	383	101	118	371
4227	30786	115	128	330	120	97	443	96	113	487	108	105	465
4228	30787	88	119	330	110	98	427	111	128	401	111	113	414
4229	30788	91	119	314	98	98	353	100	123	436	99	111	394
4230	30789	92	123	314	102	96	407	101	116	472	101	106	439
4231	30790	102	129	330	97	90	360	105	119	403	101	104	381
4232	30791	89	128	330	100	103	417	101	122	356	100	113	387
4233	30792	103	135	347	106	102	403	109	143	355	108	122	379
4234	30793	103	131	330	110	102	443	101	123	399	105	113	421
4235	30794	98	118	347	106	90	373	102	123	408	104	106	390
4236	30795	100	150	347	105	113	327	107	133	408	106	123	367
4237	Zonal Check (ZC)	87	111	314	102	99	323	97	119	399	99	109	361
4238	30796	83	104	330	100	102	410	102	62	408	101	82	409
4239	30797	94	106	297	104	104	390	100	118	426	102	111	408
4240	30798	111	125	330	124	101	377	122	123	351	123	112	364
4241	30799	84	105	314	98	100	353	93	113	403	95	106	378
4242	30800	80	142	347	95	113	413	93	146	363	94	130	388
4243	30801	89	108	347	107	105	397	107	123	469	107	114	433
4244	30802	98	105	330	104	84	430	102	110	465	103	97	448
4245	30803	93	103	314	102	97	397	104	122	371	103	110	384
4246	30804	85	96	281	97	96	420	93	113	454	95	104	437
4247	30805	109	124	330	114	100	380	113	129	470	113	115	425
4248	30806	92	113	330	104	99	437	103	114	380	103	106	408
4249	30807	98	115	330	105	80	477	107	108	365	106	94	421
4250	30808	103	162	347	114	104	453	113	148	487	114	126	470
4251	30809	115	127	330	98	93	450	118	125	398	108	109	424
4252	30810	105	119	314	121	94	387	116	125	416	119	109	401
4253	30811	98	109	330	90	96	310	102	122	355	96	109	332
4254	30812	101	102	314	105	73	390	108	99	472	106	86	431
4255	30813	89	125	330	105	102	370	113	123	454	109	112	412
4256	30814	82	116	347	98	104	367	103	131	391	100	118	379
4257	30815	97	123	330	109	95	393	104	113	460	106	104	427
4258	30816	94	113	314	105	92	373	101	113	426	103	102	400
4259	30817	85	120	330	97	91	463	102	127	394	99	109	429
4260	30818	117	132	347	95	91	427	98	132	460	96	112	444
4261	30819	95	123	297	109	99	383	107	128	431	108	114	407
4262	29805	108	124	330	112	95	437	113	113	381	112	104	409
4263	30820	79	113	297	97	103	370	94	112	391	95	108	381
4264	Local Check (LC)	111	117	330	105	97	507	108	127	396	107	112	451
Exp. Mean		**96**	**122**	**327**	**105**	**98**	**393**	**105**	**122**	**415**	**105**	**110**	**403**

Table No. 1.33 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – IM, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN														
		Tamil Nadu						Tamil Nadu (2)			Karnataka					
		Aduthurai			Coimbatore			Mean			Mandya			Brahmawar		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4201	30761	114	95	273	109	132	277	111	114	275	113	103	379	115	89	360
4202	30762	107	96	278	112	112	306	109	104	292	105	99	250	112	85	385
4203	30763	106	81	272	106	107	260	106	94	266	106	101	318	109	80	360
4204	30764	100	89	269	109	157	387	104	123	328	105	111	257	99	86	402
4205	30765	91	93	268	98	112	271	94	103	269	105	98	250	107	82	381
4206	30766	94	90	285	98	115	365	96	102	325	102	109	291	100	83	390
4207	30767	112	95	250	109	119	348	110	107	299	112	101	352	99	91	417
4208	30768	102	85	252	107	112	308	104	98	280	106	105	325	104	92	392
4209	30769	95	80	228	105	106	319	100	93	273	104	103	271	120	85	386
4210	30770	93	110	248	100	121	308	96	116	278	113	92	359	113	75	400
4211	30771	94	101	268	95	113	293	94	107	280	96	95	365	98	77	400
4212	30772	91	92	280	99	113	332	95	102	306	106	93	386	113	88	381
4213	30773	96	79	258	113	119	328	104	99	293	112	94	311	116	84	386
4214	30774	101	73	245	111	120	326	106	97	285	108	96	406	114	95	390
4215	30775	95	93	269	103	109	392	99	101	330	107	90	284	116	81	386
4216	30776	104	102	308	111	127	378	107	115	343	117	97	298	114	83	397
4217	30777	101	103	310	107	141	365	104	122	338	108	113	277	100	100	391
4218	30778	86	72	289	94	95	337	90	84	313	92	70	298	106	67	398
4219	30779	98	86	281	106	101	330	102	94	305	111	87	325	108	71	386
4220	30780	103	101	279	105	109	348	104	105	313	108	99	392	108	85	386
4221	30781	95	88	269	98	113	332	96	100	301	106	86	291	101	70	352
4222	NDR 359 (NC)	96	90	292	99	112	295	97	101	293	110	87	318	101	63	396
4223	30782	91	89	240	96	112	328	93	101	284	105	109	365	102	100	364
4224	30783	96	95	247	112	125	337	104	110	292	122	97	318	115	72	382
4225	30784	98	110	273	111	107	332	104	109	302	118	76	318	116	76	371
4226	30785	95	110	247	97	120	304	96	115	275	108	87	271	106	100	342
4227	30786	85	95	268	116	119	374	100	107	321	124	87	338	118	76	388
4228	30787	101	91	273	110	102	277	105	97	275	118	85	311	121	76	370
4229	30788	99	91	278	101	106	271	100	98	274	108	89	284	114	84	397
4230	30789	101	92	280	101	111	385	101	102	332	116	82	271	115	77	372
4231	30790	99	94	225	100	97	341	99	96	283	110	88	338	117	81	376
4232	30791	101	94	260	100	133	407	100	114	334	109	95	359	107	96	386
4233	30792	95	100	279	106	130	321	100	115	300	107	107	237	107	92	395
4234	30793	96	72	278	107	111	308	101	91	293	106	102	298	116	77	418
4235	30794	95	81	250	108	99	345	101	90	297	110	96	318	114	82	374
4236	30795	84	88	258	102	134	308	93	111	283	105	115	352	116	106	381
4237	Zonal Check (ZC)	93	91	287	105	109	330	99	100	309	112	95	311	106	66	397
4238	30796	94	82	292	96	101	310	95	92	301	103	97	284	107	74	398
4239	30797	93	91	293	96	103	295	94	97	294	103	89	277	106	78	397
4240	30798	91	88	282	112	119	288	101	103	285	116	103	325	116	81	382
4241	30799	95	70	242	100	102	345	97	86	294	105	90	318	104	77	341
4242	30800	97	83	271	91	118	308	94	101	289	92	112	419	101	101	371
4243	30801	98	99	263	105	121	340	101	110	301	112	106	277	97	89	333
4244	30802	94	71	276	101	89	297	97	80	287	112	84	365	103	68	395
4245	30803	94	89	289	101	106	383	97	97	336	105	93	277	104	69	386
4246	30804	89	86	236	95	104	350	92	95	293	104	101	318	104	76	401
4247	30805	94	95	269	111	122	385	102	109	327	117	103	291	115	97	385
4248	30806	98	78	277	98	105	350	98	92	313	106	98	250	116	79	401
4249	30807	98	68	273	107	102	361	102	85	317	108	78	250	112	105	397
4250	30808	99	124	299	115	148	365	107	136	332	117	118	372	117	60	394
4251	30809	89	73	264	101	104	339	95	88	301	106	97	311	117	86	389
4252	30810	91	79	273	115	99	361	103	89	317	116	94	291	113	80	410
4253	30811	90	94	282	90	93	310	90	94	296	83	87	277	101	74	337
4254	30812	91	75	222	97	83	392	94	79	307	106	74	257	105	67	377
4255	30813	87	91	270	97	118	321	92	104	296	110	94	338	106	84	385
4256	30814	102	85	266	95	128	420	98	107	343	104	100	332	99	90	391
4257	30815	86	74	264	111	113	297	98	94	281	122	87	298	104	77	396
4258	30816	83	79	267	110	109	370	96	94	318	113	86	338	117	75	400
4259	30817	96	83	249	97	102	422	96	93	336	106	91	277	118	77	395
4260	30818	100	93	258	124	121	374	112	107	316	125	97	257	115	74	387
4261	30819	91	94	274	109	114	354	100	104	314	117	99	338	118	82	403
4262	29805	95	80	278	110	121	361	102	100	319	112	102	332	107	79	403
4263	30820	83	70	259	95	115	319	89	93	289	106	105	244	103	86	399
4264	Local Check (LC)	94	94	263	111	124	400	102	109	331	117	123	291	114	70	404
Exp. Mean		**95**	**89**	**268**	**104**	**113**	**337**	**99**	**101**	**303**	**108**	**96**	**311**	**109**	**81**	**386**

Table No.1.33 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – IM, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN									Overall Mean (26)		
					Karnataka (3)			Zone VII (8)					
		Gangavathi			Mean			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4201	30761	112	89	325	113	94	355	112	110	354	112	110	285
4202	30762	104	89	326	107	91	320	106	103	334	103	103	285
4203	30763	106	91	335	107	91	338	104	98	335	104	102	280
4204	30764	105	95	383	103	97	347	103	114	350	104	113	284
4205	30765	101	91	295	104	90	309	99	104	313	101	106	259
4206	30766	98	98	347	100	97	342	98	105	345	97	106	281
4207	30767	111	94	384	107	95	384	110	107	363	112	105	293
4208	30768	104	93	363	105	96	360	105	106	345	108	105	293
4209	30769	98	93	340	107	93	332	105	102	322	107	105	265
4210	30770	112	87	343	113	84	367	107	101	352	109	102	294
4211	30771	97	92	351	97	88	372	95	101	342	96	102	283
4212	30772	102	87	331	107	89	366	100	99	361	100	102	302
4213	30773	108	96	374	112	91	357	110	100	336	112	105	279
4214	30774	95	95	413	105	95	403	105	110	358	105	113	285
4215	30775	101	90	343	108	87	337	103	100	355	100	99	291
4216	30776	108	92	337	113	90	344	112	107	362	112	107	281
4217	30777	104	99	396	104	104	355	102	120	362	102	122	278
4218	30778	94	79	374	97	72	357	94	84	357	93	93	280
4219	30779	98	89	379	105	82	363	101	96	354	100	99	280
4220	30780	100	102	408	105	95	395	103	107	377	104	109	293
4221	30781	98	83	352	101	79	332	96	96	339	96	98	285
4222	NDR 359 (NC)	95	89	314	102	79	342	99	95	333	98	98	277
4223	30782	93	97	355	100	102	361	97	111	346	98	114	279
4224	30783	108	97	309	115	89	336	112	101	336	113	105	286
4225	30784	118	67	325	117	73	338	111	94	338	110	101	276
4226	30785	98	95	348	104	94	320	100	111	323	101	110	279
4227	30786	114	82	325	118	82	350	111	100	369	109	100	291
4228	30787	111	77	363	117	79	348	109	97	344	108	100	296
4229	30788	99	90	414	107	87	365	101	100	343	101	104	262
4230	30789	109	80	347	113	80	330	104	97	356	101	99	285
4231	30790	99	87	356	108	85	357	103	98	341	106	101	300
4232	30791	99	111	324	105	101	356	100	110	355	100	109	283
4233	30792	105	92	326	106	97	319	105	113	333	104	114	280
4234	30793	109	87	402	110	89	373	106	101	359	108	103	301
4235	30794	111	85	315	112	88	336	105	97	341	106	100	279
4236	30795	98	111	319	106	110	350	102	119	337	104	119	286
4237	Zonal Check (ZC)	106	81	383	108	81	364	101	96	343	105	103	287
4238	30796	97	84	399	102	85	360	97	88	354	98	96	294
4239	30797	96	80	420	101	82	364	99	96	349	100	97	292
4240	30798	120	80	347	117	88	351	114	102	335	112	103	289
4241	30799	98	89	333	102	85	331	97	93	331	99	98	275
4242	30800	87	101	384	93	104	391	92	115	359	94	115	285
4243	30801	107	85	350	105	93	320	103	104	347	103	106	285
4244	30802	108	75	345	107	75	368	102	86	363	103	91	295
4245	30803	101	93	420	103	85	361	100	96	355	102	97	297
4246	30804	97	97	367	101	91	362	95	96	353	97	98	294
4247	30805	110	93	356	114	97	344	110	108	358	111	108	289
4248	30806	97	84	374	106	87	342	102	96	350	100	101	285
4249	30807	102	74	341	107	86	329	104	91	349	104	93	291
4250	30808	117	95	369	117	91	378	112	120	386	108	121	303
4251	30809	98	86	347	107	90	349	105	99	353	106	104	295
4252	30810	114	87	340	114	87	347	111	97	349	108	99	285
4253	30811	93	86	320	92	82	311	93	95	315	98	99	250
4254	30812	98	66	276	103	69	303	101	80	337	104	90	288
4255	30813	100	89	294	105	89	339	101	103	345	104	104	286
4256	30814	93	89	335	98	93	353	97	106	356	99	114	289
4257	30815	114	75	304	113	79	332	106	94	343	104	100	287
4258	30816	107	80	305	112	80	348	104	93	349	104	98	284
4259	30817	98	89	361	107	85	344	99	97	362	114	102	305
4260	30818	119	82	311	119	84	318	111	103	353	113	103	282
4261	30819	112	78	312	116	86	351	107	102	349	105	103	286
4262	29805	113	85	345	110	88	360	108	100	358	108	100	294
4263	30820	100	92	300	103	94	314	94	100	322	97	104	270
4264	Local Check (LC)	111	80	355	114	91	350	109	104	368	103	105	297
Exp. Mean		**103**	**88**	**349**	**107**	**88**	**348**	**103**	**101**	**348**	**104**	**104**	**286**

Table No. 1.33 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT-IM, (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIAL NOT CONSIDERED																	
		Uttarakhand			Jammu Kashmir			Bihar			West Bengal			Uttar Pradesh			Tripura		
		@Pantnagar			@Chatha			@Patna-ICAR			@Malda			@Gorakpur			@Lembucherra		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4201	30761	118	96	294				118	124	356	107	100	361	111	116	251	93	98	313
4202	30762	103	99	252				96	112	229	97	102	319	97	109	257	87	118	363
4203	30763	104	100	245	106	86	275	104	106	216	102	105	428	102	107	181	85	88	288
4204	30764	108	124	270				105	117	234	102	107	338	105	129	307	90	80	275
4205	30765	106	110	250				98	124	310	98	118	331	101	119	210	86	80	238
4206	30766	97	103	233	102	64	211	103	109	270	95	105	369	92	111	198	76	94	275
4207	30767	125	93	317				111	112	310	108	95	343	116	104	193	95	98	263
4208	30768	116	105	317				106	112	343	109	98	333	109	106	230	85	100	200
4209	30769	116	97	227				114	109	394	111	105	398	112	108	277	86	104	225
4210	30770	103	113	227				104	265	349	100	104	370	111	106	330	84	85	213
4211	30771	100	100	233	99	79	271	92	110	218	100	103	339	97	109	252	84	77	263
4212	30772	103	100	260				109	110	297	121	95	336	102	113	277	85	90	338
4213	30773	126	94	304				118	107	223	95	103	346	125	100	265	111	72	400
4214	30774	112	138	290				104	140	283	104	105	322	103	123	230	90	96	300
4215	30775	99	100	248	101	79	271	96	109	244	106	103	337	97	107	217	87	85	300
4216	30776	122	100	247				110	108	281	104	105	351	115	111	158	95	95	275
4217	30777	100	131	236	105	78	193	94	140	311	104	120	331	98	128	245	86	95	275
4218	30778	93	95	336	97	80	253	91	92	372	104	110	364	91	98	248	78	80	388
4219	30779	100	91	211				94	106	233	100	106	362	97	104	225	82	108	313
4220	30780	110	111	282				107	127	279	105	103	301	105	118	237	75	94	263
4221	30781	94	90	276	95	66	271	91	97	245	99	98	377	91	101	157	92	130	288
4222	NDR 359 (NC)	99	96	290				90	112	318	98	99	356	99	109	283	82	112	300
4223	30782	102	125	314				91	122	268	98	89	337	95	125	284	85	80	175
4224	30783	128	81	271				121	115	336	97	114	344	126	102	264	88	86	513
4225	30784	119	82	236				100	103	238	100	105	317	113	100	291	90	87	175
4226	30785	102	129	283	105	88	275	105	128	310	101	110	360	109	119	185	84	77	238
4227	30786	127	80	242				128	96	299	102	100	337	130	105	268	103	90	325
4228	30787	117	92	237				112	105	280	106	104	383	111	103	238	89	92	275
4229	30788	100	105	160	105	74	244	91	119	249	109	108	327	96	113	198	85	90	238
4230	30789	102	100	295	101	86	301	95	108	318	114	103	349	98	110	268	81	82	275
4231	30790	120	84	244				110	110	329	107	108	363	117	107	275	93	88	288
4232	30791	102	107	185				95	130	240	101	105	368	93	116	268	91	90	313
4233	30792	112	122	238				101	121	277	102	108	372	102	114	233	87	90	313
4234	30793	124	82	313				111	108	255	102	104	331	111	103	286	79	84	350
4235	30794	113	99	257				104	107	276	104	105	398	105	107	188	88	77	263
4236	30795	115	139	267				100	138	268	109	110	342	105	133	176	88	70	200
4237	Zonal Check (ZC)	106	85	348				101	109	276	99	107	387	114	114	255	87	85	238
4238	30796	102	96	264	99	84	255	97	109	355	116	115	369	93	110	226	84	90	313
4239	30797	102	96	179	100	81	289	96	106	337	104	99	316	98	109	366	81	82	288
4240	30798	120	94	303				115	106	227	99	111	318	115	109	213	102	97	275
4241	30799	101	82	223				86	104	269	105	98	372	91	92	284	87	120	263
4242	30800	95	120	231	97	111	277	92	120	322	103	105	345	92	124	222	81	102	175
4243	30801	104	104	327				95	117	311	104	97	334	98	116	288	84	95	88
4244	30802	111	84	268	103	75	305	94	108	294	100	87	361	102	97	225	84	78	375
4245	30803	111	94	248				99	108	258	101	98	365	98	104	258	82	110	200
4246	30804	98	100	255	95	97	283	86	113	277	109	104	351	92	101	322	76	94	275
4247	30805	115	105	285				115	113	300	103	105	352	111	119	235	83	85	363
4248	30806	100	92	235	98	81	253	91	105	276	117	102	347	94	101	264	85	86	338
4249	30807	105	99	282	105	69	341	97	102	359	108	85	361	102	94	289	85	90	263
4250	30808	115	128	248				107	137	343	117	124	346	112	122	273	93	110	375
4251	30809	124	99	241				122	113	356	99	103	360	122	100	264	78	94	338
4252	30810	119	94	335				108	115	317	101	94	315	111	108	247	81	102	263
4253	30811	102	111	195				99	112	224	106	104	362	97	112	165	93	99	300
4254	30812	115	69	306				107	96	281	106	91	383	111	94	213	88	89	250
4255	30813	116	100	276				102	111	300	105	107	355	105	106	258	83	95	263
4256	30814	96	113	273	93	102	265	86	129	252	101	103	343	87	117	239	82	92	275
4257	30815	110	82	290	102	86	271	98	110	340	104	102	407	103	110	160	78	92	338
4258	30816	101	101	259				101	111	312	106	106	335	102	100	297	79	95	200
4259	30817	107	100	269				104	111	252	115	105	342	108	106	268	79	90	238
4260	30818	129	90	310				104	114	352	110	106	321	124	109	249	96	103	300
4261	30819	110	100	244				100	108	235	106	114	399	106	112	238	91	85	288
4262	29805	119	94	286				105	98	254	102	107	354	112	110	241	87	100	288
4263	30820	97	104	224	93	85	217	89	120	237	104	103	314	93	111	259	95	84	275
4264	Local Check (LC)	96	92	288	124	102	234	108	93	369	101	97	321	105	95	332	90	86	300
Exp. Mean		**109**	**101**	**264**	**101**	**84**	**264**	**102**	**115**	**289**	**104**	**104**	**351**	**104**	**109**	**247**	**86**	**92**	**282**

Table No. 1.33 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT-IM, (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIAL NOT CONSIDERED																	
		Madhya Pradesh			Chattisgarh						Tamil Nadu			Kerala (0)			Puducherry (0)		
		@Waraseoni			@Ambikapur			@Jagadalpur			@Tirur			@Pttambi			@Karaikal		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4201	30761	109	123	212	102	99	312	112	73	140	97	118	324	116	93	425	91	122	446
4202	30762	98	111	216	96	102	276	109	78	151	95	98	349	99	100	441	83	102	403
4203	30763	101	120	243	97	104	268	106	81	158	92	109	328	100	106	405	85	122	579
4204	30764	101	126	272	97	104	269	99	79	155	95	120	387	97	98	336	93	130	435
4205	30765	97	122	276	97	103	260	100	89	184	88	98	321	100	105	373	85	89	453
4206	30766	91	123	226	88	103	281	97	90	163	94	111	298	101	101	411	83	102	475
4207	30767	112	131	255	103	106	268	111	82	160	105	122	383	99	99	319	85	130	366
4208	30768	105	142	251	98	104	287	100	87	200	91	115	348	101	105	394	82	106	565
4209	30769	110	130	201	98	101	270	102	75	160	94	105	336	99	107	325	86	132	406
4210	30770	106	116	333	101	105	279	101	76	195	94	103	339	103	83	406	87	125	403
4211	30771	96	105	242	89	96	257	89	94	193	87	92	391	99	102	348	86	99	463
4212	30772	97	124	329	91	102	290	100	78	183	90	92	326	98	85	462	88	76	579
4213	30773	121	117	280	101	104	271	110	82	128	114	112	369	102	90	357	91	116	526
4214	30774	104	135	296	91	105	283	98	85	179	93	97	350	102	106	373	83	90	355
4215	30775	91	118	238	90	97	281	104	75	160	93	80	327	97	111	324	84	107	534
4216	30776	112	118	227	102	105	287	111	77	173	102	119	345	97	97	336	91	122	282
4217	30777	98	139	220	86	106	288	104	78	183	95	102	306	101	91	393	86	131	366
4218	30778	85	108	282	90	90	300	89	86	171	87	93	345	103	100	459	86	54	575
4219	30779	96	109	185	91	106	288	100	77	165	92	87	329	102	89	417	85	112	315
4220	30780	96	125	253	98	103	278	100	85	203	93	111	343	103	94	369	80	120	578
4221	30781	88	110	263	91	95	292	95	70	170	98	103	350	100	106	412	84	56	403
4222	NDR 359 (NC)	94	110	223	89	100	293	104	78	140	92	98	380	109	93	390	87	99	526
4223	30782	95	140	263	88	105	284	90	94	185	92	118	356	100	91	475	82	88	366
4224	30783	116	125	329	101	105	323	112	91	194	112	114	330	96	101	508	93	73	403
4225	30784	108	111	241	102	86	228	109	71	138	103	90	352	99	101	577	94	112	353
4226	30785	96	134	253	96	103	222	98	90	163	97	121	382	100	112	465	85	115	367
4227	30786	119	110	257	102	103	277	110	75	151	120	100	311	101	102	512	92	103	435
4228	30787	103	130	218	97	103	290	111	73	133	99	110	352	101	87	416	93	126	368
4229	30788	98	124	204	91	93	281	98	76	149	95	102	398	100	116	470	85	130	354
4230	30789	97	119	249	98	99	261	101	81	146	96	100	372	106	94	446	81	100	391
4231	30790	106	116	289	98	99	329	102	75	158	95	98	378	103	94	479	89	100	390
4232	30791	94	122	248	92	106	293	103	94	157	88	108	327	98	102	456	86	65	565
4233	30792	98	140	253	94	102	306	99	83	206	91	99	276	101	101	485	94	43	587
4234	30793	107	119	295	101	102	293	104	74	154	103	86	372	102	100	451	84	86	366
4235	30794	98	127	252	102	95	279	107	72	135	101	85	334	107	103	431	80	110	569
4236	30795	103	165	265	93	108	321	99	108	218	91	99	254	97	109	367	85	90	499
4237	Zonal Check (ZC)	99	109	307	97	94	263	100	72	192	122	89	382	98	97	332	82	90	565
4238	30796	89	125	244	95	93	257	98	74	119	98	109	367	98	101	378	91	112	585
4239	30797	92	115	264	92	89	267	94	75	181	90	81	313	101	102	360	86	116	438
4240	30798	112	123	247	101	88	256	112	77	136	106	105	369	103	101	397	93	101	403
4241	30799	90	113	260	90	93	243	98	74	193	88	82	304	101	101	448	85	104	446
4242	30800	93	149	203	89	96	262	90	88	165	101	111	341	104	104	462	87	126	567
4243	30801	95	140	258	101	107	262	102	90	173	95	106	337	98	98	546	85	90	587
4244	30802	99	106	259	95	76	286	99	69	146	87	93	310	99	99	539	86	87	328
4245	30803	99	104	292	96	87	270	100	84	155	91	92	332	102	100	342	87	100	436
4246	30804	90	129	267	90	105	262	95	78	163	95	100	331	107	107	428	86	100	475
4247	30805	105	118	251	102	104	357	109	89	145	104	107	347	105	98	471	94	123	326
4248	30806	94	119	221	91	95	230	98	90	180	90	96	325	103	95	450	88	100	566
4249	30807	100	109	307	96	100	316	101	68	173	94	116	315	99	99	408	87	95	471
4250	30808	103	153	251	101	102	320	110	87	145	104	120	359	99	98	455	86	150	295
4251	30809	103	132	252	101	94	384	104	76	170	96	110	389	100	100	459	84	96	347
4252	30810	106	112	279	93	92	302	99	77	145	101	94	306	106	105	420	85	47	438
4253	30811	97	105	210	99	96	263	89	87	145	91	93	274	103	97	367	82	65	403
4254	30812	107	99	285	99	82	245	97	65	125	91	102	398	100	85	332	84	65	579
4255	30813	106	118	279	99	104	266	99	83	215	94	104	362	101	102	412	83	111	438
4256	30814	93	135	263	88	94	230	89	99	225	87	114	322	101	97	434	85	150	564
4257	30815	100	122	192	101	98	276	107	75	138	94	92	336	101	96	373	83	108	475
4258	30816	98	117	258	93	94	323	108	73	128	92	82	411	104	84	438	83	107	559
4259	30817	89	119	300	91	86	336	98	80	166	100	99	314	99	99	407	85	100	347
4260	30818	122	114	317	102	86	250	111	82	190	121	116	356	98	98	456	94	123	309
4261	30819	100	127	240	101	83	365	104	83	135	92	91	285	103	79	350	81	100	535
4262	29805	108	118	321	102	104	395	97	77	190	101	92	350	103	86	423	84	77	475
4263	30820	92	121	225	91	108	302	98	80	152	97	100	305	103	87	434	80	107	486
4264	Local Check (LC)	85	111	268	91	79	312	102	77	163	99	95	308	102	83	397	93	140	426
Exp. Mean		**100**	**122**	**257**	**96**	**98**	**285**	**101**	**81**	**165**	**96**	**102**	**341**	**101**	**98**	**417**	**86**	**103**	**452**

ADVANCE VARIETY TRIAL 2 & 1-IRRIGATED LATE (AVT 2 & AVT 1-L)

Locations : 40 **Entries:23**

Checks : Swarna (National), Pusa 44 (Northern), NDR 8002 (Eastern & Central), Ranjeet (North-Eastern), Salivahana (Western), Pushyami (Southern) and Local check **Table: 1.34**

Advance Variety Trial 2 & 1-Late (AVT 2 & AVT 1-L) was constituted with 23 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 18 test entries include three entries in third year of testing, three entries in second year of testing, four NILs of Swarna and eight NILs of Pusa 44 and recurrent parents. The trial was sent to 40 locations and data was received from 28 locations.

Therefore, data from remaining 28 centres was considered for analysis. The data pertaining to yield, days to 50% flowering, plant height, panicles/m2 and quality are presented in tables 1.35, 1.36 and 1.37 respectively.

Zone wise performance of the entries

Zone II

The trial was constituted with 17 entries *viz*., three entries in third year of testing, three entries in second year of testing, eight NILs of Pusa 44, and three checks.

The trial was conducted at three locations namely Kota, Nagina and Kanpur. Data from Nagina (4.46 CV) and Kanpur (2311 Kg/ha) not considered due to low Cv and low experimental yield respectively. The data from one location i.e., Kota was utilized for further analysis.

The zonal grain yield of entries ranged from 2728 Kg/ha (Pusa 44) to 4746 Kg/ha (Local check) and days to 50% flowering ranged from 101 days (Pusa 44) to 109 days (IET 29351 and 29935).

Among the checks, local check recorded highest grain yield of 4746 Kg/ha while none of the test entries recorded required yield advantage over the best check.

Zone III

The trial was constituted with 23 entries *viz*., three entries in third year of testing, three entries in second year of testing, four NILs of Swarna, eight NILs of Pusa 44, two recurrent parents and three checks.

The trial was conducted at nine locations while data from Patna-ICAR (CV 4.45) and Masodha (CV 4.47) was not considered due to low CV. Data from remaining seven locations in Zone III was considered for further analysis.

The zonal grain yield of entries ranged from 4186 Kg/ha (30826) to 6371 Kg/ha (Local check) and days to 50% flowering ranged from 106 days (IET 30826) to 109 days (IET 29935).

Among the checks, local check recorded highest grain yield of 6371 Kg/ha while none of the test entries recorded required yield advantage over the best check.

Zone IV

The trial was constituted with nine entries *viz*., three entries in third year of testing, three entries in second year of testing and three checks.

The trial was conducted at two locations namely Gerua and Lembucherra. Experimental mean yield at Lembucherra was low (3760 Kg/ha) hence it was not considered for analysis. While data from Gerua was considered for analysis.

The zonal grain yield of entries ranged from 5013 Kg/ha (IET 29891) to 6587 Kg/ha (IET 29351) and days to 50% flowering ranged from 105 days (Local check) to 123 days (IET 29891).

Among the checks, national check (Swarna) not germinated while local check recorded highest grain yield 6053 Kg/ha followed by zonal check 5373 Kg/ha. Among test entries, none of the test entries required yield advantage over best check (15% @single locations).

Zone V

The trial was constituted with 14 entries *viz*., three entries in third year of testing, three entries in second year of testing, four NILs of Swarna, one recurrent parent (Swarna) and three checks.

The trial was conducted at three locations namely Raipur, Jagadalpurand Sakoli. Data from all three locations was considered for analysis.

The zonal grain yield of entries ranged from 3782 Kg/ha (IET 30821) to 6159 Kg/ha (Swarna as recurrent parent) and days to 50% flowering ranged from 104 days (IET 30821) to 120 days (Swarna).

Among the checks, national check recorded highest grain yield of 5118 Kg/ha. Among the test entries, **IETs 28524 (15%), 29891 (11%), 28544 (7%), 29935 (7%) and 29349(5%) recorded required yield advantage over the best check**. **The test entries IET 28524 and 29891, and 29935 promoted to AVT2 in zone V.**

Performance of promising entries in AVT-1&2 Late trial in Zone V during Kharif 2022

IET No.	GY (Kg/ha)/ days to 50% flowering / grain type	Percentage of yield advantage over the best check	Remarks
IET 28524	5884 118 MS	15	Promoted to AVT2
IET 29891	5679 121 SB	11	Promoted to AVT2
IET 28544	5487 115 LS	7	Discontinued due to high AC 27.07 with hard GC 35
IET 29935	5478 123 LS	7	Promoted to AVT2
IET 29349	5387 117 SB	5	-
National Check	**5118** 115		
Zonal check	4958 112		
Local Check	4244 112		

Zone VI

The trial was constituted with nine entries *viz*., three entries in third year of testing, three entries in second year of testing and three checks.

Trial was conducted at three locations namely Karjat, Phondaghat and Navsari. Data from all the three locations are considered for analysis.

The zonal grain yield of entries ranged from 3852 Kg/ha (IET 29935) to 5627 Kg/ha (IET 29351) and days to 50% flowering ranged from 108 days (IET 29351) to 119 days (IET 29935 and IET 29891).

Among the check, Zonal check recorded highest grain yield of 5027 Kg/ha, while among the test entries, **IET 29351 (12%) and IET 29891 (10%) recorded required yield advantage over the best check in Zone VI. The test entry**IET **29891 is promoted to AVT2 in zone VI.**

Performance of promising entries in AVT-1&2 Late trial in Zone VI during Kharif 2022

IET No.	GY (Kg/ha)/ days to 50% flowering / grain type	Percentage of yield advantage over the best check	Remarks
IET 29351	5627 108 LB	12	Discontinued due to high AC 26.01 with hard GC 22
IET 29891	5512 119 SB	10	**Promoted to AVT2**
National Check	4810 110		
Zonal check	5027 113		
Local Check	4666 110		

Zone VII

The trial was constituted with 23 entries *viz*., three entries in third year of testing, three entries in second year of testing, four NILs of Swarna, eight NILs of Pusa 44, two recurrent parents and three checks.

The trial was conducted at 10 locations and data from three locations namely Ponnampet (2842 Kg/ha), Sirsi (1400 Kg/ha) and Karaikal (0.55 CV) not considered for analysis due to low yield or CV. Data from remaining seven locations was considered for further analysis.

The zonal grain yield of entries ranged from 5222 Kg/ha (IET 30829) to 8160 Kg/ha (IET 29891) and days to 50% flowering ranged from 97 days (IET 30826) to 116 days (IET 29891).

Among the check, Zonal check recorded highest grain yield of 7389 Kg/ha while among the test entries, **both IET29891 and IET 29351 recorded 10% higher advantage over the best check in Zone VII. Test entry IET 29891 is promoted to AVT2 in Zone VII.**

Performance of promising entries in AVT-1&2 Late trial in Zone VII during Kharif 2022

IET No.	GY (Kg/ha)/ days to 50% flowering / grain type	Percentage of yield advantage over the best check	Remarks
IET 29891	8160 116 SB	10	**Promoted to AVT2**
IET 29351	8110 106 LB	10	Discontinued due to high AC 26.01 with hard GC 22
National Check	6457 112		
Zonal check	**7339** **110**		
Local Check	6793 111		

Three-year performance of test entries

There were three test entries namely IETs 29351, 29349 and 28544 completed the three years of testing in late trials. The performance of the entries is discussed below.

Three-year performance of test entries in irrigated late ecology

IET No./ Designation/ Cross combination	Year	Zone		State		Remarks
		Zone	%BC	State	%BC	
IET 29351 WGL-1289 MTU1075 / BM71	2020	VI(2)	9	GUJ(1)	24	Discontinued due to high AC 26.01 with hard GC 22
	2021	VI (3)	8	CH(2)	10	
	2022	VI (3)	12	MH(2) GUJ(1)	8 14	
		VII(7)	10	AP(3) KA(1)	10 17	
IET 29349 R 2284-52-114-1 R 1670-3267-1-3920-1 / ARC 10550	2020	VI(2)	20	GUJ(1)	26	**Promising in Zone V for the state of Chhattisgarh**
	2021	V(3)	6	CH(2)	13	
	2022	V(3)	5	CH(2)	6	
IET 28544 CR 3969-17-2-2-1-1-1-1 IR 73907-753-2-3 / Pratiksya	2019	VI (2)	9	-	-	Discontinued due to inconsistency and High AC (27.07) and GC (35)
	2020	V(3)	12	CH(2)	8	
	2021	V(3)	11	CH(2)	15	
	2022	V(3)	7	-	-	

*Number of locations are mentioned in ().

IET 29351 (WGL-1289) derived from MTU1075 / BM71 showed consistence yield superiority over the best checkin zone VI across three years of testing. The entry also showed consistent performance for the state of Gujarat during first and second year of testing. The test entry possesses long bold grain with high AC (26.01) and hard GC (22). Hence, **IET 29351 (**WGL-1289) is discontinued.

IET 29349 (R 2284-52-114-1) derived from cross R 1670-3267-1-3920-1 / ARC 10550 showed consistence yield superiority over the best check in zone V across three years of testing. The entry also showed consistent performance for the state of Chhattisgarh during second and third year of testing. The test entry possesses short bold grain with superior grain quality parameters.**IET 29349 (**R 2284-52-114-1) ***found promising in zone V for the state of Chhattisgarh in irrigated late ecology.***

IET 28544 (CR 3969-17-2-2-1-1-1-1) derived from cross IR 73907-753-2-3 / Pratiksya was tested for 4 years in irrigated late ecology. The test entry failed to show yield superiority over the best check in fourth year of testing and also did not record required grain quality parameters (high AC 27.07) hence it is discontinued.

Performance of Near Isogenic Lines

The of AVT1 & 2 – Late trial was also constituted with four NILs of Swarna and eight NILs of Pusa 44. The NILs of Swarna and recurrent parent were evaluated in Zone 3,5 and 7while the NILs of Pusa 44 and recurrent parent were evaluated in Zone 2, 3 and 7 as part of AVT1 & 2 – Late trial.

Notified states of recurrent parent used in development of NILs

S. No.	Recurrent parent	Notified states	Tested in different zones	No. of NILs
1	Swarna	Andhra Pradesh, Telangana	III, V, VII	4
2	Pusa 44	Karnataka and Kerala	II, III, VII	8

NILs of Swarna

There were total of four NILs of Swarna developed for blast and bacterial blight disease tested in zone III, V, VII. The details of NILs are given in the below table.

Sl. No.	IET No.	Cross designation	Cross Combination	GT	Trait	Genes
1.	30821	RP 6533-RMS-1908-41-72-24	Swarna * 2 / Improved Samba Mahsuri	MS	BB+Bl	Xa21+Pi54
2.	30822	RP 6532-RMS-20-70-29-43	Swarna * 2 / Improved Samba Mahsuri	MS	BB	Xa21
3.	30823	RP 6533-RMS-1873-21-42-84	Swarna * 2 / Improved Samba Mahsuri	MS	BB+Bl	Xa21+Pi54
4.	30824	RP 6532-RMS-2341-26-30-59	Swarna * 2 / Improved Samba Mahsuri	MS	BB	Xa21

Performance of Swarna NILs

IET No.	Genes	Blast	BB	Yield Kg/ha (Normal)			Remarks
				III	V	VII	
30821	Xa21+Pi54	5.0	**4.9**	4018	3782	5540	Below par yield with recurrent. Susceptible to blast
30822	Xa21	5.3	5.1	4745	4114	6446	
30823	Xa21+Pi54	5.3	5.1	4771	4897	6142	
30824	Xa21	5.3	5.3	4734	4872	5909	
Swarna	**-**	5.7	5.7	**5677**	**6159**	**7072**	
CD	**-**	**-**	**-**	**377**	**649**	**533**	

#-on par with recurrent parent; *significantly higher than recurrent parent

IET 30821 and IET 30823 blast disease score >5.0 while in case of bacterial leaf blight disease except IET 30821 (score 4.9), remaining three NILs recorded score >5.0.

With respect to yield performance, the recurrent parent recorded 5677 Kg/ha (Z-III), 6159 Kg/ha (Z-V) and 7072 Kg/ha (Z-VII) while all the four NILs of Swarna fail to perform on par yield with recurrent parents in any of zones tested.

Based on trait verification and yield performance all the four NILs of Swarna were dropped.

Pusa 44 NILs

There were total of eight NILs of Swarna developed for herbicide tolerance, low phosphorus tolerance, blast and bacterial blight resistance were tested in zone II, III, VII. The details of NILs are given in the below table.

Sl. No.	IET No.	Cross designation	Cross Combination	GT	Trait	Genes
1	30825	Pusa 3039-16-4-2-5-1-1-2	Pusa 44 /*2 Pusa 1790	LS	BB+Bl	Xa13+Pi2
2	30826	Pusa 1988-15-7-44-98-67	Pusa 44*4 / Robin	MS	Herb	AHAS mutant allele
3	29558	Pusa 5417-15-11-9-50-27	Pusa 44 / IR 64-Pup 1-F // Pusa 44*2	LB	LPT	Pup1
4	30827	CSR 389-16-22	Pusa 44 / FL 478*3// Pusa 44 / IRBB 60*3	LB	Inland Salinity + BB	Xa13+Xa21+Saltol
5	30828	Pusa 3039-16-4-2-5-1-1-1	Pusa 44 /*2 Pusa 1790	LS	BB+Bl	Xa13+Pi2
6	30829	Pusa 1988-15-7-44-98-15	Pusa 44*4 / Robin	LS	Herb	AHAS mutant allele
7	30830	CSR 389-16-6	Pusa 44 / FL 478*3 // Pusa 44 / IRBB 60*3	LS	Inland Salinity + BB	Xa13+Saltol
8	29546	Pusa 5417-15-11-9-54-17	Pusa 44 / IR 64-Pup 1-F // Pusa 44*2	MS	LPT	Pup1

IET 30827 and IET 30830 (Salinity tolerance and Bacterial blight resistance)

These two entries were developed in the background of Pusa 44 for bacterial blight resistance and salinity tolerance.

IET No.	Genes	Salinity stress			BB	Yield Kg/ha (Normal)			Remarks
		Overall	II	VII		II	III	VII	
IET 30827	Xa13+Xa21 +Saltol	3629*	2747*	4510*	**4.7**	4064*	4459	6886#	High AC (26.16) and hard GC (25)
IET 30830	Xa13+Saltol	3449*	2587*	4310*	6.1	4364*	4708	6360#	Susceptible to bacterial blight disease.High AC (26.4) and hard GC (24).
Pusa 44 (RP)	-	**2075**	**1407**	**2742**	**6.5**	**2728**	**5347**	**6767**	
CD		**1058**	**1043**	**978**		**835**	**377**	**533**	

#-on par with recurrent parent; *significantly higher than recurrent parent

IET 30827 recorded significant yield superiority over recurrent parent under salinity stress condition as well as under normal condition in Zone II. The entry also recoded bacterial blight resistance score of 4.7. However, the test entry recorded high AC (26.16) and hard GC (25). Hence, IET 30827 is dropped due to poor grain quality parameters.

IET 30830 recorded significant yield superiority over the recurrent parent under salinity stress condition as well as under normal condition in Zone II. However, the entry recoded bacterial blight resistance score of 4.7, high AC (26.4) and hard GC (24). Hence, IET 30830 is dropped due to poor grain quality and susceptibility to bacterial leaf blight.

IET 30826 and IET 30829 (Herbicide tolerance)

IET No.	Genes	GT	L/B	Imazethypyr (t/ha)			Yield Kg/ha (Normal)			Remarks
				Cuttack	IARI	Mean	II	III	VII	
IET 30826	AHAS mutant allele	MS	2.74	6.15	2.35	4.25	4092*	4186	5681	**Promoted**
IET 30829	AHAS mutant allele	LS	3.27	6.11	2.28	4.17	4182*	4270	5222	High AC (26.25) with hard GC (22)
Pusa 44	**-**	MS	**2.88**	**0.0**	**0.0**	**0.0**	**2728**	**5347**	**6767**	
CD							**835**	**377**	**533**	

#-on par with recurrent parent; *significantly higher than recurrent parent

Imazethapur herbicide treatment resulted complete killing of recurrent parent while both NILs survived and recorded significant yield advantage over the recurrent parent.

Under normal yield experiment, both NILs IET 30826 and 308829 recorded superior yield over recurrent parent in zone II however fail to record on par yield with recurrent parent in zone III and VII (the notified state). However, IET 30829 recorded high AC (26.25) with hard GC (22) hence it is dropped. Whereas IET 30826 recorded required grain quality parameters of HRR (69.4), AC (21.76) and GC (22).

IET 30826 (Pusa 1988 -15-7-44-98-15)derived from cross Pusa 44*4/Robin possess medium slender grain type. It achieved required yield advantage over the recurrent parent in Zone II, and showed resistance to Imazethapyr herbicide and possess required grain quality parameters, **hence IET 30826 (Pusa 1988 -15-7-44-98-15)is promoted to second year of testing.**

IET 30825 and IET 30828 (Bacterial leaf blight and blast resistance)

IET No.	Genes	Herbicide		Yield Kg/ha (Normal)			Remarks
		Blast	BB	II	III	VII	
IET 30825	Xa13+Pi2	5.5	**4.6**	4037*	4827	6715#	High AC (26.19) with hard GC (22)
IET 30828	Xa13+Pi2	**3.9**	**4.7**	4146*	4454	6544#	High AC (25.08) with hard GC (22)
Pusa 44		5.4	6.5	**2728**	**5347**	**6767**	
CD				**835**	**377**	**533**	

#-on par with recurrent parent; *significantly higher than recurrent parent

IET 30825 recorded blast disease score of 5.5 (susceptible), bacterial blight disease score of 4.6(moderate resistance), recorded significant yield superiority over recurrent parent in zone II, on par yield with recurrent parent in zone VII. However, the test entry recorded high AC (26.19) with hard GC (22). Hence, the IET 30825 is dropped.

IET 30828 recorded resistance score for blast (3.9), bacterial blight (4.7), recorded significant yield superiority over best check in zone II, below par yield with recurrent parent in zone III, on par yield with best check in zone VII. However, the test entry recorded high AC (25.08) with hard GC (22). Hence, the IET 30825 is dropped due to poor grain quality parameters.

IET 29558 and IET 29546 (Low phosphorous tolerance)

Performance of Performance of IET 29558 and IET 29546 under Low phosphorous condition during Kharif 2022

NIL entry	Grain yield (kg/ha)			
	Zone 3	Zone 6	Zone 7	Overall
	P 0 Level			
IET 29558	3021	4809	4314	4181
IET 29546	3015	4699	4265	4129
Pusa 44	**2564**	**4689**	**4207**	**4014**
CD	794	707	587	371
	P 50% Level			
IET 29558	3568	4961	4941	4429
IET 29546	3908	4803	4197	4164
Pusa 44	**3525**	**4839**	**4792**	**4323**
CD	582	728	538	385

Performance of IET 29558 and IET 29546 under normal condition during Kharif 2022

IET No.	Genes	Yield (Normal)		
		II	III	VII
IET 29558	Pup1	4105*	4717	6604#
IET 29546	Pup1	4446*	5006#	6356#
Pusa 44 (RP)	**-**	**2728**	**5347**	**6767**
CD		**835**	**377**	**533**

#-on par with recurrent parent; *significantly higher than recurrent parent

IET 29558 and IET 29546 did not show superiority to recurrent parent 44 in any zone or overall either at P 0 or at P 50%. Hence, IET 29558, IET 29546 dropped.

Reaction of recurrent parents, NILs, resistant and susceptible checks against leaf blast disease during Kharif 2022

Location	CBT	CTK	GNV	GDL	IIRR	JDP	KHD	LNV	MND	PNP	REW	score
30821	8	5	5	8	4	4	3	8	4	2	4	5.0
30822	5	5	4	5	4	7	7	8	7	3	3	5.3
30823	6	5	-	7	4	7	7	6	6	3	2	5.3
30824	8	5	5	8	4	7	2	6	5	4	4	5.3
Swarna (RP)	6	5	5	6	4	8	7	6	7	4	5	5.7
30825	6	7	4	6	5	7	2	6	6	5	6	5.5
30826	7	5	5	6	7	5	3	5	7	5	4	5.4
29558	4	5	5	5	6	8	4	6	8	3	5	5.4
30827	4	5	4	4	7	8	5	5	7	2	4	5.0
30828	3	7	4	3	5	5	3	5	3	3	2	**3.9**
30829	6	5	4	6	7	7	4	6	7	3	4	5.4
30830	8	5	5	7	7	6	5	5	7	1	3	5.4
29546	8	5	4	8	8	7	5	6	8	3	4	6.0
Pusa 44 (RP)	5	5	5	4	7	6	7	5	5	5	5	5.4
	8	9	9	9	9	9	6	6	8	7	7	7.9
	4	5	2	4	1	1	3	3	3	7	4	3.4

Reaction of recurrent parents, NILs, resistant and susceptible checks against bacterial leaf blight disease during Kharif 2022

Location	CHT	CHN	CHP	CTK	GNV	IIRR	JGL	LDN	MSD	NVS	NWG	NDL	PNT	RPR	VRN	Score
30821	5	3	5	5	5	1	3	9	5	7	5	1	7	7	5	**4.9**
30822	5	3	5	5	7	3	5	3	7	5	5	5	9	5	5	5.1
30823	3	3	7	5	5	1	7	3	5	7	7	1	9	7	7	5.1
30824	3	5	7	7	5	7	5	7	5	3	5	1	7	7	5	5.3
Swarna (RP)	7	9	5	3	5	7	5	7	3	5	5	5	-	7	7	5.7
30825	3	3	7	5	3	1	7	3	5	7	5	5	3	7	5	**4.6**
30826	5	9	7	5	7	7	7	9	5	7	7	5	5	5	5	6.3
29558	3	9	7	5	5	7	5	9	5	3	5	5	5	7	7	5.8
30827	3	7	7	5	5	1	7	3	3	5	5	5	5	5	5	**4.7**
30828	5	3	7	7	5	1	5	3	5	7	7	1	5	5	5	**4.7**
30829	5	7	9	5	7	7	5	7	5	5	5	7	7	9	5	6.3
30830	7	3	9	5	5	7	-	7	5	5	7	5	7	7	7	6.1
29546	5	9	5	3	5	7	5	7	5	5	5	5	9	5	5	5.7
Pusa 44 (RP)	5	9	7	7	5	7	7	9	5	7	5	5	7	7	5	6.5
TN1	7	9	9	9	9	7	7	9	9	9	9	7	9	9	7	8.3
RP Bio226	5	3	1	3	3	1	3	3	3	1	5	5	3	5	5	**3.3**

INITIAL VARIETY TRIAL –IRRIGATED LATE (IVT-L)

Locations: 44 **Test Entries: 59**

Checks: Swarna-National; NDR 8002 (Eastern and Central), Ranjeet (North Eastern), Salivahana (Western), Pushyami (Southern) -Zonal; PA 6444 (Hybrid), CRHR 702 (Hybrid Observational) and Local check. **Table: 1.38**

IVT-Late trial constituted with 64 entries was sent to 44 locations across the country. The 64 entries includes59 test entries, 4 checks, and one observational check (CRHR702). Swarna served as national check, while NDR 8002 in Eastern and Central, Ranjeet in North Eastern, Salivahana in Western and Pushyami in Southern as zonal checks, PA6444 as hybrid check, and local checks were included. Zone-wise performance of entries is as follows:

Zone II: Trial was conducted at seven locations- Pantnagar, Ludhiana, Kaul,Chatha, Kota, Nagina and Kanpur. The data was either not received from all these locations.

Zone III: Trial was conducted at thirteen locations- Bhubaneswar, Cuttack, Jeypore, Ranital, Bikramganj, Sobour, Patna, Ranchi, Chinsurah, Pundibhari, Malda, Masodha, and Varanasi. Except Ranital and Malda, the data was received from all the locations. The data of Patna and Chinsurah was not considered due to low CV% (<5.0). Performance of 2 entries showing significant higher yield than the best check is given below:

Performance of 2 entries showing significant higher yield than the best check in Zone III

Rank	Entry	IET No	Cross combination	Yield kg/ha	DFF	GT
1	4455	30882	CRMS 32A / CRL 123-122-21	7380*	116	LS
2	4441	30869	Rajendra Mahsuri-1 / RGL 7004	6801*	112	LB
	4428	**Swarna (NC)**		**6178**	**117**	
	4436	**Zonal Check (ZC)**		**6290**	**120**	
	4445	**Hybrid Check (HC)**		**6406**	**108**	
	4464	**Local Check (LC)**		**6119**	**121**	
		CD		**432**		

Zone IV: Trial was conducted at three locations- Titabar, Gerua, and Lembucherra. In this zone, data was received only from Gerua-ICAR. Performance of 8 entries showing significant higher yield than the best check is given below:

Performance of 8 entries showing significant higher yield than the best check in Zone IV

Rank	Entry	IET No	Cross combination	Yield kg/ha	DFF	GT
1	4405	30835	Bangabandhu-1 / MTU1010	6412*	112	MS
2	4443	30871		6410*	126	MS
3	4431	30860	Pooja / AC.38687	6400*	120	MS
4	4440	30868	Surendra / N22	6299*	115	MS
5	4421	30851	Vikramarya / Mahsuri	6215*	120	LS
6	4462	30888	R 1706-309-1-171-1/IR64	5906*	105	MS
7	4411	30841	Bamaleshwari / Swarna	5870*	119	LS
8	4416	30846	Improved White Ponni / Kalajoha	5524*	115	MS
	4428	**Swarna (NC)**		**3812**	**108**	
	4436	**Zonal Check (ZC)**		**4999**	**125**	
	4445	**Hybrid Check (HC)**		**6847**	**103**	
	4464	**Local Check (LC)**		**4975**	**119**	
		CD		**524**		

Zone V: Trial was conducted at four locations-Waraseoni, Raipur, Jagdalpur and Sakoli.Except Waraseoni, the data was received from other three locations. The data of Raipur was not considered for analysis. In this zone, none of the nominated entries showed better performance against best check.

Zone VI: Trial was conducted at three locations-Karjat, Pondaghat and Navsari. The data was received from all the three locations, however, the data from Pondaghat (CV %< 5) and Navsari (mean yield<4 tons/ha) was not included for analysis. Performance of 2 entries (hybrids) showing significant higher yield than the best check in this zone is given below:

Performance of 2 entries showing significant higher yield than the best check in Zone VI

Rank	Entry	IET No	Cross combination	Yield kg/ha	DFF	GT
1	4414	30844	MEPH-173 (HYBRID)	10136*	108	LS
2	4435	30864	VNR-233 (HYBRID)	8834*	120	LS
	4428	**Swarna (NC)**		**7097**	**111**	
	4436	**Zonal Check (ZC)**		**7131**	**115**	
	4445	**Hybrid Check (HC)**		**6204**	**104**	
	4464	**Local Check (LC)**		**6915**	**113**	
		CD		**1642**		

Zone VII: Trial was conducted at fifteen locations- Maruteru, Bapatla, Ragolu, Nellore, Warangal, Jagtial, Aduthurai, Coimbaotre, Moncompu, Mugad, Ponnampet, Gangavati,Sirsi, Kurumbapet and Karaikal. The data was received from eight locations (Maruteru, Warangal, Aduthurai, Ponnampet, Gangavati,Sirsi, Kurumbapet and Karaikal), however, the data from Ponnampet (mean yield<4 tons/ha), Sirsi (mean yield<4 tons/ha), Kurumbapet (CV% >20) and Karaikal(CV% <5) was not considered for analysis. Performance of 1 entry showing significant higher yield than the best check is given below:

Performance of one entry showing significant higher yield than the best check in Zone VII

Rank	Entry	IET No	Cross combination	Yield kg/ha	DFF	GT
1	4450	30877	CRL22R / MTU1071	6438*	96	LB
2	4401	30831	CR1009/IET23130	6377*	118	SB
	4428	**Swarna (NC)**		**5557**	**111**	
	4436	**Zonal Check (ZC)**		**5894**	**115**	
	4445	**Hybrid Check (HC)**		**4823**	**102**	
	4464	**Local Check (LC)**		**5826**	**115**	
		CD		**488**		

Across Zone performance- It includes seventeen locations. Nine from Zone III, one from Zone IV, two from Zone V, one from Zone VI and four from Zone VII. Performance of 3 entries (hybrid) showing significant higher yield than the best check is given below:

Performance of 3 entries showing significant higher yield than the best check considering the overall locations

Rank	Entry	IET No	Cross combination	Yield kg/ha	DFF	GT
1	4455	30882	CRMS 32A / CRL 123-122-21	6700*	112	LS
2	4414	30844	MEPH-173 (HYBRID)	6547*	117	LS
3	4435	30864	VNR-233 (HYBRID)	6395*	114	LS
	4428	**Swarna (NC)**		**5973**	**115**	
	4436	**Zonal Check (ZC)**		**6038**	**117**	
	4445	**Hybrid Check (HC)**		**5853**	**105**	
	4464	**Local Check (LC)**		**5798**	**118**	
		CD		**327**		

Conclusion:

Entries promoted- IET Nos. promoted from Zone III- 30882, 30869, 30844; from Zone IV- 30835, 30871, 30860, 30868, 30851, 30888, 30841 and 30846; from Zone VI- 30844, 30864 and from Zone VII 30877 and 30877.

Entries shifted to other trails: IET Nos.30871, 30860, 30851, 30841, 30864 are shifted to other trial due to DFF ≥119 days and 30877, 30888 due to DFF ≤ 105 days.

IET Nos. 30882 (Zone III), 30864, 30844 (Zone VI) showed significant higher yield in respective zones and overall performance.

Table No. 1.34: Composition of entries in Advance Variety Trial 2 & 1-Late (AVT 2 & 1-Late), Kharif 2022

Entry No.	IET No.	Designation	Cross Combination	GT
3rd year of testing				
4301	29351	WGL-1289	MTU1075 / BM 71	LB
4302	29349	R 2284-52-114-1	R 1670-3267-1-3920-1 / ARC 10550	SB
4303	28544 (R)	CR 3969-17-2-2-1-1-1-1	IR 73907-753-2-3 / Pratiksya	LS
4304	**Swarna (NC)**			
2nd year of testing				
4305	29935	MTU 1377	MTU 1075 / MTU 1001	LS
4306	**Pusa 44 (Northern), NDR 8002 (Eastern and Central), Ranjeet (North Eastern), Salivahana (Western), Pushyami (Southern)—ZC**			
4307	28524	RP 6330-179-3-9-1	MTU 1121 / Vijetha	MS
4308	29891	MTU 1376	MTU 2077 / WGL 3962	SB
4309	**Local Check (LC)**			
4310	30821	RP 6533-RMS-1908-41-72-24	Swarna * 2 / Improved Samba Mahsuri	MS
4311	30822	RP 6532-RMS-20-70-29-43	Swarna * 2 / Improved Samba Mahsuri	MS
4312	30823	RP 6533-RMS-1873-21-42-84	Swarna * 2 / Improved Samba Mahsuri	MS
4313	30824	RP 6532-RMS-2341-26-30-59	Swarna * 2 / Improved Samba Mahsuri	MS
4314	**Swarna (RP)**			SB
4315	30825	Pusa 3039-16-4-2-5-1-1-2	Pusa 44 /*2 Pusa 1790	LS
4316	30826	Pusa 1988-15-7-44-98-67	Pusa 44*4 / Robin	MS
4317	29558	Pusa 5417-15-11-9-50-27	Pusa 44 / IR 64-Pup 1-F // Pusa 44*2	LB
4318	30827	CSR 389-16-22	Pusa 44/FL 478*3//Pusa 44 / IRBB 60*3	LB
4319	30828	Pusa 3039-16-4-2-5-1-1-1	Pusa 44 /*2 Pusa 1790	LS
4320	30829	Pusa 1988-15-7-44-98-15	Pusa 44*4 / Robin	LS
4321	30830	CSR 389-16-6	Pusa 44 /FL 478*3//Pusa 44 /IRBB 60*3	LS
4322	29546	Pusa 5417-15-11-9-54-17	Pusa 44 / IR 64-Pup 1-F // Pusa 44*2	MS
4323	**Pusa 44 (RP)**			MS

Table No. 1.35: Grain Yield (kg/ha) in AVT 2 & 1 - LATE, Zone 2, Kharif 2022

ENTRY NO	IET NO	ZONE II- NORTHERN			
		Rajasthan (1)		Zone II (1)	
		Kota		Mean	
4301	29351	4201	6	4201	6
4302	29349	4283	5	4283	5
4303	28544 (R)	4037		4037	
4304	Swarna (NC)	4064		4064	
4305	29935	4392	3	4392	3
4306	Pusa 44 --ZC & RP	2728		2728	
4307	28524	4146	8	4146	8
4308	29891	4037		4037	
4309	Local Check (LC)	4746	1	4746	1
4315	30825	4037		4037	
4316	30826	4092		4092	
4317	29558	4105	10	4105	10
4318	30827	4064		4064	
4319	30828	4146	8	4146	8
4320	30829	4182	7	4182	7
4321	30830	4364	4	4364	4
4322	29546	4446	2	4446	2
Exp. Mean		**4122**		**4122**	
F Value		**1.99(p=0.0438)S**		**1.99(p=0.0438)S**	
CD		835		835	
CV%		**12.18**		**12.18**	
D/S		03-07-2022			
D/P		01-08-2022			
Local Check Name		Pratap -1			

Table No. 1.35 (Contd): Grain Yield (kg/ha) in AVT 2 & 1 - LATE, Zone 3 & 7, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN											
		Odisha				Odisha (2)		Bihar				Bihar (2)	
		Bhubaneswar		Jeypore		Mean		Bikaramganj		Sabour		Mean	
4301	29351	4764		7233	3	5999	5	5951	8	6079	5	6015	5
4302	29349	4442		8490	1	6466	2	5641		5059	10	5350	10
4303	28544 (R)	4890		5044		4967		6201	5	7395	1	6798	3
4304	Swarna (NC)	6329	4	4199		5264	8	6141	6	3404		4773	
4305	29935	6842	2	5955	6	6399	3	6373	3	5458	6	5916	6
4306	Zonal Check (ZC)	5930	6	4395		5163	9	4868		6356	3	5612	7
4307	28524	5940	5	5282	9	5611	6	8391	1	5207	9	6799	2
4308	29891	4765		6394	4	5580	7	5984	7	4882		5433	8
4309	Local Check (LC)	7129	1	8139	2	7634	1	6498	2	7374	2	6936	1
4310	30821	3306		3491		3399		3968		4732		4350	
4311	30822	5308	8	2867		4088		4907		5287	7	5097	
4312	30823	5450	7	4063		4757		5669	10	4091		4880	
4313	30824	3559		5971	5	4765		5530		3584		4557	
4314	Swarna (RP)	6788	3	5294	8	6041	4	6257	4	6194	4	6226	4
4315	30825	4712		4158		4435		4336		4505		4421	
4316	30826	3373		4376		3875		3940		3006		3473	
4317	29558	5046	9	5197	10	5122	10	3417		4475		3946	
4318	30827	3838		2914		3376		5940	9	4171		5056	
4319	30828	4974	10	3321		4148		4016		3983		4000	
4320	30829	2556		3286		2921		4484		3136		3810	
4321	30830	4061		4760		4411		5322		3542		4432	
4322	29546	4236		4784		4510		4391		4792		4592	
4323	Pusa 44 (RP)	4415		5332	7	4874		5639		5216	8	5428	9
Exp. Mean		**4898**		**4998**		**4948**		**5385**		**4867**		**5126**	
F Value		**16.84(p<0.0001)S**		**9.37(p<0.0001)S**		**14.86(p<0.0001)S**		**15.86(p<0.0001)S**		**9.28(p<0.0001)S**		**19.20(p<0.0001)S**	
CD		802		1365		791		770		1119		622	
CV%		**9.95**		**16.6**		**9.71**		**8.69**		**13.98**		**7.37**	
D/S		29-06-2022		07-07-2022				15-06-2022		10-06-2022			
D/P		05-08-2022		07-08-2022				18-07-2022		16-07-2022			
Local Check Name		Kalinga Dhan 1502		Hasanta				R.M-1		Rajendra Mahsuri-1			

Table No. 1.35 (Contd): Grain Yield (kg/ha) in AVT 2 & 1 - LATE, Zone 3 & 7, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN										ZONE VII – SOUTHERN	
		Jharkhand (1)		West Bengal				West Bengal (2)		Zone III (7)		Andhra Pradesh	
		Ranchi		Chinsurah		Pundibhari		Mean		Mean		Maruteru	
4301	29351	4864	9	5778	5	5425	8	5602	6	5728	2	5207	
4302	29349	5720	1 8%	5074		4550		4812		5568	6	5641	5
4303	28544 (R)	5084	4	5630	9	5600	7	5615	5	5692	3	5722	3
4304	Swarna (NC)	5084	4	5185		4900		5043		5035		6045	2
4305	29935	3300		5161				5161		5515	7	5072	
4306	Zonal Check (ZC)	4424		5259		6417	1	5838	4	5378	8	5578	8
4307	28524	3569		5193		5658	5	5426	10	5606	5	4538	
4308	29891	3422		5037		5950	4	5494	8	5205	10	5181	
4309	Local Check (LC)	5280	2	5741	6	4433		5087		6371	1	5388	
4310	30821	3471		5074		4083		4579		4018		5557	9
4311	30822	4669		5222		4958		5090		4745		5451	
4312	30823	4547		5259		4317		4788		4771		4908	
4313	30824	3936		5130		5425	8	5278		4734		5651	4
4314	Swarna (RP)	5280	2	5141		4783		4962		5677	4	6072	1
4315	30825	4913	8	5796	4	5367	10	5582	7	4827		5478	
4316	30826	4180		5178		5250		5214		4186		4941	
4317	29558	4742	10	5589	10	4550		5070		4717		5170	
4318	30827	4718		5667	7	3967		4817		4459		5592	7
4319	30828	4204		6015	2	4667		5341		4454		5515	
4320	30829	4180		5893	3	6358	2	6126	1	4270		5462	
4321	30830	4351		5552		5367	10	5460	9	4708		5619	6
4322	29546	4987	7	5667	7	6183	3	5925	2	5006		5061	
4323	Pusa 44 (RP)	5060	6	6111	1	5658	5	5885	3	5347	9	5544	10
Exp. Mean		**4521**		**5450**		**5176**		**5313**		**5044**		**5408**	
F Value		**3.10(p<0.0001)S**		**3.07(p<0.0001)S**		**14.74(p<0.0001)S**		**8.63(p<0.0001)S**		**18.53(p<0.0001)S**		**1.58(p=0.0920)S**	
CD		1025		525		521		385		377		790	
CV%		**13.77**		**5.86**		**6.11**		**4.41**		**4.54**		**8.88**	
D/S				30-06-2022		23-06-2022						25-06-2022	
D/P				05-07-2022		23-07-2022						25-07-2022	
Local Check Name				KAUSHALYA		Swarna (MTU 2907)						MTU1061	

Table No. 1.35 (Contd): Grain Yield (kg/ha) in AVT 2 & 1 - LATE, Zone 3 & 7, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN									
		Andhra Pradesh				Andra Pradesh (3)		Telangana (1)		Tamil Nadu (1)	
		Ragolu		Nellore		Mean		Warangal		Aduthurai	
4301	29351	8287	4	13835	2	9110	2 10%	7282	2	5417	5
4302	29349	6813		14194	1	8883	3 8%	5979	7	4444	
4303	28544 (R)	8084	5	11039		8282	7	6719	3	5278	7
4304	Swarna (NC)	10463	2			8254	8	5120		4972	
4305	29935	4249		11039		6787		6557	4	7139	1 * 17%
4306	Zonal Check (ZC)	5751		10609		7313		8304	1	6111	2
4307	28524	8896	3	13190	3	8875	4 8%	5127	10	4583	
4308	29891	11984	1	12473	5	9879	1 * 20%	5971	8	4861	
4309	Local Check (LC)	7603	6	11398		8130	10	6048	6	6083	3
4310	30821	2756		10824		6379		3714		5278	7
4311	30822	4209		11613	10	7091		5191	9	5000	
4312	30823	4049		10251		6403		4910		5083	10
4313	30824	5623		10323		7199		4591		4222	
4314	Swarna (RP)	7265	10	11039		8125		6537	5	5278	7
4315	30825	7521	7	12043	7	8347	6	5067		4722	
4316	30826	6560				5751				5000	
4317	29558	7365	8	11183		7906		4452		5556	4
4318	30827	7176		13047	4	8605	5	5044		5000	
4319	30828	7336	9	11613	10	8155	9	4686		5000	
4320	30829	6043				5753		4042		4472	
4321	30830	5242		12330	6	7730		5022		5139	9
4322	29546	6122		11613	10	7599		5043		4917	
4323	Pusa 44 (RP)	7012		11756	8	8104		4938		4917	
Exp. Mean		**6800**		**11771**		**7768**		**5470**		**5151**	
F Value		**23.51(p<0.0001)S**		**2.23(p=0.0154)S**		**10.33(p=0.0154)S**		**10.46(p<0.0001)S**		**5.03(p<0.0001)S**	
CD		1163		2299		905		936		773	
CV%		**10.39**		**11.81**		**7.08**		**10.39**		**9.12**	
D/S		02-07-2022		02-09-2022				16-06-2022		12-08-2022	
D/P		29-07-2022		21-09-2022				11-07-2022		13-09-2022	
Local Check Name		RGL 11414		NLR 33892				WGL 44 (Siddi)		ADT 51	

Table No. 1.35 (Contd): Grain Yield (kg/ha) in AVT 2 & 1 - LATE, Zone 3 & 7, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN						Overall Mean (14)	
		Karnataka (1)		Puducherry (1)		Zone VII (7)			
		Gangavathi		Kurumbapet		Mean			
4301	29351	8026	1 * 17%	8713	5	8110	2 * 10%	6919	1 * 5%
4302	29349	5724	7	9771	1 14%	7509	3	6539	5
4303	28544 (R)	6474	5	8466	7	7397	4	6545	4
4304	Swarna (NC)	5683	8			6457		5627	
4305	29935	6609	4	8924	2	7084	7	6360	8
4306	Zonal Check (ZC)	6833	3	8536	6	7389	5	6384	6
4307	28524	5147		8113	10	7085	6	6345	9
4308	29891	7833	2 15%	8818	4	8160	1 * 10%	6683	2
4309	Local Check (LC)	4365		6667		6793	10	6582	3
4310	30821	3699		6949		5540		4779	
4311	30822	4737		8924	2	6446		5596	
4312	30823	5609	9	8183	9	6142		5456	
4313	30824	5417		5538		5909		5321	
4314	Swarna (RP)	5449		7866		7072	8	6375	7
4315	30825	4558		7619		6715		5771	
4316	30826	5026		6878		5681		4809	
4317	29558	5801	6	6702		6604		5660	
4318	30827	5538		6808		6886	9	5673	
4319	30828	4147		7513		6544		5499	
4320	30829	4154		7160		5222		4710	
4321	30830	5558	10	5608		6360		5534	
4322	29546	4929		6808		6356		5681	
4323	Pusa 44 (RP)	4878		8325	8	6767		6057	10
Exp. Mean		**5487**		**7677**		**6786**		**5877**	
F Value		**9.96(p<0.0001)S**		**6.19(p<0.0001)S**		**16.04(p<0.0001)S**		**32.92(p<0.0001)S**	
CD		1001		1396		533		303	
CV%		**8.796**		**11.03**		**4.77**		**3.13**	
D/S		12-07-2022		17.08.2022					
D/P		18-08-2022		21.09.2022					
Local Check Name		BPT-5204		PY-7					

Table No. 1.35 (Contd): Grain Yield (kg/ha) in AVT 2 & 1 - LATE, Zone 4 & 6, Kharif 2022

ENTRY NO	IET NO	ZONE IV- NORTH EASTERN					ZONE VI – WESTERN			
		Assam (1)		Zone IV(1)			Maharashtra			
		Gerua-ICAR		Mean			Karjat		Pondagha	
4301	29351	6587	1	6587	1 *	9%	5284	2	5700	4
4302	29349	4440	8	4440	8		4437	5	5823	3
4303	28544 (R)	5413	3	5413	3		4875	4	5831	2
4304	Swarna (NC)						3384	9	5884	1
4305	29935	5147	5	5147	5		3718	7	4428	8
4306	Zonal Check (ZC)	5373	4	5373	4		5120	3	5034	7
4307	28524	5080	6	5080	6		3670	8	4374	9
4308	29891	5013	7	5013	7		5655	1	5611	5
4309	Local Check (LC)	6053	2	6053	2		4278	6	5123	6
Exp. Mean		**5388**		**5388**			**4491**		**5312**	
F Value		**14.17(p<0.0001)S**		**14.17(p<0.0001)S**			**7.42(p=0.0002)S**		**7.49(p=0.0001)S**	
CD		472		472			785		588	
CV%		**5.00**		**5.00**			**10.09**		**6.39**	
D/S		14-07-2022					17-06-2022		09-06-2022	
D/P		09-08-2022					14-07-2022		02-07-2022	
Local Check Name		Swarna					Karjat 2		Karjat-2	

Table No. 1.35(Contd): Grain Yield (kg/ha) in AVT 2 & 1 - LATE, Zone 4 & 6, Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN									Overall Mean (4)		
		Maharashtra (2)			Gujarat 1			Zone VI (3)					
		Mean			Navasari			Mean					
4301	29351	5492	2	8%	5897	1	14%	5627	1 *	12%	5867	1 *	15%
4302	29349	5130	4		4485	7		4915	5		4796	7	
4303	28544 (R)	5353	3	5%	4942	4		5216	3		5265	3	
4304	Swarna (NC)	4634	7		5161	3		4810	6		4810	6	
4305	29935	4073	8		3411	9		3852	9		4176	9	
4306	Zonal Check (ZC)	5077	5		4928	5		5027	4		5114	4	
4307	28524	4022	9		4084	8		4043	8		4302	8	
4308	29891	5633	1 *	11%	5269	2		5512	2 *	10%	5387	2 *	5%
4309	Local Check (LC)	4701	6		4597	6		4666	7		5013	5	
Exp. Mean		**4902**			**4753**			**4852**			**4970**		
F Value		**11.35(p<0.0001)S**			**6.95(p=0.0004)S**			**41.18(p<0.0001)S**			**43.34(p<0.0001)S**		
CD		467			758			252			215		
CV%		**5.50**			**9.22**			**3.01**			**2.51**		
D/S					11-06-2022								
D/P					03-07-2022								
Local Check Name					Mahsuri								

Table No. 1.35 (Contd): Grain Yield (kg/ha) in AVT 2 & 1 - LATE, Zone 5, Kharif 2022

ENTRY NO	IET NO	ZONE-V – CENTRAL						
		Chhattisgarh				Chhattisgarh (2)		
		Raipur		Jagadalpur		Mean		
4301	29351	5226	8	5923	5	5575	8	
4302	29349	5321	7	6756	3	6039	2	6%
4303	28544 (R)	6331	2	5060		5696	6	
4304	Swarna (NC)	5613	6	5828	6	5721	5	
4305	29935	4807	9	5735	8	5271	10	
4306	Zonal Check (ZC	5888	5	5172	10	5530	9	
4307	28524	6005	4	5752	7	5879	3	
4308	29891	6032	3	5473	9	5753	4	
4309	Local Check (LC	4353	10	3797		4075		
4310	30821	3322		4601		3962		
4311	30822	3845		4992		4419		
4312	30823	3846		6595	4	5221		
4313	30824	3587		7707	1	5647	7	
4314	Swarna (RP)	6762	1	7698	2	7230	1	
Exp. Mean		**5067**		**5792**		**5429**		
F Value		**20.51(p<0.0001)S**		**5.03(p=0.0003)S**		**7.60(p<0.0001)S**		
CD		672		1385		837		
CV%		**7.90**		**14.25**		**9.19**		
D/S		29-06-2022		23-06-2022				
D/P		18-07-2022		18-07-2022				
Local Check Name		Jaldubi		Jaldubi				

Table No. 1.35 (Contd): Grain Yield (kg/ha) in AVT 2 & 1 - LATE, Zone 5, Kharif 2022

ENTRY NO	IET NO	ZONE-V – CENTRAL						Overall Mean (3)		
		Maharashtra (1)			Zone V (3)					
		Sakoli			Mean					
4301	29351	4785	5		5311	7		5311	7	
4302	29349	4083	8		5387	6	5%	5387	6	5%
4303	28544 (R)	5071	4	11%	5487	4	7%	5487	4	7%
4304	Swarna (NC)	3914	10		5118	8		5118	8	
4305	29935	5892	2 *	29%	5478	5	7%	5478	5	7%
4306	Zonal Check (ZC	3813			4958	9		4958	9	
4307	28524	5895	1 *	29%	5884	2 *	15%	5884	2 *	15%
4308	29891	5532	3 *	21%	5679	3	11%	5679	3	11%
4309	Local Check (LC	4581	6		4244			4244		
4310	30821	3423			3782			3782		
4311	30822	3505			4114			4114		
4312	30823	4251	7		4897	10		4897	10	
4313	30824	3323			4872			4872		
4314	Swarna (RP)	4018	9		6159	1		6159	1	
Exp. Mean		**4435**			**5098**			**5098**		
F Value		**8.31(p<0.0001)S**						**8.20(p<0.0001)S**		
CD		835			649			649		
CV%		**11.21**			**7.58**			**7.58**		
D/S		07-07-2022								
D/P		03-08-2022								
Local Check Name		SKL-8								

Table No. 1.35 (Contd) : Grain Yield (kg/ha) in AVT 2 & 1-LATE, (Trial Not Considered) Zone 2, Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED			
		Uttar Pradesh (0)			
		@Nagina		@Kanpur	
4301	29351	3748		2603	3
4302	29349	3511		2185	7
4303	28544 (R)	4424	6	1952	
4304	Swarna (NC)	3996	7	2116	8
4305	29935	3276		2899	1
4306	Pusa 44 --ZC & RP	3170		2032	9
4307	28524	3721		2688	2
4308	29891	4610	5	2312	5
4309	Local Check (LC)	3666			
4315	30825	5265	1	2026	10
4316	30826	3813	10	2365	4
4317	29558	3931	8	2238	6
4318	30827	4869	4		
4319	30828	3931	8		
4320	30829	3257			
4321	30830	4954	3		
4322	29546	5161	2		
Exp. Mean		**4077**		**2311**	
F Value		**37.60(p<0.0001)S**		**1.74(p=0.1325)S**	
CD		302		641	
CV%		**4.46**		**16.28**	
D/S		17-06-2022		02-07-2022	
D/P		16-07-2022		26-08-2022	
Local Check Name		NDR 359			

Table No. 1.35 (Contd): Grain Yield (kg/ha) in AVT 2 & 1-LATE, (Trial Not Considered) Zone 3 & 7, Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED									
		Bihar		Uttar Pradesh		Karnataka				Puducherry	
		@Patna-ICAR		@Masodha		@Ponnampet		@Sirsi		@Karaikal	
4301	29351	9944	4	3892		3488	6	1433	6	4216	
4302	29349	11161	1	4348		1428		1450	5	4213	
4303	28544 (R)	9548	6	4187		3538	5	992		3904	
4304	Swarna (NC)	7834		5878	8	558		1367	7	3753	
4305	29935	8225		4267		4245	3	2983	2	4764	
4306	Zonal Check (ZC)	8797		4375		2567		2308	4	5880	2
4307	28524	9270	9	4200		2946		2633	3	4213	
4308	29891	8874		3999		4458	2	3433	1	5144	9
4309	Local Check (LC)	8330		5126		1838				5649	6
4310	30821	7893		6320	5	4475	1	700		5431	7
4311	30822	9451	7	6388	3	3409	7	633		4829	
4312	30823	8881		6549	1	3120	9	692		2587	
4313	30824	6234		5878	8	2649		600		5082	10
4314	Swarna (RP)	10553	2	6361	4	603		983		3047	
4315	30825	8702		5824	10	3880	4	1242	9	6600	1
4316	30826	10025	3	5609		2306		1133		5737	4
4317	29558	8942		5475		2882		1158		5749	3
4318	30827	9306	8	6549	1	3316	8	1217	10	3747	
4319	30828	7365		6159	7	2635		1167		5044	
4320	30829			5260		2607		1350	8	5156	8
4321	30830	9185		5319		2747		1200		3749	
4322	29546	9549	5	6253	6	2635		1167		5693	5
4323	Pusa 44 (RP)	9244	10	3744		3042	10	958		4913	
Exp. Mean		**8969**		**5303**		**2842**		**1400**		**4744**	
F Value		**20.12(p<0.0001)S**		**45.96(p<0.0001)S**		**5.18(p<0.0001)S**		**15.71(p<0.0001)S**		**39.5.27(p<0.0001)S**	
CD		657		390		1317		577		43	
CV%		**4.45**		**4.47**		**22.34**		**19.82**		**0.55**	
D/S		24-06-2022		24-06-2022		20-07-2022		06-06-2022		20-08-2022	
D/P		19-07-2022		27-07-2022		26-08-2022		01-07-2022		20-09-2022	
Local Check Name		Sambha Mahsuri		Sambha Mahsuri-Sub 1		Tunga		ASHA		BPT 5204 (Samba Mashuri)	

Table No. 1.35 (Contd): Grain Yield (kg/ha) in AVT 2 & 1-LATE, (Trial Not Considered) Zone 4 & 6, Kharif 2022

ENTRY NO	IET NO	TRIAL NOT CONSIDERED	
		Tripura	
		@Lembucherra	
4301	29351	4676	4
4302	29349	2071	9
4303	28544 (R)	4862	3
4304	Swarna (NC)	2709	7
4305	29935	5270	2
4306	Zonal Check (ZC)	2746	6
4307	28524	3192	5
4308	29891	6160	1
4309	Local Check (LC)	2152	8
Exp. Mean		**3760**	
F Value		**130.82(p<0.0001)S**	
CD		352	
CV%		**5.40**	
D/S		16-07-2022	
D/P		08-08-2022	
Local Check Name		Jala dhan	

Table No. 1.36: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 & 1 - LATE, Zone 2 Kharif 2022

ENTRY NO	IET NO	Zone II - NORTHERN					
		Rajasthan (1)			Zone II (1)		
		Kota			Mean		
		DFF	PH	PAN	DFF	PH	PAN
4301	29351	109	120	203	109	120	203
4302	29349	105	118	203	105	118	203
4303	28544 (R)	107	101	150	107	101	150
4304	Swarna (NC)	103	86	153	103	86	153
4305	29935	109	106	214	109	106	214
4306	Pusa 44 --ZC & RP	101	99	142	101	99	142
4307	28524	108	107	177	108	107	177
4308	29891	107	113	129	107	113	129
4309	Local Check (LC)	102	118	233	102	118	233
4315	30825	102	97	187	102	97	187
4316	30826	102	93	157	102	93	157
4317	29558	105	97	151	105	97	151
4318	30827	103	93	143	103	93	143
4319	30828	105	94	166	105	94	166
4320	30829	108	107	152	108	107	152
4321	30830	103	90	189	103	90	189
4322	29546	107	104	233	107	104	233
Exp. Mean		**105**	**103**	**175**	**105**	**103**	**175**

Table No. 1.36 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 & 1 - LATE, Zone 3 & 7Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN											
		Odisha						Odisha (2)			Bihar		
		Bhubaneswar			Jeypore			Mean			Bikaramganj		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4301	29351	117	92	179	107	111	401	112	101	290	115	141	327
4302	29349	117	98	245	112	79	292	114	89	268	128	105	343
4303	28544 (R)	120	86	263	117	69	326	119	77	294	128	116	354
4304	Swarna (NC)	126	89	305	104	66	346	115	77	326	128	111	396
4305	29935	124	90	239	115	84	322	119	87	281	122	109	415
4306	Zonal Check (ZC)	118	92	266	101	84	312	109	88	289	131	109	364
4307	28524	120	90	264	112	90	374	116	90	319	135	103	420
4308	29891	120	90	302	114	88	328	117	89	315	130	110	404
4309	Local Check (LC)	123	84	220	112	98	395	118	91	307	125	120	330
4310	30821	104	88	249	101	82	365	103	85	307	106	111	309
4311	30822	106	89	267	103	66	333	104	77	300	109	96	410
4312	30823	107	76	226	102	70	289	104	73	258	108	107	394
4313	30824	97	105	262	101	89	224	99	97	243	106	108	385
4314	Swarna (RP)	116	86	261	113	70	346	114	78	304	122	101	339
4315	30825	104	86	229	114	75	264	109	81	247	108	98	382
4316	30826	97	76	285	100	76	375	99	76	330	107	98	379
4317	29558	107	84	284	104	87	264	105	85	274	112	102	385
4318	30827	106	83	218	100	71	238	103	77	228	114	101	375
4319	30828	101	90	309	100	81	306	101	85	308	107	101	355
4320	30829	99	81	273	100	80	318	100	81	296	107	115	364
4321	30830	104	79	276	102	72	324	103	75	300	113	105	383
4322	29546	103	77	287	104	79	343	104	78	315	108	102	376
4323	Pusa 44 (RP)	105	71	244	102	81	261	104	76	252	112	95	409
Exp. Mean		**110**	**86**	**259**	**106**	**80**	**319**	**108**	**83**	**289**	**117**	**107**	**374**

Table No. 1.36 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 & 1 - LATE, Zone 3 & 7Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN											
		Bihar			Bihar (2)			Jharkhand (1)			West Bengal		
		Sabour			Mean			Ranchi			Chinsurah		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4301	29351	133	140	277	124	141	302	116	116	127	124	94	286
4302	29349	133	110	269	131	108	306	126	97	191	121	95	286
4303	28544 (R)	133	108	284	130	112	319	108	88	171	120	45	286
4304	Swarna (NC)	127	87	286	127	99	341	115	86	205	125	100	275
4305	29935	143	104	228	132	107	321	135	87	163	127	109	341
4306	Zonal Check (ZC)	132	107	288	131	108	326	121	88	168	117	97	352
4307	28524	134	115	271	134	109	346	127	96	163	124	99	308
4308	29891	145	111	247	137	111	326	128	87	174	128	105	308
4309	Local Check (LC)	131	118	254	128	119	292	123	90	166	116	112	286
4310	30821	110	95	234	108	103	271	123	90	158	117	104	330
4311	30822	115	90	192	112	93	301	111	78	144	118	97	385
4312	30823	115	91	214	112	99	304	110	85	136	119	101	330
4313	30824	111	98	188	109	103	287	107	87	166	116	109	286
4314	Swarna (RP)	128	94	254	125	98	296	108	83	194	124	83	297
4315	30825	108	85	237	108	92	310	115	84	182	119	86	275
4316	30826	99	93	184	103	96	281	109	79	212	107	95	286
4317	29558	110	91	231	111	97	308	110	82	181	117	89	286
4318	30827	115	85	204	115	93	290	115	83	134	116	93	308
4319	30828	110	83	247	109	92	301	108	83	154	119	102	330
4320	30829	102	92	184	105	104	274	105	89	162	117	105	319
4321	30830	106	80	196	110	93	290	105	83	166	118	98	297
4322	29546	111	91	267	110	97	321	116	89	138	123	97	330
4323	Pusa 44 (RP)	114	88	211	113	92	310	111	84	192	118	81	374
Exp. Mean		**120**	**98**	**237**	**118**	**103**	**305**	**115**	**88**	**167**	**120**	**95**	**311**

Table No. 1.36 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 & 1 - LATE, Zone 3 & 7Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN									ZONE VII – SOUTHERN		
		West Bengal			West Bengal (2)			Zone III (7)			Andhra Pradesh		
		Pundibhari			Mean			Mean			Maruteru		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4301	29351	113	129	227	118	111	257	118	117	261	104	125	328
4302	29349	114	91	257	118	93	272	122	96	269	114	137	339
4303	28544 (R)	122	104	295	121	74	290	121	88	283	115	137	315
4304	Swarna (NC)	113	116	204	119	108	239	120	93	288	112	118	299
4305	29935				127	109	341	128	97	285	119	123	337
4306	Zonal Check (ZC)	118	109	275	118	103	314	120	98	289	116	124	304
4307	28524	120	107	218	122	103	263	125	100	288	116	136	328
4308	29891	111	107	288	119	106	298	125	100	293	119	122	321
4309	Local Check (LC)	120	116	206	118	114	246	121	106	265	123	119	271
4310	30821	102	98	212	110	101	271	109	95	265	98	124	323
4311	30822	103	96	209	111	96	297	109	87	277	99	146	312
4312	30823	125	96	217	122	99	273	112	89	258	99	118	310
4313	30824	128	110	237	122	109	262	110	101	250	98	128	321
4314	Swarna (RP)	122	110	239	123	96	268	119	90	276	115	127	290
4315	30825	106	97	248	112	91	261	111	87	260	96	132	304
4316	30826	125	89	274	116	92	280	106	87	285	97	128	297
4317	29558	109	99	282	113	94	284	110	90	273	96	127	282
4318	30827	128	102	243	122	97	276	113	88	246	97	127	330
4319	30828	125	90	225	122	96	278	110	90	275	97	129	348
4320	30829	126	95	262	122	100	291	108	94	269	97	112	323
4321	30830	108	94	250	113	96	274	108	87	270	96	129	282
4322	29546	107	99	235	115	98	283	110	91	282	98	131	297
4323	Pusa 44 (RP)	106	94	229	112	87	302	110	85	274	98	129	312
Exp. Mean		**116**	**102**	**242**	**118**	**99**	**279**	**115**	**94**	**273**	**105**	**127**	**312**

Table No. 1.36 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 & 1 - LATE, Zone 3 & 7Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN											
		Andhra Pradesh						Andhra Pradesh (3)			Telangana (1)		
		Ragolu			Nellore			Mean			Warangal		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4301	29351	105	172	262	105	118	429	105	138	340	114	147	336
4302	29349	106	134	240	116	114	440	112	129	339	117	128	376
4303	28544 (R)	104	120	295	104	91	342	107	116	317	119	123	365
4304	Swarna (NC)	104	118	419				108	118	359	118	117	483
4305	29935	113	132	308	118	116	342	117	124	329	124	127	348
4306	Zonal Check (ZC)	109	133	260	103	101	329	109	119	297	119	129	364
4307	28524	109	137	279	114	108	409	113	127	339	118	132	351
4308	29891	116	143	277	119	116	387	118	127	328	126	127	366
4309	Local Check (LC)	111	132	299	107	90	353	114	113	308	111	118	372
4310	30821	95	101	244	108	88	336	100	104	301	101	105	317
4311	30822	99	102	255	106	82	360	101	110	309	103	98	328
4312	30823	99	101	238	108	77	318	102	99	289	102	97	318
4313	30824	91	120	237	99	91	320	96	113	293	100	118	328
4314	Swarna (RP)	110	117	297	111	91	342	112	111	310	117	116	354
4315	30825	90	108	339	105	84	373	97	108	339	94	96	339
4316	30826	95	95	308				96	111	303			
4317	29558	99	103	279	105	84	347	100	105	303	99	103	339
4318	30827	99	104	288	101	81	404	99	104	341	97	97	334
4319	30828	93	105	317	105	83	360	98	106	341	96	98	348
4320	30829	93	104	280				95	108	302	95	103	356
4321	30830	95	99	299	105	81	382	99	103	321	98	94	334
4322	29546	100	106	286	101	70	360	100	102	314	98	104	325
4323	Pusa 44 (RP)	99	103	308	106	83	364	101	105	328	100	97	333
Exp. Mean		**101**	**117**	**288**	**107**	**92**	**365**	**104**	**113**	**320**	**108**	**112**	**351**

Table No.1.36 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 & 1 - LATE, Zone 3 & 7Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN												Overall Mean (14)		
		Tamil Nadu (1)			Karnataka (1)			Puducherry (1)			Zone VII (7)					
		Aduthurai			Gangavathi			Kurumbapet			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4301	29351	106	99	315	109	129	371	97	134	407	106	132	349	112	125	305
4302	29349	103	95	323	116	104	342	100	114	457	110	118	360	116	107	314
4303	28544 (R)	105	97	327	114	92	330	103	99	437	109	108	344	115	98	314
4304	Swarna (NC)	108	75	303	118	87	321				112	103	365	116	97	320
4305	29935	108	99	306	121	103	328	106	114	430	115	116	343	121	107	316
4306	Zonal Check (ZC)	106	98	353	117	96	299	100	100	353	110	111	323	115	105	306
4307	28524	108	89	325	119	99	311	101	108	420	112	116	346	118	108	317
4308	29891	108	90	336	117	99	312	104	115	407	116	116	344	120	108	318
4309	Local Check (LC)	108	106	334	117	81	300	104	104	427	111	107	336	116	106	301
4310	30821	101	89	335	110	82	291	96	93	410	101	97	322	105	96	294
4311	30822	106	88	324	108	75	271	102	94	450	103	98	329	106	93	303
4312	30823	106	83	284	111	82	301	100	84	460	103	92	318	108	91	288
4313	30824	97	93	363	111	96	292	95	93	427	99	105	327	104	103	288
4314	Swarna (RP)	104	93	307	122	78	300	101	97	443	111	103	333	115	96	305
4315	30825	105	95	334	106	81	303	92	86	540	98	97	362	104	92	311
4316	30826	99	95	285	105	84	299	88	69	450	97	94	328	102	90	303
4317	29558	108	94	295	110	86	371	96	83	453	102	97	338	106	94	306
4318	30827	106	94	343	104	84	326	96	84	467	100	96	356	107	92	301
4319	30828	108	96	322	106	84	308	91	85	483	99	97	355	105	93	315
4320	30829	99	85	383	102	89	318	91	82	450	96	96	352	103	95	307
4321	30830	100	86	305	104	82	311	96	88	423	99	94	334	104	91	302
4322	29546	99	92	314	107	84	311	100	86	447	101	96	334	106	93	308
4323	Pusa 44 (RP)	104	86	284	107	85	314	95	80	553	101	95	353	106	90	314
Exp. Mean		**104**	**92**	**322**	**111**	**89**	**314**	**98**	**95**	**445**	**105**	**104**	**341**	**110**	**99**	**307**

Table No. 1.36 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 & 1 - LATE, Zone 4 & 6, Kharif 2022

ENTRY NO	IET NO	ZONE IV- NORTH EASTERN						ZONE VI – WESTERN					
		Assam (1)			Zone IV (1)			Maharashtra					
		Gerua-ICAR			Mean			Karjat			Pondaghat		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4301	29351	109	154	252	109	154	252	109	155	240	109	152	199
4302	29349	112	125	261	112	125	261	113	132	231	109	115	210
4303	28544 (R)	112	111	304	112	111	304	110	114	219	113	105	210
4304	Swarna (NC)							111	112	226	112	98	202
4305	29935	116	125	268	116	125	268	119	134	231	117	115	201
4306	Zonal Check (ZC)	116	133	307	116	133	307	114	142	211	113	121	207
4307	28524	116	124	262	116	124	262	111	144	222	112	124	202
4308	29891	123	128	315	123	128	315	119	131	226	118	114	210
4309	Local Check (LC)	105	104	266	105	104	266	110	109	212	109	95	194
Exp. Mean		**114**	**126**	**279**	**114**	**126**	**279**	**113**	**130**	**224**	**112**	**115**	**204**

Table No. 1.36 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 & 1 - LATE, Zone 4 & 6, Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN									Overall Mean (4)		
		Maharashtra (2)			Gujarat 1			Zone VI (3)					
		Mean			Navasari			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4301	29351	109	153	220	107	158	207	108	155	215	108	155	224
4302	29349	111	123	221	108	127	210	110	124	217	111	125	228
4303	28544 (R)	111	110	214	109	112	213	111	110	214	111	111	236
4304	Swarna (NC)	112	105	214	107	100	227	110	103	218	110	103	218
4305	29935	118	124	216	122	116	190	119	121	207	119	122	223
4306	Zonal Check (ZC)	114	132	209	112	134	251	113	133	223	114	133	244
4307	28524	112	134	212	110	131	196	111	133	207	112	131	221
4308	29891	119	122	218	119	136	226	119	127	221	120	127	244
4309	Local Check (LC)	110	102	203	110	165	200	110	123	202	109	118	218
Exp. Mean		**113**	**123**	**214**	**111**	**131**	**213**	**112**	**126**	**214**	**113**	**125**	**228**

Table No. 1.36 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 & 1 - LATE, Zone 5, Kharif 2022

ENTRY NO	IET NO	ZONE-V – CENTRAL								
		Chhattisgarh						Chhattisgarh (2)		
		Raipur			Jagadalpur			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4301	29351	117	109	147	124	110	273	120	110	210
4302	29349	117	106	147	118	88	338	118	97	243
4303	28544 (R)	118	108	187	113	72	300	116	90	243
4304	Swarna (NC)	117	93	150	117	70	266	117	82	208
4305	29935	128	104	161	125	81	224	127	92	193
4306	Zonal Check (ZC)	113	105	110	114	77	290	114	91	200
4307	28524	123	114	165	117	85	273	120	100	219
4308	29891	129	109	128	114	76	288	122	92	208
4309	Local Check (LC)	117	151	128	110	90	250	114	120	189
4310	30821	105	99	159	103	76	235	104	87	197
4311	30822	105	92	133	104	74	289	105	83	211
4312	30823	106	92	171	107	72	232	107	82	201
4313	30824	104	114	167	105	91	285	105	103	226
4314	Swarna (RP)	116	102	163	116	70	305	116	86	234
Exp. Mean		**115**	**107**	**151**	**113**	**81**	**275**	**114**	**94**	**213**

Table No. 1.36 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 & 1 - LATE, Zone 5, Kharif 2022

ENTRY NO	IET NO	ZONE-V – CENTRAL						Overall Mean (3)		
		Maharashtra (1)			Zone V (3)					
		Sakoli			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4301	29351	112	137	293	118	119	238	118	119	238
4302	29349	115	122	283	117	106	256	117	106	256
4303	28544 (R)	113	113	302	115	98	263	115	98	263
4304	Swarna (NC)	111	104	278	115	89	231	115	89	231
4305	29935	117	113	316	123	99	234	123	99	234
4306	Zonal Check (ZC)	108	116	267	112	100	222	112	100	222
4307	28524	114	113	319	118	104	252	118	104	252
4308	29891	120	117	306	121	100	241	121	100	241
4309	Local Check (LC)	110	112	275	112	118	218	112	118	218
4310	30821	105	97	170	104	90	188	104	90	188
4311	30822	106	98	168	105	88	197	105	88	197
4312	30823	107	100	265	107	88	223	107	88	223
4313	30824	105	101	191	105	102	215	105	102	215
4314	Swarna (RP)	129	92	264	120	88	244	120	88	244
Exp. Mean		**112**	**110**	**264**	**114**	**99**	**230**	**114**	**99**	**230**

Table No.1.36 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 & 1 - LATE, (Trials Not Considered) Zone 2, Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED					
		Uttar Pradesh					
		@Nagina			@Kanpur		
		DFF	PH	PAN	DFF	PH	PAN
4301	29351	135	119	224	54	83	297
4302	29349	113	97	265	54	75	279
4303	28544 (R)	114	85	242	54	70	260
4304	Swarna (NC)	116	75	206	62	94	254
4305	29935	114	78	297	47	73	243
4306	Pusa 44 --ZC & RP	132	73	235	50	69	272
4307	28524	112	92	201	47	86	288
4308	29891	119	84	253	63	84	271
4309	Local Check (LC)	113	96	256			
4315	30825	123	89	299	69	80	256
4316	30826	117	88	290	59	89	262
4317	29558	119	104	196	46	85	276
4318	30827	133	72	188			
4319	30828	122	82	224			
4320	30829	115	80	227			
4321	30830	125	81	236			
4322	29546	123	98	304			
Exp. Mean		**120**	**88**	**244**	**55**	**81**	**269**

Table No.1.36 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 & 1 - LATE,(Trials Not Considered) Zone 3 & 7, Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED														
		Bihar			Uttar Pradesh			Karnataka						Puducherry		
		@Patna-ICAR			@Masodha			@Ponnampet			@Sirsi			@Karaikal		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4301	29351	107	137	244	113	136	228	108	96	298	110	110	218	83	126	517
4302	29349	114	118	249	116	113	233	118	77	290	113	90	294	93	120	531
4303	28544 (R)	116	107	288	120	89	229	117	67	385	113	82	288	91	88	498
4304	Swarna (NC)	118	86	355	118	92	274	120	57	356	119	77	277	90	106	525
4305	29935	124	103	324	115	110	227	122	80	421	124	99	261	95	116	437
4306	Zonal Check (ZC)	114	99	314	117	103	232	122	74	370	119	86	281	94	119	565
4307	28524	118	107	284	120	102	233	122	81	341	119	94	287	94	136	479
4308	29891	126	116	342	115	114	243	121	80	421	127	96	350	95	125	408
4309	Local Check (LC)	113	98	389	114	79	263	106	69	305		.		93	133	545
4310	30821	95	90	291	113	110	295	126	89	399	107	79	281	82	116	538
4311	30822	97	93	263	116	86	297	108	69	341	106	72	241	86	132	622
4312	30823	99	93	275	119	93	297	109	75	370	106	73	281	95	126	565
4313	30824	95	105	249	121	107	256	115	75	327	106	81	251	91	122	574
4314	Swarna (RP)	113	94	307	119	89	286	126	59	414	121	78	284	96	111	433
4315	30825	94	95	274	115	105	255	118	65	334	106	70	251	83	110	578
4316	30826	89	95	285	117	82	256	105	65	385	106	73	284	90	95	408
4317	29558	94	93	271	120	94	264	111	62	305	106	81	267	90	111	572
4318	30827	96	94	248	120	94	307	112	67	319	102	73	284	82	118	586
4319	30828	91	93	302	116	95	274	114	65	407	106	72	294	83	100	579
4320	30829				116	107	256	107	64	356	104	73	274	85	101	585
4321	30830	92	89	270	113	86	249	116	66	341	106	73	267	95	111	617
4322	29546	98	102	244	116	100	299	115	60	356	107	75	317	91	119	543
4323	Pusa 44 (RP)	92	93	268	120	80	228	109	66	348	107	75	291	91	100	464
Exp. Mean		**104**	**100**	**288**	**117**	**99**	**260**	**115**	**71**	**356**	**111**	**81**	**278**	**90**	**115**	**529**

Table No.1.36 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 & 1 - LATE, (Trials Not Considered) Zone 4 & 6, Kharif 2022

ENTRY NO	IET NO	TRIAL NOT CONSIDERED		
		Tripura		
		@Lembucherra		
		DFF	PH	PAN
4301	29351	95	149	575
4302	29349	100	111	500
4303	28544 (R)	91	112	467
4304	Swarna (NC)	94	98	308
4305	29935	95	113	383
4306	Zonal Check (ZC)	95	118	425
4307	28524	81	107	467
4308	29891	90	102	408
4309	Local Check (LC)	65	109	217
Exp. Mean		**90**	**113**	**417**

Table No. 1.37: Grain quality characteristics of entries in AVT 2 & 1-L, Kharif 2022

Entry No	IET No.	Hull %	Mill %	HRR %	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
4301	29351	79.0	68.9	59.8	6.45	2.26	2.85	LB	VOC	5.0	26.01	22
4302	29349	78.7	65.0	57.7	5.20	2.41	2.15	SB	VOC	5.0	24.4	43
4303	28544(R)	80.9	72.8	70.3	6.58	2.04	3.22	LS	A	5.0	27.07	35
4304	Swarna (NC)	80.0	70.0	59.8	5.33	2.21	2.41	SB	A	4.0	24.22	34
4305	29935	81.1	73.5	71.1	6.37	2.03	2.13	LS	A	7.0	24.05	24
4306	NDR-8002 (ZC)	81.5	69.9	60.5	7.94	2.10	3.78	LS	VOC	7.0	27.07	26
4307	28524	80.1	70.8	63.2	5.76	2.06	2.79	MS	VOC	4.0	25.9	55
4308	29891	79.0	68.5	65.2	4.88	2.17	2.24	SB	VOC	5.0	22.73	22
4309	Rajendra Mahsuri (LC)	81.6	73.2	71.2	5.83	2.04	2.85	MS	A	7.0	24.64	34
4310	30821	79.6	68.1	58.6	5.74	1.92	2.98	MS	VOC	4.0	26.63	22
4311	30822	78.5	68.4	62.3	5.28	1.90	2.77	MS	F	3.0	11.58	57
4312	30823	79.4	71.3	65.8	5.49	1.92	2.85	MS	F	3.0	12.84	58
4313	30824	78.1	66.3	50.6	5.32	2.11	2.52	MS	F	3.0	16.51	71
4314	Swarna (RP)	80.4	70.3	62.0	5.33	2.19	2.43	SB	A	4.0	24.31	22
4315	30825	79.6	67.1	56.9	6.23	2.04	3.05	LS	VOC	7.0	26.19	22
4316	30826	78.9	69.4	61.3	5.71	2.08	2.74	MS	OC	7.0	21.76	22
4317	29558	79.6	66.1	56.1	6.22	2.14	2.90	LB	VOC	7.0	23.55	24
4318	30827	80.4	70.4	67.0	6.24	2.17	2.87	LB	VOC	7.0	26.16	25
4319	30828	79.7	68.0	60.1	6.35	2.10	3.02	LS	VOC	7.0	25.08	22
4320	30829	78.7	67.6	52.7	6.59	2.01	3.27	LS	VOC	7.0	26.25	22
4321	30830	79.6	69.9	65.8	6.36	2.11	3.01	LS	VOC	7.0	26.4	24
4322	29546	79.3	68.6	58.4	5.93	2.11	2.81	MS	OC	7.0	26.34	25
4323	Pusa-44 (RP)	78.8	70.0	63.5	5.69	1.97	2.88	MS	A	7.0	25.98	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; F: Full; 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. 1.38: Composition of entries in Initial Variety Trial -Late (IVT -Late), Kharif 2022

Entry No.	IET No.	Designation	Cross Combination	GT
1st year of testing				
4401	30831	AD 18158	CR 1009 / IET 23130	SB
4402	30832	BRR 0150	Rajendra Mahsuri-1 / AD 09464	MS
4403	30833	CR 3895-1-4-5-1-1	Pooja / CR 3813-4-4-4-2-5	MS
4404	30834	CRL 145-4-1	Asra Biroin / CR1014	SB
4405	30835	Bangabandhu - 1 Plus	Bangabandhu-1 / MTU 1010	MS
4406	30836	CR 4427-3-2-1-1-2-1	CR Dhan 304 / CB 13532	SB
4407	30837	MTU1399 (MTU 2263-7-2-1-2-1)	MTU 2077 / NLR 3042	MS
4408	30838	KNM 12469	BPT 5204 / RNR 15048 // JGL 11727	MS
4409	30839	NVSR 762	NVSR 303-06 / GAR-1	LS
4410	30840	Pusa 5159-1-2-1-1-1-4	White Ponni / P-44	MB
4411	30841	R 2404-346-1-164-1	Bamaleshwari / Swarna	LS
4412	30842	RP 6528- RMS-13-29-34-83	Improved Samba Mahsuri *2 // Habataki / ST 12	MS
4413	30843	NDR 2022-6	NDR 9930112 / BPT 5204	MB
4414	30844	***MEPH-173 (Hybrid)***	-	LS
4415	30845	CR 4206-17-4-2-2	MTU 1010 / IR 75870-8-1-2-B-6-1-1-B	LB
4416	30846	BRR 2110	Improved White Ponni / Kalajoha	MS
4417	30847	***CRHR 163 (Hybrid)***	CRMS32A / N348-6	LS
4418	30848	ACK 20001	Mutant of CR 1009 (Fine grain)	MS
4419	30849	RR 5346	Swarna / IRGC-19922 / RP Bio-226	LS
4420	30850	CR 4354-3-2-1-2-1	CR 3549-11-2-1-1-1 / CR 3511-3-4-1-1-1-1	MB
4421	30851	CN 1317-557-5-6-BNKR 42-2-5-1 (BNKR 121)	Vikramarya / Mahsuri	LS
4422	30852	MTU1400 (MTU 2374-93-1-1-1)	BPT 2231 / NLR 34449	MS
4423	30853	HURS 22-2	NDR 97 / N-22	LS
4424	30854	CR 3856-44-22-2-1-11-4-5-5	IR 73963-86-1-5-2-2 / CR 2324-1	LS
4425	30855	CRL 146-35-1	Asra Biroin / Mahsuri	SB
4426	30856	KNM 12472	BPT 5204 / RNR 15048 // JGL 11727	MS
4427	30857	HUR 22-5	Pusa 1121 / HUBR 16-4-3-1	LS
4428	**Swarna (NC)**			
4429	30858	RP 6702-SP-M-SS-99-99-5-6-10-3-4-1	Samba Mahsuri Mutant TI-112 / BPT 5204	MS
4430	30859	OR 2748	IR 74355-CN 3 / Swarna	MB
4431	30860	CR 3988-6-3-1-1	Pooja / AC.38687	MS
4432	30861	AD 18084	CR 1009 / BPT 2270	SB
4433	30862	RP 6195-MC/RIL-SM4-A	MTU1010 / Chittimuthyalu	LS
4434	30863	WGL 1601	WGL 32100 / Swarna	MS
4435	30864	***VNR – 233 (Hybrid)***	-	LS
4436	**NDR 8002 (Eastern and Central), Ranjeet (North Eastern), Salivahana (Western), Pushyami (Southern)—ZC**			
4437	30865	RP 5285-154-64-2-2-2-1	Sona / Malaysia // Sona	LS
4438	30866	CR 4426--4-1-1-1	Swarna MAS / CRHR 24-540-2-1-1 IR	LS
4439	30867	BPT 3272	BPT 5204 / BPT 2605	MS

Entry No.	IET No.	Designation	Cross Combination	GT
4440	30868	CR 3562-2-1-1-1-1-1	Surendra / N 22	MS
4441	30869	BRR 0225	Rajendra Mahsuri-1 / RGL 7004	LB
4442	30870	CR 4421- 10-2-2-1	Tapaswini / IR 65482-7-216-1-2	LB
4443	30871	MSN-119		MS
4444	30872	KHP-14	KHP-11 / Mysore mallige	MS
4445	**PA 6444 (HC)**			
4446	30873	RP6703-SP-M-KS-67-11-2-7-1-9-5	Samba Mahsuri Mutant 93 / BPT 5204	MS
4447	30874	Pusa 5315-2-5-1-62-1-3-4	Pusa 5115-61-1-6 / Swarna	MS
4448	30875	MTU 1349 (MTU 2614-12-1-3-1)	BPT 5204 / MTU 1121	MS
4449	30876	KNM 12488	MTU 1001 / BPT 5204 // KNM 733	MS
4450	30877	CR 4350-7-5-1-17	CRL 22R / MTU 1071	LB
4451	30878	NVSR 796	NVSR 303-14 / GAR-1	LB
4452	30879	RP 6195-MC/RiIL-SM2-2-2	MTU1010 / Chittimuthyalu	LS
4453	30880	MTU1398 (MTU 2299-53-2-1-2-1)	MTU 2077 / WGL 3962	MS
4454	30881	NLR 3747 (5892-24-3-3-1-1)	MTU 1010 / 5796-16-2-1-1	MS
4455	30882	***CRHR 166 (Hybrid)***	***CRMS 32A / CRL 123-122-21***	LS
4456	**CRHR 702 (HC-Observational)**			
4457	30883	RP 6195-MC/RIL-SM5	MTU1010 / Chittimuthyalu	LS
4458	30884	RP 6354-5-76-39-80	Samba Mahsuri *2 / ST 12	MS
4459	30885	RP 6704-MS-SS-166-3-1-5-6-4-7	Samba Mahsuri Mutant 166 / BPT 5204	LS
4460	30886	P.3333	ADT 36 / ASD 19	LS
4461	30887	RP 6460-C3-206	166S-Swarna / O.nivara // 148S-Swarna / O.nivara	LS
4462	30888	R 2370-496-1-278-1	R 1706-309-1-171-1 / IR 64	MS
4463	30889	CR 3984-1-5-4-3-2	CR 3624-2 / CRMAS 2232-85	MS
4464	**Local Check (LC)**			

Table No. 1.39: Grain Yield (kg/ha) in IVT – LATE, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN											
		Odisha						Odisha (3)		Bihar			
		Bhubaneswar		ICAR-NRRI (Cuttack)		Jeypore		Mean		Bikramganj		Sabour	
4401	30831	8333	6	4309		3595		5412		3375		6391	
4402	30832	5978		6250		4627		5618		6312	8	7880	5
4403	30833	6539		6539		3347		5475		3474		5666	
4404	30834	7279		5780		5658		6239		3773		6982	
4405	30835	7157		4911		3677		5248		3991		7750	7
4406	30836	6471		5520		6203	3	6065		4791		6055	
4407	30837	7966		6270		5638		6625	5 #	3452		5270	
4408	30838	7304		7149	6	2970		5808		3366		5383	
4409	30839	6860		3700		3853		4804		3960		5097	
4410	30840	6887		6560		5720	10	6389		4840		6569	
4411	30841	6324		5359		5445		5709		3392		6911	
4412	30842	5725		5200		5263		5396		3361		5564	
4413	30843	5466		6799		5877	6	6047		2881		6051	
4414	30844	8407	5	6530		3107		6015		4589		8063	3
4415	30845	7326		7180	4	3303		5936		5916	10	6176	
4416	30846	7990	10	5929		3727		5882		3386		6693	
4417	30847	5539		3520		4727		4595		3496		6605	
4418	30848	6414		6829		5262		6168		2628		5425	
4419	30849	7794		4450		4822		5689		5201		5276	
4420	30850	7836		5709		5730	9	6425		5225		7767	6
4421	30851	7233		7339	2	5247		6606	7 #	3238		4999	
4422	30852	7554		5148		3675		5459		4027		4975	
4423	30853	6012		6529		3598		5380		3373		6881	
4424	30854	7083		4409		4125		5206		5218		6578	
4425	30855	5949		6909	10	3303		5387		3685		7008	
4426	30856	7301		6949	9	3317		5856		3734		5685	
4427	30857	3551		3939		3373		3621		9038	1	4928	
4428	Swarna (NC)	4645		6260		4995		5300		6472	7	6038	
4429	30858	5929		5519		5552		5667		4253		4965	
4430	30859	8897	2	6260		5277		6811	2 #	3164		6047	
4431	30860	8015	9	4060		5978	4	6018		3367		5666	
4432	30861	5882		5529		4347		5253		3642		4840	
4433	30862	5047		5030		5235		5104		5378		5251	
4434	30863	5625		5859		5225		5570		5506		6080	
4435	30864	7701		6799		3828		6109		7987	3	7428	9
4436	Zonal Check (ZC)	8054	8	6249		5950	5	6751	3	4431		8318	2
4437	30865	4556		5940		4313		4936		3618		6651	
4438	30866	6287		3849		5622		5253		5066		5676	
4439	30867	7108		2579		4047		4578		3693		6581	
4440	30868	7010		5009		3735		5251		3790		6990	
4441	30869	7598		6729		5735	8	6687	4 #	5201		7576	8
4442	30870	5674		4809		4000		4828		4583		5777	
4443	30871	9184	1	7039	8	4803		7009	1 #	3703		5003	
4444	30872	7525		4049		3947		5174		4663		4888	
4445	PA 6444 (HC)	6262		7349	1	3945		5852		8432	2	5660	
4446	30873	6728		6389		4157		5758		5427		5333	
4447	30874	8657	4	7249	3	3970		6625	5 #	4406		5961	
4448	30875	6174		5399		4983		5519		7804	4	5465	
4449	30876	4949		5890		3958		4932		4693		5788	
4450	30877	7544				4278		5911				6088	
4451	30878	7069		5549		6883	1	6500	9	4382		6859	
4452	30879	5466		6100		5742	7	5769		4565		5928	
4453	30880	7436		5749		6205	2	6463	10	4553		4625	
4454	30881	5988		7159	5	4362		5836		4602		4131	
4455	30882	8672	3	6740		4217		6543	8	4489		8793	1
4456	CRHR 702 (HC-Observational)	7127		6179		3962		5756		6816	6	8042	4
4457	30883	4836				3768		4302				6467	
4458	30884	4044		6680		3608		4777		7553	5	5615	
4459	30885	5466				3973		4720				6435	
4460	30886	6571		5010		3038		4873		5353		4473	
4461	30887	3282		3399		3345		3342		4681		2589	
4462	30888	6618		7140	7	4667		6142		5498		6293	
4463	30889	5674		5729		3357		4920		4547		5272	
4464	Local Check (LC)	8064	7	6089		4305		6153		6167	9	7097	10
Exp. Mean		**6651**		**5755**		**4508**		**5626**		**4692**		**6083**	
F Value		**2.96(p<.0001)S**		**16.60(p<.0001)S**		**15.78(p<.0001)S**		**7.66(p<.0001)S**		**9.20(p<.0001)S**		**5.59(p<.0001)S**	
CD		2090		786		682		749		1298		1320	
CV%		**15.73**		**6.83**		**7.57**		**6.67**		**13.83**		**10.86**	
D/S		29/06/2022		21/07/2022		26/07/2022				15/06/2022		06-10-2022	
D/P		08-10-2022		27/08/2022		31/08/2022				19/07/2022		18/07/2022	
Local Check Name		Kalinga Dhan 1501		CR DHAN 404 (Sumit)		Hasanta				R.Mahsuri - 1		Rajendra M-1	

Table No. 1.39 (Contd): Grain Yield (kg/ha) in IVT – LATE, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN											
		Bihar (2)		Jharkhand (1)		West Bengal		West Bengal (1)		Uttar Pradesh			
		Mean		Ranchi		Pundibhari		Mean		Masodha		Varanasi	
4401	30831	4883		4840		7233		7233		5053		4010	
4402	30832	7096	3	9020	7	7750		7750		6277	9	4875	
4403	30833	4570		4510		6717		6717		6250		4000	
4404	30834	5378		7150		6846		6846		6277	9	4000	
4405	30835	5871		6930		7621		7621		5386		6500	7
4406	30836	5423		7150		9171	5	9171	5 #	5419		4583	
4407	30837	4361		6050		6846		6846		6290	8	4063	
4408	30838	4375		4620		7233		7233		5552		4042	
4409	30839	4529		4950		8008		8008		4654		5563	
4410	30840	5705		4840		6588		6588		3324		6094	9
4411	30841	5152		6160		6071		6071		5386		6688	5
4412	30842	4463		7480		6458		6458		4854		4010	
4413	30843	4466		8200		8654	10	8654	10 #	4721		4667	
4414	30844	6326		7260		9946	3	9946	3 #	5785		7219	2
4415	30845	6046		7700		7104		7104		4388		5208	
4416	30846	5040		6600		6846		6846		6051		4208	
4417	30847	5051		7260		7750		7750		5858		5875	
4418	30848	4027		6270		6717		6717		4721		385	
4419	30849	5239		8360	10	6329		6329		4555		5427	
4420	30850	6496	10	6710		7879		7879		6423	1	6083	10
4421	30851	4119		6710		5942		5942		4614		4010	
4422	30852	4501		6160		7104		7104		5452		4208	
4423	30853	5127		5830						4688		7115	3
4424	30854	5898		7480		6588		6588		4774		5271	
4425	30855	5347		7150		7104		7104		5379		6198	8
4426	30856	4710		6270		9042	7	9042	7 #	6363	5	4427	
4427	30857	6983	5	5500		6200		6200		3723		4594	
4428	Swarna (NC)	6255		7480		11625	1	11625	1	3324		4760	
4429	30858	4609		8250		9171	5	9171	5 #	6117		4000	
4430	30859	4606		6820		6717		6717		4388		292	
4431	30860	4517		6820		7879		7879		5718		4000	
4432	30861	4241		4840		7363		7363		3125		4000	
4433	30862	5315		7920		5813		5813		6051		4010	
4434	30863	5793		7260		6458		6458		6184		4677	
4435	30864	7708	1 *	9770	2 *					4721		4000	
4436	Zonal Check (ZC)	6375		7950		6588		6588		3457		5615	
4437	30865	5135		6930		6846		6846		5452		5354	
4438	30866	5371		6350		7750		7750		6316	7	4385	
4439	30867	5137		4950		6329		6329		5253		4260	
4440	30868	5390		7040		8913	8	8913	8 #	6210		5729	
4441	30869	6389		8910	8	8396		8396	#	5718		5344	
4442	30870	5180		8910	8	6846		6846		4987		4063	
4443	30871	4353		9050	6	5425		5425		3258		4115	
4444	30872	4776		5060		9946	3	9946	3 #	6343	6	4000	
4445	PA 6444 (HC)	7046	4	9460	4	6329		6329		4588		5625	
4446	30873	5380		5610		6846		6846		3723		4094	
4447	30874	5184		7920		7750		7750		5918		4000	
4448	30875	6635	7	4620		8783	9	8783	9 #	3324		4000	
4449	30876	5241		7370		6975		6975		3457		4031	
4450	30877	6088		6490						3391			
4451	30878	5621		6820		6458		6458		4588		4000	
4452	30879	5247		8030		8396		8396	#	4056		4427	
4453	30880	4589		4620		8396		8396	#	3457		4000	
4454	30881	4367		5280		5813		5813		4056		4729	
4455	30882	6641	6	9950	1 *	10075	2	10075	2 #	6423	1	7063	4
4456	CRHR 702 (HC-Observational)	7429	2	9570	3	6329		6329		4654		7604	1
4457	30883	6467		4950						6370	4		
4458	30884	6584	9	5060		6717		6717		5386		4042	
4459	30885	6435		5940						6383	3		
4460	30886	4913		5720		7233		7233		3324		813	
4461	30887	3635		5170		6717		6717		4654		4000	
4462	30888	5896		9350	5	6588		6588		5718		6646	6
4463	30889	4910		4950		7104		7104		4588		4281	
4464	Local Check (LC)	6632	8	7480		6200		6200		5386		4281	
Exp. Mean		**5426**		**6810**		**7365**		**7365**		**5036**		**4649**	
F Value		**6.87(p<.0001)S**		**5.78(p<.0001)S**		**4.35(p<.0001)S**		**4.35(p<.0001)S**		**26.73(p<.0001)S**		**11.85(p<.0001)S**	
CD		989		1745		1687		1687		559		1129	
CV%		**9.12**		**12.82**		**11.44**		**11.44**		**5.55**		**12.14**	
D/S				16/06/2022		23/06/2022				30/06/2022		06-10-2022	
D/P				08-08-2022		21/07/2022				30/08/2022		07-06-2022	
Local Check Name				BPT-5204		Swarna (MTU 2907)				Sambha Mahsuri-Sub 1		HUR-917	

Table No. 1.39 (Contd): Grain Yield (kg/ha) in IVT – LATE, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN				ZONE IV- NORTH EASTERN		ZONE-V – CENTRAL			
		Uttar Pradesh (2)		Zone 3(9)		Assam (1)		Chhattisgarh (1)		Maharashtra 1(1)	
		Mean		Mean		Gerua-ICAR		Jagadalpur		Sakoli	
4401	30831	4532		5238		2680		7142	8	4320	
4402	30832	5576	*	6552	6	4006		6396		3797	
4403	30833	5125		5227		4840		7025	9	5237	7 * #
4404	30834	5139		5972		2697		7158	7	4892	
4405	30835	5943	10 * #	5991		6412	5 *	6475		5418	3 * #
4406	30836	5001		6151		4926		4486		3341	
4407	30837	5177		5761		5180		7214	5	5373	4 * #
4408	30838	4797		5291		3870		5990		5148	10 *
4409	30839	5109		5183		4603		4251		3412	
4410	30840	4709		5714		5428		7217	4	3300	
4411	30841	6037	8 * #	5748		5870	*	6579		5245	5 * #
4412	30842	4432		5324		3518		5534		3180	
4413	30843	4694		5924		5231		6077		4099	
4414	30844	6502	2 * #	6767	3 *	7361	1 *	7230	3	5502	2 * #
4415	30845	4798		6033		1512		5602		3687	
4416	30846	5130		5714		5524	*	6595		4265	
4417	30847	5867	* #	5626		5612	*	4255		3107	
4418	30848	2553		4961		4190		6162		3742	
4419	30849	4991		5802		3608		4115		3514	
4420	30850	6253	5 * #	6596	5	5402		5189		3687	
4421	30851	4312		5481		6215	10 *	6807		4826	
4422	30852	4830		5367		5260		5423		5621	1 * #
4423	30853	5902	* #	5503		1928		5013		4369	
4424	30854	5023		5725		5270		4896		4924	
4425	30855	5789	* #	5854		3330		6266		4006	
4426	30856	5395		5899		4470		4707		3370	
4427	30857	4159		4983		3135		3805		3346	
4428	Swarna (NC)	4042		6178		3812		6413			
4429	30858	5059		5973		4875		4440		3829	
4430	30859	2340		5318				4150		4101	
4431	30860	4859		5723		6400	7 *	6943	10	5051	*
4432	30861	3563		4841		3880		6266		3800	
4433	30862	5031		5526		3257		5225		3681	
4434	30863	5431		5875		3916		4691		3668	
4435	30864	4361		6529	7	6618	4 *	7484	1	4569	
4436	Zonal Check (ZC)	4536		6290	10	4999		6602		3732	
4437	30865	5403		5518		3702		6130		4318	
4438	30866	5351		5700		3706		4525		3475	
4439	30867	4757		4978		4580		5605		3629	
4440	30868	5970	9 * #	6047		6299	9 *	6631		4466	
4441	30869	5531	*	6801	2 *	4422		6816		3559	
4442	30870	4525		5517		4379		6325		3578	
4443	30871	3687		5731		6410	6 *	7419	2	5245	5 * #
4444	30872	5172		5602		5240		6159		5107	*
4445	PA 6444 (HC)	5107		6406	9	6847	3	5286		4228	
4446	30873	3909		5367		4514		5397		3475	
4447	30874	4959		6203		4995		7191	6	3539	
4448	30875	3662		5617		5137		5111		3082	
4449	30876	3744		5235		2934		6315		3958	
4450	30877	3391		5558				6826			
4451	30878	4294		5845		3740		5941		4183	
4452	30879	4242		5857		2828		4365		3565	
4453	30880	3729		5449		4725		5495		5161	9 *
4454	30881	4393		5124		4550		6087		4858	
4455	30882	6743	1 * #	7380	1 * #	6339	8 *	5970		4987	*
4456	CRHR 702 (HC-Observational)	6129	7 * #	6698	4	6871	2 *	6797		4496	
4457	30883	6370	4 * #	5278				4010			
4458	30884	4714		5412		2764		4238		3661	
4459	30885	6383	3 * #	5639				5908			
4460	30886	2069		4615		4415		3275		3361	
4461	30887	4327		4204		2185		3262		3707	
4462	30888	6182	6 * #	6502	8	5906	*	6875		5185	8 * #
4463	30889	4435		5056		5098		5085		4279	
4464	Local Check (LC)	4834		6119		4975		4284		4022	
Exp. Mean		**4859**		**5720**		**4623**		**5737**		**4171**	
F Value		**18.50(p<.0001)S**		**13.44(p<.0001)S**		**49.55(p<.0001)S**		**3.18(p<.0001)S**		**4.73(p<.0001)S**	
CD		632		432		524		1799		934	
CV%		**6.51**		**3.78**		**5.66**		**15.69**		**11.19**	
D/S						07-04-2022		20/06/2022		07-06-2022	
D/P						26/07/2022		16/07/2022		29/7/2022	
Local Check Name						Ranjeet		Jaldubi		SKL-8	

Table No. 1.39 (Contd): Grain Yield (kg/ha) in IVT – LATE, Kharif 2022

ENTRY NO	IET NO	ZONE-V – CENTRAL		ZONE VI – WESTERN						ZONE VII – SOUTHERN	
		Zone 5(2)		Maharashtra 2		Maharashtra (2)		Zone 6(1)		Andhra Pradesh (1)	
		Mean		Karjat		Mean		Mean		Maruteru	
4401	30831	5731		6426		5373		6426		5466	
4402	30832	5097		7268	8	5533		7268	8	3917	
4403	30833	6131	6 #	7248	9	6243	8	7248	9	3780	
4404	30834	6025	9 #	6079		5486		6079		3711	
4405	30835	5947	#	6462		5940		6462		4174	
4406	30836	3914		5617		4479		5617		4045	
4407	30837	6294	5 #	6635		6004	9	6635		5619	8
4408	30838	5569		5056		5102		5056		5352	
4409	30839	3832		2780		3096		2780		4291	
4410	30840	5259		6082		4691		6082		4663	
4411	30841	5912		7464	7	6355	7	7464	7	5945	3
4412	30842	4357		4912		4046		4912		4332	
4413	30843	5088		5728		4914		5728		3767	
4414	30844	6366	3 #	10136	1	7819	2 #	10136	1 * #	4913	
4415	30845	4645				3687				4025	
4416	30846	5430		6042		5154		6042		5794	6
4417	30847	3681		4702		3905		4702		5735	7
4418	30848	4952		3181		3462		3181		5449	
4419	30849	3815		5449		4482		5449		5126	
4420	30850	4438		5167		4427		5167		4026	
4421	30851	5817		7083		5955		7083		3868	
4422	30852	5522		6305		5963	10	6305		5426	
4423	30853	4691		5429		4899		5429		4003	
4424	30854	4910		5585		5255		5585		4680	
4425	30855	5136		3149		3578		3149		4923	
4426	30856	4039		4888		4129		4888		6222	1 #
4427	30857	3576		5978		4662		5978		3984	
4428	Swarna (NC)	6413	2	7097		7097	3	7097		5609	9
4429	30858	4135		4399		4114		4399		5091	
4430	30859	4126		3526		3814		3526		4544	
4431	30860	5997	10 #	5033		5042		5033		3811	
4432	30861	5033		4888		4344		4888		4995	
4433	30862	4453		5417		4549		5417		3457	
4434	30863	4180		5362		4515		5362		4224	
4435	30864	6027	8 #	8834	3	6702	5 #	8834	3 * #	5526	
4436	Zonal Check (ZC)	5167		7131	10	5432		7131	10	5093	
4437	30865	5224		5852		5085		5852		5153	
4438	30866	4000		4279		3877		4279		4102	
4439	30867	4617		5222		4426		5222		5051	
4440	30868	5549		6048		5257		6048		5153	
4441	30869	5188		8005	6	5782		8005	6	3923	
4442	30870	4952		4848		4213		4848		4323	
4443	30871	6332	4	5285		5265		5285		4948	
4444	30872	5633		6514		5811		6514		4021	
4445	PA 6444 (HC)	4757		6204		5216		6204		5370	
4446	30873	4436		5024		4250		5024		5912	4
4447	30874	5365		6282		4911		6282		5498	
4448	30875	4097		5521		4302		5521		5232	
4449	30876	5137		2155		3057		2155		5585	10
4450	30877	6826	1 #	4119		4119		4119			
4451	30878	5062		5413		4798		5413		5177	
4452	30879	3965		4950		4258		4950		3576	
4453	30880	5328		6222		5692		6222		6049	2
4454	30881	5473		6579		5719		6579		5282	
4455	30882	5479		8145	4	6566	6 #	8145	4 #	5061	
4456	CRHR 702 (HC-Observational)	5647		9335	2	6916	4 #	9335	2 * #	5829	5
4457	30883	4010		4949		4949		4949		3789	
4458	30884	3950		4834		4248		4834		5506	
4459	30885	5908		8137	5	8137	1 #	8137	5 #		
4460	30886	3318		2877		3119		2877		5159	
4461	30887	3485		2683		3195		2683		4503	
4462	30888	6030	7 #	5474		5330		5474		4211	
4463	30889	4682		4389		4334		4389		4663	
4464	Local Check (LC)	4153		6915		5469		6915		5514	
Exp. Mean		**5005**		**5695**		**4977**		**5695**		**4809**	
F Value		**4.21(p<.0001)S**		**7.19(p<.0001)S**		**6.15(p<.0001)S**		**7.19(p<.0001)S**		**9.04(p<.0001)S**	
CD		1181		1642		1235		1642		691	
CV%		**11.81**		**14.42**		**12.41**		**14.42**		**7.19**	
D/S				17/06/2022						25/06/2022	
D/P				07-11-2022						23/07/2022	
Local Check Name				Karjat 2						MTU 1061	

Table No. 1.39 (Contd): Grain Yield (kg/ha) in IVT – LATE, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN								Overall Mean (17)	
		Telangana (1)		Tamil Nadu (1)		Karnataka		Zone 7(4)			
		Warangal		Aduturai		Gangavathi		Mean			
4401	30831	7230	4 #	7688	1 #	5123	8	6377	2 #	5483	
4402	30832	5484		7563	2 #	3518		5121		5936	10
4403	30833	6175	10 #	7188	6 #	4441		5396	#	5469	
4404	30834	5444		6625		4236		5004		5564	
4405	30835	4825		7375	4 #	4221		5149		5840	
4406	30836	4095		4938		4195		4318		5353	
4407	30837	5700		5875		5205	6	5600	#	5803	
4408	30838	5238		6313		4741		5411	#	5255	
4409	30839	5048		6188		3979		4877		4776	
4410	30840	4794		7188	6 #	4384		5257		5558	
4411	30841	6492	6 #	6188		5692	4	6079	4 #	5954	9
4412	30842	4127		4813		4256		4382		4858	
4413	30843	5905		6313		4210		5049		5567	
4414	30844	5675		5563		4010		5040		6547	2 * #
4415	30845	7579	2 #	5250		5759	3	5653	9 #	5482	
4416	30846	5888		6750	#	6113	1	6136	3 #	5788	
4417	30847	3746		4625		3446		4388		5050	
4418	30848			6625		5021	9	5698	7 #	4939	
4419	30849	4310		5281		3815		4633		5143	
4420	30850	4964		6000		4072		4766		5757	
4421	30851	6330	7 #	5063		4128		4847		5509	
4422	30852	5492		6438		4738		5524	#	5471	
4423	30853	4587		6750	#	3195		4634		4956	
4424	30854	4230		5375		3441		4432		5290	
4425	30855	3325		6813	#	3051		4528		5150	
4426	30856	4365		6688	#	3974		5312	#	5398	
4427	30857	3651		5313		3638		4147		4570	
4428	Swarna (NC)	4563		6500				5557		5973	8
4429	30858	6190	9 #	6938	10 #	4309		5632	#	5519	
4430	30859	5618				3703		4622		4900	
4431	30860	3802		6688	#	5890	2	5048		5595	
4432	30861	4698		6750	#	3000		4861		4814	
4433	30862	4413		6688	#	3328		4472		5012	
4434	30863	4413		6875	#	4529		5010		5327	
4435	30864	8190	1 #	5313		3559		5647	10 #	6395	4 * #
4436	Zonal Check (ZC)	7254	3	5875		5354	5	5894	5	6038	6
4437	30865	4667		6231		3205		4814		5230	
4438	30866	5421		5188		3882		4648		5052	
4439	30867	3968		5563		4579		4790		4882	
4440	30868	4683		7063	9 #	3800		5175		5798	
4441	30869	5635		6813	#	3672		5011		6121	5
4442	30870	3992		6125		3087		4382		5077	
4443	30871	6508	5 #	4875		3185		4879		5615	
4444	30872	4524		7125	8 #	3472		4786		5446	
4445	PA 6444 (HC)	4929		5688		3303		4823		5853	
4446	30873	4529		5875		3318		4909		5079	
4447	30874	4856		6313		5205	6	5468	#	5865	
4448	30875	5881		6438		3733		5321	#	5335	
4449	30876	4563		6000		4769		5229		4905	
4450	30877			6438				6438	1 * #	5647	
4451	30878	4365		5125		3641		4577		5305	
4452	30879	3889		6188		4074		4432		5067	
4453	30880	5111		6750	#	4713		5656	8 #	5486	
4454	30881	4206		6875	#	3564		4982		5184	
4455	30882	6311	8 #	6313		4354		5510	#	6700	1 * #
4456	CRHR 702 (HC-Observational)	5952		6125		4082		5497	#	6457	3 * #
4457	30883							3789		4892	
4458	30884	6048		4938		3621		5028		4960	
4459	30885									6035	7
4460	30886	3468		6938	10 #	3510		4769		4385	
4461	30887	4087		4688		4123		4350		3946	
4462	30888	4683		4688		4333		4479		5875	
4463	30889	5198		7188	6 #	3564		5153		4998	
4464	Local Check (LC)	5456		7500	3	4833	10	5826	6	5798	
Exp. Mean		**5113**		**6188**		**4132**		**5067**		**5422**	
F Value		**5.97(p<.0001)S**		**5.94(p<.0001)S**		**5.78(p<.0001)S**		**10.07(p<.0001)S**		**19.66(p<.0001)S**	
CD		1202		941		879		488		327	
CV%		**11.75**		**7.6**		**10.63**		**4.82**		**3.02**	
D/S		16/06/2022		12/08/022		20/07/2022					
D/P		07-11-2022		13/09/2022		31/08/2022					
Local Check Name		WGL 44 (Siddi)		ADT 51		BPT-5204					

Table No. 1.39 (Contd): Grain Yield (kg/ha) in IVT – LATE, Kharif 2022, (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED							
		Bihar		West Bengal		Chhattisgarh		Maharasthra-2	
		@Patna-ICAR		@Chinsurah		@Raipur		@Pondaghat	
4401	30831	9668	8	5667		4924	9	4374	
4402	30832	9343		5444		4822		5116	
4403	30833	4493		5167		3652		1387	
4404	30834	9521	10	5889	7	2782		5515	10
4405	30835			5333		5008	8	3977	
4406	30836	5838		5722		2936		4696	
4407	30837	7958		5500		5128	7	4867	
4408	30838	7762		5444		3218		2758	
4409	30839	6834		4778		3093		3167	
4410	30840	10634	3	5861	8	4397		5914	6
4411	30841	8467		6306	4	5946	1	6111	3
4412	30842	7622		5667		2142		3530	
4413	30843	9350		5833		4854		5876	7
4414	30844	10722	2	5606		5342	5	5481	
4415	30845	8688		5600		4723		6551	1
4416	30846	8480		4833		4258		2596	
4417	30847	7904		4167		3568		2906	
4418	30848	5625		5611		3346		4951	
4419	30849	6675		5483		4013		4484	
4420	30850	9987	7	5328		3723		3559	
4421	30851	4891		5433		3945		1772	
4422	30852			5228		5253	6	4931	
4423	30853	8270		6333	2	3702		6043	5
4424	30854	8420		5089		2030		4234	
4425	30855			5522		3506		4873	
4426	30856	6485		5494		2871		2928	
4427	30857	7178		5750		1938		3691	
4428	Swarna (NC)	7205				3824			
4429	30858	7835		5972	6	2772		4035	
4430	30859	3040		5556		1998		854	
4431	30860	4843		5167		3268		3197	
4432	30861	6708		4944		3349		5686	9
4433	30862	6740		5206		2025		4301	
4434	30863	7344		5256		4214		4544	
4435	30864			5672		4924	9	6102	4
4436	Zonal Check (ZC)	9069		5289		4148		3177	
4437	30865	8660		4733		3399		2807	
4438	30866	8891		5317		4049		5458	
4439	30867	6320		4867		1988		3242	
4440	30868	8919		5856	9	3263		3898	
4441	30869	7942		5394		4112		5238	
4442	30870	9244		5561		4438		4919	
4443	30871	7969		5850	10	5475	3	1101	
4444	30872	6793		5617		4323		3616	
4445	PA 6444 (HC)	7088		6028	5	5355	4	6399	2
4446	30873	6461		4794		3365		2473	
4447	30874	9608	9	5844		3832		1912	
4448	30875	7194		5556		4109		4060	
4449	30876	6232		5056		2396		2801	
4450	30877	6599							
4451	30878	10009	6	5278		3775		4534	
4452	30879	8377		5444		2092		4005	
4453	30880	7265		5500		3150		4235	
4454	30881	5230		5722		3856		2101	
4455	30882	10455	4	6500	1	4175		4404	
4456	CRHR 702 (HC-Observational)	10122	5	5611		3597		4207	
4457	30883	10736	1			3992			
4458	30884	6847		4889		4044		4986	
4459	30885	6463				2200			
4460	30886	5794		4222		1251		2734	
4461	30887	5276		4500		1591		2194	
4462	30888	9483		6317	3	5836	2	5817	8
4463	30889	7280		4944		3179		2920	
4464	Local Check (LC)	8213		5667		1635		2961	
Exp. Mean		**7718**		**5437**		**3653**		**4020**	
F Value		**41.67(p<.0001)S**		**7.61(p<.0001)S**		**20.26(p<.0001)S**		**268.67(p<.0001)S**	
CD		739		483		696		238	
CV%		**4.79**		**4.44**		**9.54**		**2.96**	
D/S		24/06/2022		29/06/2022		29/06/2022		06-09-2022	
D/P		19/07/2022		07-04-2022		18/07/2022		07-03-2022	
Local Check Name		Sambha Mahsuri		KAUSHALYA		Jaldubi		Karjat 2	

Table No. 1.39 (Contd): Grain Yield (kg/ha) in IVT- LATE, Kharif 2022, (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED									
		Gujarat (0)		Karnataka				Puducherry (0)			
		@Navasari		@Ponnamphet		@Sirsi		@Kurumbapet		@Karaikal	
4401	30831	5306	5	2861		3683	1	9091	2	5613	
4402	30832	5797	2	2528		2073		3131		4900	
4403	30833	3215		3208		2158		8737	3	5000	
4404	30834	4435		4116		2408		3788		5850	
4405	30835	4947		2593		2476		7727	8	5147	
4406	30836	2372		1977		704		4040		5233	
4407	30837	4508		4952	7	3263	6			4300	
4408	30838	4387		3267		2676		7980	6	4867	
4409	30839	4004		1049		1635		4293		5147	
4410	30840	5104	10	3360		2409		6162		5800	
4411	30841	5874	1	4319		2063				3510	
4412	30842	3087		2531		1336		7323		3633	
4413	30843	3067		354		1747		4646		5900	
4414	30844	4528		2105		3540	4	6616		4440	
4415	30845	3759		5433	5	1823				5867	
4416	30846	2564		4264		2504		6667		4300	
4417	30847	2395		519		1781		5000		6167	
4418	30848	2557		3480		2526		6919		5140	
4419	30849	2461				1983		6162		4667	
4420	30850	3189		2091		2386		6818		5850	
4421	30851	1525		3845		2127		7576	10	4097	
4422	30852	5127	9	2589		1743		6414		6073	
4423	30853	4196		2772		2314		7475		6267	10
4424	30854	2986		2304		3236	7	3586		5850	
4425	30855	4788		2448		2245		7576	10	5380	
4426	30856	4280		3439		2885	9	9444	1	6290	9
4427	30857	3568		543		1016		6414		4560	
4428	Swarna (NC)	5750	3			2284		5177		5033	
4429	30858	4861		4237		1266		7071		4333	
4430	30859	1443		4419	9	1886		6919		6520	4
4431	30860	3557		3638		2280		6465		5610	
4432	30861	4667		4532	8	1389		7374		4133	
4433	30862	3607		1740		1289		5808		4213	
4434	30863	3870		3112		2312		6364		4533	
4435	30864	4876		3745		2483		8182	4	6200	
4436	Zonal Check (ZC)	5270	6	5199	6	1216		7323		4217	
4437	30865	4124		3621		1279		4293		4493	
4438	30866	3991		3026		2348		4596		4133	
4439	30867	2771		1668		1466		6566		6217	
4440	30868	4831		2421		1760		6566		6633	2
4441	30869	5166	8	4336	10	809		6566		4073	
4442	30870	3804		2669		2862	10	3889		4400	
4443	30871	4749		4271		3666	2	6818		6323	8
4444	30872	2938		2923		2778		5152		6033	
4445	PA 6444 (HC)	4721		5746	1	1869		5051		6000	
4446	30873	3529		1774		2805		5354		4283	
4447	30874	3486		3924		2629				5330	
4448	30875	3329		2479		1436		5556		6433	7
4449	30876	2835		3102		1964		7323		6080	
4450	30877					1684				4433	
4451	30878	2168		715		3306	5	5556		6543	3
4452	30879	1791		2015		2323		4798		4233	
4453	30880	2034		5457	3	2262		8182	4	4913	
4454	30881	2737		5684	2	2407		3030		5933	
4455	30882	4802		1785		949		6818		5767	
4456	CRHR 702 (HC-Observational)	5167	7	1826		869				4300	
4457	30883					536				6500	5
4458	30884	4711		4137		2829		7576	10	6200	
4459	30885					657				5133	
4460	30886	1853		1850		1401		7929	7	6467	6
4461	30887	2787		1970		2338		6162		5900	
4462	30888	4074		4161		3181	8	4293		5000	
4463	30889	4674		3776		3600	3	5051		5433	
4464	Local Check (LC)	5594	4	5444	4			7071		11163	1
Exp. Mean		**3846**		**3125**		**2114**		**6222**		**5359**	
F Value		**8.72(p<.0001)S**		**9.68(p<.0001)S**		**19.55(p<.0001)S**		**2.30(p=0.0012)S**		**128.71(p<.0001)S**	
CD		1113		1220		537		3004		278	
CV%		**14.47**		**19.51**		**12.71**		**24.09**		**2.6**	
D/S		06-11-2022		20/07/2022		22/06/2022		07-05-2022		22/08/2022	
D/P		07-04-2022		25/08/2022		12/07/202		08-06-2022		22/09/2022	
Local Check Name		Masuri		Tunga		ASHA		CR-1009 sub-I		Savithri (CR 1009)	

Table No. 1.40: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – LATE, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN														
		Odisha									Odisha (3)			Bihar		
		Bhubaneswar			ICAR-NRRI (Cuttack)			Jeypore			Mean			Bikramganj		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4401	30831	117	115	271	120	127	281	116	64	326	118	102	292	132	100	362
4402	30832	116	94	287	110	100	413	118	77	323	115	90	341	116	117	352
4403	30833	116	120	248	109	128	347	112	73	256	112	107	283	130	131	356
4404	30834	115	101	227	108	116	264	109	82	309	111	100	267	120	134	390
4405	30835	121	102	307	118	104	297	116	85	283	118	97	296	120	111	359
4406	30836	104	103	297	101	123	281	106	85	313	104	104	297	110	129	371
4407	30837	123	107	269	125	119	297	119	78	293	122	101	286	118	116	377
4408	30838	118	106	254	121	99	479	111	67	233	116	91	322	132	129	387
4409	30839	107	95	353	107	91	396	109	66	283	108	84	344	113	106	370
4410	30840	115	84	264	110	82	429	117	69	236	114	78	309	114	99	360
4411	30841	118	102	344	115	108	330	118	74	372	117	95	349	126	123	379
4412	30842	105	92	234	99	98	297	121	72	306	108	87	279	109	106	378
4413	30843	107	103	267	108	117	380	108	73	283	108	98	310	109	128	345
4414	30844	117	100	254	110	104	281	122	72	319	116	92	284	123	126	343
4415	30845	103	109	272	96	102	363	122	78	298	107	96	311	110	120	375
4416	30846	124	94	275	113	97	281	108	102	273	115	98	276	125	120	390
4417	30847	115	98	333	104	95	347	114	71	276	111	88	319	118	111	346
4418	30848	120	119	252	121	98	512	114	81	322	118	99	362	130	109	347
4419	30849	107	108	266	93	91	330	120	69	303	106	89	300	107	123	358
4420	30850	114	117	258	107	104	314	109	78	259	110	100	277	117	110	377
4421	30851	114	126	240	111	144	413	106	90	383	110	120	345	132	183	363
4422	30852	114	100	246	120	94	429	109	69	286	114	88	320	107	107	390
4423	30853	107	96	287	103	90	380	121	69	283	110	85	316	122	98	377
4424	30854	117	125	267	110	120	347	105	84	296	111	110	303	120	129	352
4425	30855	116	88	203	116	89	347	115	68	303	116	82	284	120	115	329
4426	30856	114	91	275	125	106	512	112	69	253	117	89	346	132	117	358
4427	30857	104	82	368	108	79	528	116	61	313	109	74	403	113	96	378
4428	Swarna (NC)	118	109	275	109	118	380	112	66	239	113	98	298	119	107	332
4429	30858	103	107	250	109	105	281	121	75	281	111	96	270	114	124	355
4430	30859	126	127	231	104	107	239	116	75	303	115	103	258	128	115	358
4431	30860	122	123	234	110	120	363	112	77	286	115	107	294	136	126	410
4432	30861	117	118	284	122	87	446	121	64	286	120	90	338	131	105	378
4433	30862	96	124	322	107	108	264	120	73	276	108	102	287	100	127	393
4434	30863	105	91	333	99	88	314	116	71	243	107	83	296	113	107	353
4435	30864	113	116	296	104	118	330	123	82	336	113	105	321	121	126	392
4436	Zonal Check (ZC)	117	92	314	113	100	363	114	70	286	115	87	321	131	102	351
4437	30865	114	89	321	104	94	347	118	67	369	112	83	346	115	109	376
4438	30866	105	112	370	108	130	248	113	85	283	109	109	300	105	122	401
4439	30867	119	106	216	126	114	330	116	83	293	120	101	279	120	123	342
4440	30868	115	92	272	118	110	413	116	66	259	116	89	314	121	109	331
4441	30869	103	106	229	107	123	314	117	84	333	109	104	292	114	133	385
4442	30870	105	103	217	104	102	281	114	62	282	108	89	260	105	98	388
4443	30871	123	121	222	120	127	281	118	81	293	120	110	265	127	128	356
4444	30872	124	122	219	119	118	314	120	96	276	121	112	269	135	130	387
4445	PA 6444 (HC)	106	104	241	102	105	446	117	69	359	108	93	348	108	111	371
4446	30873	115	108	292	111	108	421	118	75	279	115	97	331	120	121	337
4447	30874	119	100	268	116	97	314	114	62	256	116	86	279	131	100	380
4448	30875	118	101	298	117	99	281	112	73	249	116	91	276	134	102	378
4449	30876	120	102	284	112	89	380	120	64	386	117	85	350	122	115	389
4450	30877	125	90	267				108	73	249	117	81	258			
4451	30878	117	121	258	122	115	347	118	82	256	119	106	287	131	124	390
4452	30879	103	110	229	106	120	264	113	82	342	107	104	278	103	130	388
4453	30880	124	100	350	125	101	429	113	75	296	121	92	358	132	118	364
4454	30881	123	122	312	118	115	347	112	72	239	118	103	299	132	126	364
4455	30882	113	100	245	106	106	347	120	74	336	113	93	309	115	126	389
4456	CRHR 702 (HC-Observational)	112	94	245	104	110	281	120	73	233	112	92	253	120	127	393
4457	30883	117	105	266				122	70	363	119	88	314			
4458	30884	104	85	259	97	85	347	110	67	316	104	79	307	104	109	388
4459	30885	120	98	243				106	70	289	113	84	266			
4460	30886	123	86	322	120	98	528	124	76	303	122	87	384	131	101	362
4461	30887	104	99	267	90	79	380	120	56	326	105	78	324	86	107	362
4462	30888	102	105	283	103	107	314	107	79	359	104	97	318	126	112	373
4463	30889	121	93	284	115	96	281	119	74	279	118	88	281	130	90	397
4464	Local Check (LC)	124	102	257	116	124	347	114	81	323	118	102	309	124	115	352
Exp. Mean		**114**	**104**	**273**	**111**	**106**	**351**	**115**	**74**	**296**	**113**	**94**	**306**	**119**	**117**	**369**

Table No. 1.40 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – LATE, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN														
		Bihar			Bihar (2)			Jharkhand (1)			West Bengal (1)			Uttar Pradesh		
		Sabour			Mean			Ranchi			Pundibhari			Masodha		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4401	30831	138	105	293	135	102	327	128	80	192	127	93	250	119	100	268
4402	30832	130	113	370	123	115	361	129	87	200	113	105	222	116	122	279
4403	30833	138	122	257	134	127	306	116	87	182	128	110	281	117	84	281
4404	30834	129	131	307	124	132	349	129	98	157	117	123	194	113	91	288
4405	30835	133	113	344	127	112	351	143	82	218	113	96	272	115	121	275
4406	30836	118	132	288	114	131	329	124	101	187	102	123	234	121	115	256
4407	30837	146	112	356	132	114	366	145	78	177	102	108	197	118	124	276
4408	30838	137	112	341	134	120	364	144	79	202	115	99	209	120	98	263
4409	30839	121	118	315	117	112	343	129	89	170	109	98	175	122	96	236
4410	30840	120	92	362	117	96	361	141	67	185	110	89	255	119	105	228
4411	30841	139	119	293	132	121	336	132	95	161	127	107	225	116	130	270
4412	30842	117	103	225	113	104	301	118	88	179	104	102	230	121	116	228
4413	30843	119	118	301	114	123	323	123	106	209	107	112	230	120	126	228
4414	30844	130	117	354	127	122	349	132	86	181	119	110	283	113	125	260
4415	30845	116	114	291	113	117	333	124	102	170	116	113	198	116	115	247
4416	30846	143	111	283	134	115	336	144	88	196	126	106	191	115	113	266
4417	30847	124	104	311	121	107	328	128	90	196	106	96	167	113	102	257
4418	30848	146	110	323	138	110	335	146	84	214	104	96	250	116	112	253
4419	30849	119	111	243	113	117	300	123	79	162	110	114	246	123	107	248
4420	30850	125	112	267	121	111	322	129	78	182	112	543	255	118	105	300
4421	30851	146	150	220	139	167	291	145	96	196	102	135	190	119	162	239
4422	30852	143	104	364	125	105	377	141	82	174	114	88	267	114	104	275
4423	30853	118	113	366	120	106	371	125	95	209				121	124	230
4424	30854	123	146	249	121	138	301	128	103	207	113	126	295	118	126	249
4425	30855	134	107	329	127	111	329	130	80	204	112	186	221	121	106	253
4426	30856	136	110	358	134	114	358	146	86	262	100	108	258	116	121	281
4427	30857	120	96	439	116	96	408	115	86	231	106	90	240	118	109	223
4428	Swarna (NC)	124	102	275	121	105	303	127	84	177	113	103	280	119	125	228
4429	30858	121	114	210	117	119	282	123	103	146	106	100	221	122	111	281
4430	30859	145	104	274	136	109	316	146	82	168	103	107	233	124	124	239
4431	30860	144	106	322	140	116	366	133	88	205	117	102	235	119	120	260
4432	30861	145	189	267	138	147	322	142	74	156	101	98	271	122	100	216
4433	30862	116	117	285	108	122	339	116	103	154	129	118	236	117	117	286
4434	30863	121	112	361	117	109	357	120	93	143	101	94	234	114	88	290
4435	30864	123	133	265	122	129	328	129	105	143				113	123	236
4436	Zonal Check (ZC)	132	116	293	131	109	322	125	92	197	118	92	251	119	105	210
4437	30865	128	106	322	121	107	349	128	98	165	120	96	186	119	108	261
4438	30866	110	125	319	107	124	360	117	102	172	124	117	197	120	111	280
4439	30867	121	127	333	120	125	337	140	94	186	123	102	197	116	123	264
4440	30868	132	122	354	126	115	342	131	84	198	64	106	237	120	116	286
4441	30869	115	121	299	114	127	342	128	104	160	109	123	241	114	125	258
4442	30870	105	114	266	105	106	327	120	90	182	126	100	274	118	134	239
4443	30871	146	133	330	136	131	343	144	97	243	103	125	273	121	125	222
4444	30872	173	134	330	154	132	359	145	91	121	102	117	242	119	116	287
4445	PA 6444 (HC)	85	114	253	96	112	312	123	95	192	117	112	285	121	110	239
4446	30873	133	118	263	126	120	300	132	91	186	124	105	219	123	91	211
4447	30874	139	106	364	135	103	372	144	85	211	127	97	204	122	102	321
4448	30875	145	102	323	139	102	350	145	82	152	127	103	293	118	95	218
4449	30876	134	110	300	128	113	345	127	84	176	122	98	214	124	126	201
4450	30877	121	104	300	121	104	300	115	98	167				124	130	223
4451	30878	131	115	328	131	119	359	124	99	177	112	109	210	122	109	232
4452	30879	117	128	228	110	129	308	116	98	159	117	106	256	118	95	239
4453	30880	146	116	335	139	117	349	141	85	253	108	111	281	124	110	215
4454	30881	147	124	327	139	125	345	145	91	215	102	112	240	118	125	227
4455	30882	120	124	313	117	125	351	129	93	163	112	113	219	123	132	291
4456	CRHR 702 (HC-Observational)	123	123	286	121	125	339	129	90	163	112	111	119	122	117	240
4457	30883	119	109	287	119	109	287	118	90	196				120	92	292
4458	30884	115	106	303	109	107	345	119	89	197	101	97	185	121	88	260
4459	30885	120	102	303	120	102	303	115	100	205				121	90	297
4460	30886	147	105	360	139	103	361	129	134	129	105	97	313	118	111	219
4461	30887	100	88	308	93	97	335	111	86	157	120	89	360	119	121	237
4462	30888	119	116	279	122	114	326	125	100	195	116	101	191	117	115	280
4463	30889	139	106	268	134	98	332	145	80	165	127	88	307	121	116	294
4464	Local Check (LC)	131	116	254	127	115	303	127	81	180	116	90	309	115	82	283
Exp. Mean		**129**	**116**	**305**	**124**	**116**	**335**	**130**	**91**	**184**	**112**	**114**	**238**	**118**	**112**	**255**

Table No. 1.40 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – LATE, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN									ZONE IV- NORTH EASTERN			ZONE V- CENTRAL		
					Uttar Pradesh (2)			Zone III (9)			Assam (1)			Chhattisgarh (1)		
		Varanasi			Mean			Mean			Gerua-ICAR			Jagadalpur		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4401	30831	132	102	196	125	101	232	125	98	271	125	112	236	123	81	341
4402	30832	121	111	221	118	116	250	119	103	296	105	116	329	115	99	344
4403	30833	132	113	172	124	98	227	122	108	264	119	162	213	121	110	299
4404	30834	124	139	225	119	115	256	118	113	262	112	145	327	98	98	300
4405	30835	118	115	247	116	118	261	122	103	289	112	123	345	119	98	339
4406	30836	104	136	234	112	126	245	110	116	273	98	138	312	105	104	265
4407	30837	134	107	266	126	115	271	125	105	278	126	125	260	120	91	360
4408	30838	130	108	232	125	103	247	125	100	289	128	127	274	124	96	305
4409	30839	105	109	249	113	102	243	113	96	283	103	122	338	113	82	301
4410	30840	106	98	305	112	101	266	117	87	291	108	94	319	115	71	336
4411	30841	126	120	214	121	125	242	124	109	287	119	129	302	121	105	248
4412	30842	97	103	195	109	109	211	110	98	252	103	114	296	114	99	271
4413	30843	105	135	225	112	131	226	112	113	274	105	143	335	105	109	273
4414	30844	121	119	243	117	122	251	121	106	280	115	139	316	121	96	306
4415	30845	104	116	201	110	115	224	112	108	268	119	116	286	116	97	273
4416	30846	123	102	231	119	108	248	124	104	265	115	125	303	117	97	266
4417	30847	118	101	201	115	102	229	115	96	270	107	107	298	116	92	260
4418	30848	133	110	245	124	111	249	125	102	302	126	125	318	133	86	300
4419	30849	102	117	200	112	112	224	111	102	262	98	116	277	105	105	266
4420	30850	110	118	199	114	111	249	115	152	268	105	128	311	113	112	265
4421	30851	128	145	175	124	153	207	122	137	268	120	181	187	130	134	338
4422	30852	126	97	301	120	101	288	121	94	304	126	111	295	120	79	290
4423	30853	103	107	258	112	116	244	115	99	298	95	114	318	112	92	316
4424	30854	108	136	199	113	131	224	116	122	273	105	140	285	116	90	285
4425	30855	111	105	253	116	106	253	119	105	271	108	105	313	117	86	310
4426	30856	126	108	229	121	115	255	123	102	309	120	124	290	126	89	257
4427	30857	101	100	258	110	105	240	111	89	331	98	106	395	105	72	297
4428	Swarna (NC)	116	100	245	117	112	237	117	102	270	108	118	350	117	87	326
4429	30858	104	120	137	113	116	209	113	107	240	105	119	264	105	103	218
4430	30859	142	115	178	133	119	208	126	106	247		.		131	89	352
4431	30860	132	108	233	125	114	246	125	108	283	120	141	241	128	106	329
4432	30861	131	88	194	126	94	205	125	103	277	119	97	280	121	81	293
4433	30862	98	131	195	107	124	240	111	113	268	103	131	310	112	106	236
4434	30863	103	98	257	108	93	273	110	93	281	98	112	352	103	85	288
4435	30864	116	127	146	114	125	191	118	116	268	105	140	274	117	111	323
4436	Zonal Check (ZC)	116	110	254	117	107	232	120	98	280	125	130	242	111	97	288
4437	30865	117	104	275	118	106	268	118	97	291	108	98	332	115	72	343
4438	30866	98	118	228	109	114	254	111	114	277	95	129	338	98	96	295
4439	30867	108	129	221	112	126	242	121	111	264	115	130	295	124	103	341
4440	30868	116	122	198	118	119	242	115	103	283	115	129	274	115	100	259
4441	30869	102	127	190	108	126	224	112	116	267	98	130	245	116	112	316
4442	30870	95	101	264	106	117	251	110	100	266	91	122	318	103	86	263
4443	30871	132	128	217	126	127	219	126	118	271	126	152	266	130	105	332
4444	30872	132	124	182	125	120	234	130	116	262	121	148	222	130	118	313
4445	PA 6444 (HC)	97	114	238	109	112	238	108	104	291	103	136	302	110	92	265
4446	30873	124	120	216	123	105	213	122	104	269	115	131	297	118	109	312
4447	30874	124	102	249	123	102	285	126	94	285	126	108	269	121	85	267
4448	30875	127	101	220	122	98	219	127	95	268	117	111	288	120	83	294
4449	30876	112	107	224	118	117	212	121	100	284	108	113	354	113	95	312
4450	30877		.		124	130	223	119	99	241		.		121	103	295
4451	30878	119	117	227	120	113	229	121	110	269	115	132	227	117	98	306
4452	30879	105	127	175	112	111	207	111	111	253	98	127	257	99	98	285
4453	30880	124	100	218	124	105	217	126	102	304	126	117	264	130	90	311
4454	30881	123	130	270	120	128	248	124	113	282	126	140	240	130	92	310
4455	30882	110	112	212	116	122	251	116	109	279	105	121	284	117	98	243
4456	CRHR 702 (HC-Observational)	114	118	204	118	118	222	117	107	240	105	128	289	116	88	277
4457	30883		.		120	92	292	119	93	280				100	102	291
4458	30884	98	103	247	109	95	253	107	92	278	95	106	302	107	70	185
4459	30885		.		121	90	297	116	92	267				117	107	249
4460	30886	137	112	198	127	111	208	126	102	304	126	122	279	137	79	320
4461	30887	87	93	214	103	107	225	104	91	290	84	113	219	96	80	270
4462	30888	107	123	234	112	119	257	113	106	278	105	136	288	114	95	256
4463	30889	128	103	237	124	109	265	127	94	279	118	110	313	124	91	233
4464	Local Check (LC)	121	109	219	118	95	251	121	100	280	119	139	246	115	129	294
Exp. Mean		**116**	**113**	**222**	**117**	**113**	**240**	**118**	**105**	**276**	**111**	**125**	**290**	**116**	**95**	**292**

Table No. 1.40 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – LATE, Kharif 2022

ENTRY NO	IET NO	ZONE V- CENTRAL						ZONE VI – WESTERN								
		Maharashtra 1(1)			Zone V (2)			Maharashtra 2(1)			Maharashtra (2)			Zone VI (1)		
		Sakoli			Mean			Karjat			Mean			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4401	30831	114	98	223	118	90	282	115	120	221	114	109	222	115	120	221
4402	30832	101	107	220	108	103	282	113	122	205	107	115	212	113	122	205
4403	30833	116	109	307	118	109	303	114	140	225	115	124	266	114	140	225
4404	30834	102	127	260	100	113	280	116	147	236	109	137	248	116	147	236
4405	30835	112	85	310	115	92	324	116	146	225	114	115	267	116	146	225
4406	30836	93	115	233	99	110	249	105	138	209	99	127	221	105	138	209
4407	30837	110	108	312	115	99	336	105	123	207	107	115	259	105	123	207
4408	30838	103	104	289	113	100	297	115	138	222	109	121	256	115	138	222
4409	30839	100	98	201	106	90	251	109	118	190	104	108	196	109	118	190
4410	30840	101	96	238	108	83	287	111	104	202	106	100	220	111	104	202
4411	30841	103	124	306	112	115	277	105	108	219	104	116	262	105	108	219
4412	30842	92	107	243	103	103	257	108	110	222	100	108	232	108	110	222
4413	30843	96	136	274	100	122	273	107	148	221	101	142	247	107	148	221
4414	30844	103	127	311	112	112	308	108	139	244	105	133	277	108	139	244
4415	30845	93	137	267	104	117	270				93	137	267			
4416	30846	113	106	265	115	102	266	115	125	227	114	115	246	115	125	227
4417	30847	100	100	184	108	96	222	106	100	210	103	100	197	106	100	210
4418	30848	117	109	223	125	98	262	106	134	165	111	122	194	106	134	165
4419	30849	98	97	207	101	101	236	105	119	195	101	108	201	105	119	195
4420	30850	100	127	225	106	120	245	108	124	210	104	125	218	108	124	210
4421	30851	117	138	276	123	136	307	115	190	249	116	164	262	115	190	249
4422	30852	112	106	318	116	93	304	118	126	238	115	116	278	118	126	238
4423	30853	94	84	295	103	88	306	103	121	204	98	102	249	103	121	204
4424	30854	100	126	302	108	108	294	116	151	207	108	138	255	116	151	207
4425	30855	101	85	288	109	85	299	111	113	194	106	99	241	111	113	194
4426	30856	114	103	257	120	96	257	107	128	190	110	115	223	107	128	190
4427	30857	99	85	166	102	79	232	101	106	222	100	95	194	101	106	222
4428	Swarna (NC)				117	87	326	111	101	208	111	101	208	111	101	208
4429	30858	96	118	228	100	111	223	107	126	202	101	122	215	107	126	202
4430	30859	122	85	250	126	87	301	121	128	168	121	106	209	121	128	168
4431	30860	112	126	307	120	116	318	114	127	197	113	126	252	114	127	197
4432	30861	114	94	257	117	87	275	120	116	213	117	105	235	120	116	213
4433	30862	92	127	211	102	116	224	100	131	198	96	129	204	100	131	198
4434	30863	93	103	217	98	94	253	116	139	225	104	121	221	116	139	225
4435	30864	101	143	295	109	127	309	120	74	237	110	108	266	120	74	237
4436	Zonal Check (ZC)	99	124	246	105	111	267	115	154	230	107	139	238	115	154	230
4437	30865	100	114	283	107	93	313	108	110	198	104	112	240	108	110	198
4438	30866	90	125	217	94	110	256	100	119	180	95	122	198	100	119	180
4439	30867	103	123	221	113	113	281	111	131	205	107	127	213	111	131	205
4440	30868	101	108	260	108	104	259	113	120	204	107	114	232	113	120	204
4441	30869	96	127	182	106	120	249	109	146	245	102	137	214	109	146	245
4442	30870	89	96	214	96	91	238	100	107	199	94	101	206	100	107	199
4443	30871	116	146	302	123	125	317	115	146	202	115	146	252	115	146	202
4444	30872	115	135	302	122	127	308	119	161	231	117	148	267	119	161	231
4445	PA 6444 (HC)	93	107	261	101	99	263	104	124	205	98	115	233	104	124	205
4446	30873	114	111	232	116	110	272	117	141	226	115	126	229	117	141	226
4447	30874	103	107	253	112	96	260	116	125	198	109	116	225	116	125	198
4448	30875	110	102	147	115	93	221	119	121	216	114	111	182	119	121	216
4449	30876	101	115	134	107	105	223	108	119	203	104	117	168	108	119	203
4450	30877				121	103	295	99	110	187	99	110	187	99	110	187
4451	30878	96	134	235	106	116	270	105	128	205	100	131	220	105	128	205
4452	30879	98	114	127	98	106	206	101	149	203	99	132	165	101	149	203
4453	30880	116	108	306	123	99	308	115	136	220	115	122	263	115	136	220
4454	30881	121	135	278	125	114	294	115	159	248	118	147	263	115	159	248
4455	30882	100	126	289	108	112	266	107	119	222	103	123	255	107	119	222
4456	CRHR 702 (HC-Observational)	101	124	266	108	106	272	109	131	212	105	128	239	109	131	212
4457	30883				100	102	291	93	111	204	93	111	204	93	111	204
4458	30884	92	104	138	99	87	162	103	110	250	97	107	194	103	110	250
4459	30885				117	107	249	115	150	210	115	150	210	115	150	210
4460	30886	123	93	235	130	86	278	115	139	188	119	116	211	115	139	188
4461	30887	86	84	220	91	82	245	97	105	184	91	94	202	97	105	184
4462	30888	97	123	317	105	109	286	108	136	217	102	130	267	108	136	217
4463	30889	113	95	288	119	93	261	114	124	201	114	109	245	114	124	201
4464	Local Check (LC)	111	108	259	113	119	276	113	106	220	112	107	239	113	106	220
Exp. Mean		**103**	**112**	**249**	**110**	**103**	**272**	**110**	**127**	**211**	**106**	**120**	**229**	**110**	**127**	**211**

Table No. 1.40 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – LATE, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN								
		Andhra Pradesh (1)			Telangana (1)			Tamil Nadu (1)		
		Maruteru			Warangal			Aduturai		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4401	30831	116	114	290	124	117	368	107	93	285
4402	30832	106	122	300	116	125	409	109	94	315
4403	30833	116	148	337	124	145	393	96	109	285
4404	30834	107	147	340	121	153	399	99	102	315
4405	30835	116	123	314	118	133	421	105	106	335
4406	30836	99	147	307	104	146	386	94	108	365
4407	30837	119	126	257	129	128	381	111	74	255
4408	30838	115	126	314	124	144	368	105	89	395
4409	30839	98	116	300	115	132	409	103	83	365
4410	30840	114	102	244	105	102	427	100	79	275
4411	30841	114	133	327	119	143	437	104	93	278
4412	30842	100	103	238	104	118	398	100	88	300
4413	30843	112	137	356	112	147	460	96	88	345
4414	30844	114	133	277	122	137	490	109	105	230
4415	30845	93	126	304	107	127	465	97	90	325
4416	30846	116	122	340	122	126	472	96	93	270
4417	30847	103	116	333	116	113	434	102	24	365
4418	30848	119	125	281				109	111	395
4419	30849	96	119	271	101	116	404	95	95	272
4420	30850	106	137	340	117	137	393	96	92	315
4421	30851	125	186	267	130	178	401	109	113	335
4422	30852	123	117	267	131	114	403	104	97	340
4423	30853	93	108	327	105	124	488	100	88	335
4424	30854	110	142	399	118	156	442	103	116	365
4425	30855	107	121	297	121	115	454	108	90	315
4426	30856	111	135	257	124	133	449	109	89	395
4427	30857	93	105	251	94	104	452	96	77	400
4428	Swarna (NC)	113	117	290	118	123	426	102	71	305
4429	30858	99	133	261	105	142	416	95	98	315
4430	30859	121	128	314	135	118	388	0		
4431	30860	118	132	277	124	143	399	105	107	343
4432	30861	120	113	304	126	115	411	108	101	345
4433	30862	91	120	307	103	126	460	97	110	325
4434	30863	95	108	261	99	113	447	94	73	365
4435	30864	107	145	307	118	147	431	102	95	325
4436	Zonal Check (ZC)	115	121	310	119	133	429	104	94	390
4437	30865	107	111	307	115	112	426	102	88	310
4438	30866	92	117	248	97	127	485	91	103	290
4439	30867	104	138	310	115	137	446	108	120	308
4440	30868	117	128	267	119	135	373	101	93	290
4441	30869	98	141	327	111	134	411	100	100	325
4442	30870	93	113	244	99	116	380	95	81	345
4443	30871	123	137	287	128	142	396	92	128	350
4444	30872	103	142	307	131	153	398	107	128	350
4445	PA 6444 (HC)	93	123	290	101	123	421	101	83	310
4446	30873	116	140	277	122	140	409	111	92	365
4447	30874	117	118	277	119	128	426	105	92	345
4448	30875	117	116	254	123	123	408	106	85	305
4449	30876	114	116	300	111	119	409	100	89	325
4450	30877							96	88	365
4451	30878	107	120	337	111	135	427	106	110	265
4452	30879	99	135	340	106	133	442	103	102	270
4453	30880	122	122	300	116	127	444	114	92	320
4454	30881	115	169	330	130	147	388	109	123	265
4455	30882	99	131	333	114	134	446	100	100	320
4456	CRHR 702 (HC-Observational)	107	126	261	115	132	417	104	92	335
4457	30883	95	84	261				0		
4458	30884	93	109	264	99	109	449	94	79	295
4459	30885							0		
4460	30886	124	113	277	131	108	449	109	87	330
4461	30887	98	94	231	93	97	422	97	98	290
4462	30888	101	129	343	110	130	419	96	86	295
4463	30889	115	119	277	126	127	421	109	90	370
4464	Local Check (LC)	124	115	271	111	119	358	111	90	345
Exp. Mean		**108**	**125**	**295**	**115**	**129**	**421**	**97**	**94**	**324**

Table No. 1.40 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – LATE, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN						Overall Mean (17)		
		Karnataka (1)			Zone VII (4)					
		Gangavathi			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4401	30831	127	79	413	118	101	339	122	100	283
4402	30832	123	75	300	113	104	331	115	105	299
4403	30833	114	93	352	112	124	342	119	117	282
4404	30834	126	92	366	113	124	355	114	119	288
4405	30835	126	81	416	116	111	371	119	107	312
4406	30836	110	96	355	102	124	353	106	120	288
4407	30837	126	80	424	121	102	329	122	106	292
4408	30838	125	81	367	117	110	361	121	106	302
4409	30839	126	79	374	110	102	362	111	100	296
4410	30840	119	82	453	109	91	350	113	89	301
4411	30841	111	86	420	112	114	365	118	112	301
4412	30842	112	82	327	104	98	315	107	100	268
4413	30843	111	95	340	107	117	375	109	119	298
4414	30844	113	85	332	115	115	332	117	113	295
4415	30845	114	100	385	103	111	370	109	110	295
4416	30846	125	88	366	115	107	362	120	107	288
4417	30847	115	79	336	109	83	367	112	94	285
4418	30848	128	82	345	119	106	340	123	106	296
4419	30849	119	84	349	102	104	324	107	104	270
4420	30850	118	87	331	109	113	345	112	136	282
4421	30851	112	101	288	119	144	323	121	144	280
4422	30852	120	81	363	120	102	343	120	99	309
4423	30853	118	81	349	104	100	375	108	100	314
4424	30854	125	86	334	114	125	385	114	124	299
4425	30855	127	73	276	116	100	335	116	102	287
4426	30856	126	84	432	118	110	383	120	106	312
4427	30857	103	74	263	96	90	341	105	90	319
4428	Swarna (NC)				111	104	340	115	102	289
4429	30858	112	89	322	102	115	328	108	111	258
4430	30859	115	91	335	93	112	345	117	106	268
4431	30860	114	88	388	115	117	352	121	114	296
4432	30861	128	79	327	120	102	347	123	101	290
4433	30862	116	87	375	101	111	367	106	115	284
4434	30863	112	85	279	100	95	338	106	98	292
4435	30864	121	94	368	112	120	358	114	117	294
4436	Zonal Check (ZC)	121	90	378	115	110	377	117	107	296
4437	30865	121	79	359	111	97	350	114	97	305
4438	30866	110	102	389	97	112	353	104	114	290
4439	30867	124	86	318	113	120	345	117	116	284
4440	30868	122	87	396	114	110	332	114	107	286
4441	30869	117	98	420	106	118	371	109	120	287
4442	30870	118	77	299	101	97	317	104	100	274
4443	30871	126	94	314	117	125	337	123	124	287
4444	30872	126	104	336	117	132	348	125	126	283
4445	PA 6444 (HC)	116	84	324	102	103	336	105	106	294
4446	30873	123	85	338	118	114	347	120	111	287
4447	30874	117	78	360	114	104	352	121	99	292
4448	30875	123	76	355	117	100	330	122	99	275
4449	30876	120	82	378	111	101	353	116	103	292
4450	30877				96	88	365	114	99	256
4451	30878	123	82	338	111	112	342	116	113	280
4452	30879	116	97	383	106	117	359	107	115	270
4453	30880	123	86	402	118	107	366	123	105	312
4454	30881	129	93	384	121	133	342	123	122	293
4455	30882	123	87	368	109	113	367	112	111	295
4456	CRHR 702 (HC-Observational)	122	92	389	112	111	350	114	110	271
4457	30883				48	84	261	98	95	270
4458	30884	111	72	330	99	92	334	104	93	277
4459	30885				0			102	102	256
4460	30886	130	79	370	123	96	357	125	102	305
4461	30887	106	82	330	98	93	318	99	92	281
4462	30888	109	94	402	104	110	365	109	111	297
4463	30889	128	79	332	119	103	350	123	99	291
4464	Local Check (LC)	117	72	340	115	99	328	118	105	285
Exp. Mean		**119**	**85**	**356**	**108**	**108**	**348**	**114**	**108**	**289**

Table No. 1.40 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT-LATE, (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED														
		Bihar			West Bengal			Chhattisgarh			Maharasthra 2			Gujarat		
		@Patna-ICAR			@Chinsurah			@Raipur			@Pondaghat			@Navasari		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4401	30831	123	102	344	124	93	297	121	117	183	117	105	205	119	109	224
4402	30832	113	107	352	123	100	297	112	127	165	115	101	215	111	111	221
4403	30833	123	118	290	115	119	314	121	135	141	123	122	212	114	110	197
4404	30834	117	132	354	115	106	314	113	130	178	117	120	225	108	113	179
4405	30835				124	96	281	114	123	217	117	110	216	115	104	234
4406	30836	99	134	251	118	109	297	99	124	172	95	115	196	95	128	159
4407	30837	127	115	307	127	95	281	124	118	199	121	114	216	116	124	237
4408	30838	117	114	276	122	90	330	121	123	227	117	111	203	111	124	232
4409	30839	103	112	258	107	84	297	107	113	185	105	104	221	98	118	249
4410	30840	104	95	285	124	87	330	107	101	171	106	77	226	101	98	257
4411	30841	121	110	314	123	103	314	117	125	202	117	114	219	111	127	223
4412	30842	98	105	288	109	96	314	98	107	139	96	94	199	96	110	205
4413	30843	100	134	211	118	103	347	102	120	169	106	117	215	99	151	264
4414	30844	113	113	319	123	95	363	115	133	215	117	106	207	111	136	248
4415	30845	99	121	234	120	104	297	102	129	159	103	114	194	109	131	256
4416	30846	120	106	244	124	96	314	120	115	181	123	104	210	112	121	268
4417	30847	106	96	277	118	105	347	107	100	173	109	95	208	104	121	229
4418	30848	124	113	333	115	102	330	128	126	205	128	117	206	122	144	261
4419	30849	101	105	375	116	99	347	102	119	181	100	101	203	96	136	193
4420	30850	106	129	305	122	115	314	110	125	168	106	120	219	91	156	214
4421	30851	119	124	239	123	136	347	127	155	172	133	142	211	121	184	280
4422	30852				122	99	396	121	118	219	124	106	211	119	136	257
4423	30853	99	110	268	119	103	314	99	115	185	103	101	214	102	135	209
4424	30854	108	131	256	122	115	330	111	150	111	116	124	210	105	146	252
4425	30855				124	98	363	110	114	149	110	98	207	107	127	185
4426	30856	121	118	334	127	102		118	120	199	119	100	216	113	112	269
4427	30857	95	100	393	121	100	446	98	115	207	96	101	221	90	100	287
4428	Swarna (NC)	98	105	307				112	113	187				108	103	245
4429	30858	103	121	243	121	107	347	105	114	120	105	120	196	107	131	193
4430	30859	137	94	243	122	90	314	135	107	145	129	104	201	137	126	191
4431	30860	126	121	347	122	112	314	123	122	169	121	111	220	120	106	188
4432	30861	125	92	318	126	87	363	123	106	182	124	99	208	115	112	226
4433	30862	95	112	221	116	101	314	101	125	114	103	113	196	90	119	234
4434	30863	98	104	260	108	92	347	101	98	140	93	100	206	99	110	249
4435	30864				119	116	297	110	137	136	111	123	182	104	145	191
4436	Zonal Check (ZC)	118	102	222	121	85	297	112	117	181	117	104	207	571	120	207
4437	30865	108	109	248	124	85	330	111	112	203	114	99	210	110	109	226
4438	30866	96	132	290	122	103	297	95	120	156	95	120	205	90	126	220
4439	30867	103	124	272	122	105	297	108	133	138	110	112	210	101	131	193
4440	30868	113	118	355	122	108	314	114	116	178	120	107	202	105	141	226
4441	30869	104	124	212	118	108	347	105	125	148	104	115	201	99	153	197
4442	30870	95	118	297	117	96	297	95	108	144	97	101	183	104	127	251
4443	30871	126	143	316	122	107	347	127	144	228	127	127	201	128	159	250
4444	30872	128	138	245	124	93	330	126	152	178	130	139	216	129	171	223
4445	PA 6444 (HC)	95	121	266	119	96	297	98	115	157	101	109	207	96	135	196
4446	30873	118	129	244	126	108	297	116	132	218	117	123	221	103	121	196
4447	30874	118	113	356	123	116	314	120	115	187	121	101	214	122	141	207
4448	30875	124	101	396	126	97	347	121	119	199	126	102	184	127	123	259
4449	30876	112	96	353	119	95	380	109	115	204	110	90	219	108	125	259
4450	30877	109	109	359				130	.							
4451	30878	108	131	289	122	107	380	115	128	178	103	117	210	90	141	262
4452	30879	102	113	189	119	102	314	106	123	128	93	108	211	117	134	229
4453	30880	127	108	352	108	96	314	130	108	205	128	107	206	127	144	208
4454	30881	131	119	351	114	114	314	129	147	212	130	122	212	121	151	209
4455	30882	107	116	272	116	101	347	112	128	158	111	105	218	104	141	245
4456	CRHR 702 (HC-Observational)	106	114	214	121	107	330	112	129	172	111	111	207	105	144	213
4457	30883	107	117	244				117	112	161						
4458	30884	96	94	219	114	99	297	97	100	187	99	103	191	94	124	224
4459	30885	95	108	201				122	135	163						
4460	30886	131	110	348	126	103	297	137	115	164	130	111	213	124	129	314
4461	30887	85	84	406	106	76	380	89	97	187	86	86	192	110	99	224
4462	30888	101	116	373	118	102	314	102	120	191	106	114	213	97	123	239
4463	30889	118	91	287	122	96	314	119	132	188	120	114	199	115	129	233
4464	Local Check (LC)	114	92	399	119	104	297	120	172	153	110	94	207	111	160	245
Exp. Mean		**110**	**113**	**293**	**119**	**101**	**325**	**112**	**122**	**175**	**112**	**109**	**208**	**116**	**129**	**229**

Table No. 1.40 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT-LATE, (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED											
		Karnataka						Puducherry (0)					
		@Ponnamphet			@Sirsi			@Kurumbapet			@Karaikal		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4401	30831	125	71	443		90	281	120	102	354	105	161	569
4402	30832	119	68	378		95	297	108	112	460	100	100	326
4403	30833	123	97	414		104	231	114	132	255	98	100	585
4404	30834	123	86	436		100	281	106	130	350	104	144	475
4405	30835	122	77	501		104	314	113	115	430	106	95	527
4406	30836	111	78	392		97	281	101	120	405	93	146	572
4407	30837	118	78	436		96	330		.		103	134	359
4408	30838	123	71	363		83	347	114	110	430	104	121	547
4409	30839	125	77	356		85	314	106	108	460	106	134	391
4410	30840	124	62	378		74	264	110	93	560	107	88	359
4411	30841	107	81	392		87	248		.		104	76	326
4412	30842	112	74	400		80	314	99	112	420	103	68	359
4413	30843	104	66	312		88	330	108	127	465	104	135	498
4414	30844	125	73	422		95	297	115	127	440	93	113	509
4415	30845	103	90	363		89	248		.		90	103	510
4416	30846	124	73	356		94	281	113	112	410	97	122	381
4417	30847	121	62	400		71	248	107	95	380	92	122	351
4418	30848	123	77	348		91	264	118	113	410	97	112	475
4419	30849					93	231	105	102	390	93	110	559
4420	30850	115	86	443		95	297	109	117	460	95	119	361
4421	30851	121	95	363		113	215	110	148	375	91	143	439
4422	30852	120	69	371		94	264	118	100	460	101	103	352
4423	30853	122	66	378		88	314	101	108	465	96	88	391
4424	30854	122	81	421		114	248	109	142	405	103	126	326
4425	30855	120	63	472		81	330	111	107	450	105	100	460
4426	30856	124	70	414		85	248	110	115	465	106	58	359
4427	30857	104	53	320		77	297	99	98	560	93	84	535
4428	Swarna (NC)					82	281	105	108	480	105	98	505
4429	30858	107	76	422		89	231	104	126	420	106	119	277
4430	30859	125	80	363		95	231	119	113	380	91	100	475
4431	30860	114	76	363		85	281	117	125	420	107	132	438
4432	30861	124	70	429		98	248	123	95	430	105	104	536
4433	30862	115	72	421		75	264	104	130	405	107	108	351
4434	30863	103	76	363		100	231	99	95	415	105	102	308
4435	30864	123	85	371		95	281	106	123	365	104	141	494
4436	Zonal Check (ZC)	118	74	407		91	248	112	116	485	102	118	487
4437	30865	120	65	407		81	330	108	98	545	98	87	570
4438	30866	100	90	363		115	281	95	122	340	105	132	386
4439	30867	127	83	400		85	330	115	130	360	98	127	475
4440	30868	105	63	327		102	215	108	120	400	106	125	409
4441	30869	118	89	356		82	231	104	131	490	94	113	351
4442	30870	112	61	370		119	314	98	105	395	93	135	319
4443	30871	123	101	363		127	297	121	138	450	104	148	435
4444	30872	124	91	363		92	314	121	145	425	105	145	427
4445	PA 6444 (HC)	110	75	327		107	297	100	112	380	106	125	308
4446	30873	122	77	407		97	281	107	118	390	104	144	474
4447	30874	115	75	414		92	281		.		106	118	551
4448	30875	119	65	363		86	314	107	110	390	107	110	308
4449	30876	119	67	487		102	264	109	100	430	99	104	392
4450	30877					102	281		.		106	95	409
4451	30878	118	75	363		95	363	112	120	380	107	139	367
4452	30879	117	75	378		109	330	104	128	380	107	112	351
4453	30880	121	80	422		94	297	126	105	365	106	110	539
4454	30881	128	91	422		94	314	119	140	480	104	89	435
4455	30882	115	70	414		84	281	104	113	450	94	111	581
4456	CRHR 702 (HC-Observational)	120	68	450		81	314				105	112	549
4457	30883					79	248				102	84	551
4458	30884	107	70	334		84	429	94	87	425	91	94	555
4459	30885					92	297				103	142	456
4460	30886	133	107	378		95	281	121	118	430	96	119	457
4461	30887	108	65	501		87	314	96	92	475	93	100	555
4462	30888	107	75	349		97	347	96	122	360	105	100	427
4463	30889	131	73	334		97	347	62	100	595	104	94	367
4464	Local Check (LC)	123	95	393				129	110	355	116	106	486
Exp. Mean		**118**	**76**	**391**		**93**	**287**	**108**	**115**	**424**	**101**	**113**	**441**

ADVANCED VARIETY TRIAL 1– BORO (AVT 1 – BORO) 2021-2022

Locations: **16** **Test Entries: 12**

Checks: **Gautam (National), IR 64 (Zonal), Rajalaxmi (Hybrid check) and Local check** **Table: 1.41**

The AVT-1 Boro trial was constituted with 12 test entries of which 3 entries are in third year of testing and 9 entries are in the second year of testing and four checks *viz.*, Gautam (National), IR 64 (Zonal), Rajalaxmi and Local check. The trial was sent to 16 locations but 11 centres conducted the trial and sent the data *viz.*, (Cuttack, Chiplima Pusa, Chinsurah, Pundibari, Malda, Bankura, Varanasi, Titabar, Gerua-ICAR and Arundhatinagar). Five centres namely Jeypore, Chakdaha (Mohanpur) Mohanpur, Shillongani and Karimganj did not conduct the trial. The centre-wise data on yield, days to 50% flowering, plant height, panicles/ m^2 and quality are presented in the tables 1.42, 1.43 and 1.44 respectively.

Overall performance

Overall mean grain yield was ranged from 4334 kg/ha (IET 29601) to 6195 kg/ha (IET 28848) and days to 50% flowering ranged from 111 days (IET 29605) to 129 days (Rajalakshmi). Among checks, Gautam recorded highest grain yield (5512 kg/ha) whereas, and IR 64 recorded (4889 kg/ha), Local check (5339 kg/ha) and Rajalaxmi (Hybrid check) is the lowest yielder (4602 kg/ha).

Entries which completed Three years of Testing:

Three entries viz. IET 28848, IET 28840 and IET 28849 completed three years of testing in AICRPR. Over all among them IET 28848 (Hybrid) and IET 28849 yielded maximum with 6195 and 5982 kgs/ha respectively. Both the hybrid entries IET 28848 and IET 28849 are significantly superior over the best varietal check (Gautam 5512 kg/ha) with 12 and 9 percent. These hybrids are found promising for the states Odisha, West Bengal, Assam, UP and Tripura. Whereas the varietal entry IET 28840 recorded yield 6217 kg/ha with 7 percent over best varietal check in Zone III.

Quality-wise IET 28848 recorded 53.1% HRR, moderate AC (21.8%), 22 mm GC and 4 ASV. Similarly, IET 28849 recorded 57.5 % HRR, moderate AC (23.9%), 34 mm GC and 4 ASV. IET 28840 recorded 57.6 HRR, Ac 26.19, GC 22 and ASV 4.

Hence, IET 28848 and IET 28849 (Hybrids) were promoted. Whereas IET 28840 is promoted for Zone III alone.

Entries which completed Second year of Testing:

None of the entries are found superior to best check overall as well as in Zone III hence not discussed.

Zone IV

The trial was sent to 6 locations (Gerua, Shillongani, Karimganj, Titabar, Arundhutinagar and Lembucherra). But data was received from only 3 locations (Gerua, Titabar, Arundhutinagar). The mean grain yield ranged from 3437 Kg/ha (IET 29605) to

5465 kg/ha (IET 29642) and days to 50% flowering ranged from 115 days (IET 29611) to 140 days (IET 29599). Among checks, Rajalaxmi (HC) recorded highest grain yield (4844 kg/ha) whereas, Gautam recorded lowest grain yield (4398 kg/ha) and IR 64 recorded grain yield of 4433 kg/ha and Local check is the higher yielder with 4961 kg/ha.

Among test entries IET 29624 (5465 Kg/ha) indicated 10% yield advantage over BVC (Local check) and test entry IET 29621 recorded yield gain 5390 with 9% over BVC (LC). Whereas the entry IET 29621 recorded lowest HRR i.e., 36.4 hence dropped for further testing.

Hence, only entry IET 29624 promoted to third year of testing in AVT-2- Boro in Zone IV.

Performance of superior entries in AVT1 – Boro during 2021-2022

Sl. No	IET No/ Designation/ Cross combination	Grain Type	Zone III		Zone IV		Overall	
			Kg/ha	%BVC/HC (LC/ Rajalaxmi)	Kg/ha	%BVC/HC (LC/ Rajalaxmi)	Kg/ha	%BVC/HC (LC/ Rajalaxmi)
Entries in Third year of testing								
1	IET 28848 (H) JKRH 2728	SB					6195	12
	IET 28840 PUR- B-190 Nilachal / MTU 7029	SB	6217	7.0			5530	
2	28849 (H) NK 5231	SB					5982	9
Entries in Second year of testing								
4	IET 29624 CR 4334-2-1-1 CR 3856-44-22-2-1-7*3/Swarna MAS	LS			5465	10		
	Gautam – Check		5830		4398		5512	
	IR64 –Check		5020		4433		4889	
	Rajalaxmi- (HC)		4522		4844		4602	
	Local Check		5448		4961		5339	

Quality Characteristics of the entries evaluated/ found promising.

Sl. No	IET No/ Designation/ Cross combination	Quality Parameters					
		Hulling	Milling	HRR	AC	GC	ASV
1	28840* PUR- B-190 Nilachal / MTU 7029	79.3	68.7	57.6	26.1	22	4.0
2	29615	81.7	72.3	47.9	20.26	49	4.0
3	28849 (H)* NK 5231	78.4	69.6	57.5	23.90	34	4.0
4	28848 (H)* JKRH 2728	80.5	69.7	53.1	21.88	22	4.0
5	29624	81.9	75.2	71.2	19.50	49	3.0
6	29621	80.3	66.9	36.4	19.18	78	3.0

Performance of IET 28849 in three years of testing 2020-2022

IET No/ Designation/ Cross Combination	Year	Zonal Performance			Performance across the states			
		Overall/Zone	Yield/Rank	%YA BC/HC	State	Yield/Rank	%YA BC/HC	Remarks
Hybrid Entries								
IET 28849 (H)	2022	O III IV	5981 6151 5391	9.30 6.36 9.11	WB UP TR	6367 7878 6756	7.23 29.217 16.93	Promising for Uttar Pradesh Only
	2021	III	7001	11.10	UP	10496	15.3 18.4	
	2020	III	7445	21.94				

Performance of IET 28848 in three years of testing 2020-2022

IET No/ Designation/ Cross Combination	Year	Zonal Performance			Performance across the states			
		Overall/Zone	Yield/Rank	%YA BC/HC	State	Yield/Rank	%YA BC/HC	Remarks
Hybrid Entries								
IET 28848 (H)	2022	O III IV	6195 6248 6011	12.35 7.38 21.24	OD UP	5750 8543	5.26 40.243	Promising for Odisha and Uttar Pradesh Only
	2021	O IV	6658 6620	10.8, 5.3 15.51	UP OD TR	10756 5879 7516	18.2, 21.4, 22.2, 20.9, 18.3, 23.0	
	2020	O III IV	7343 7557 7022	21.81 23.97 7.64				

Performance of IET 28840 in three years of testing 2020-2022

IET No/ Designation/ Cross Combination	Year	Zonal Performance			Performance across the states			
		Overall/Zone	Yield/Rank	%YA BC/HC	State	Yield/Rank	%YA BC/HC	Remarks
Hybrid Entries								
IET 28840 (H)	2022	III	6217	7.37	OD UP	5793 8466	6.27 39.240	Promising for Odisha and Uttar Pradesh Only
	2021	O III IV	6930 7703 6217	16 22.6 8.40	WB UP OD AS TR	7165 1071 9 5763 6473	17.6, 35 17.8, 21 19.8, 18.5 19.6	
	2020	III	6810	11.78	WB	7007	29	

INTIAL VARIETY TRIAL – BORO (IVT – BORO) 2021-22

Locations: **16** **Test Entries: 40**

Checks: **Gautam (National), IR 64 (Zonal), Rajalaxmi (Hybrid) and Local check** **Table: 1.45**

IVT – Boro Trial was constituted with 40 test entries and four checks. The 40 test entries include 38 varietal and two hybrid test entries in the first year of testing. The four checks include IR 64 (National), Gautam (Zonal), Rajalakshmi (Hybrid) and Local Check. The trial was sent to 16 locations in Zone III and Zone IV. However, one location namely Jeypore (Odisha) did not conduct the trial and data was not received from Four Locations i.e., Chakdaha (West Bengal), Shillongoni (Assam), Karimgunj (Assam) and Lembuchera (Tripura). Data received from Chiplima (Odisha), Bankura (West Bengal) and Gerua (Assam) the location was not considered for analysis due to Low Mean and high CV. The data from remaining eight locations was considered for assessing the performance of test entries. The data pertaining to yield, days to 50% flowering, plant height and panicles/m^2 are presented in the tables 1.46 and 1.47 respectively. The findings are discussed in the following paragraphs.

Overall

Overall mean grain yield was ranged from 3873 (IET 30457) to 6335 kg/ha (IET 30468) and days to 50% flowering from 115 (IET 30446) to 132 days (IET 30442). Among checks, Gautham (National check) recorded highest grain yield of 6217 kg/ha, whereas, hybrid check recorded 5926 kg/ha, IR-64 recorded 5269 Kg/ha and Local check yielded 5609 kg/ha. Among test entries, **none of the entries** recorded significant yield advantage over the best checks, hence none promoted to second year of testing.

Zone III

Data from five locations (NRRI Cuttack, Pusa, Chinsurah, Pundibhari Malda and Varanasi) was considered for assessing the performance of test entries in Zone III. The grain yield was ranged from 4131 (IET 30457) to 6530 kg/ha (IET 30451) and days to 50% flowering ranged from 112 (IET 30446) to 132 days (IET 30442). Among checks, Gautam yielded high with 6494 kg/ha, local check recorded grain yield of 5899 kg/ha, IR 64 recorded 5543 kg/ha whereas, hybrid check recorded 6108 kg/ha.

Among the test entries, none of the entries recorded required significantly superior yields over the best check Gautam. Hence, none were promoted to second year of testing.

Zone IV

Data received from two locations (Arundhutinagar, and Titabar) was considered for assessing the performance of test entries in Zone IV. The grain yield was ranged from 3099 (IET 30457) to 7425 kg/ha (IET 30467) and days to 50% flowering 119 (IET 30471) to 141 days (IET 30455).

Among checks, Gautam recorded highest grain yield 5523 kg/ha, Rajalaxmi yielded 5469 kg/ha, IR 64 4506 kg/ha and local check recorded grain yield of 4742 kg/ha, whereas, hybrid check recorded 4961 kg/ha.

Among the test entries, **IET 30467** and **IET 30465** recorded significantly superior yield of 7425 and 7165 kg/ha respectively over the best check, hence promoted to second year of testing.

Performance of superior entries in IVT – Boro during 2021-2022

IET No.	GT	Zone III (6)		Zone IV (2)		Overall (8)	
		Kg/ha DFF	%VC /HC	Kg/ha DFF	%VC /HC	Kg/ha DFF	%VC /HC
IET 30467 CR 3516-11-2-2-1-1-3 Lalat/Supriya	SB	-	-	7425* 133	-	-	-
IET 30465 CR 3582-5-2-1-2-2-1 Lalat/Supriya	SB	-	-	7165* 136	-	-	-
IR 64 (NC)				4506 122			
Gautam (ZC)				5523 123			
Local Check (LC)				4742 128			
Rajalakshmi (HC)				5469 137			
CD at 5 %				808			

Note * indicates significantly superior

Table No.1.41: Composition of entries in Advance Variety Trial 1- Boro (AVT 1-BORO) 2021-22

Entry No.	IET No.	Designation	Cross Combination	GT
3rd year of testing:				
2101	28848	***JKRH 2728 (Hybrid)***	-	SB
2102	28840	PUR-B-190	Nilachal / MTU 7029	SB
2103	28849	***NK 5231 (Hybrid)***	-	SB
2nd year of testing:				
2104	29605	CR 4121-37-6-1	CR 3856-44-22-2-1-11*3 / IRBB 60 / Swarna Sub1	SB
2105	29611	***S 9001 (Hybrid)***	-	LB
2106	**Gautam Check**			
2107	29601	CR 3856-44-22-2-1-11-4-1-1	IR 73963-86-1-5-2-2 / CR 2324-1	SB
2108	29599	KAUM 238-1-1-1-1-1	Uma / Jyothi	SB
2109	29624	CR 4334-2-1-1	CR 3856-44-22-2-1-7*3 / Swarna MAS	LB
2110	**Rajalaxmi Hybrid Check**			
2111	29621	CR 3856-44-22-7-1-2 -1-1	IR 73963-86-1-5-2-2 / CR 2324-1	MS
2112	29615	***S 4003 (Hybrid)***	-	LS
2113	29632	CR 4340-2-4-GSR IR2-1-R6-N5-N3-N53-N80	WTR / Haoannong	MS
2114	28852	CR 4311-2-2-2-1-2-2	CR 3580-33 / CR3580-71	SB
2115	**IR 64 Check**			
2116	**Local Check (LC)**			

Table No. 1.42: Grain Yield (kg/ha) in AVT 1 - BORO, 2021-

Entry No	IET No.	ZONE III-EASTERN											
		Odisha				Odisha (2)				West Bengal			
		ICAR -NRRI(Cuttack)		Chiplima		MEAN				Chinsurah		Pundibhari	
2101	28848	6049	4	5450	6	5750	5	5% #	26%	5926	6	5212	6
2102	28840	6389	2	5197	8	5793	4	6% #	27%	6593	2	6482	1
2103	28849	5260	8	4452		4856				6852	1	6091	3
2104	29605			5833	2	5833	3	7% #	27%			4032	
2105	29611	6160	3			6160	2	13% #	35%	6481	3	4078	
2106	Gautam Check	5457	6	5450	6	5454	7		19%	5481	8	4879	10
2107	29601	2776		4441		3609				4963		4908	9
2108	29599	6531	1	5822	3	6177	1	13% #	35%	4948		5904	4
2109	29624	3480		3838		3659				5074	10	4858	
2110	Rajalaxmi Check (HC)	4794		4364		4579				5000		4913	8
2111	29621	4378				4378				6370	4	4814	
2112	29615	5885	5	4660	10	5273	8		15%	6037	5	5210	7
2113	29632	4871	10	5603	4	5237	9		14%	4889		4390	
2114	28852	5456	7	5537	5	5497	6		20%	5111	9	6272	2
2115	IR 64 Check	3892		6064	1	4978				4704		4764	
2116	Local Check (LC)	5172	9	5121	9	5147	10		12%	5778	7	5678	5
Exp. Mean		**5103**		**5131**		**5149**				**5614**		**5155**	
CD		844.68		1435.71		968.96				504.7		1236.43	
CV%		**9.9**		**16.67**		**11.29**				**5.38**		**14.38**	
D/S		18-01-2022		01-02.2022						13-12-2021		05-01-2022	
D/P		22-02-2022		09-03-2022						02-02-2022		03-02-2022	
Local Check Name		Tapaswini		MTU 1156						Satabdi (IET 4786)		MTU 1153	

Table No. 1.42 (Contd): Grain Yield (kg/ha) in AVT 1 - BORO, 2021-22

Entry No	IET No.	ZONE III-EASTERN															
		West Bengal				West Bengal (4)				Uttar Pradesh(1)				Zone III (7)			
		Malda		Bankura		MEAN				Varanasi				MEAN			
2101	28848	6811	5	5745		5924	5	#	15%	8543	1 *	40% #	243%	6248	1	7% #	38%
2102	28840	5444		4946	6	5866	6	#	14%	8466	2 *	39% #	240%	6217	2	7% #	37%
2103	28849	5550		6975	10	6367	1	7% #	23%	7878	3	29% #	217%	6151	4	6% #	36%
2104	29605	7406	1		2	5719	9	#	11%					5757	7	#	27%
2105	29611	6378	8	6991		5982	3	#	16%	6839	4	12% #	175%	6155	3	6% #	36%
2106	Gautam Check	6756	6	6694	1	5953	4	#	15%	6096	7	#	145%	5830	6	#	29%
2107	29601	5206		5039	3	5029				3950			59%	4469			
2108	29599	5339		5019	7	5303				4167			67%	5390	#	19%	
2109	29624	6556	7		8	5496	10			5196	9	#	109%	4834			
2110	Rajalaxmi Check (HC)	5572	10			5162				2488				4522			
2111	29621	5406		4931		5380								5180	#	15%	
2112	29615	7000	2	6161		6102	2	#	18%	6475	6	6% #	160%	5918	5	#	31%
2113	29632	6839	4	4873	5	5248				6769	5	11% #	172%	5462	8	#	21%
2114	28852	6883	3	4911		5794	8	#	12%	3634			46%	5401	10	#	19%
2115	IR 64 Check	5378		5012		4965				5324	8	#	114%	5020	#	11%	
2116	Local Check (LC)	5628	9	6277	9	5840	7	#	13%	4479	10		80%	5448	9	#	20%
Exp. Mean		**6134**		**5659**	**4**	**5633**				**5736**				**5500**			
CD		724.69		752.18		457.37				2153.32				468.26			
CV%		**7.08**		**7.89**		**4.87**				**22.37**				**5.11**			
D/S		28-12-2021		10-12-2021						04-12-2021							
D/P		08-02-2022		11-02-2022						06-02-2022							
Local Check Name		Ajit		PUSPA						HUR-105							

Table No. 1.42 (Contd): Grain Yield (kg/ha) in AVT 1 - BORO, 2021-22

Entry No	IET No.	ZONE IV- NORTH EASTERN																		Overall Mean (9)			
		Assam			Assam(1)			Tripura (1)				Zone IV (2)											
		Titabar			MEAN			Arundhutinagar				MEAN								MEAN			
2101	28848	5962	3		5962	3 *	24%	6059	3	#	73%	6011	1 *	21% #	24%	6195	1 *	12% #	35%				
2102	28840	2963			2963			3289				3126				5530	5	#	20%				
2103	28849	4026			4026			6756	1	16% #	93%	5391	3	9%	11%	5982	2 *	9% #	30%				
2104	29605							3437				3437				5177	10	#	12%				
2105	29611	3980			3980			4311	8		23%	4146				5652	3	#	23%				
2106	Gautam Check	4826	5		4826	5		3970	10		14%	4398	9			5512	6	#	20%				
2107	29601	4819	6		4819	6		2904				3862				4334							
2108	29599	4469	9		4469	9		3496				3983				5077	#	10%					
2109	29624	4560	8		4560	8		6370	2	9% #	82%	5465	2	10% #	13%	4992	#						
2110	Rajalaxmi Check (HC)	6192	2		6192	2 *	28%	3496				4844	6			4602							
2111	29621	6246	1		6246	1 *	29%	4533	7	#	30%	5390	4	9%	11%	5240	8	#	14%				
2112	29615	3830			3830			5363	5	#	53%	4597	7			5625	4	#	22%				
2113	29632	4391	10		4391	10		4059	9		16%	4225	10			5187	9	#	13%				
2114	28852	5559	4		5559	4 *	15%	2133				3846				5055	#						
2115	IR 64 Check	3043			3043			5822	4	#	67%	4433	8			4889							
2116	Local Check (LC)	4737	7		4737	7		5185	6	#	48%	4961	5			5339	7	#	16%				
Exp. Mean		**4640**			**4640**			**4449**				**4507**				**5274**							
CD		635.33			635.33			972.94				581.4				362.72							
CV%		**8.19**			**8.19**			**13.11**				**7.74**				**4.12**							
D/S		15-12-2021						20-12-2021															
D/P		03-02-2022						14-01-2022															
Local Check Name		Kanaklata						Tripura Nirog Dhan															

Table No.1.42 (Contd): Grain Yield (kg/ha) in AVT 1 - BORO, 2021-22, (Trials Not Considered)

Entry No	IET No.	TRIALS NOT CONSIDERED			
		Bihar (0)		Assam	
		@Pusa		@Gerua	
2101	28848	6519	1	3544	9
2102	28840	4543		3833	7
2103	28849	5037	6	4367	4
2104	29605	4716	9		
2105	29611	5037	6	4656	3
2106	Gautam Check	4765	8	3144	
2107	29601	4568		3333	
2108	29599	4000		3522	10
2109	29624	4667	10	2961	
2110	Rajalaxmi Check (HC)	4272		3611	8
2111	29621	5037	6	2817	
2112	29615	6123	2	5983	1
2113	29632	4667	10	4317	5
2114	28852	4494		5256	2
2115	IR 64 Check	6123	2	3850	6
2116	Local Check (LC)	5778	4	2983	
Exp. Mean		**5022**		**3879**	
CD		380.74		1325.93	
CV%		**4.55**		**20.44**	
D/S		20-12-2021		27-12-2021	
D/P		22-02-2022		14-02-2022	
Local Check Name		Rajendra Nilam		Chandrama	

Table No. 1.43: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 1 - BORO, 2021-22

Entry No	IET No.	ZONE III-EASTERN														
		ODISHA			Odisha			Odisha (2)			West Bengal					
		ICAR- NRRI (Cuttack)			Chiplima			MEAN			Chinsurah			Pundibhari		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
2101	28848	117	105.55	336	108	95.44	158	113	100.50	247	112	102.50	297	122	97.36	202
2102	28840	108	103.37	366	107	94.64	186	108	99.00	276	113	107.17	330	111	113.82	222
2103	28849	107	90.73	409	109	95.68	183	108	93.21	296	110	106.67	297	119	98.26	218
2104	29605				96	84.16	196	96	84.16	196				113	98.44	250
2105	29611	98	97.43	397				98	97.43	397	110	105.60	297	116	97.70	269
2106	Gautam Check	100	91.17	468	102	82.20	180	101	86.68	324	106	99.00	363	128	107.69	237
2107	29601	127	114.33	312	105	83.60	162	116	98.97	237	122	130.00	363	121	119.88	237
2108	29599	123	102.87	462	108	98.36	188	116	100.61	325	128	119.00	297	127	106.08	168
2109	29624	127	109.93	342	112	90.96	171	120	100.45	257	124	120.00	297	113	96.41	301
2110	Rajalaxmi Check (HC)	125	112.27	239	110		159	118	112.27	199	123	116.67	297	120	111.09	255
2111	29621	122	104.13	353				122	104.13	353	118	121.33	264	119	105.97	242
2112	29615	115	101.93	294	104	92.48	166	110	97.21	230	115	106.67	330	126	84.26	293
2113	29632	126	90.67	450	114	89.72	193	120	90.19	322	127	114.13	396	114	89.49	306
2114	28852	124	110.67	367	114	109.64	226	119	110.15	297	112	105.00	330	110	103.33	281
2115	IR 64 Check	114	95.37	372	105	87.68	199	110	91.52	286	124	103.83	462	111	92.88	332
2116	Local Check (LC)	122	92.00	450	104	87.88	175	113	89.94	313	113	106.17	330	117	105.10	366
Exp. Mean		**117**	**101.49**	**374**	**107**	**91.73**	**182**	**112**	**97.28**	**285**	**117**	**110.92**	**330**	**118**	**101.73**	**261**

Table No. 1.43 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 1 - BORO, 2021-22

Entry No	IET No.	ZONE III-EASTERN														
		West Bengal						West Bengal (4)			Uttar Pradesh (1)			Zone III (7)		
		Malda			Bankura			MEAN			Varanasi			MEAN		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
2101	28848	110	118.00	330	136	121.67	313	120	109.88	286	152	101.80	425	122	106.05	294
2102	28840	128	95.00	323	131	136.67	299	121	113.16	294	152	109.47	449	121	108.59	311
2103	28849	111	112.00	319	135	108.33	295	119	106.31	282	151	88.87	342	120	100.08	295
2104	29605	118	123.00	321				116	110.72	286				109	101.87	256
2105	29611	123	98.00	333	130	120.00	398	120	105.32	324	143	89.87	444	120	101.43	356
2106	Gautam Check	108	109.00	319	110	110.00	365	113	106.42	321	129	81.13	468	112	97.17	343
2107	29601	129	112.00	331	140	143.33	241	128	126.30	293	150	93.80	360	128	113.85	287
2108	29599	116	98.90	316	130	128.33	308	125	113.08	272	163	91.07	447	128	106.37	312
2109	29624	104	116.00	327	140	135.00	338	120	116.85	316	151	88.87	420	124	108.17	314
2110	Rajalaxmi Check (HC)	115	127.00	322	125	131.67	325	121	121.60	300	166			126	119.74	266
2111	29621	125	122.00	312	130	126.67	264	123	118.99	271				123	116.02	287
2112	29615	120	114.00	319	115	120.00	340	119	106.23	321	148	91.60	351	120	101.56	299
2113	29632	117	125.00	326	110	105.00	445	117	108.40	368	161	88.00	541	124	100.29	380
2114	28852	105	107.00	322	110	106.67	360	109	105.50	323	153	112.47	370	118	107.82	322
2115	IR 64 Check	114	120.00	319	130	136.67	429	120	113.35	386	138	77.60	565	119	102.00	383
2116	Local Check (LC)	121	114.00	333	130	135.00	245	120	115.07	319	151	88.47	480	123	104.09	340
Exp. Mean		**117**	**113.18**	**323**	**127**	**124.33**	**331**	**119**	**112.32**	**310**	**151**	**92.54**	**436**	**121**	**105.94**	**315**

Table No.1.43 Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 1 - BORO, 2021-22

Entry No	IET No.	ZONE IV- NORTH EASTERN												Overall Mean (9)		
		Assam			Assam (1)			Tripura (1)			Zone IV (2)					
		Titabar			MEAN			Arundhutinagar			MEAN			MEAN		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
2101	28848	136	88.07	238	136	88.07	238	120	110.00	250	128	99.03	244	124	104.49	283
2102	28840	137	89.00	212	137	89.00	212	124	118.70	203	131	103.85	208	123	107.54	288
2103	28849	136	85.80	244	136	85.80	244	121	105.70	184	129	95.75	214	122	99.12	277
2104	29605				.			115	112.00	192	115	112.00	192	111	104.40	240
2105	29611	132	91.80	284	132	91.80	284	115	115.30	207	124	103.55	246	121	101.96	329
2106	Gautam Check	134	84.87	356	134	84.87	356	114	100.30	242	124	92.58	299	115	96.15	333
2107	29601	138	111.07	217	138	111.07	217	116	126.70	194	127	118.88	206	128	114.97	269
2108	29599	150	90.35	161	150	90.35	161	130	110.00	282	140	100.18	222	131	104.99	292
2109	29624	137	85.40	236	137	85.40	236	121	116.30	222	129	100.85	229	125	106.54	295
2110	Rajalaxmi Check (HC)	149	95.47	259	149	95.47	259	125	112.00	209	137	103.73	234	129	115.16	258
2111	29621	154	113.53	372	154	113.53	372	117	123.70	225	136	118.62	299	126	116.76	290
2112	29615	138	93.53	258	138	93.53	258	116	111.20	220	127	102.37	239	122	101.74	286
2113	29632	146	83.87	244	146	83.87	244	124	91.30	198	135	87.58	221	127	97.46	344
2114	28852	151	99.60	239	151	99.60	239	126	118.30	137	139	108.95	188	123	108.07	292
2115	IR 64 Check	128	79.80	303	128	79.80	303	111	106.00	180	120	92.90	242	119	99.98	351
2116	Local Check (LC)	146	109.93	222	146	109.93	222	117	126.00	210	132	117.97	216	125	107.17	312
Exp. Mean		**141**	**93.47**	**256**	**141**	**93.47**	**256**	**120**	**112.72**	**210**	**129**	**103.67**	**231**	**123**	**105.41**	**296**

Table No. 1.43 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 1 - BORO, 2021-22, (Trials Not Considered)

Entry No	IET No.	Trials Not Considered					
		Bihar (0)			Assam (0)		
		@Pusa			@Gerua		
		DFF	PH	PAN	DFF	PH	PAN
2101	28848	125	89.00	209	122	94.00	266
2102	28840	121	97.00	167	122	102.00	235
2103	28849	122	83.00	181	122	90.00	244
2104	29605	128	98.00	180			
2105	29611	120	80.00	186	118	97.00	309
2106	Gautam Check	124	76.00	147	113	91.00	305
2107	29601	148	98.00	170	125	112.00	239
2108	29599	125	101.00	180	130	103.00	250
2109	29624	125	101.00	180	125	96.00	254
2110	Rajalaxmi Check (HC)	122	103.00	178	130	104.00	252
2111	29621	118	93.00	164	130	107.00	286
2112	29615	116	93.00	237	122	98.00	265
2113	29632	120	79.00	157	125	90.00	328
2114	28852	128	86.00	153	125	106.00	273
2115	IR 64 Check	116	85.00	137	118	87.00	433
2116	Local Check (LC)	100	102.00	161	130	104.00	252
Exp. Mean		**122**	**91.50**	**174**	**124**	**98.73**	**279**

Table No. 1.44: Grain quality characteristics of entries in AVT 1-Boro, 2021-22

Entry No.	IET No.	Hull	Mill	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
2101	28848	80.5	69.7	53.1	5.51	2.40	2.29	SB	VOC	4.0	21.88	22
2102	28840	79.3	68.7	57.6	5.02	2.24	2.24	SB	VOC	4.0	26.19	22
2103	28849	78.4	69.6	57.5	5.05	2.26	2.23	SB	VOC	4.0	23.90	34
2104	29605	79.8	70.2	66.3	5.27	2.49	2.11	SB	VOC	4.0	22.79	22
2105	29611	78.9	72.1	48.4	6.30	2.33	2.70	LB	VOC	4.0	23.61	22
2106	Gautam	79.8	73.0	71.2	5.42	2.05	2.64	MS	VOC	7.0	24.17	24
2107	29601	80.4	67.7	32.1	5.13	2.42	2.11	SB	VOC	4.0	24.31	23
2108	29599	81.1	68.8	50.3	5.42	2.56	2.11	SB	OC	3.0	24.37	22
2109	29624	81.9	75.2	71.2	6.21	2.30	2.70	LB	A	3.0	19.50	49
2110	Rajalaxmi	80.8	70.4	56.5	5.01	1.89	2.65	MS	VOC	7.0	25.93	24
2111	29621	80.3	66.9	36.4	5.69	1.95	2.91	MS	VOC	3.0	19.18	78
2112	29615	81.7	72.3	47.9	6.44	2.11	3.05	LS	VOC	4.0	20.26	49
2113	29632	78.9	71.6	70.0	4.99	1.71	2.91	MS	A	3.0	23.70	22
2114	28852	79.1	72.2	69.8	5.28	2.57	2.05	SB	VOC	4.0	24.69	22
2115	IR 64	79.6	68.7	56.2	6.92	2.05	3.37	LS	VOC	4.0	23.43	48

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

Table No.1.45: Composition of entries in Initial Variety Trial - Boro (IVT-BORO) 2021-22

Entry No.	IET No.	Designation	Cross Combination	GT
1st year of testing:				
2201	30442	CR 4375-1-4-1-1-2-1	CR 3522-1-2-1-1-1-1-2 / CR 3497-7-1-3-2-2-1	MS
2202	30443	TRC 2021-30	Hakuchuk 2 / Tripura Nirog	LB
2203	30444	CR 4121-36-24-1-7-1	CR 3856-44-22-2-1-11*3/IRBB 60 /Swarna Sub1	LS
2204	30445	MLD 210 IIRR GSR N18		LS
2205	30446	CR 4377-4-2-1-1-1	CR3856-44-22-2-1-10-1-5 / CR 4048-2-1-2-1-1	LS
2206	30447	TRC 2021-32	Gomatidhan / Tripura Nirog	LB
2207	30448	CR 3843-6-1-1-1-3	Gontra Bidhan 3 / CR Dhan 202	LB
2208	30449	KAUPTB 2011-Mut 45-2-1-2-5-1	Mutant of PTB 18 (Eravapandi)	LB
2209	30450	CR 4030-15-2-2-1-1-1-1	Reeta / CR 2324-4-1	SB
2210	30451	MLD 211 IIRR GSR N39		LS
2211	**Gautam Check**			MS
2212	30452	PAN-845	IET 4786 / AN 268	LS
2213	30453	CR 4116-1-2-1-4	CR 4043-3-1-1-1 / CR Dhan 204	LS
2214	30454	TRC 2021-35	Tripura Nirog / Tripura Sarat	MS
2215	30455	CR 4343-10-2-1-1	MTU 1001 / Pusa 44 // IR 102698-1-47-57-102-1-B	LS
2216	30456	KAU PTB 2011 Mut45-2-1-2-5-3	Mutant of PTB 18 (Eravapandi)	LB
2217	30457	CR 3516-11-2-2-1-2-5	Birupa / Pusa 44	LS
2218	30458	TRC 2021-34	Hakuchuk 2 / Gomatidhan	LB
2219	30459	CR 4344-8-1-1-1	MTU 1001/ Pusa 44 // IR107476-13-15-8-29-B	LS
2220	30460	PUR-B-182	Pusa Basmati 1 / MTU 1010	SB
2221	**Rajalaxmi (Hybrid Check)**			LS
2222	30461	CR 4379-4-3-1-1-1-1	CR Dhan 307 / MTU 1010	LS
2223	30462	TRC 2021-33	Gomatidhan / Tripura Jala	LS
2224	30463	CR 4114-2-4-2-1-2-2	CR 3848-1-1-2-1-1 / Vandana	LS
2225	30464	PUR-B-413	Kalo Nunia / Anjali	MS
2226	30465	CR 3582-5-2-1-2-2-1	Lalat / Supriya	SB
2227	30466	MLD 212 IIRR GSR N05		LS
2228	30467	CR 3516-11-2-2-1-1-3	Birupa / Pusa 44	SB
2229	30468	***S 4001 Plus (Hybrid)***	**-**	***SB***
2230	30469	***MALI-126 (Hybrid)***	***CMS 3 A / MR -31***	***LS***
2231	30470	CRU-BCKV-VBS (14-V/BS-76 (5)-13-3-3)	Vandana / Bidhan Suruchi	LS
2232	30471	CR 4381-145-2-1-1	MTU 1010 / IR 132763-2	LS
2233	30472	MLD 208 IIRR GSR N03		LS
2234	30473	CR 4378-2-1-1-6	Dandi / EC 491288	SB
2235	30474	MLD 209 IIRR GSR N02		LS
2236	30475	CRU-BCKV-22-L35 (14-N22/35-13-4-5-2-1)	N 22 / RIL 35 (Gobindabhog and Satabdi	MS
2237	30476	KAU PTB 2011-Mut 45-2-1-2-2	Mutant of PTB 18 (Eravapandi)	SB
2238	30477	CR 4325-1-3-3-2-1-1	CR 3494-21 / CR 3522-12	LS
2239	30478	CR 3947-2-1-2-2-2	IR 64 / IET 23467	LS
2240	30479	TRC 2021-31	Hakuchuk 2 / Tripura Sharat	MS
2241	30480	CR 2818-1-11-1-B-16-1-1-2-1	IR 64 /ARC 10075	LS
2242	30481	CR 4380-1-2-1-1-1	CR Dhan 203 / CR 2706	LS
2243	**IR 64 Check**			LS
2244	**Local Check (LC)**			

Table No. 1.46: Grain Yield (kg/ha) in IVT - BORO, 2021-22

Entry No	IET No.	ZONE III-EASTERN									
		Odisha		Odisha (1)		Bihar (1)		West Bengal			
		ICAR-NRRI (Cuttack)		MEAN		Pusa		Chinsurah		Pundibhari	
2201	30442	6628	1	6628	1 #	5685	9	5238		6099	
2202	30443	4694		4694		5704	8 #	4989		5550	
2203	30444	3543		3543		4059		5196		6653	3
2204	30445	3063		3063		4222		5302		5343	
2205	30446	4079		4079		6096	4	5153		5613	
2206	30447	4880		4880		5611	10	6222	7	6100	
2207	30448	4762		4762		4537		6683	3	6354	7
2208	30449					3926					
2209	30450	4112		4112		4259		5090		6915	2
2210	30451	4871		4871		6289	1 #	5714		7462	1
2211	Gautam Check	6414	2	6414	2	3889		6063			
2212	30452	3229		3229		3889		5524		4192	
2213	30453	5717	10	5717	10	3333		5471			
2214	30454	4279		4279		3926		6032		4651	
2215	30455	3219		3219		3556		6624	5	5132	
2216	30456					3407					
2217	30457	3249		3249		3148		4725		4648	
2218	30458	4878		4878		3533		5323		2910	
2219	30459	3055		3055		3674		6069	10	5394	
2220	30460	3136		3136		3311		5312		6265	9
2221	Rajalaxmi (HC)	5017		5017		3852		5974			
2222	30461	5003		5003		2352				5281	
2223	30462	4277		4277		5048	#	5101		4182	
2224	30463	4938		4938		3433		5783		4679	
2225	30464	3677		3677		4704		4815		4709	
2226	30465	5012		5012		3559		5058		4359	
2227	30466	4650		4650		3681		6772	2	6045	
2228	30467	6204	4	6204	4	4074		6175	9	6119	10
2229	30468	5447		5447		6237	2 #	6376	6	3362	
2230	30469	6162	5	6162	5	3593		4878		5932	
2231	30470	2428		2428		3174		5079		6520	4
2232	30471	2215		2215		5852	6 #	5704		5185	
2233	30472	4334		4334		3515		6037		4137	
2234	30473	4867		4867		3544		6217	8	5233	
2235	30474	6334	3	6334	3 #	3756		5783		6447	6
2236	30475	5851	8	5851	8	4274		7063	1	5719	
2237	30476					3111				5896	
2238	30477	5993	7	5993	7	3778		5333		5091	
2239	30478	4808		4808		3922		6683	3	6011	
2240	30479	4643		4643		6222	3 #	4619		6504	5
2241	30480	6015	6	6015	6	4004		5603		5978	
2242	30481	4915		4915		6030	5 #	5291		6287	8
2243	IR 64 Check	3899		3899		4815		5624		5725	
2244	Local Check (LC)	5756	9	5756	9	5852	6 #	5407		5644	
Exp. Mean		**4640**		**4640**		**4283**		**5653**		**5495**	
F Value		10.81(p<0.0001)S		10.81(p<0.0001)S		28.83(p<0.0001)S		5.00(p<0.0001)S		6.29(p<0.0001)S	
CD		**1199.06**		**1199.06**		**1019.95**		**730.83**		**1059.92**	
CV%		**15.9**		**15.9**		**14.67**		**7.95**		**11.86**	
D/S		18-01-2022				19-12-2021		07-12-2021		06-01-2022	
D/P		22-02-2022				21-02-2022		19-01-2022		04-02-2022	
Local Check Name		Tapaswini				Rajendra Nilam		Ajit		MTU 1153	

Table No. 1.46 (Contd): Grain Yield (kg/ha) in IVT - BORO, 2021-22

Entry No	IET No.	ZONE III-EASTERN							
		West Bengal		West Bengal (3)		Uttar Pradesh (1)		Zone III (6)	
		Malda		MEAN		Varanasi		MEAN	
2201	30442	5072		5470		4020		5457	
2202	30443	6250		5596		7918		5851	
2203	30444	6511		6120		7429		5565	
2204	30445	4617		5087		7112		4943	
2205	30446	4994		5253				5187	
2206	30447	6761	10	6361	7	8224		6300	7
2207	30448	6978	6	6672	4			5863	
2208	30449	7183	3	7183	1 *			5555	
2209	30450	6389		6131	10	10714	4	6247	9
2210	30451	4578		5918		10265	5	6530	2
2211	Gautam Check	7228	2	6646	5	8878	9	6494	3
2212	30452	6083		5266		7153		5012	
2213	30453	4978		5225				4875	
2214	30454	5228		5304		6806		5154	
2215	30455	4889		5548		5061		4747	
2216	30456	7106	4	7106	2			5257	
2217	30457	6350		5241		2663		4131	
2218	30458	6583		4939		8990	8	5370	
2219	30459	5839		5767		4745		4796	
2220	30460	4989		5522		6429		4907	
2221	Rajalaxmi (HC)	7372	1	6673	3	8327		6108	10
2222	30461	6789	9	6035				4856	
2223	30462	6172		5152		8265		5508	
2224	30463	5328		5263		8653		5469	
2225	30464	4611		4712		5378		4649	
2226	30465	4933		4783				4584	
2227	30466	6794	8	6537	6	9602	6	6257	8
2228	30467	6361		6218	8			5787	
2229	30468	4856		4865		11816	3 * #	6349	5
2230	30469	5067		5292		8408		5673	
2231	30470	6756		6118		7367		5221	
2232	30471	5511		5467		8143		5435	
2233	30472	4611		4928		13020	1 * #	5942	
2234	30473	7011	5	6154	9	4827		5283	
2235	30474	5989		6073		12490	2 * #	6800	1
2236	30475	5111		5964				5604	
2237	30476	5889		5893				4965	
2238	30477	5000		5141				5039	
2239	30478	5056		5917		7612		5682	
2240	30479	6950	7	6024		9398	7	6389	4
2241	30480	6428		6003		5235		5544	
2242	30481	6617		6065		8724	10	6311	6
2243	IR 64 Check	5206		5518		7867		5523	
2244	Local Check (LC)	4417		5156		8316		5899	
Exp. Mean		**5851**		**5735**		**7874**		**5593**	
F Value		14.26(p<0.0001)S		12.74(p<0.0001)S		4.51(p<0.0001)S		3.29(p<0.0001)S	
CD		**661.74**		**520.61**		**2822.07**		**883.6**	
CV%		**6.97**		**5.59**		**21.97**		**9.73**	
D/S		28-12-2021				04-12-2021			
D/P		08-02-2022				06-02-2022			
Local Check Name		AJIT				HUR-105			

Table No. 1.46 (Contd): Grain Yield (kg/ha) in IVT - BORO, 2021-22

Entry No	IET No.	ZONE IV- NORTH EASTERN								Overall Mean (8)	
		Assam		Assam (1)		Tripura (1)		Zone IV (2)			
		Titabar		MEAN		Arundthutinagar		MEAN		MEAN	
2201	30442					4300		4300		5292	
2202	30443	3965		3965		4730		4348		5475	
2203	30444	6019		6019		4233		5126		5455	
2204	30445	2840		2840		4650		3745		4644	
2205	30446	5925		5925		5133	#	5529		5285	
2206	30447	6265	9	6265	9	5587	9 #	5926	7	6206	5
2207	30448	5165		5165		4900	#	5033		5626	
2208	30449									5555	
2209	30450	5550		5550		6563	2 * #	6057	5	6199	6
2210	30451	3985		3985		5950	5 * #	4968		6139	7
2211	Gautam Check	6945	3	6945	3	4100		5523		6217	3
2212	30452	5430		5430		6073	3 * #	5752	10	5197	
2213	30453	6830	4	6830	4	5053	#	5942	6	5230	
2214	30454	5230		5230		5000	#	5115		5144	
2215	30455	5250		5250				5250		4819	
2216	30456									5257	
2217	30457	2030		2030		4167		3099		3873	
2218	30458	3115		3115		6023	4 * #	4569		5169	
2219	30459	6565	6	6565	6	3867		5216		4901	
2220	30460	2140		2140		4773		3457		4544	
2221	Rajalaxmi (HC)	6805	5	6805	5	4133		5469		5926	10
2222	30461	5715		5715		5867	6 * #	5791	8	5168	
2223	30462	4955		4955		5867	6* #	5411		5483	
2224	30463	3355		3355		3900		3628		5009	
2225	30464	4460		4460		5517	10 #	4989		4734	
2226	30465	7165	2	7165	2			7165	2	5014	
2227	30466	6155	10	6155	10			6155	4	6243	2
2228	30467	7425	1	7425	1	7%		7425	1	6060	9
2229	30468	5550		5550		7033	1 * #	6292	3	6335	1
2230	30469	5470		5470				5470		5644	
2231	30470	2710		2710		4433		3572		4808	
2232	30471	2260		2260		4167		3214		4880	
2233	30472	3600		3600				3600		5608	
2234	30473	6270	8	6270	8	4803		5537		5347	
2235	30474	3600		3600		4477		4039		6110	8
2236	30475	6385	7	6385	7	5140	#	5763	9	5649	
2237	30476									4965	
2238	30477	5135		5135		4803		4969		5019	
2239	30478	3150		3150		5360	#	4255		5325	
2240	30479	6150		6150		5167	#	5659		6207	4
2241	30480	3755		3755		5590	8 #	4673		5326	
2242	30481	3740		3740		4847	#	4294		5806	
2243	IR 64 Check	4045		4045		4967		4506		5269	
2244	Local Check (LC)	5250		5250		4233		4742		5609	
Exp. Mean		**4909**		**4909**		**5012**		**5005**		**5442**	
F Value		47.08(p<0.0001)S		47.08(p<0.0001)S		9.79(p<0.0001)S		9.78(p<0.0001)S		3.78(p<0.0001)S	
CD		**1460.86**		**1460.86**		**681.62**		808.14		**702.32**	
CV%		**18.31**		**18.31**		**8.35**		9.85		**7.95**	
D/S		13-12-2022				13-12-2021					
D/P		02-03-2022				12-01-2022					
Local Check Name		Kanaklata				Tripura Nirog Dhan					

Table No.1.46: Grain Yield (kg/ha) in IVT - BORO, 2021-22, (Trials Not Considered)

Entry No	IET No.	Trials Not Considered					
		Odisha		West Bengal		Assam	
		@Chiplima		@Bankura		@Gerua	
2201	30442	3890		6435		4461	1
2202	30443	4847	8	6273		2800	
2203	30444	2296		4942		2656	
2204	30445	3444		6921	6	3350	
2205	30446	2296		4902		3689	
2206	30447	5485	2	6551		2233	
2207	30448	3699		5295			
2208	30449	3699					
2209	30450	2679		4896		4128	3
2210	30451	3571		6400			
2211	Gautam Check	4324		5203		3511	
2212	30452	2934				2578	
2213	30453	4847	8	7031	2	3861	8
2214	30454	4974	6	6343		1972	
2215	30455			5093		4100	5
2216	30456			6273			
2217	30457	4974	6	6059		3556	
2218	30458			6968	3	3322	
2219	30459	3699		5787		3778	
2220	30460	2806		6655	9		
2221	Rajalaxmi (HC)			6719	8		
2222	30461			6644		2772	
2223	30462	4719		5266		3861	8
2224	30463	4719		5509		2878	
2225	30464	5740	1	6019		2578	
2226	30465	2934		7049	1	3811	
2227	30466			6655	9	4106	4
2228	30467	3444		6962	5	3844	10
2229	30468	2934		6968	3	2378	
2230	30469	5102	4	4913		2194	
2231	30470	5102	4	5833		2001	
2232	30471	3189		4815		2211	
2233	30472	4464		5469		4311	2
2234	30473	4719		4867		2461	
2235	30474	3827		5613		3922	6
2236	30475	2806		5671		3806	
2237	30476	3444		6811	7		
2238	30477	3316		4855		3894	7
2239	30478	1786		4977		2394	
2240	30479	3189		5197		3239	
2241	30480	3189				3033	
2242	30481	3571		5434		3017	
2243	IR 64 Check			5584		3487	
2244	Local Check (LC)	5485	2	6146		3222	
Exp. Mean		**3842**		**5903**		**3227**	
F Value		4.25(p<0.0001)S		**1.54(p=0.08)NS**		**1.61(p=0.0768)NS**	
CD		**1237.44**		**1214.4**		**1130.72**	
CV%		**19.79**		**12.66**		**21.52**	
D/S		01-02-2022		10-12-2021		27-12-2021	
D/P		09-03-2022		03-02-2022		11-02-2022	
Local Check Name		MTU 1156		Lalat		Chandrama	

Table No.1.47: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT - BORO, 2021-22

Entry No	IET No.	ZONE III-EASTERN														
		Odisha			Odisha (1)			Bihar (1)			West Bengal					
		ICAR-NRRI (Cuttack)			MEAN			Pusa			Chinsurah			Pundibhari		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
2201	30442	127	105.30	419	127	105.30	419	127	86.00	223	138	98.00	231	120	87.05	441
2202	30443	125	101.40	402	125	101.40	402	126	85.00	262	121	94.00	215	113	93.56	302
2203	30444	117	103.20	277	117	103.20	277	114	94.00	280	122	104.00	248	116	108.02	268
2204	30445	102	99.15	480	102	99.15	480	116	92.00	145	122	115.00	264	112	105.41	387
2205	30446	100	98.55	416	100	98.55	416	116	78.00	253	119	97.00	215	112	90.85	239
2206	30447	111	111.20	432	111	111.20	432	127	89.00	280	120	113.00	281	118	112.01	336
2207	30448	109	118.25	417	109	118.25	417	129	95.00	206	123	135.00	314	115	115.73	346
2208	30449			.				121	83.00	178						
2209	30450	119	99.60	292	119	99.60	292	126	96.00	222	113	122.00	231	119	104.45	230
2210	30451	107	95.80	414	107	95.80	414	128	85.00	306	126	102.00	248	116	108.20	339
2211	Gautam Check	106	98.30	439	106	98.30	439	128	81.00	206	130	96.00	363			
2212	30452	103	96.80	342	103	96.80	342	125	87.00	234	114	104.00	264	108	102.73	291
2213	30453	115	103.50	493	115	103.50	493	127	97.00	274	123	110.00	248			
2214	30454	115	108.90	512	115	108.90	512	125	82.00	149	121	99.00	264	111	99.20	257
2215	30455	127	95.10	536	127	95.10	536	121	90.00	154	131	88.00	347	111	105.30	293
2216	30456							117	86.00	146					96.12	
2217	30457	128	123.60	376	128	123.60	376	123	114.00	227	125	122.00	215	118	114.24	327
2218	30458	111	94.85	359	111	94.85	359	123	89.00	158	125	99.00	231	114	103.51	254
2219	30459	125	103.10	450	125	103.10	450	128	82.00	180	131	93.00	281	120	95.78	286
2220	30460	113	92.30	291	113	92.30	291	113	91.00	185	129	107.00	231	124	94.57	276
2221	Rajalaxmi (HC)	127	103.50	369	127	103.50	369	120	94.00	200	125	111.00	248			
2222	30461	121	89.80	327	121	89.80	327	122	92.00	141				111	92.59	256
2223	30462	117	95.05	445	117	95.05	445	129	87.00	221	125	96.00	215	118	105.54	320
2224	30463	120	110.80	333	120	110.80	333	126	92.00	181	128	109.00	248	121	106.89	254
2225	30464	102	91.45	432	102	91.45	432	124	75.00	215	119	94.00	215	114	94.93	264
2226	30465	124	113.40	424	124	113.40	424	128	96.00	263	125	103.00	248	119	105.40	255
2227	30466	111	93.65	354	111	93.65	354	112	93.00	147	127	99.00	281	124	96.29	270
2228	30467	123	105.40	378	123	105.40	378	124	98.00	224	127	101.00	248	120	112.64	259
2229	30468	117	77.10	426	117	77.10	426	123	85.00	235	119	100.00	264	119	100.93	240
2230	30469	122	123.60	388	122	123.60	388	124	105.00	143	126	123.00	182	120	103.40	216
2231	30470	108	76.80	425	108	76.80	425	122	77.00	282	119	80.00	231	111	101.12	304
2232	30471	102	95.96	387	102	95.96	387	124	91.00	182	121	102.00	231	119	107.80	247
2233	30472	113	98.80	460	113	98.80	460	113	82.00	192	127	106.00	281	117	106.16	371
2234	30473	127	113.35	261	127	113.35	261	127	104.00	144	137	128.00	264	116	105.60	165
2235	30474	113	103.90	440	113	103.90	440	129	89.00	214	129	111.00	231	119	98.48	291
2236	30475	106	90.85	357	106	90.85	357	129	83.00	332	127	103.00	297	121	100.28	314
2237	30476							135	73.00	169				121	89.22	275
2238	30477	123	104.30	376	123	104.30	376	130	85.00	180	127	107.00	231	125	111.93	310
2239	30478	113	94.80	455	113	94.80	455	124	83.00	282	118	86.00	281	111	85.85	295
2240	30479	118	105.30	513	118	105.30	513	117	89.00	270	128	92.00	215	123	104.13	343
2241	30480	119	111.50	393	119	111.50	393	126	98.00	256	128	116.00	264	122	115.16	279
2242	30481	114	100.15	384	114	100.15	384	126	86.00	256	121	112.00	248	117	104.22	284
2243	IR 64 Check	114	96.00	540	114	96.00	540	124	80.00	237	122	91.00	297	124	102.61	243
2244	Local Check (LC)	129	90.30	398	129	90.30	398	99	103.00	159	108	93.00	248	117	104.50	348
Exp. Mean		**115**	**100.85**	**405**	**115**	**100.85**	**405**	**123**	**89.14**	**213**	**124**	**104.03**	**254**	**117**	**102.31**	**289**

Table No. 1.47 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT - BORO, 2021-22

Entry No	IET No.	ZONE III-EASTERN											
		West Bengal			West Bengal (3)			Uttar Pradesh (1)			Zone III (6)		
		Malda			MEAN			Varanasi			MEAN		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
2201	30442	124	98.00	325	127	94.35	332	158	104.40	477	132	96.46	352
2202	30443	120	95.00	321	118	94.19	279	142	89.20	577	124	93.03	346
2203	30444	107	101.00	338	115	104.34	285	139	102.70	435	119	102.15	308
2204	30445	118	97.00	331	117	105.80	327	137	97.10	494	118	100.94	350
2205	30446	115	100.00	321	115	95.95	258				112	92.88	289
2206	30447	129	99.00	317	122	108.00	311	140	106.50	467	124	105.12	352
2207	30448	107	95.00	323	115	115.24	328				116	111.80	321
2208	30449	123	99.00	331	123	99.00	331				122	91.00	254
2209	30450	119	107.00	328	117	111.15	263	149	106.80	319	124	105.98	270
2210	30451	105	99.00	318	116	103.07	301	151	97.10	513	122	97.85	356
2211	Gautam Check	115	106.00	332	123	101.00	348	143	87.20	455	124	93.70	359
2212	30452	114	102.00	335	112	102.91	297	138	99.70	439	117	98.70	317
2213	30453	105	105.00	319	114	107.50	283				117	103.88	333
2214	30454	121	100.00	337	118	99.40	286	140	103.60	481	122	98.78	333
2215	30455	122	99.00	320	121	97.43	320	160	87.10	471	128	94.08	353
2216	30456	125	96.00	328	125	96.06	328				121	92.71	237
2217	30457	121	103.00	328	121	113.08	290	155	122.90	379	128	116.62	309
2218	30458	116	95.00	320	119	99.17	268	150	104.70	511	123	97.68	305
2219	30459	126	106.00	339	126	98.26	302	152	102.00	561	130	96.98	349
2220	30460	116	104.00	328	123	101.86	278	150	98.90	358	124	97.96	278
2221	Rajalaxmi (HC)	110	96.00	321	117	103.50	284	154	102.90	537	127	101.48	335
2222	30461	123	108.00	330	117	100.30	293				119	95.60	263
2223	30462	111	100.00	331	118	100.51	289	145	94.60	582	124	96.36	352
2224	30463	114	101.00	317	121	105.63	273	150	112.60	526	126	105.38	310
2225	30464	127	98.00	333	120	95.64	270	136	92.10	363	120	90.91	303
2226	30465	119	94.00	331	121	100.80	278				123	102.36	304
2227	30466	128	99.00	332	126	98.10	294	149	94.80	435	125	95.96	303
2228	30467	114	102.00	329	120	105.21	279				121	103.81	287
2229	30468	118	103.00	323	119	101.31	276	138	99.10	360	122	94.19	308
2230	30469	130	96.00	329	125	107.47	242	147	114.50	410	128	110.92	278
2231	30470	124	105.00	319	118	95.37	285	144	79.30	475	121	86.54	339
2232	30471	117	102.00	338	119	103.93	272	135	103.20	376	119	100.33	293
2233	30472	122	94.00	335	122	102.05	329	146	125.00	425	123	101.99	344
2234	30473	108	103.00	322	120	112.20	250	154	101.10	472	128	109.18	271
2235	30474	129	97.00	333	126	102.16	285	150	81.30	358	128	96.78	311
2236	30475	108	103.00	336	118	102.09	316				118	96.03	327
2237	30476	114	108.00	327	117	98.61	301				123	90.07	257
2238	30477	125	107.00	327	125	108.64	289				126	103.05	285
2239	30478	128	99.00	338	119	90.28	304	135	90.70	503	121	89.89	359
2240	30479	121	100.00	318	124	98.71	292	148	122.60	478	126	102.17	356
2241	30480	115	94.00	324	122	108.39	289	154	95.70	475	127	105.06	332
2242	30481	106	96.00	317	115	104.07	283	139	88.50	479	120	97.81	328
2243	IR 64 Check	118	104.00	325	121	99.20	289	142	98.70	472	124	95.39	352
2244	Local Check (LC)	126	101.00	334	117	99.50	310	149	98.70	478	121	98.42	327
Exp. Mean		**118**	**100.36**	**327**	**120**	**102.08**	**293**	**146**	**100.16**	**459**	**123**	**99.04**	**316**

Table No. 1.47 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT - BORO, 2021-22

Entry No	IET No.	ZONE IV- NORTH EASTERN												Overall Mean (8)		
		Assam			Assam (1)			Tripura (1)			Zone IV (2)					
		Titabar			MEAN			Arundhutinagar			MEAN			MEAN		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
2201	30442				.			132	98.00	353	132	98.00	353	132	96.68	353
2202	30443	128	85.40	229	128	85.40	229	117	100.00	349	122	92.70	289	124	92.95	332
2203	30444	137	97.20	264	137	97.20	264	118	104.00	344	127	100.60	304	121	101.77	307
2204	30445	127	95.70	282	127	95.70	282	118	112.00	327	122	103.85	304	119	101.67	339
2205	30446	127	86.10	219	127	86.10	219	116	100.00	388	121	93.05	304	115	92.93	293
2206	30447	128	95.10	261	128	95.10	261	116	120.00	321	122	107.55	291	124	105.73	337
2207	30448	136	98.50	238	136	98.50	238	121	134.00	315	128	116.25	276	120	113.07	308
2208	30449													122	91.00	254
2209	30450	139	88.37	192	139	88.37	192	120	111.00	383	130	99.68	287	125	104.40	275
2210	30451	134	86.40	243	134	86.40	243	123	126.00	393	128	106.20	318	124	99.94	347
2211	Gautam Check	130	83.80	364	130	83.80	364	116	105.00	307	123	94.40	336	124	93.90	352
2212	30452	126	81.50	259	126	81.50	259	115	104.00	376	120	92.75	318	118	97.22	317
2213	30453	129	94.60	231	129	94.60	231	116	108.00	304	123	101.30	267	119	103.02	311
2214	30454	128	91.20	285	128	91.20	285	116	113.00	336	122	102.10	311	122	99.61	327
2215	30455	141	86.80	239	141	86.80	239				141	86.80	239	130	93.04	337
2216	30456													121	92.71	237
2217	30457	158	45.40	158	158	45.40	158	122	131.00	376	140	88.20	267	131	109.52	298
2218	30458	131	48.70	227	131	48.70	227	117	114.00	376	124	81.35	301	123	93.59	304
2219	30459	144	94.20	258	144	94.20	258	123	102.00	403	133	98.10	330	131	97.26	345
2220	30460	146	89.33	252	146	89.33	252	123	108.00	366	135	98.67	309	127	98.14	286
2221	Rajalaxmi (HC)	149	94.60	188	149	94.60	188	125	115.00	365	137	104.80	276	130	102.43	318
2222	30461	138	79.70	192	138	79.70	192	117	110.00	328	128	94.85	260	122	95.35	262
2223	30462	130	77.50	316	130	77.50	316	117	87.00	339	123	82.25	328	124	92.84	346
2224	30463	137	97.00	231	137	97.00	231	118	110.00	313	127	103.50	272	127	104.91	300
2225	30464	126	80.80	264	126	80.80	264	114	102.00	328	120	91.40	296	120	91.03	302
2226	30465	136	98.80	257	136	98.80	257				136	98.80	257	125	101.77	296
2227	30466	137	88.30	250	137	88.30	250				137	88.30	250	127	94.86	295
2228	30467	133	97.20	234	133	97.20	234				133	97.20	234	123	102.71	279
2229	30468	129	98.60	259	129	98.60	259	116	110.00	312	123	104.30	285	122	96.72	302
2230	30469	137	105.03	257	137	105.03	257				137	105.03	257	129	110.08	275
2231	30470	129	64.50	215	129	64.50	215	115	114.00	298	122	89.25	256	121	87.22	319
2232	30471	126	97.60	188	126	97.60	188	113	89.00	336	119	93.30	262	119	98.57	286
2233	30472	138	90.80	287	138	90.80	287				138	90.80	287	125	100.39	336
2234	30473	136	107.90	152	136	107.90	152	127	107.00	360	131	107.45	256	129	108.74	267
2235	30474	135	92.80	227	135	92.80	227	121	106.00	297	128	99.40	262	128	97.43	299
2236	30475	132	83.60	344	132	83.60	344	122	101.00	314	127	92.30	329	120	94.96	328
2237	30476													123	90.07	257
2238	30477	139	98.80		139	98.80	290	121	112.00	410	130	105.40	350	127	103.72	303
2239	30478	127	79.50	253	127	79.50	253	115	87.00	313	121	83.25	283	121	88.23	340
2240	30479	130	89.57	205	130	89.57	205	119	96.00	303	124	92.78	254	125	99.82	330
2241	30480	140	96.00	146	140	96.00	146	118	125.00	367	129	110.50	256	128	106.42	313
2242	30481	128	93.20	270	128	93.20	270	115	101.00	270	122	97.10	270	121	97.63	313
2243	IR 64 Check	127	81.30	293	127	81.30	293	117	98.00	289	122	89.65	291	123	93.95	337
2244	Local Check (LC)	135	114.20	202	135	114.20	202	120	110.00	383	128	112.10	292	123	101.84	318
Exp. Mean		**134**	**88.89**	**243**	**134**	**88.89**	**243**	**119**	**107.71**	**341**	**128**	**97.45**	**287**	**124**	**98.63**	**309**

Table No. 1.47: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT - BORO, 2021-22, (Trials Not Considered)

Entry No	IET No.	Trials Not Considered								
		Odisha			West Bengal			Assam		
		@Chiplima			@Bankura			@Gerua		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
2201	30442		91.50	202	119	133.00	268	136	100.50	296
2202	30443	123	98.00	197	115	93.00	308	116	88.90	322
2203	30444	123	91.40	200	112	108.00	304	119	100.80	239
2204	30445	120	114.60	195	128	123.00	409	113	101.80	289
2205	30446	102	93.60	186	131	148.00	305	113	98.00	368
2206	30447	118	106.00	186	118	155.00	322	122	93.20	240
2207	30448	113	99.40	196	125	145.00	276			
2208	30449	119	97.30	199		128.00	375			
2209	30450		95.80	170	133	128.00	360	130	99.50	216
2210	30451	108	90.90	196	128	143.00	314		.	
2211	Gautam Check	109	85.60	201	116	120.00	397	118	87.80	436
2212	30452	105	89.90	217	136	120.00	366	111	92.70	332
2213	30453	119	91.70	216	118	125.00	318	124	107.90	368
2214	30454	113	91.90	234	115	115.00	377	118	103.50	270
2215	30455				123	130.00	396	130	96.80	326
2216	30456				119	108.00	348			
2217	30457	116	109.30	243	119	113.00	417	130	110.40	252
2218	30458				136	130.00	341	118	96.80	210
2219	30459		86.40	180	134	133.00	412	130	95.50	266
2220	30460	108	79.50	228	130	143.00	398			
2221	Rajalaxmi (HC)				119	123.00	329			
2222	30461				123	123.00	360	113	83.60	233
2223	30462	119	95.50	216	118	128.00	322	122	90.00	397
2224	30463	120	101.80	196	116	115.00	439	136	112.70	236
2225	30464	106	85.80	186	135	128.00	417	116	83.80	262
2226	30465	119	91.60	197	123	123.00	306	113	95.60	363
2227	30466	.		.	124	123.00	349	125	92.60	245
2228	30467	109	98.70	243	116	118.00	300	116	93.20	385
2229	30468	118	79.30	173	121	120.00	312	113	100.20	230
2230	30469	121	119.20	250	132	140.00	327	125	115.10	209
2231	30470	120	65.40	164	123	143.00	347	113	78.70	371
2232	30471	106	88.20	231	130	125.00	336	113	90.00	226
2233	30472	115	86.20	156	127	133.00	332	124	94.90	251
2234	30473	114	106.20	160	130	140.00	374	125	114.50	306
2235	30474	110	90.50	222	117	118.00	323	122	95.20	232
2236	30475	110	72.60	124	122	120.00	357	124	85.80	270
2237	30476		88.90	226	119	140.00	324			
2238	30477		104.00	230	125	123.00	319	120	99.10	219
2239	30478	118	81.90	181	133	145.00	325	116	88.10	335
2240	30479	109	89.60	194	121	128.00	349	122	90.20	327
2241	30480	121	100.90	214	165	163.00	388	130	109.20	272
2242	30481	119	93.40	196	131	138.00	329	122	94.00	333
2243	IR 64 Check				128	143.00	263	116	83.60	345
2244	Local Check (LC)		99.00	188	132	145.00	316	130	98.70	264
Exp. Mean		**114**	**93.28**	**199**	**125**	**129.23**	**344**	**121**	**96.29**	**290**

Hybrid Rice

Excellent progress has been made in hybrid rice research and development in our country. As a result of concerted efforts over the last three decades, 137 hybrids have been released for commercial cultivation in different rice growing states across the country. Among these, 42 hybrids have been developed by the public sector, while the remaining 95 have been developed by the private sector. Important role is being played by the private sector seed companies in hybrid rice research and development in the country. During the year 2022, 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 (2022-23), four rice hybrids *viz.*, AZ 8433 DT, DRRH 4, PAC 837 plus and NPH 242 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. Among these AZ 8433 DT (released for Haryana, Punjab, Uttar Pradesh, Bihar, Jharkhand, Odisha, Madhya Pradesh, Chhattisgarh, Telangana, Andhra Pradesh, Tamil Nadu, and Karnataka and DRRH 4 (released for Punjab, Odisha, Chhattisgarh, Tripura, Gujarat), are central releases; PAC 837 plus and NPH 242 are state (Assam) releases.

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 30 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.

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 up to 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 a criterion for promotion of entries.

During Kharif 2022, four hybrid trials were conducted and evaluated, and test locations are given in Table-1.48 and Table-1.49 respectively.

Table -1.48: Details of Initial Hybrid Rice Trials conducted during Kharif 2022

S. No	Name of the trial	No. of hybrids evaluated		No. of test locations
		Public	Private	
1.	Initial Hybrid Rice Trial - Early	5	16	36
2.	Initial Hybrid Rice Trial - Mid Early	6	21	35
3.	Initial Hybrid Rice Trial - Medium	6	16	37
4.	Initial Hybrid Rice Trial - Medium Slender	7	5	31

Table-1.49: Zone wise test centers for Initial Hybrid Rice Trials, Kharif 2022

Zone	No. of Locations	Name of Locations
Zone I (North Western Hills)	1	Malan (MLN)
Zone II (Northern)	5	**Public Sector:** ICAR-IARI New Delhi (ND), Kaul (KUL), Ludhiana (LDN), Nagina (NGN), Pantnagar (PNT)
Zone III (Eastern)	11	**Public Sector:** Chinsurah (CHN), Chiplima (CHP), ICAR-NRRI Cuttack (CTK), Dhangain (DNG), Masodha (MSD), Ranchi (RCI), Varanasi (VRN) **Private Sector:** RasiSeeds (RAS)**,** Syngenta (SGA), Trimurthi Seeds (TMT), Limagrain (LIG),
Zone IV (North Eastern)	2	**Public Sector:** Titabar (TTB), Arundhutinagar (ARD)
Zone V (Central)	8	**Public Sector:** Jabalpur (JBP), Raipur (RPR), Sakoli (SKL), Sindewahi (SND), Waraseoni (WRS) **Private Sector:** VNR Seeds (VNR), Ankur Seeds (ANK), Rasi Seeds (RAS)
Zone VI (Western)	9	**Public Sector:** Dabhoi (DBI), Karjat (KJT), Navsari (NVS),Nawagam (NWG), Phondaghat (PDG), Radhanagari (RDN), Shirgaon (SHR), VadgaonMaval (VDG), Waraseoni (WRS)
Zone VII (Southern)	12	**Public Sector:** Aduthurai (ADT),Bapatla (BPT),Brahmavar (BRM), Coimbatore (CBT), ICAR-IIRRHyderabad (IIRR), Karaikal (KRK),Mandya (MND), Maruteru (MTU), Ragolu (RGL),Warangal (WGL) **Private Sector:** Bayer Seeds (BAY), Tierra Seeds (TIE)

1. Initial Hybrid Rice Trial - Early (IHRT-E)

Twenty one test hybrids (16 and 5 from private and public sector respectively) were evaluated in 36 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 1.50.

Table 1.50: Composition of Initial Hybrid Rice Trial - Early (IHRT-E), Kharif 2022

S. No.	IET No.	Name	Nominating Agency
1	30554	TMRH-101	Trimurthi Seeds, Hyderabad
2	29686	CPR414 (Repeat)	CP Seeds, Bangalore
3	30555	RRX-3276	Rasi Seeds, Hyderabad
4	30556	NPH-X4	Nuziveedu Seeds, Hyderabad
5	30557	VNR-231	VNR Seeds, Raipur
6	30558	NPH-X69	Nuziveedu Seeds, Hyderabad
7	30559	KJTRH-2106	RARS, Karjat
8	30560	PHI-22103	Pioneer, Hyderabad
9	30561	JKRH-1170	JK Seeds, Hyderabad
10	30562	NRH-307	Nirmal Seeds, Jalgaon
11	30563	JRH-135	JNKVV, Jabalpur
12	29722	RNRH-15 (Repeat)	RRC, PJTSAU, Hyderabad
13	30564	JGLH-337	RARS, Jagtial
14	30565	KAVERI-7374	Kaveri Seeds, Hyderabad
15	30566	Suryanath-999	Shinex UQ Genetic, Hyderabad
16	30567	MEPH-167	MAHYCO, Hyderabad
17	30568	Bio-271	Bio-seeds, Hyderabad
18	30569	PHI-22101	Pioneer, Hyderabad
19	30570	LG-90204	Limagrain, Hyderabad
20	30571	PHI-22102	Pioneer, Hyderabad
21	30572	IIRRH-164	ICAR-IIRR, Hyderabad
	-	US-314 (NCH)	National Check Hybrid
	-	CO-51 (NCV)	National Check Variety
	-	PR-124/Luit/NDR-97/ Sahbhagidhan/MTU-1153 (ZCV)	Zonal Check Variety
	-	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 88 days, zonal check of 89 days, local check of 90 days and national hybrid check (US 314) of 89 days. The grain quality characteristics of test entries are given in Appendix 3.

Based on the overall mean, 14 hybrids *viz.*, PHI 22103, PHI 22101, KAVERI 7374, JKRH 1170, RRX 3276, NPH-X4, NPH-X69, LG 90204, VNR 231, IIRRH 164, CPR 414, PHI 22102, Bio 271 and JRH 135 significantly out yielded the best varietal and hybrid checks (Table 1.51). Besides these, based on zonal means, two hybrids *viz.*, MEPH 167 (Zone II) and KJTRH 2106 (Zone VII) were found promising. Of these 16 hybrids, six hybrids *viz.*, RRX 3276, LG 90204, VNR 231, IIRRH-164, Bio 271 and MEPH 167 are promoted to AVT-1-E-

TP. The remaining 10 hybrids *viz.*, PHI 22103, PHI 22101, KAVERI 7374, JKRH 1170, NPH-X4, NPH-X69, CPR 414, PHI 22102, JRH 135 and KJTRH 2106 are not meeting grain quality requirements / exceeding the DFF limit of 90 days. Among these two hybrids *viz.*, KAVERI 7374 and JKRH 1170 were observed to have the permissible DFF limits in the Zones, they were found promising: KAVERI 7374 - Zone II (91 days); Zone V (90 days); JKRH 1170 - Zone V (91 days). Hence, by giving benefit of doubt, these two hybrids are also promoted to AVT-1-E-TP. Remaining eight hybrids were dropped from further evaluation.

Table 1.51: Promising hybrids identified in IHRT-E, Kharif 2022

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	PHI-22103	30560	97	LB	7192 *#	7617 *#	6841	5815 *#	6811 *#	8763 *#	Dropped high DFF, low HRR - 50.0
2	PHI-22101	30569	93	LB	6985 *#	8118 *#	7063 *#	5596	6720	7931 *#	Dropped high DFF
3	KAVERI-7374	30565	92	SB	6868 *#	7765 *#	6290	6232 *#	6237	8315 *#	Promoted to AVT-1-E-TP
4	JKRH-1170	30561	94	LB	6771 *#	7802 *#	6207	5751 *#	5679	8199 *#	Promoted to AVT-1-E-TP
5	RRX-3276	30555	91	LB	6725 *#	8122 *#	7090 *#	5536	5915	8136 *#	Promoted to AVT-1-E-TP
6	NPH-X4	30556	97	LB	6594 *#	7054	6121	6093 *#	6184	8162 *#	Dropped high DFF, low HRR - 46.3
7	NPH-X69	30558	96	SB	6557 *#	6374	6121	5775	6380	8192 *#	Dropped high DFF
8	LG-90204	30570	91	LS	6526 *#	7507	6518	5647	6018	7444 *#	Promoted to AVT-1-E-TP
9	VNR-231	30557	88	LS	6449 *#	7838 *#	6363	5334	5428	7495 *#	Promoted to AVT-1-E-TP
10	IIRRH-164	30572	91	MS	6419 *#	6667	6349	5593	6094	7374	Promoted to AVT-1-E-TP
11	CPR 414 (Repeat)	29686	93	LS	6392 *#	7036	6346	5399	5919	7910 *#	Dropped high DFF, low HRR - 47.1, low AC - 14.63
12	PHI-22102	30571	92	LS	6322 *#	7806 *#	6628	5005	5653	7249	Dropped high DFF, low AC - 15.51
13	Bio-271	30568	85	LS	6314 *#	7310	6603	5503	5530	6924	Promoted to AVT-1-E-TP
14	JRH-135	30563	93	LB	6248 *#	6940	6326	5340	5767	7401 *#	Dropped high DFF
15	MEPH-167	30567	87	LS	6166	7701 *#	6302	5126	5003	7436 *#	Promoted to AVT-1-E-TP
16	KJTRH-2106	30559	93	LS	5795	5983	5875	4606	5275	7403 *#	Dropped high DFF, low HRR - 51.1
	US 314	NCH	89	MS	6069	6830	5689	5168	6238	7010	
	CO 51	NCV	88	MS	5546	5502	6438	4606	4900	6279	
		ZCV	89	LB	5866	7040	5195	5437	4806	7073	
		LCV	90	SB	5824	7000	5412	5154	5233	6728	
CD (0.05)					151	488	568	300	546	328	
HC + CD (0.05)					6220	7318	6257	5468	6784	7338	
BVC+ CD (0.05)					6017	7528	7006	5737	5779	7401	

#: 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 35 locations. Among the 27 hybrids evaluated, 21 were from private sector and six from public sector. The composition of the trial is given in Table 1.52.

Table 1.52: Composition of Initial Hybrid Rice Trial - Mid Early (IHRT-ME), Kharif 2022

S. No.	IET No.	Name	Nominating Agency
1	30573	SRH-333	Srikar Biotech. (P) Ltd. Hyderabad
2	30574	RRX-3366	Rasi Seeds, Hyderabad
3	30575	RALLIS-21304	Rallis (I) Ltd., Hyderabad
4	30576	ADVRH-162108	UPL, Hyderabad
5	30577	HRI-216	Bayer Bioscience, Hyderabad
6	30578	RNC-0752	Syngenta, Hyderabad
7	30579	JKRH-1135	JK Seeds, Hyderabad
8	30580	KJTRH-2107	RARS, Karjat
9	30581	JRH-136	JNKVV, Jabalpur
10	30582	PHI-22104	Pioneer, Hyderabad
11	30583	IRH-134	IGKV, Raipur
12	30584	MPTH-1403	Mahindra Agri., Mumbai
13	30585	KAVERI-7344	Kaveri Seeds, Hyderabad
14	30586	MPTH-2071	Mahindra Agri., Mumbai
15	30587	SRPH-123	Sri Rama Agri. Genetics, Kurnool
16	30588	Sudha Gold-3355	Invicta Agritech, Hyderabad
17	30589	MEPH-168	MAHYCO, Hyderabad
18	30590	TNRH-301	TNAU, Coimbatore
19	30591	MEPH-169	MAHYCO, Hyderabad
20	30592	US-323	Seed Works, Hyderabad
21	30593	LG-90303	Limagrain, Hyderabad
22	30594	PHI-22105	Pioneer, Hyderabad
23	30595	US-350	Seed Works, Hyderabad
24	30596	Ankur-6077	Ankur Seeds, Nagpur
25	30597	PHI-22106	Pioneer, Hyderabad
26	30598	Pusa RH-65	IARI, New Delhi
27	30599	IIRRH-165	ICAR-IIRR, Hyderabad
	-	US-312 (NCH)	National Check Hybrid
	-	Gontra Bidhan-3 (NCV)	National Check Variety
	-	PR-113/Lalat/ Karjat-7/MTU-1010 (ZCV)	Zonal Check Variety
	-	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 1.53. In the trial, mean DFF of checks ranged from 91 to 101 days, the hybrid check US 312 had mean DFF of 96 days. The varietal checks *viz.*, national, zonal and local checks had mean DFF of 94, 95 and 96 days respectively.

Table 1.53: Promising hybrids identified in IHRT-ME, Kharif 2022

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	PHI-22104	30582	98	LB	7132 *#	7369 *#	7510 *#	5360	6649 *#	6669 *#	7709 *#	Dropped low HRR - 34.6
2	HRI-216	30577	97	MS	7083 *#	7128 *#	7407 *#	5643	5972	6460 *#	8339 *#	Promoted to AVT-1-ME
3	KAVERI-7344	30585	99	SB	6959 *#	6382	6993	6142	6306	7163 *#	7820 *#	Dropped low HRR - 40.9
4	RNC-0752	30578	98	LB	6951 *#	7263 *#	7140 *#	5962	6526	6643 *#	7356	Promoted to AVT-1-ME
5	RALLIS-21304	30575	100	SB	6908 *#	6345	7317 *#	5678	6108	6411	7996 *#	Promoted to AVT-1-ME
6	PHI-22105	30594	98	SB	6901 *#	7102 *#	7147 *#	5772	6175	5714	8130 *#	Dropped low HRR - 35.8
7	SRPH-123	30587	93	LS	6892 *#	7534 *#	6821	6183	6356	6131	7712 *#	Promoted to AVT-1-ME
8	ADVRH-162108	30576	92	MS	6799 *#	7284 *#	7076	5433	5883	6000	7828 *#	Promoted to AVT-1-ME
9	MEPH-168	30589	95	LB	6732 *#	6348	6724	6848 *#	5946	6386	7755 *#	Promoted to AVT-1-ME
10	SRH-333	30573	92	LB	6716 *#	6533	7156 *#	5348	6322	6276	7258	Promoted to AVT-1-ME
11	PHI-22106	30597	95	MS	6700 *#	6356	6819	5842	5929	5363	8378 *#	Dropped low HRR - 30.2
12	LG-90303	30593	96	LB	6655 *#	6544	6748	6440	5859	6073	7656 *#	Promoted to AVT-1-ME
13	RRX-3366	30574	91	LS	6576 *#	8302 *#	6629	4882	5705	5685	7319	Promoted to AVT-1-ME
14	JKRH-1135	30579	96	LB	6535	6458	7168 *#	5758	5551	5935	7233	Promoted to AVT-1-ME
15	KJTRH-2107	30580	100	LB	6414	5890	6902	6727 *#	5708	5790	7029	Promoted to AVT-1-ME
	US-312	NCH	96	MS	6365	5683	6751	6050	5598	5983	7236	
	Gontra Bidhan-3	NCV	94	SB	6370	6455	6408	5332	6207	5706	7075	
		ZCV	95	LS	5153	4894	5946	4798	4352	4300	5680	
		LCV	96	LB	5785	6240	5802	5182	5165	4981	6668	
	CD (0.05)				175	421	385	482	336	432	361	
	HC + CD (0.05)				6540	6104	7136	6532	5934	6415	7597	
	BVC + CD (0.05)				6545	6876	6793	5814	6543	6138	7436	

#: Denotes superior to Hybrid Check; *: Denotes superior to Best Varietal Check.

Based on the overall mean, 13 hybrids *viz.*, PHI-22104, HRI-216, KAVERI-7344, RNC-0752, RALLIS-21304, PHI-22105, SRPH-123, ADVRH-162108, MEPH-168, SRH-333, PHI-22106, LG-90303, RRX-3366 and based on zonal means, two hybrids *viz.*, JKRH 1135 (Zone III) and KJTRH 2107 (Zone IV) were found promising. Of these 15 hybrids, eleven hybrids *viz.*, HRI-216, RNC-0752, RALLIS-21304, SRPH-123, ADVRH-162108, MEPH-168, SRH-333, LG-90303, RRX-3366, JKRH-1135 and KJTRH-2107 are promoted to AVT-1-ME-TP. The remaining four hybrids *viz.*, PHI-22104, KAVERI-7344, PHI-22105 and PHI-22106 (as they are falling short of quality requirements) were dropped from further evaluation.

3. Initial Hybrid Rice Trial - Medium (IHRT-M)

The IHRT-M, conducted at 37 locations with 22 hybrids 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 and IV; IR 64 - Zone V; Akshayadhan - Zone VI; Jaya - Zone VII) and local checks of their respective locations. Among the 22 test hybrids evaluated, 16 are from private sector and six from public sector. The composition of the trial is given in Table 1.54.

Table 1.54: Composition of Initial Hybrid Rice Trial - Medium (IHRT-M), Kharif2022

S. No.	IET No.	Name	Nominating Agency
1	29616	MALI-484	Mali Agri. Tech., Hyderabad
2	30600	RRX-3484	Rasi Seeds, Hyderabad
3	30601	ADVRH-190518	UPL, Hyderabad
4	30602	ADVRH-191788	UPL, Hyderabad
5	30603	RNE-0456	Syngenta, Hyderabad
6	30604	Indam 200-055	Indo-American, Hyderabad
7	30605	RNE-0463	Syngenta, Hyderabad
8	30606	MPTH-1070	Mahindra Agri., Mumbai
9	30607	KAVERI-7428	Kaveri Seeds, Hyderabad
10	30608	MEPH-170	MAHYCO, Hyderabad
11	30609	US-362	Seed Works, Hyderabad
12	30610	PHI-22107	Pioneer, Hyderabad
13	30611	MEPH-171	MAHYCO, Hyderabad
14	30612	VNR-232	VNR Seeds, Raipur
15	30613	CRHR-169	ICAR-NRRI, Cuttack
16	30614	PHI-22108	Pioneer, Hyderabad
17	30615	CRHR-174	ICAR-NRRI, Cuttack
18	30616	IIRRH-166	ICAR-IIRR, Hyderabad
19	30617	CRHR-175	ICAR-NRRI, Cuttack
20	30618	IIRRH-167	ICAR-IIRR, Hyderabad
21	30619	IIRRH-168	ICAR-IIRR, Hyderabad
22	30620	PHI-22109	Pioneer, Hyderabad
	-	HRI-174 (NCH)	National Check Hybrid
	-	NDR-359 (NCV)	National Check Variety
	-	PR-121/CR Dhan-300/ IR-64 Akshayadhan/Jaya (ZCV)	Zonal Check Variety
	-	Local Check Variety (LCV)	Local Check Variety

Northern: PR-121; Eastern and North Eastern: CR Dhan-300; Central: IR-64; Western: Akshayadhan and Southern: Jaya

The location wise mean data of grain yield and DFF are given in Appendix 7&8 respectively. The grain quality characteristics of test entries are given in Appendix 9.

The list of promising hybrids along with yield advantages over the best checks in their respective zones is given in Table 1.55.

Table 1.55: Promising hybrids identified in IHRT-M, Kharif 2022

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	RNE-0456	30603	102	LS	7323 *#	7444 *#	7874 *#	6461 *#	7230	7446 *#	7087	Promoted to AVT-1-M
2	PHI-22107	30610	97	LB	7124 *#	7000	6922	5821	7008	6957 *#	7735 *#	Dropped low HRR - 43.1
3	PHI-22109	30620	98	LB	7105 *#	7504 *#	7182	5951	6730	6659	7728 *#	Promoted to AVT-1-M
4	ADVRH-191788	30602	100	LS	7023 *#	7691 *#	7033	5472	6608	6688	7682 *#	Promoted to AVT-1-M
5	Indam 200-055	30604	105	LB	6971 *#	4312	7647 *#	6074	6778	7045 *#	7324	Promoted to AVT-1-M
6	MEPH-170	30608	97	LS	6742	7154 *#	7425 *#	5062	6246	5793	7429	Promoted to AVT-1-M
7	PHI-22108	30614	99	LB	6929	7901 *#	7009	4635	7239	6332	7295	Promoted to AVT-1-M
8	RRX-3484	30600	97	LB	6785	6879	7875 *#	4780	6469	6235	6971	Promoted to AVT-1-M
9	RNE-0463	30605	102	LS	6538	6127	7380 *#	5672	6683	6086	6392	Promoted to AVT-1-M
10	CRHR-169	30613	108	LB	6641	6833	7696 *#	5396	6412	5469	6992	Promoted to AVT-1-M
11	CRHR-175	30617	104	LB	6129	4367	7656 *#	5664	5185	5442	6407	Promoted to AVT-1-M
12	MALI-484	29616	105	LB	6634		6825	5809	6257	7162 *#	6619	Promoted to AVT-1-M
	HRI-174	NCH	101	LB	6790	6014	6886	5323	6936	6216	7427	
	NDR-359	NCV	99	LB	5631	4791	6362	5008	5278	4294	6459	
		ZCV	100	SB	5450	4843	5561	4828	4857	5461	6023	
		LCV	101	SB	5960	6540	6036	5792	5650	5201	6476	
	CD (0.05)				177	479	442	375	366	542	244	
	NCH + CD (0.05)				6967	6493	7328	5698	7302	6758	7671	
	BVC+ CD (0.05)				6137	7019	6804	6167	6016	6003	6720	

#: Denotes superior to Hybrid Check; *: Denotes superior to Best Varietal Check.

Based on the overall mean, five hybrids *viz.*,RNE-0456, PHI-22107, PHI-22109, ADVRH-191788 and Indam 200-055; based on zonal means, seven hybrids*viz.*,MEPH-170 (Zone II & III); PHI-22108 (Zone II); RRX-3484, RNE-0463, CRHR-169, CRHR-175 (Zone III); and MALI-484 (Zone VI) were found to be promising with required yield advantage over the varietal and hybrid checks. Of these 12 hybrids, 11 hybrids *viz.*, RNE-0456, PHI-22109, ADVRH-191788, Indam 200-055, MEPH-170, PHI-22108, RRX-3484, RNE-0463, CRHR-169, CRHR-175 and MALI-484 are promoted to AVT-1-M-TP trial. The remaining one hybrid *viz.*, PHI-22107 (as it is falling short of quality requirements) was dropped from further evaluation.

4. Initial Hybrid Rice Trial - Medium Slender (IHRT-MS), Kharif 2022

The trial consisting of 12 hybrids (seven from public and five from private sector) was conducted at 31 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 1.56.

Table1.56: Composition of Initial Hybrid Rice Trial - Medium Slender (IHRT-MS), Kharif 2022

S. No.	IET No.	Name	Nominating Agency
1	30621	CRHR-173	ICAR-NRRI, Cuttack
2	30622	HRI-215	Bayer Bioscience, Hyderabad
3	30623	RALLIS-20609	Rallis (I) Ltd., Hyderabad
4	30624	NPH-X60	Nuziveedu Seeds, Hyderabad
5	30625	KAVERI-7605	Kaveri Seeds, Hyderabad
6	30626	MEPH-172	MAHYCO, Hyderabad
7	30627	RNRH-203	RRC, PJTSAU, Hyderabad
8	30628	CRHR-167	ICAR-NRRI, Cuttack
9	30629	CRHR-168	ICAR-NRRI, Cuttack
10	30630	IRH-120	IGKV, Raipur
11	30631	IIRRH-169	ICAR-IIRR, Hyderabad
12	29758	KRH-11 (Repeat)	RARS, Mandya
	-	27P63 (NCH)	National Check Hybrid
	-	WGL-14 (NCV-1)	National Check Variety-1
	-	BPT-5204 (NCV-2)	National Check Variety-2
	-	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, one hybrid *viz.*, RALLIS-20609 and on zonal mean basis, three hybrids *viz.*, CRHR-168 (Zone III); HRI-215, NPH-X60 (Zone IV) were found promising with required yield advantage over the varietal and hybrid checks (Table 1.57). Of these four hybrids, three *viz.*, RALLIS-20609, CRHR-168 and HRI-215 are promoted to AVT-1 MS trial. Remaining one hybrid *viz.*, NPH-X60 (low HRR and non-MS grain type) is dropped from further evaluation, as it is falling short on account of quality parameters.

Table1.57: Promising hybrids identified in IHRT-MS, Kharif 2022

S. No	Hybrid	IET No	DFF	Grain Type	Mean Yield (kg/ha)						Remarks
					Over all	Zone III	Zone IV	Zone V	Zone VI	Zone VII	
1	RALLIS-20609	30623	98	MS	6714 *#	7700	4986	5944 *#	6318	7250 *#	Promoted to AVT-1-MS
2	CRHR-168	30629	105	MS	5976	8057 *#	4637	5303	5141	6015	Promoted to AVT-1-MS
3	HRI-215	30622	100	MS	6258	6699	5857 *#	5269	5937	6865	Promoted to AVT-1-MS
4	NPH-X60	30624	93	SB	6397	7542	5886 *#	5339	5825	6824	Dropped low HRR - 34.9, non-MS GT
5	27P63	NCH	101	MS	6357	7387	4937	5407	6115	6790	
6	WGL-14	NCV-1	105	MS	5937	7284	4631	5049	5966	5960	
7	BPT-5204	NCV-2	102	MS	5294	6441	4179	5016	4653	5457	
8		ZCV	105	MS	4888	6647	4414	4627	3840	4807	
	CD (0.05)				204	538	287	437	485	317	
	NCH + CD (0.05)				6561	7925	5224	5844	6600	7107	
	BVC+ CD (0.05)				6141	7822	4918	5486	6451	6277	

#: Denotes superior to Hybrid Check; *: Denotes superior to Best Varietal Chec

Appendix- 1: Grain Yield (kg/ha) of hybrids in IHRT-Early, Kharif 2022

S No.	IET No.	Name	Zone-I	Zone-II								Zone-III contd..					
			MLN	ND	DL-Z2 (1)	KUL	HR-Z2 (1)	LDH	PB-Z2 (1)	@NGN	Z2 (3)	@SGA	RCI	TMTR	JH-Z3 (2)	CTK	OR-Z3 (1)
1	30554	TMRH-101	3951	6295	6295	4900	4900	2948	2948	5344	4714	6341	4760	5830	5295	5945	5945
2	29686	CP R414 (Repeat)	7284	7505	7505	8500	8500	5102	5102	4990	7036	5920	4620	6464	5542	6078	6078
3	30555	RRX-3276	8313	8459	8459	8000	8000	7906	7906	6441	8122	7808	7840	6854	7347	7354	7354
4	30556	NPH-X4	8230	7741	7741	7267	7267	6155	6155	8252	7054	7137	6720	5319	6020	7048	7048
5	30557	VNR-231	10164	9434	9434	7367	7367	6714	6714	6254	7838	5963	4480	7591	6035	6668	6668
6	30558	NPH-X69	8354	7311	7311	6567	6567	5245	5245	5991	6374	7451	5600	6997	6299	7800	7800
7	30559	KJTRH-2106	7243	6850	6850	6100	6100	4998	4998	4623	5983	6766	4900	5949	5424	6821	6821
8	30560	PHI-22103	11317	7966	7966	9467	9467	5418	5418	6717	7617	6996	6113	6343	6228	7754	7754
9	30561	JKRH-1170	11646	8716	8716	9067	9067	5622	5622	5812	7802	7313	6207	6554	6380	6291	6291
10	30562	NRH-307	7490	7206	7206	6767	6767	4846	4846	5573	6273	7569	6487	6304	6396	5662	5662
11	30563	JRH-135	7613	7657	7657	7433	7433	5730	5730	6763	6940	6761	4993	6517	5755	6951	6951
12	29722	RNRH-15 (Repeat)	9589	7013	7013	5967	5967	5479	5479	5307	6153	7004	6813	7016	6915	5676	5676
13	30564	JGLH-337	6749	5812	5812	5200	5200	5236	5236	5574	5416	7311	4433	6179	5306	5466	5466
14	30565	KAVERI-7374	9259	8569	8569	7533	7533	7191	7191	6838	7765	7331	6160	6901	6530	7061	7061
15	30566	Suryanath-999	4321	5215	5215	4933	4933	3255	3255	4451	4468	6156	4993	9152	7072	4316	4316
16	30567	MEPH-167	6502	8428	8428	8333	8333	6342	6342	5031	7701	7064	7140	6305	6722	5762	5762
17	30568	Bio-271	8955	9015	9015	6933	6933	5982	5982	6909	7310	6865	5973	7255	6614	4746	4746
18	30569	PHI-22101	9877	9387	9387	8200	8200	6766	6766	5632	8118	7162	6533	7304	6919	7088	7088
19	30570	LG-90204	9588	8480	8480	7733	7733	6307	6307	6633	7507	5587	6487	6924	6705	6685	6685
20	30571	PHI-22102	9547	8632	8632	7933	7933	6853	6853	5732	7806	7028	6953	6530	6742	6645	6645
21	30572	IIRRH-164	9054	6651	6651	7800	7800	5549	5549	8169	6667	6291	6113	6829	6471	7384	7384
22	US-314 (NCH)		8601	7715	7715	7700	7700	5076	5076	6613	6830	5116	4760	6080	5420	5419	5419
23	CO-51 (NCV)		6008	6494	6494	5100	5100	4911	4911	5114	5502	6140	8960	5886	7423	5852	5852
24	PR-124/Luit/NDR-97/ Sahbhagidhan/MTU-1153 (RCV)		8642	6782	6782	9033	9033	5306	5306	4714	7040	5356	5087	5143	5115	5945	5945
25	Local Check Variety (LCV)		4198	6143	6143	6933	6933	7924	7924	4335	7000	5007	4993	6123	5558	5153	5153
Exp. Mean			8100	7579	7579	7231	7231	5714	5714	5912	6841	6618	5925	6574	6249	6303	6303
CD (0.05)			895	1110	1110	972	972	853	853	341	488	1793	1252	1415	950	1264	1264
CV (%)			6.77	8.97	8.97	8.23	8.23	9.14	9.14	3.53	4.37	16.59	12.94	13.18	9.31	12.28	12.28
F val			**	**	**	**	**	**	**	**	**	ns	**	**	**	**	**
NHC+CD (0.05)											7318						
BVC+CD (0.05)											7528						
D/S			4.6.22	7.6.22		6.6.22		4.6.22		17.6.22		26.6.22	21.6.22	27.6.22		20.6.22	
D/P			1.7.22	7.7.22		3.7.22		10.7.22		18.7.22		25.7.22	2.8.22	24.7.22		24.7.22	
Gross Plot Size (Sq.m)			4.05	10		10		7.69		10		10	10	12.6		8.64	
Net Plot Size (Sq.m)			4.05	10		10		6.12		7.99		10		10.8		6.2	
Local Check Variety			HPR 2143	IR 64		HKR-48		PR 126		NDR 97		Jarasandh	Sahbhagidhan	Shatayu		Annada	

Note: @ Data of Nagina (NGN) and Syngenta (SGA) are not included in the analysis due to Low CV and non-significant F Value respectively. **-Highly Significant; *-significant; ns-not significant

Appendix-1 (contd.): Grain Yield (kg/ha) of hybrids in IHRT-Early, Kharif 2022

S No.	IET No.	Name	Zone-III contd..							Zone-IV					Zone-V			
			@MSD	RAS	TMTB	UP-Z3 (2)	CHN	WB-Z3 (1)	Z3 (6)	TTB	AS-Z4 (1)	ARD	TR-Z4 (1)	Z4 (2)	RPR	RAS	VNR	CG-Z5 (3)
1	30554	TMRH-101	4167	3662	5120	4648	5068	5068	5168	6153	6153	3533	3533	4843	4574	2574	5275	4433
2	29686	CP R414 (Repeat)	6618	7316	6553	6844	7368	7368	6346	4770	4770	3637	3637	4203	4518	4682	6436	5335
3	30555	RRX-3276	6618	8652	6144	6949	6199	6199	7090	5477	5477	3077	3077	4277	5656	5538	6781	6142
4	30556	NPH-X4	6781	5149	6206	5787	5887	5887	6121	4667	4667	2837	2837	3752	6206	4248	7414	6265
5	30557	VNR-231	6495	6458	6881	6654	6160	6160	6363	6580	6580	3633	3633	5107	5078	4960	5090	5096
6	30558	NPH-X69	6475	3838	6287	5366	5419	5419	6121	4770	4770	4850	4850	4810	5483	3516	7729	5953
7	30559	KJTRH-2106	6679	3826	6038	5434	6823	6823	5875	5550	5550	3950	3950	4750	4261	4500	6712	5260
8	30560	PHI-22103	6373	5952	6431	6480	7992	7992	6841	7533	7533	4840	4840	6187	4351	3936	9364	6205
9	30561	JKRH-1170	6691	6151	5844	5878	6238	6238	6207	5207	5207	6343	6343	5775	5191	4954	7294	5991
10	30562	NRH-307	6614	6853	5594	6056	8109	8109	6480	5557	5557	4193	4193	4875	5059	3994	7835	5890
11	30563	JRH-135	6266	4506	6606	5785	7719	7719	6326	5643	5643	4127	4127	4885	4564	4226	5653	4952
12	29722	RNRH-15 (Repeat)	5494	5730	6306	6131	7485	7485	6565	5713	5713	5847	5847	5780	4044	5201	5308	4824
13	30564	JGLH-337	4902	3852	5470	4849	5185	5185	5179	4603	4603	3893	3893	4248	3794	2808	4181	3731
14	30565	KAVERI-7374	6377	5274	6191	5767	5770	5770	6290	4923	4923	4723	4723	4823	5757	4495	8081	6394
15	30566	Suryanath-999	4330	4374	8442	7278	5458	5458	6276	4703	4703	5467	5467	5085	3154	2256	6208	4160
16	30567	MEPH-167	6226	4084	6394	5720	7252	7252	6302	4560	4560	6477	6477	5518	5348	4271	5796	5230
17	30568	Bio-271	3881	5103	8142	7121	7876	7876	6603	4457	4457	6453	6453	5455	4609	4430	4917	4708
18	30569	PHI-22101	6377	6274	7393	7080	7563	7563	7063	6150	6150	6200	6200	6175	4950	4902	6922	5665
19	30570	LG-90204	6209	6870	6214	6474	5926	5926	6518	6460	6460	3497	3497	4978	5542	4406	7258	5979
20	30571	PHI-22102	6577	4813	6619	5822	7563	7563	6628	4357	4357	5553	5553	4955	5483	4769	6842	5820
21	30572	IIRRH-164	6005	4899	6119	5791	6043	6043	6349	7283	7283	3653	3653	5468	4547	4714	6407	5272
22	US-314 (NCH)		4698	5806	6169	6244	5770	5770	5689	4627	4627	4367	4367	4497	4846	4222	6350	5281
23	CO-51 (NCV)		4453	4556	5176	4950	7602	7602	6438	4933	4933	5860	5860	5397	4085	3540	4693	4214
24	PR-124/Luit/NDR-97/ Sahbhagidhan/MTU-1153 (RCV)		5270	5364	4433	4660	5263	5263	5195	4647	4647	4173	4173	4410	3815	4381	8407	5654
25	Local Check Variety (LCV)		3770	3160	6031	5040	6043	6043	5412	6617	6617	7190	7190	6903	4630	4046	6147	5111
Exp. Mean			5774	5301	6272	5952	6551	6551	6218	5438	5438	4735	4735	5086	4782	4223	6524	5343
CD (0.05)			418	1119	1130	1204	1353	1353	568	451	451	495	495	304	794	480	1091	568
CV (%)			4.44	10.23	11.03	12.39	12.65	12.65	5.59	5.08	5.08	6.4	6.4	3.66	10.16	5.51	10.24	6.51
F val			**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
NHC+CD (0.05)									6257					4801				
BVC+CD (0.05)									7006					7207				
D/S			14.6.22	17.6.22	14.6.22		17.6.22			29.6.22		8.7.22			28.6.22	15.6.22	11.6.22	
D/P			15.7.22	20.7.22	11.7.22		21.7.22			25.7.22		27.7.22			23.7.22	8.7.22	1.7.22	
Gross Plot Size (Sq.m)			10	10.8	12.6		10.39			10		10			14.19	11.1	625	
Net Plot Size (Sq.m)			8.16	10.1	10.8		8.55			10		10			11.07	10.3	7.02	
Local Check Variety			NDR 97	Surju 52	Shatayu		Ajit			Lachit		-			Indira Barani Dhan 1	MTU 1010	MTU 1010	

Note: @ Data of Masoda (MSD) not included in the analysis due to Low CV. **-Highly Significant; *-significant; ns-not significant

Appendix-1 (contd.): Grain Yield (kg/ha) of hybrids in IHRT-Early, Kharif 2022

S No.	IET No.	Name	Zone-V contd..								Zone-VI								
			ANK	SKL	SND	MH-Z5 (3)	JBP	WRS	MP-Z5 (2)	Z5 (8)	DHB	@NVS	NWG	GJ-Z6 (2)	KJT	RDN	VAD	MH-Z6 (3)	Z6 (5)
1	30554	TMRH-101	5364	6884	3936	5395	4817	3395	4106	4703	3284	3254	6560	4360	4247	4199	3898	4115	4271
2	29686	CP R414 (Repeat)	5543		6337	5940	6383	3658	5021	5399	4216	3577	6676	5036	5764	6443	6767	6325	5919
3	30555	RRX-3276	5214	4255	5827	5099	6613	4374	5494	5536	5614	3885	7058	6083	5650	6201	5495	5782	5915
4	30556	NPH-X4	5987	5403	7881	6423	6717	4181	5449	6093	5438	3509	7874	6264	6066	6287	6039	6131	6184
5	30557	VNR-231	6162		5274	5718	6280	4284	5282	5334	5020	2999	7604	5898	4515	5244	5617	5125	5428
6	30558	NPH-X69	5804	4316	6916	5679	7267	4247	5757	5775	6046	4584	8590	6896	6250	6153	5716	6040	6380
7	30559	KJTRH-2106	5283	3421	3707	4137	5320	3663	4491	4606	5588	3267	5814	5680	4984	4964	5262	5070	5275
8	30560	PHI-22103	5898	4631	5095	5208	7270	5292	6281	5815	6219	4186	7366	6583	7252	6736	6676	6888	6811
9	30561	JKRH-1170	6113	4484	5641	5413	6783	5164	5974	5751	4696	3435	8154	5804	5168	5205	6232	5535	5679
10	30562	NRH-307	5702	4255	3761	4573	5920	3432	4676	5038	5003	2875	5990	5343	4902	5268	5648	5273	5337
11	30563	JRH-135	5777	5382	6070	5743	6263	4317	5290	5340	6494	2415	6395	6490	5035	5813	5308	5385	5767
12	29722	RNRH-15 (Repeat)	5507	5340	4819	5222	6583	4012	5298	5105	5817	2672	5820	5796	5466	4914	5958	5446	5578
13	30564	JGLH-337	5682	5924	4500	5369	6303	5041	5672	4875	4853	2608	4524	4776	5043	6116	5151	5437	5189
14	30565	KAVERI-7374	5665	7155	5099	5973	7460	5527	6493	6232	5980	3253	6712	6224	5073	7343	6102	6173	6237
15	30566	Suryanath-999	4473	6091	3958	4840	7483	3362	5423	4728	5719	2973	4671	5397	6620	5607	5195	5807	5653
16	30567	MEPH-167	6142	4240	5237	5206	6047	3696	4871	5126	4526	3124	5558	4892	4832	4359	6032	5074	5003
17	30568	Bio-271	5507	7301	4747	5851	7390	4667	6028	5503	5294	2703	5612	5400	4756	5843	6200	5600	5530
18	30569	PHI-22101	5723	5402	5536	5554	8043	3070	5556	5596	6503	4328	7416	6884	7155	5844	6926	6642	6720
19	30570	LG-90204	5527	7092	4090	5570	6933	3839	5386	5647	5539	3827	6496	5874	6057	6456	5610	6041	6018
20	30571	PHI-22102	5252	4214	3677	4381	5883	3823	4853	5005	5523	3686	7218	6115	4814	5634	5624	5357	5653
21	30572	IIRRH-164	6191	4977	6484	5884	7267	3860	5564	5593	5229	3692	6546	5597	6678	8404	3962	6348	6094
22	US-314 (NCH)		5662	6174	3944	5260	5980	3840	4910	5168	5451	2928	6038	5645	5410	8591	5669	6556	6238
23	CO-51 (NCV)		5059	6175	4215	5149	5503	3206	4354	4606	5310	3161	4604	5048	4315	4524	5663	4834	4900
24	PR-124/Luit/NDR-97/ Sahbhagidhan/MTU-1153 (RCV)		5096	7231	4405	5577	5770	4078	4924	5437	4967	2732	4996	4982	5353	4779	4187	4773	4806
25	Local Check Variety (LCV)		5267	4255	5560	5027	7030	3905	5468	5154	5817	3321	5938	5852	4591	5104	4943	4879	5233
Exp. Mean			5584	5417	5069	5368	6532	4077	5305	5327	5366	3320	6409	5717	5440	5841	5595	5625	5673
CD (0.05)			659	980	877	475	914	581	581	300	756	657	1622	921	890	1301	861	594	546
CV (%)			7.23	11.08	10.59	5.42	8.56	8.72	6.71	3.45	8.62	12.12	12.26	9.87	10.02	13.64	9.42	6.46	5.89
F val			**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
NHC+CD (0.05)										5468									6784
BVC+CD (0.05)										5737									5779
D/S			25.6.22	30.6.22	25.6.22		15.6.22	17.6.22			8.6.22	14.6.22	18.6.22		11.6.22	15.6.22			
D/P			30.7.22	11.8.22	20.7.22		10.7.22	22.7.22			14.7.22	11.7.22	18.7.22		6.7.22	14.7.22			
Gross Plot Size (Sq.m)			10.08	10	10		10	10			12.96	8.51	7.83		4.5	6.08	12.6		
Net Plot Size (Sq.m)			8.19	7.99	7.48		7.99	8.1			10.2	6.3	5.67		2.88	6.08	10.14		
Local Check Variety			MTU 1010	Sakoli-6	SYE-1		MTU 1010	JR 206			Mahisagar	GR 17 (Sardar)	Mahisagar (3022)		Karjat 7	Phule Radha	Phule Radha		

Note: @ Data of Navsari (NVS) not included in the analysis due to Low mean yield. **-Highly Significant; *-significant; ns-not significant

Appendix- 1 (contd.): Grain Yield (kg/ha) of hybrids in IHRT-Early, Kharif 2022

S. No.	IET No.	Name	Zone-VII												Overall Mean (32)
			BAY	MTU	AP-Z7 (2)	MND	KA-Z7 (1)	HYD	WGL	TE-Z7 (2)	ADT	CBT	TN-Z7 (2)	Z7 (7)	
1	30554	TMRH-101	6440	5366	5903	7960	7960	4404	4970	4687	7267	6829	7048	6177	5042
2	29686	CP R414 (Repeat)	9753	7571	8662	10286	10286	7171	7762	7467	6059	6771	6415	7910	6392
3	30555	RRX-3276	8747	7474	8110	10663	10663	7494	6661	7078	8193	7723	7958	8136	6725
4	30556	NPH-X4	11137	6932	9034	9103	9103	7447	6855	7151	8101	7561	7831	8162	6594
5	30557	VNR-231	8830	5947	7389	8902	8902	5734	6537	6136	8518	7995	8256	7495	6449
6	30558	NPH-X69	10963	6665	8814	10669	10669	7694	5456	6575	7905	7995	7950	8192	6557
7	30559	KJTRH-2106	7673	6403	7038	11254	11254	5847	6721	6284	7875	6044	6960	7403	5795
8	30560	PHI-22103	10943	7941	9442	9831	9831	8415	8819	8617	8378	7013	7696	8763	7192
9	30561	JKRH-1170	10453	7415	8934	11326	11326	5849	6552	6200	7767	8034	7901	8199	6771
10	30562	NRH-307	8177	5900	7038	7563	7563	6753	6874	6814	7165	6382	6773	6973	5972
11	30563	JRH-135	8967	7150	8058	7583	7583	7315	5957	6636	8234	6601	7418	7401	6248
12	29722	RNRH-15 (Repeat)	8590	7237	7914	7199	7199	5193	6645	5919	8061	6974	7517	7128	6190
13	30564	JGLH-337	9640	6080	7860	8057	8057	4902	6670	5786	7042	6684	6863	7011	5533
14	30565	KAVERI-7374	10850	5973	8412	9214	9214	8044	7815	7929	7752	8556	8154	8315	6868
15	30566	Suryanath-999	7193	5516	6355	5932	5932	5835	6111	5973	8139	5448	6794	6311	5485
16	30567	MEPH-167	8970	6462	7716	9051	9051	6540	6073	6306	7457	7499	7478	7436	6166
17	30568	Bio-271	7903	5867	6885	8609	8609	5138	7047	6092	7670	6237	6954	6924	6314
18	30569	PHI-22101	9677	7298	8487	7810	7810	8847	7586	8216	8035	6263	7149	7931	6985
19	30570	LG-90204	8963	7152	8058	7752	7752	7100	6384	6742	7165	7591	7378	7444	6526
20	30571	PHI-22102	8090	6889	7489	7979	7979	7167	6088	6628	8061	6469	7265	7249	6322
21	30572	IIRRH-164	9923	5960	7942	8233	8233	6761	8132	7446	7089	5518	6303	7374	6419
22	US-314 (NCH)		9227	5899	7563	6121	6121	5696	5804	5750	7380	8945	8163	7010	6069
23	CO-51 (NCV)		7453	5386	6420	7044	7044	4393	5163	4778	7485	7026	7255	6279	5546
24	PR-124/Luit/NDR-97/ Sahbhagidhan/MTU-1153 (RCV)		8230	6561	7396	8791	8791	6136	6121	6128	7042	6627	6834	7073	5866
25	Local Check Variety (LCV)		9140	6724	7932	4386	4386	5541	6074	5808	8234	6995	7615	6728	5824
Exp. Mean			9037	6551	7794	8453	8453	6457	6595	6526	7683	7031	7357	7401	6234
CD (0.05)			833	875	661	1086	1086	1763	723	906	768	560	452	328	151
CV (%)			5.64	8.18	5.19	7.87	7.87	16.72	6.71	8.51	6.12	4.87	3.76	2.72	1.49
F val			**	**	**	**	**	**	**	**	**	**	**	**	**
NHC+CD (0.05)														7338	6220
BVC+CD (0.05)														7401	6017
D/S			27.6.22	25.6.22		21.7.22		17.6.22	28.6.22		17.6.22	23.6.22			
D/P			14.7.22	26.7.22		11.8.22		20.7.22	3.8.22		18.7.22	14.7.22			
Gross Plot Size (Sq.m)			10	10.89				6.73	10.08		8	9.45			
Net Plot Size (Sq.m)			10	8.37		5.13		5.19	10.08		8	7.61			
Local Check Variety			RNR 15048	MTU 1156		Raksha		Rasi	WGL 962		-	-			

Appendix-2: Days to 50% Flowering (DFF) of hybrids in IHRT-Early, Kharif 2022

S No.	IET No.	Name	Zone-I			Zone-II									Zone-III				
			MLN	HP-Z1 (1)	Z1 (1)	ND	DL-Z2 (1)	KUL	HR-Z2 (1)	LDH	PB-Z2 (1)	@NGN	UP-Z2 (1)	Z2 (3)	@SGA	BR-Z3 (1)	RCI	TMT	JH-Z3 (2)
1	30554	TMRH-101	84	84	84	79	79	74	74	84	84	95	95	79	80	80	96	74	85
2	29686	CP R414 (Repeat)	102	102	102	94	94	91	91	97	97	105	105	94	85	85	113	87	100
3	30555	RRX-3276	102	102	102	89	89	88	88	95	95	107	107	91	78	78	105	84	94
4	30556	NPH-X4	106	106	106	96	96	93	93	99	99	116	116	96	95	95	113	95	104
5	30557	VNR-231	95	95	95	88	88	81	81	89	89	102	102	86	80	80	103	83	93
6	30558	NPH-X69	105	105	105	94	94	90	90	98	98	107	107	94	93	93	113	90	101
7	30559	KJTRH-2106	101	101	101	102	102	95	95	97	97	112	112	98	90	90	107	88	98
8	30560	PHI-22103	101	101	101	103	103	96	96	103	103	116	116	101	92	92	110	91	100
9	30561	JKRH-1170	102	102	102	93	93	88	88	96	96	117	117	92	91	91	113	89	101
10	30562	NRH-307	99	99	99	100	100	97	97	99	99	116	116	99	89	89	109	93	101
11	30563	JRH-135	101	101	101	101	101	96	96	97	97	107	107	98	80	80	106	94	100
12	29722	RNRH-15 (Repeat)	99	99	99	94	94	88	88	94	94	116	116	92	82	82	108	89	98
13	30564	JGLH-337	90	90	90	94	94	82	82	87	87	104	104	88	88	88	102	86	94
14	30565	KAVERI-7374	101	101	101	94	94	88	88	92	92	112	112	91	89	89	107	86	96
15	30566	Suryanath-999	97	97	97	90	90	87	87	93	93	98	98	90	85	85	100	78	89
16	30567	MEPH-167	95	95	95	87	87	81	81	87	87	103	103	85	81	81	100	86	93
17	30568	Bio-271	88	88	88	86	86	81	81	85	85	101	101	84	80	80	99	82	90
18	30569	PHI-22101	102	102	102	91	91	90	90	96	96	108	108	92	89	89	111	91	101
19	30570	LG-90204	98	98	98	92	92	88	88	93	93	107	107	91	62	93	106	79	93
20	30571	PHI-22102	99	99	99	95	95	90	90	92	92	105	105	92	83	83	438	86	262
21	30572	IIRRH-164	96	96	96	103	103	92	92	96	96	111	111	97	81	81	105	90	97
22	US-314 (NCH)		91	91	91	89	89	86	86	87	87	105	105	87	80	80	100	89	95
23	CO-51 (NCV)		84	84	84	92	92	82	82	86	86	103	103	87	82	82	103	84	94
24	PR-124/Luit/NDR-97/ Sahbhagidhan/MTU-1153 (RCV)		104	104	104	102	102	98	98	100	100	99	99	100	80	80	94	72	83
25	Local Check Variety (LCV)		88	88	88	100	100	87	87	91	91	97	97	93	80	80	99	74	87
Exp. Mean			97	97	97	94	94	88	88	93	93	107	107	92	84	85	118	86	102

Appendix- 2 (contd.): Days to 50% Flowering (DFF) of hybrids in IHRT-Early, Kharif 2022

S No.	IET No.	Name	Zone-III contd.									Zone-IV				
			CTK	OR-Z3 (1)	@MSD	RAS	TMT	UP-Z3 (2)	CHN	WB-Z3 (1)	Z3 (8)	TTB	AS-Z4 (1)	ARD	TR-Z4 (1)	Z4 (2)
1	30554	TMRH-101	82	82	73	80	76	77	83	83	82	64	64	89	89	76
2	29686	CP R414 (Repeat)	87	87	72	98	89	92	90	90	94	86	86	95	95	90
3	30555	RRX-3276	85	85	85	94	84	88	90	90	90	85	85	84	84	85
4	30556	NPH-X4	94	94	86	102	92	95	100	100	99	91	91	94	94	92
5	30557	VNR-231	89	89	78	94	84	88	87	87	90	84	84	94	94	89
6	30558	NPH-X69	95	95	98	100	93	95	95	95	97	85	85	95	95	90
7	30559	KJTRH-2106	90	90	76	102	91	95	95	95	95	88	88	94	94	91
8	30560	PHI-22103	96	96	84	102	94	97	98	98	98	90	90	96	96	93
9	30561	JKRH-1170	89	89	79	102	92	96	95	95	96	81	81	97	97	89
10	30562	NRH-307	94	94	75	102	90	94	97	97	97	88	88	94	94	91
11	30563	JRH-135	95	95	73	101	91	94	90	90	96	88	88	94	94	91
12	29722	RNRH-15 (Repeat)	85	85	76	98	86	90	90	90	92	76	76	97	97	87
13	30564	JGLH-337	89	89	74	92	83	86	87	87	90	75	75	95	95	85
14	30565	KAVERI-7374	91	91	74	96	83	87	90	90	92	86	86	96	96	91
15	30566	Suryanath-999	88	88	77	92	75	80	87	87	86	80	80	96	96	88
16	30567	MEPH-167	84	84	84	90	83	86	87	87	88	65	65	96	96	80
17	30568	Bio-271	86	86	70	87	79	82	85	85	86	67	67	96	96	81
18	30569	PHI-22101	84	84	78	98	88	92	95	95	94	81	81	94	94	88
19	30570	LG-90204	89	89	71	96	80	85	89	89	89	76	76	98	98	87
20	30571	PHI-22102	90	90	78	94	88	90	90	90	147	80	80	96	96	88
21	30572	IIRRH-164	87	87	77	96	92	93	90	90	93	85	85	94	94	90
22	US-314 (NCH)		86	86	73	96	86	90	88	88	91	84	84	91	91	88
23	CO-51 (NCV)		95	95	74	87	81	83	89	89	90	69	69	95	95	82
24	PR-124/Luit/NDR-97/ Sahbhagidhan/MTU-1153 (RCV)		88	88	66	86	74	78	81	81	82	69	69	95	95	82
25	Local Check Variety (LCV)		91	91	71	104	76	85	90	90	88	64	64	94	94	79
Exp. Mean			89	89	77	96	85	89	90	90	94	79	79	94	94	87

Appendix-2 (contd.): Days to 50% Flowering (DFF) of hybrids in IHRT-Early, Kharif 2022

S No.	IET No.	Name	Zone-V												Zone-VI			
			RPR	RAS	VNS	CG-Z5 (3)	ANK	SKL	SND	MH-Z5 (3)	JBP	WRS	MP-Z5 (2)	Z5 (8)	DHB	@NVS	NWG	GJ-Z6 (2)
1	30554	TMRH-101	79	74	73	76	83	74	77	78	87	83	85	79	78	76	74	77
2	29686	CP R414 (Repeat)	89	85	83	86	93		88	91	100	96	98	91	95	91	90	93
3	30555	RRX-3276	89	84	79	84	92	92	93	92	96	93	95	90	95	91	88	92
4	30556	NPH-X4	93	88	84	88	98	99	96	98	105	101	103	96	95	94	94	94
5	30557	VNR-231	88	83	78	83	86		84	85	92	90	91	86	88	88	88	88
6	30558	NPH-X69	92	88	86	89	95	98	96	96	105	98	101	95	95	93	94	94
7	30559	KJTRH-2106	88	85	81	85	90	86	93	90	100	93	96	90	97	90	91	95
8	30560	PHI-22103	92	88	83	88	93	97	92	94	105	100	102	94	90	93	94	92
9	30561	JKRH-1170	92	87	81	86	91	94	89	92	100	93	97	91	95	92	90	93
10	30562	NRH-307	89	86	83	86	91	90	93	92	104	91	98	91	97	90	88	94
11	30563	JRH-135	88	87	78	84	93	92	88	91	103	99	101	91	95	89	90	93
12	29722	RNRH-15 (Repeat)	89	84	80	85	93	95	88	92	98	92	95	90	131	92	94	118
13	30564	JGLH-337	83	80	73	79	90	92	80	88	95	91	93	86	88	84	80	85
14	30565	KAVERI-7374	89	84	80	84	91	95	87	91	100	92	96	90	93	90	89	91
15	30566	Suryanath-999	80	80	77	79	83	85	83	84	92	87	90	84	86	85	82	85
16	30567	MEPH-167	84	78	75	79	88	90	86	88	94	91	92	86	85	84	78	83
17	30568	Bio-271	82	78	74	78	82	87	80	83	92	89	91	83	86	82	78	84
18	30569	PHI-22101	92	86	80	86	92	87	94	91	101	95	98	91	90	92	91	91
19	30570	LG-90204	87	84	81	84	92	88	89	90	98	92	95	89	93	92	92	92
20	30571	PHI-22102	88	82	81	84	93	90	90	91	98	94	96	90	95	89	94	94
21	30572	IIRRH-164	87	82	82	84	91	97	86	91	100	95	98	90	94	89	89	93
22	US-314 (NCH)		84	80	73	79	91	89	84	88	94	91	92	86	94	84	84	91
23	CO-51 (NCV)		86	78	75	80	91	90	89	90	96	89	92	87	87	83	80	84
24	PR-124/Luit/NDR-97/ Sahbhagidhan/MTU-1153 (RCV)		86	84	80	83	89	92	86	89	98	95	97	89	93	90	88	92
25	Local Check Variety (LCV)		89	82	81	84	89	85	93	89	99	91	95	89	96	89	89	94
Exp. Mean			87	83	79	83	90	91	88	90	98	93	95	89	93	89	87	91

Appendix- 2 (contd.): Days to 50% Flowering (DFF) of hybrids in IHRT-Early, Kharif 2022

S No.	IET No.	Name	Zone-VII																	Overall Mean (32)
			KJT	RDN	VAD	MH-Z6 (3)	Z6 (6)	BAY	MTU	AP-Z7 (2)	MND	KA-Z7 (1)	HYD	WGL	TE-Z7 (2)	ADT	CBT	TN-Z7 (2)	Z7 (7)	
1	30554	TMRH-101	82	88	84	85	82	76	74	75	80	80	87	74	80	80	77	78	78	80
2	29686	CP R414 (Repeat)	92	85	93	90	91	91	85	88	98	98	100	94	97	113	93	103	96	93
3	30555	RRX-3276	85	94	88	89	90	89	87	88	96	96	95	94	94	111	89	100	95	91
4	30556	NPH-X4	88	108	99	98	97	93	89	91	103	103	107	99	103	81	93	87	95	97
5	30557	VNR-231	87	88	82	86	87	85	81	83	88	88	91	94	93	107	89	98	91	88
6	30558	NPH-X69	95	97	98	97	96	89	93	91	102	102	103	96	99	113	95	104	99	96
7	30559	KJTRH-2106	86	98	88	91	92	83	89	86	83	83	91	96	94	118	84	101	92	93
8	30560	PHI-22103	95	99	95	96	95	90	93	91	95	95	102	100	101	119	92	106	99	97
9	30561	JKRH-1170	95	99	92	95	94	86	85	86	97	97	99	93	96	120	90	105	96	94
10	30562	NRH-307	85	96	90	90	91	84	90	87	82	82	92	99	96	105	83	94	91	93
11	30563	JRH-135	87	90	91	89	90	84	90	87	86	86	91	98	95	118	87	102	93	93
12	29722	RNRH-15 (Repeat)	87	97	91	92	100	84	90	87	92	92	93	93	93	114	88	101	94	93
13	30564	JGLH-337	86	87	83	85	85	80	85	82	84	84	90	89	90	105	80	92	88	87
14	30565	KAVERI-7374	90	100	85	91	91	84	89	87	94	94	98	90	94	113	89	101	94	92
15	30566	Suryanath-999	85	96	84	88	87	82	83	82	81	81	90	84	87	83	79	81	83	86
16	30567	MEPH-167	84	90	82	85	84	81	87	84	88	88	91	85	88	102	82	92	88	87
17	30568	Bio-271	86	86	82	85	84	81	85	83	84	84	86	89	88	100	79	89	86	85
18	30569	PHI-22101	86	100	95	94	93	89	90	90	101	101	100	95	98	112	91	102	97	93
19	30570	LG-90204	87	99	86	91	91	83	88	86	93	93	99	95	97	113	89	101	94	91
20	30571	PHI-22102	87	99	95	94	94	84	89	87	93	93	92	92	92	100	88	94	91	92
21	30572	IIRRH-164	86	98	92	92	92	84	90	87	86	86	91	96	93	80	84	82	87	91
22	US-314 (NCH)		86	98	85	89	90	81	87	84	84	84	91	91	91	114	81	98	90	89
23	CO-51 (NCV)		87	98	85	90	88	81	86	84	86	86	90	90	90	108	81	95	89	88
24	PR-124/Luit/NDR-97/ Sahbhagidhan/MTU-1153 (RCV)		87	89	83	86	88	84	89	86	88	88	92	96	94	108	88	98	92	89
25	Local Check Variety (LCV)		86	95	90	90	91	105	90	98	81	81	88	99	94	120	80	100	95	90
Exp. Mean			87	95	89	90	91	85	87	86	90	90	94	93	93	106	86	96	92	91

Appendix-3: Quality characteristics of IHRT-Early Kharif 2022

S. No.	IET No.	Name	Hull	Mill	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
1	30554	TMRH-101	80.7	68.3	43.2	6.32	2.08	3.03	LS	VOC	4.0	25.54	22
2	29686	CP R414 (Repeat)	82.2	69.4	47.1	6.59	2.03	3.24	LS	VOC	4.1	14.63	100
3	30555	RRX-3276	82.4	73.4	57.3	6.36	2.26	2.81	LB	VOC	7.0	22.90	28
4	30556	NPH-X4	81.5	65.9	46.3	6.43	2.32	2.77	LB	VOC	4.0	26.57	70
5	30557	VNR-231	80.6	71.0	58.6	6.86	1.99	3.44	LS	VOC	7.0	23.23	25
6	30558	NPH-X69	82.3	70.6	59.5	5.76	2.56	2.25	SB	OC	4.0	25.40	32
7	30559	KJTRH-2106	81.5	67.4	51.7	6.86	1.95	3.51	LS	VOC	7.0	24.75	47
8	30560	PHI-22103	82.0	69.0	50.0	6.14	2.32	2.64	LB	VOC	3.6	23.93	30
9	30561	JKRH-1170	80.5	70.4	60.6	6.32	2.56	2.46	LB	OC	4.0	24.31	25
10	30562	NRH-307	76.6	62.8	41.2	6.97	2.05	3.40	LS	VOC	7.0	25.52	69
11	30563	JRH-135	82.1	71.9	56.4	6.44	2.25	2.86	LB	VOC	4.0	20.73	79
12	29722	RNRH-15 (Repeat)	81.4	74.1	68.1	6.89	2.03	3.39	LS	VOC	7.0	24.96	22
13	30564	JGLH-337	81.2	70.4	55.7	6.45	2.19	2.94	LB	OC	4.0	24.49	73
14	30565	KAVERI-7374	82.2	73.4	65.4	5.69	2.40	2.37	SB	OC	4.0	22.79	22
15	30566	Suryanath-999	81.7	65.9	45.2	6.80	2.07	3.28	LS	VOC	4.8	26.84	22
16	30567	MEPH-167	81.5	68.9	58.7	7.15	2.16	3.31	LS	VOC	4.0	24.37	22
17	30568	Bio-271	82.9	71.8	59.3	6.94	2.04	3.40	LS	VOC	4.0	25.31	65
18	30569	PHI-22101	81.1	67.3	34.6	6.30	2.17	2.90	LB	VOC	7.0	24.66	22
19	30570	LG-90204	83.1	71.4	55.3	7.17	2.04	3.51	LS	VOC	7.0	24.40	40
20	30571	PHI-22102	81.7	73.6	65.7	7.04	1.99	3.53	LS	VOC	3.0	15.51	73
21	30572	IIRRH-164	83.5	71.1	55.1	5.85	2.01	2.91	MS	VOC	4.0	23.73	25
22	US-314 (NCH)		79.7	67.7	55.2	5.82	2.15	2.70	MS	VOC	5.3	22.99	55
23	CO-51 (NCV)		78.9	70.9	64.9	5.43	2.00	2.71	MS	VOC	4.0	26.34	63
24	MTU-1153 (ZCV)		81.8	72.2	63.6	6.39	2.14	2.98	LB	VOC	3.0	21.88	56
25	Rasi (LCV)		81.1	69.0	55.1	5.29	2.28	2.32	SB	VOC	7.0	26.01	24

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 2022

S. No.	IET No	Name	Zone-II									Zone-III						
			ND	DL-Z2 (1)	KUL	HR-Z2 (1)	LDH	PB-Z2 (1)	NGN	UP-Z2 (1)	Z2 (4)	DNG	SGA	BR-Z3 (2)	LIG	RCI	JH-Z3 (2)	CHP
1	30573	SRH-333	8155	8155	7467	7467	5500	5500	5011	5011	6533	6424	7881	7153	11064	4853	7959	6017
2	30574	RRX-3366	9213	9213	8700	8700	7585	7585	7710	7710	8302	5548	7341	6444	10377	4333	7355	5219
3	30575	RALLIS-21304	6959	6959	7633	7633	3983	3983	6804	6804	6345	8511	8272	8392	11164	5113	8139	5107
4	30576	ADVRH-162108	8503	8503	7100	7100	6966	6966	6567	6567	7284	7416	7391	7404	10373	6110	8242	6218
5	30577	HRI-216	8042	8042	9300	9300	6233	6233	4935	4935	7128	6902	7723	7312	11222	5720	8471	5143
6	30578	RNC-0752	9091	9091	8967	8967	6446	6446	4547	4547	7263	7774	8366	8070	11175	5677	8426	4449
7	30579	JKRH-1135	8653	8653	7733	7733	4768	4768	4677	4677	6458	8486	6877	7682	9721	5547	7634	5385
8	30580	KJTRH-2107	8226	8226	5967	5967	4872	4872	4497	4497	5890	7534	7858	7696	8566	5330	6948	5408
9	30581	JRH-136	7665	7665	7233	7233	4495	4495	7126	7126	6630	7190	6940	7065	8524	5417	6970	6142
10	30582	PHI-22104	9625	9625	7600	7600	5826	5826	6425	6425	7369	9566	7358	8462	9535	5373	7454	7482
11	30583	IRH-134	6791	6791	4967	4967	4881	4881	4368	4368	5252	6097	7847	6972	7090	6283	6687	5228
12	30584	MPTH-1403	8526	8526	7633	7633	5184	5184	4172	4172	6379	7233	6717	6975	10300	5070	7685	5022
13	30585	KAVERI-7344	8154	8154	7633	7633	4282	4282	5457	5457	6382	7169	8016	7592	10978	5677	8327	4870
14	30586	MPTH-2071	8452	8452	8633	8633	6446	6446	3095	3095	6656	6453	7326	6889	8390	6153	7272	4811
15	30587	SRPH-123	8969	8969	8500	8500	6948	6948	5720	5720	7534	7190	5913	6551	9773	5027	7400	5860
16	30588	Sudha Gold-3355	7015	7015	7100	7100	3732	3732	5303	5303	5788	6731	2746	6909	8712	6890	7801	5161
17	30589	MEPH-168	6577	6577	7367	7367	4872	4872	6575	6575	6348	7274	7661	7468	10387	6110	8248	5851
18	30590	TNRH-301	6215	6215	5467	5467	3407	3407	4581	4581	4917	4936	7315	6125	8302	5157	6729	4726
19	30591	MEPH-169	9727	9727	8533	8533	4386	4386	3851	3851	6624	8273	7002	7638	9026	5590	7308	6617
20	30592	US-323	8112	8112	7733	7733	4295	4295	3313	3313	5863	7119	7315	7217	11005	5200	8103	5116
21	30593	LG-90303	8216	8216	7133	7133	6537	6537	4288	4288	6544	7598	7467	7532	9436	6500	7968	4677
22	30594	PHI-22105	9440	9440	7100	7100	4993	4993	6875	6875	7102	9110	7822	8466	9949	5893	7921	5434
23	30595	US-350	6412	6412	7167	7167	4126	4126	4977	4977	5671	5630	7039	6335	9093	5157	7125	5752
24	30596	Ankur-6077	8456	8456	5633	5633	4634	4634	3154	3154	5469	7886	7090	7488	10030	4897	7463	5296
25	30597	PHI-22106	8941	8941	8300	8300	3659	3659	4526	4526	6356	8169	6604	7386	10413	4420	7416	6147
26	30598	Pusa RH-65	3362	3362	3667	3667	1556	1556	3880	3880	3116	4302	7540	5921	5961	5980	5970	4332
27	30599	IIRRH-165	6460	6460	7000	7000	4252	4252	7585	7585	6324	6424	7360	6892	8418	5113	6766	5040
28	US-312 (NCH)		7025	7025	6533	6533	3806	3806	5369	5369	5683	7503	7334	7418	9755	4290	7022	4988
29	Gontra Bidhan-3 (NCV)		9463	9463	6800	6800	6073	6073	3483	3483	6455	5773	7079	6426	9748	5287	7517	5031
30	PR-113/Lalat/ Karjat-7/MTU-1010 (ZCV)		6261	6261	5867	5867	3897	3897	3550	3550	4894	5556	6943	6250	7072	4810	5941	5318
31	Local Check Variety (LCV)		6163	6163	7500	7500	6316	6316	4981	4981	6240	5132	5402	5267	8594	4463	6528	5815
Experimental Mean			7835	7835	7225	7225	4999	4999	5077	5077	6284	6997	7147	7142	9489	5401	7445	5408
CD(0.05)			1087	1087	906	906	989	989	381	381	421	798	1627	636	1959	1027	1046	679
CV(%)			8.5	8.5	7.68	7.68	12.12	12.12	4.59	4.59	4.1	6.98	13.94	5.46	12.64	11.65	8.6	7.68
F-Value			**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
NHC+CD (0.05)											6104							
BVC+CD (0.05)											6876							
D/S			7.6.22		4.6.22		3.6.22		17.6.22			20.6.22	26.6.22		22.6.22	21.6.22		19.7.22
D/P			7.7.22		1.7.22		9.6.22		19.7.22			24.7.22	25.7.22		15.7.22	4.8.22		6.9.22
Gross Plot Size (Sq. m)			10		10		7.69		10			10.08	10			10		9.75
Net Plot Size (Sq. m)			10		10		6.12		7.99			9.36	10		10			7.44
Local Check Variety			Pusa 44		HKR-47		PR 126		-			Sabour Harshit	Gangotri		MTU 1010	IR-64 drt-1		MTU 1156

Note: **-Highly Significant; *-significant; ns-not significant

Appendix-4 (contd.): Grain yield (kg/ha) of hybrids in IHRT Mid early, Kharif 2022

S. No.	IET No	Name	Zone-III contd…								Zone-IV					Zone-V		
			CTK	OR-Z3 (2)	MSD	RAS	UP-Z3 (2)	CHN	WB-Z3 (1)	Z3 (9)	TTB	AS-Z4 (1)	ARD	TR-Z4 (1)	Z4 (2)	RPR	RAS	VNR
1	30573	SRH-333	7319	6668	6863	7602	7068	6511	6511	7156	6603	6603	4093	4093	5348	5428	5752	9090
2	30574	RRX-3366	6165	5692	6842	9203	7653	5575	5575	6629	6383	6383	3380	3380	4882	5873	8548	6684
3	30575	RALLIS-21304	7466	6286	6454	8042	6970	6004	6004	7317	6437	6437	4920	4920	5678	5584	6790	9293
4	30576	ADVRH-162108	7873	7046	6908	5622	6512	5146	5146	7076	5023	5023	5843	5843	5433	6233	5554	8398
5	30577	HRI-216	7035	6089	7067	8386	7432	7836	7836	7407	7197	7197	4090	4090	5643	5234	5585	8252
6	30578	RNC-0752	5437	4943	7169	5965	6696	7758	7758	7140	7167	7167	4757	4757	5962	5304	6076	9807
7	30579	JKRH-1135	7860	6622	6952	6776	6858	6784	6784	7168	6860	6860	4657	4657	5758	5738	5846	7306
8	30580	KJTRH-2107	7339	6373	6985	6414	6734	6472	6472	6902	7953	7953	5500	5500	6727	6002	5030	7463
9	30581	JRH-136	5488	5815	7014	7766	7301	6238	6238	6703	4813	4813	5443	5443	5128	5871	4848	6397
10	30582	PHI-22104	6468	6975	6846	7006	6884	7719	7719	7510	7140	7140	3580	3580	5360	5395	6344	9242
11	30583	IRH-134	5367	5298	4984	5466	5049	5575	5575	6014	4683	4683	3897	3897	4290	5750	4066	4615
12	30584	MPTH-1403	6268	5645	6675	7488	6924	6355	6355	6770	6780	6780	5077	5077	5928	5592	5925	7042
13	30585	KAVERI-7344	6238	5554	6944	5202	6309	7213	7213	6993	7183	7183	5100	5100	6142	5237	7291	9450
14	30586	MPTH-2071	5278	5044	7047	4458	6122	6355	6355	6340	5420	5420	5397	5397	5408	4511	5655	8124
15	30587	SRPH-123	7209	6534	7108	5520	6548	7329	7329	6821	6847	6847	5520	5520	6183	6115	6016	7761
16	30588	Sudha Gold-3355	6078	5620	7190	5464	6682	6043	6043	6675	5960	5960	4950	4950	5455	5173	6244	8851
17	30589	MEPH-168	6822	6336	6373	4058	5652	5146	5146	6724	7890	7890	5807	5807	6848	5444	5568	7179
18	30590	TNRH-301	5184	4955	6577	5796	6364	7057	7057	6137	4667	4667	3820	3820	4243	4134	3720	7094
19	30591	MEPH-169	6985	6801	6577	5564	6215	6394	6394	6940	5183	5183	4600	4600	4892	5337	5186	8829
20	30592	US-323	6852	5984	6740	5860	6508	5770	5770	6818	6940	6940	5953	5953	6447	5179	5444	7618
21	30593	LG-90303	6839	5758	5985	6973	6318	5341	5341	6748	7423	7423	5457	5457	6440	5352	5451	8226
22	30594	PHI-22105	5544	5489	6417	7056	6666	7018	7018	7147	6903	6903	4640	4640	5772	5666	6456	9511
23	30595	US-350	7273	6512	5535	7967	6312	6979	6979	6657	4690	4690	4093	4093	4392	5403	5481	8796
24	30596	Ankur-6077	8340	6818	6524	5305	6123	7329	7329	7030	7703	7703	4620	4620	6162	5957	6386	6827
25	30597	PHI-22106	5120	5634	6618	6450	6562	7213	7213	6819	6840	6840	4843	4843	5842	4929	6305	9244
26	30598	Pusa RH-65	5304	4818	5678	7342	6266	5731	5731	5739	4943	4943	6023	6023	5483	3252	2716	4430
27	30599	IIRRH-165	4957	4998	6144	5936	6113	5458	5458	6112	4643	4643	4980	4980	4812	5368	5405	8078
28	US-312 (NCH)		7076	6032	6806	6074	6637	6589	6589	6751	7380	7380	4720	4720	6050	5164	4926	7988
29	Gontra Bidhan-3 (NCV)		4977	5004	6903	6514	6777	6355	6355	6408	5993	5993	4670	4670	5332	5545	6424	8500
30	PR-113/Lalat/ Karjat-7/MTU-1010 (ZCV)		5544	5431	6904	5527	6499	5692	5692	5946	4390	4390	5207	5207	4798	4296	3250	3857
31	Local Check Variety (LCV)		5401	5608	6965	4538	6170	5380	5380	5802	5133	5133	5230	5230	5182	4576	4314	5793
Experimental Mean			6358	5883	6638	6366	6546	6399	6399	6722	6231	6231	4867	4867	5549	5311	5568	7734
CD(0.05)			1113	525	523	672	807	1274	1274	385	570	570	714	714	482	944	934	1263
CV(%)			10.72	5.46	4.82	5.17	7.55	12.19	12.19	3.5	5.61	5.61	8.99	8.99	5.31	10.88	8.22	10
F-Value			**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
NHC+CD (0.05)										7136					6532			
BVC+CD (0.05)										6793					5814			
D/S			20.6.22		15.6.22	17.6.22		17.6.22			16.6.22		11.7.22			28.6.22	15.6.22	11.6.22
D/P			24.7.22		17.7.22	19.6.22		13.7.22			14.7.22		30.7.22			23.7.22	11.7.22	1.7.22
Gross Plot Size (Sq. m)			8.1		10	10.8		10.39			10		10			12.18	11.1	625
Net Plot Size (Sq. m)			5.76		8.16	10.1		8.55			10		10			11.76	10.3	7.17
Local Check Variety			Naveen		NDR 3112-1	Surju 52		Khitish			Chilarai		-			Durgeshwari (IGKV R2)	MTU 1010	MTU 1010

Note: **-Highly Significant; *-significant; ns-not significant

Appendix-4 (contd.): Grain yield (kg/ha) of hybrids in IHRT Mid early, Kharif 2022

S. No.	IET No	Name	Zone-V contd…								Zone-VI							
			CG-Z5 (3)	ANK	SND	MH-Z5 (2)	JBP	WRS	MP-Z5 (2)	Z5 (7)	DHB	NVS	NWG	GJ-Z6 (3)	KJT	RDN	MH-Z6 (2)	Z6 (5)
1	30573	SRH-333	6863	6777	6087	6432	6153	4852	5503	6322	6209	4273	8244	5892	6792	6613	6702	6276
2	30574	RRX-3366	6804	5726	4296	5011	5280	4498	4889	5705	5846	3939	6714	5269	6591	5808	6199	5685
3	30575	RALLIS-21304	7307	6585	3957	5271	5987	4810	5398	6108	6307	4811	8602	6210	7642	5435	6538	6411
4	30576	ADVRH-162108	6868	5855	4706	5280	5733	4620	5177	5883	5212	4482	6718	5251	7380	6454	6917	6000
5	30577	HRI-216	6490	6618	4563	5590	6110	5346	5728	5972	6111	4454	8820	6056	7148	6639	6894	6460
6	30578	RNC-0752	7191	6838	5045	5941	6310	6266	6288	6526	6193	4561	9338	6223	7298	6893	7095	6643
7	30579	JKRH-1135	6248	6870	3258	5064	5953	4122	5038	5551	5228	4539	5880	5043	7990	6099	7045	5935
8	30580	KJTRH-2107	6337	6215	5708	5962	5263	4046	4655	5708	6020	3671	7307	5391	6450	6047	6248	5790
9	30581	JRH-136	5915	6138	5994	6066	5700	3819	4759	5583	5735	3906	6988	5257	5538	5957	5747	5513
10	30582	PHI-22104	7089	6699	5962	6331	6460	6367	6414	6649	6320	4557	8460	6089	7769	6971	7370	6669
11	30583	IRH-134	4967	5714	4345	5030	5350	3591	4470	4816	2196	2991	6104	3702	5076	8541	6809	5243
12	30584	MPTH-1403	6279	6038	5134	5586	5813	3510	4662	5567	4899	4765	8052	5565	7786	6691	7239	6307
13	30585	KAVERI-7344	7357	6557	5601	6079	6400	3996	5198	6306	6340	5033	7872	6177	8177	8773	8475	7163
14	30586	MPTH-2071	6169	6247	6929	6588	5940	4578	5259	6014	4993	4415	6278	5035	6589	5980	6284	5584
15	30587	SRPH-123	6770	6331	6671	6501	6580	4835	5708	6356	5183	4776	7473	5527	7467	6391	6929	6131
16	30588	Sudha Gold-3355	6862	6237	6800	6519	5897	3916	4906	6162	5761	3708	7488	5338	5747	6204	5975	5646
17	30589	MEPH-168	6159	5934	6903	6418	5537	4869	5203	5946	6046	4784	7982	6012	7399	6284	6842	6386
18	30590	TNRH-301	5266	5490	3957	4724	4713	3637	4175	4742	6095	2503	5360	4543	7217	5838	6528	5399
19	30591	MEPH-169	6710	6190	4786	5488	4843	4114	4479	5638	6167	4936	6594	5725	6048	5110	5579	5714
20	30592	US-323	6248	6361	4496	5429	5323	4211	4767	5533	5676	4388	7479	5557	7510	6220	6865	6151
21	30593	LG-90303	6517	6476	5762	6119	5617	3920	4768	5859	6287	4391	6865	5690	6445	6741	6593	6073
22	30594	PHI-22105	7267	5547	5428	5488	6227	4494	5360	6175	5484	4995	4362	4983	7537	5651	6594	5714
23	30595	US-350	6747	6085	4782	5433	5340	5510	5425	5954	5118	4481	7480	5365	7302	5785	6544	5900
24	30596	Ankur-6077	6397	7106	6154	6630	6100	3143	4622	5937	5696	5201	4942	5304	8640	5272	6956	6033
25	30597	PHI-22106	6917	6170	4911	5540	6133	3979	5056	5929	4448	4670	5730	4789	7004	5062	6033	5363
26	30598	Pusa RH-65	3606	3940	3832	3886	6607	3287	4947	4085	3758	2034	5208	3388	5510	5024	5267	4246
27	30599	IIRRH-165	6496	5554	6078	5816	6357	5553	5955	6103	5866	3861	7698	5464	5434	5293	5363	5461
28	US-312 (NCH)		6161	5963	4866	5414	5497	4566	5031	5598	5372	4812	6802	5460	6291	6894	6592	5983
29	Gontra Bidhan-3 (NCV)		6906	6752	4737	5744	6553	4941	5747	6207	4150	4451	8194	5125	7181	5479	6330	5706
30	PR-113/Lalat/ Karjat-7/MTU-1010 (ZCV)		3936	5621	5133	5377	5170	2633	3902	4352	3301	2317	4456	3159	5270	6160	5715	4300
31	Local Check Variety (LCV)		4936	6015	5637	5826	5240	4316	4778	5165	4814	3782	7696	5059	4651	4949	4800	4981
Experimental Mean			6316	6150	5243	5696	5812	4398	5105	5757	5382	4209	7006	5279	6803	6170	6486	5834
CD(0.05)			685	644	746	471	955	529	540	336	838	627	1331	515	890	1424	865	432
CV(%)			6.65	6.41	8.71	5.06	10.06	7.37	6.48	3.58	9.54	9.12	9.3	5.98	8.01	14.14	8.17	4.53
F-Value			**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
NHC+CD (0.05)										5934								6415
BVC+CD (0.05)										6543								6138
D/S				25.6.22	25.6.22		15.6.22	17.6.22			8.6.22	13.6.22	18.6.22		11.6.22	15.6.22		
D/P				30.7.22	19.7.22		11.7.22	16.7.22			16.7.22	11.7.22	27.7.22		5.7.22	14.7.22		
Gross Plot Size (Sq. m)				10.08	10		10	10			12.96	8.51	6.75		5.4	6.08		
Net Plot Size (Sq. m)				8.19	7.48		7.99	7.9			10.2	6.3	4.83		3.47	4.68		
Local Check Variety				IR 64	PKV Ganesh		JR 206	JR 206			Mahisagar	GNR-3	Mahisagar (3128)		Karjat 3	Phule Radha		

Note: **-Highly Significant; *-significant; ns-not significant

Appendix-4 (contd.): Grain yield (kg/ha) of hybrids in IHRT Mid early, Kharif 2022

S. No.	IET No	Name	Zone-VII													Overall Mean (35)
			BAY	MTU	RGL	AP-Z7 (3)	MND	KA-Z7 (1)	HYD	TIE	WGL	TE-Z7 (3)	CBT	TN-Z7 (1)	Z7 (8)	
1	30573	SRH-333	6970	7123	7403	7165	10578	10578	4659	9213	4480	6118	7635	7635	7258	6716
2	30574	RRX-3366	8273	6009	6807	7030	10377	10377	6954	7455	4898	6435	7778	7778	7319	6576
3	30575	RALLIS-21304	11877	6942	7067	8629	10643	10643	7391	6018	6090	6500	7936	7936	7996	6908
4	30576	ADVRH-162108	9747	6102	5568	7139	11391	11391	7330	8632	5394	7119	8460	8460	7828	6799
5	30577	HRI-216	11913	7749	6462	8708	9571	9571	6889	6995	7814	7233	9317	9317	8339	7083
6	30578	RNC-0752	10760	7186	6934	8294	5998	5998	7987	6064	7613	7221	6307	6307	7356	6951
7	30579	JKRH-1135	9323	6190	7484	7666	9103	9103	7370	5585	5866	6274	6942	6942	7233	6535
8	30580	KJTRH-2107	10070	6316	5062	7149	10000	10000	6663	6219	6731	6537	5175	5175	7029	6414
9	30581	JRH-136	9493	7087	5015	7198	8466	8466	5796	7031	4425	5751	6063	6063	6672	6211
10	30582	PHI-22104	11000	7693	8289	8994	8726	8726	7434	7467	5654	6851	5407	5407	7709	7132
11	30583	IRH-134	7123	5869	4972	5988	7349	7349	6562	5858	4497	5639	6027	6027	6032	5490
12	30584	MPTH-1403	9093	6613	5640	7115	8577	8577	7689	5709	7003	6800	7656	7656	7248	6486
13	30585	KAVERI-7344	11043	7856	6752	8550	10734	10734	7212	6625	6225	6687	6116	6116	7820	6959
14	30586	MPTH-2071	10440	5849	5998	7429	9532	9532	8572	5791	4445	6269	7693	7693	7290	6379
15	30587	SRPH-123	10413	6892	6875	8060	9877	9877	7752	7755	5048	6852	7079	7079	7712	6892
16	30588	Sudha Gold-3355	10007	6951	5444	7467	11332	11332	7273	7231	5705	6736	5376	5376	7415	6426
17	30589	MEPH-168	9347	7042	5198	7195	10942	10942	7124	8485	6070	7226	7831	7831	7755	6732
18	30590	TNRH-301	8703	5747	4308	6253	8694	8694	5944	6315	4714	5658	6408	6408	6354	5559
19	30591	MEPH-169	8163	6850	5768	6927	5075	5075	5916	8241	4668	6275	4048	4048	6091	6158
20	30592	US-323	10033	6141	6322	7499	10617	10617	6664	7512	4623	6266	7661	7661	7447	6488
21	30593	LG-90303	9990	7289	5768	7682	9987	9987	6933	7931	5138	6667	8212	8212	7656	6655
22	30594	PHI-22105	10367	7924	6722	8338	10819	10819	7057	9264	6779	7700	6111	6111	8130	6901
23	30595	US-350	10120	7048	5641	7603	10474	10474	6841	7506	4724	6357	6540	6540	7362	6334
24	30596	Ankur-6077	9733	6758	3533	6675	10942	10942	7480	6523	5438	6481	5465	5465	6984	6434
25	30597	PHI-22106	9953	8132	6943	8343	12794	12794	7608	8822	5809	7413	6963	6963	8378	6700
26	30598	Pusa RH-65	6877	5647	4768	5764	4178	4178	4703	2691	4692	4029	4534	4534	4761	4656
27	30599	IIRRH-165	9577	6529	5138	7081	9370	9370	5758	6372	5540	5890	6098	6098	6798	6132
28	US-312 (NCH)		8623	6713	4789	6708	10416	10416	7970	7305	4272	6516	7799	7799	7236	6365
29	Gontra Bidhan-3 (NCV)		8370	6465	5355	6730	8811	8811	8451	7928	6128	7502	5095	5095	7075	6370
30	PR-113/Lalat/ Karjat-7/MTU-1010 (ZCV)		5440	6362	5041	5614	6173	6173	4995	6889	4628	5504	5910	5910	5680	5153
31	Local Check Variety (LCV)		6140	7001	5790	6310	8681	8681	6541	6923	6996	6820	5270	5270	6668	5785
Experimental Mean			9322	6777	5899	7332	9362	9362	6888	7044	5552	6494	6610	6610	7182	6399
CD (0.05)			967	859	500	486	1289	1289	1465	1216	949	634	609	609	361	175
CV (%)			6.35	7.76	5.19	4.06	8.43	8.43	13.03	10.57	10.46	5.98	5.65	5.65	3.08	1.67
F-Value			**	**	**	**	**	**	**	**	**	**	**	**	**	**
NHC+CD (0.05)															7997	6540
BVC+CD (0.05)															7436	6545
D/S			18.6.22	25.6.22	2.7.22		21.7.22		19.6.22	20.6.22	21.6.22		9.6.22			
D/P			7.8.22	26.7.22	28.7.22		11.8.22		20.7.22	20.7.22	16.7.22		5.7.22			
Gross Plot Size (Sq. m)			10	10.89	10.23				6.73		7.8		8.1			
Net Plot Size (Sq. m)			10	8.37	7.83		5.13		5.19	5	7.8		6.3			
Local Check Variety			MTU 1010	MTU 1121	MTU 1121		IR-64		Varadhan	3T32	RNR 15048		ADT 39			

Note: **-Highly Significant; *-significant; ns-not significant

Appendix-5: Days to 50% Flowering (DFF) of hybrids in IHRT-Mid early, Kharif 2022

S. No.	IET No	Name	Zone-II									Zone-III											
			ND	DL-Z2 (1)	KUL	HR-Z2 (1)	LDH	PB-Z2 (1)	NGN	UP-Z2 (1)	Z2 (4)	DNG	SGA	BR-Z3 (2)	LIG	RCI	JH-Z3 (2)	CHP	CTK	OR-Z3 (2)	MSD	RAS	UP-Z3 (2)
1	30573	SRH-333	93	93	85	85	89	89	105	105	93	95	92	93	86	114	100	100	96	98	92	94	92
2	30574	RRX-3366	92	92	84	84	89	89	104	104	92	91	90	91	85	113	99	102	95	98	88	96	91
3	30575	RALLIS-21304	109	109	97	97	107	107	119	119	108	98	94	96	95	111	103	107	103	105	106	98	104
4	30576	ADVRH-162108	93	93	87	87	89	89	105	105	93	92	92	92	85	115	100	101	95	98	93	95	94
5	30577	HRI-216	101	101	93	93	99	99	113	113	102	93	94	94	91	113	102	106	104	105	98	104	100
6	30578	RNC-0752	95	95	92	92	97	97	117	117	100	98	93	95	92	113	103	100	96	98	105	108	106
7	30579	JKRH-1135	91	91	87	87	98	98	112	112	97	95	95	95	91	113	102	106	95	101	93	100	95
8	30580	KJTRH-2107	104	104	98	98	105	105	124	124	108	98	94	96	95	111	103	110	104	107	99	116	104
9	30581	JRH-136	98	98	90	90	100	100	120	120	102	96	94	95	92	110	101	108	95	101	98	104	100
10	30582	PHI-22104	108	108	97	97	101	101	117	117	106	98	95	96	93	114	104	107	95	101	107	106	107
11	30583	IRH-134	88	88	78	78	85	85	103	103	89	93	89	91	84	115	100	102	96	99	87	92	89
12	30584	MPTH-1403	92	92	90	90	97	97	107	107	96	99	95	97	91	111	101	101	101	101	93	98	95
13	30585	KAVERI-7344	102	102	94	94	104	104	122	122	106	97	96	97	92	114	103	104	98	101	104	108	106
14	30586	MPTH-2071	94	94	89	89	97	97	108	108	97	99	94	96	87	114	101	107	101	104	100	98	99
15	30587	SRPH-123	93	93	85	85	96	96	106	106	95	94	93	94	87	106	96	101	98	99	90	98	93
16	30588	Sudha Gold-3355	104	104	93	93	107	107	123	123	107	97	32	97	94	108	101	107	101	104	102	104	103
17	30589	MEPH-168	98	98	92	92	99	99	106	106	99	94	95	94	92	114	103	103	99	101	99	108	102
18	30590	TNRH-301	97	97	90	90	101	101	112	112	100	93	93	93	91	108	99	101	95	98	92	102	95
19	30591	MEPH-169	101	101	92	92	102	102	111	111	102	92	94	93	88	111	100	100	101	101	100	104	101
20	30592	US-323	94	94	85	85	96	96	107	107	95	93	91	92	86	115	100	101	96	98	91	100	94
21	30593	LG-90303	97	97	93	93	99	99	114	114	101	92	93	93	91	110	101	107	98	103	97	102	99
22	30594	PHI-22105	102	102	95	95	107	107	120	120	106	95	95	95	95	110	102	107	100	104	106	97	103
23	30595	US-350	105	105	96	96	103	103	115	115	105	94	95	94	90	111	101	105	104	104	106	103	105
24	30596	Ankur-6077	100	100	92	92	102	102	114	114	102	95	93	94	91	111	101	104	95	100	97	103	99
25	30597	PHI-22106	100	100	93	93	105	105	114	114	103	93	93	93	91	114	102	105	95	100	90	104	94
26	30598	Pusa RH-65	103	103	94	94	114	114	124	124	109	100	95	98	96	110	103	106	103	104	88	112	96
27	30599	IIRRH-165	100	100	95	95	104	104	117	117	104	96	94	95	93	113	103	109	96	103	105	113	108
28	US-312 (NCH)		98	98	93	93	100	100	113	113	101	98	93	96	92	111	102	104	101	102	97	98	97
29	Gontra Bidhan-3 (NCV)		92	92	86	86	87	87	114	114	95	93	93	93	88	114	101	104	93	98	91	96	93
30	PR-113/Lalat/ Karjat-7/ MTU-1010 (ZCV)		103	103	98	98	106	106	127	127	108	100	98	99	96	111	103	109	95	102	109	114	111
31	Local Check Variety (LCV)		108	108	97	97	104	104	117	117	107	92	90	91	90	110	100	106	93	99	96	104	99
Experimental Mean			99	99	91	91	100	100	114	114	101	95	92	94	91	112	101	105	98	101	97	103	99

Appendix-5 (contd.): Days to 50% Flowering (DFF) of hybrids in IHRT-Mid early, Kharif 2022

S. No.	IET No	Name	Zone-III contd….			Zone-IV					Zone-V										
			CHN	WB-Z3 (1)	Z3 (9)	TTB	AS-Z4 (1)	ARD	TR-Z4 (1)	Z4 (2)	RPR	RAS	VNSR	CG-Z5 (3)	ANK	SND	MH-Z5 (2)	JBP	WRS	MP-Z5 (2)	Z5 (7)
1	30573	SRH-333	90	90	96	93	93	96	96	94	101	86	80	90	95	90	93	100	92	96	92
2	30574	RRX-3366	91	91	95	87	87	82	82	84	101	90	79	90	92	88	90	102	92	97	92
3	30575	RALLIS-21304	95	95	101	102	102	94	94	98	106	97	89	97	102	98	100	112	105	108	101
4	30576	ADVRH-162108	87	87	95	81	81	88	88	84	101	88	81	90	94	93	93	107	96	101	95
5	30577	HRI-216	93	93	99	100	100	93	93	96	103	96	85	94	99	93	96	107	100	104	97
6	30578	RNC-0752	94	94	100	95	95	93	93	94	105	96	87	96	98	96	97	111	101	106	99
7	30579	JKRH-1135	94	94	98	97	97	91	91	94	102	96	87	95	98	95	96	105	100	102	98
8	30580	KJTRH-2107	97	97	102	102	102	90	90	96	106	102	90	99	102	97	99	112	99	106	101
9	30581	JRH-136	91	91	98	102	102	84	84	93	101	94	83	93	95	89	92	104	93	98	94
10	30582	PHI-22104	92	92	100	97	97	90	90	94	104	95	88	96	99	93	96	107	100	104	98
11	30583	IRH-134	92	92	95	83	83	93	93	88	98	87	75	87	92	85	88	100	91	95	90
12	30584	MPTH-1403	93	93	98	96	96	95	95	95	102	93	86	94	98	96	97	109	96	102	97
13	30585	KAVERI-7344	92	92	100	102	102	89	89	96	104	102	87	97	99	95	97	110	97	104	99
14	30586	MPTH-2071	88	88	99	94	94	96	96	95	105	94	82	94	97	93	95	109	94	102	96
15	30587	SRPH-123	86	86	95	97	97	95	95	96	102	92	83	92	97	94	95	104	94	99	95
16	30588	Sudha Gold-3355	91	91	100	102	102	94	94	98	104	94	83	94	98	91	95	105	100	102	97
17	30589	MEPH-168	91	91	99	95	95	91	91	93	103	93	86	94	99	92	96	105	91	98	96
18	30590	TNRH-301	91	91	96	103	103	95	95	99	102	92	81	92	99	92	95	103	90	96	94
19	30591	MEPH-169	91	91	98	102	102	92	92	97	100	92	82	91	94	88	91	101	93	97	93
20	30592	US-323	87	87	95	93	93	91	91	92	100	92	80	91	94	91	92	103	93	98	93
21	30593	LG-90303	92	92	98	97	97	91	91	94	102	94	85	94	98	92	95	109	97	103	97
22	30594	PHI-22105	95	95	100	102	102	98	98	100	104	96	86	95	100	96	98	107	97	102	98
23	30595	US-350	96	96	100	99	99	91	91	95	104	98	88	97	102	96	99	109	99	104	100
24	30596	Ankur-6077	92	92	98	99	99	91	91	95	104	93	84	94	92	92	92	104	95	100	95
25	30597	PHI-22106	91	91	97	101	101	78	78	90	103	94	84	94	98	91	95	104	97	100	96
26	30598	Pusa RH-65	91	91	100	104	104	89	89	96	108	102	93	101	104	90	97	113	101	107	101
27	30599	IIRRH-165	94	94	101	99	99	92	92	96	104	95	85	95	97	94	96	107	97	102	97
28	US-312 (NCH)		91	91	98	101	101	93	93	97	104	94	87	95	101	93	97	108	97	103	98
29	Gontra Bidhan-3 (NCV)		85	85	95	92	92	96	96	94	104	94	83	94	96	93	95	107	95	101	96
30	PR-113/Lalat/ Karjat-7/ MTU-1010 (ZCV)		96	96	103	109	109	92	92	100	96	86	80	88	89	86	88	97	92	95	90
31	Local Check Variety (LCV)		93	93	97	102	102	92	92	97	99	87	81	89	100	95	98	103	93	98	94
Experimental Mean			92	92	98	98	98	91	91	95	103	94	84	94	97	92	95	106	96	101	96

Appendix-5 (contd.): Days to 50% Flowering (DFF) of hybrids in IHRT-Mid early, Kharif 2022

S. No.	IET No	Name	Zone-VI								Zone-VII													Overall Mean (35)
			DHB	NVS	NWG	GJ-Z6 (3)	KJT	RDN	MH-Z6 (2)	Z6 (5)	BAY	MTU	RGL	AP-Z7 (3)	MND	KA-Z7 (1)	HYD	TIE	WGL	TE-Z7 (3)	CBT	TN-Z7 (1)	Z7 (8)	
1	30573	SRH-333	99	92	96	96	85	97	91	94	79	88	79	82	94	94	90	93	82	88	90	90	87	92
2	30574	RRX-3366	95	90	94	93	92	89	90	92	78	84	79	80	93	93	94	95	83	91	91	91	87	91
3	30575	RALLIS-21304	103	99	102	101	88	105	96	99	87	95	89	91	98	98	101	97	95	98	96	96	95	100
4	30576	ADVRH-162108	94	91	92	93	92	100	96	94	79	82	79	80	97	97	96	94	82	91	93	93	88	92
5	30577	HRI-216	102	95	98	99	92	100	96	97	83	94	81	86	93	93	101	95	90	96	95	95	92	97
6	30578	RNC-0752	100	96	100	99	98	98	98	98	86	93	84	88	103	103	104	96	92	98	97	97	94	98
7	30579	JKRH-1135	100	98	103	100	99	99	99	99	86	93	84	88	97	97	100	95	88	94	97	97	93	96
8	30580	KJTRH-2107	104	97	98	100	98	98	98	99	87	97	90	91	97	97	104	98	97	100	100	100	96	100
9	30581	JRH-136	101	94	98	97	92	91	92	95	80	92	82	85	86	86	94	95	83	91	92	92	88	95
10	30582	PHI-22104	101	93	102	98	98	96	97	98	85	93	86	88	98	98	99	96	87	94	96	96	93	98
11	30583	IRH-134	90	88	94	90	89	91	90	90	77	84	74	78	87	87	92	95	83	90	89	89	85	90
12	30584	MPTH-1403	95	96	100	96	92	100	96	96	87	95	89	90	99	99	103	96	94	98	97	97	95	97
13	30585	KAVERI-7344	101	97	104	100	98	101	100	100	86	92	87	88	98	98	99	96	92	96	96	96	93	99
14	30586	MPTH-2071	103	94	98	98	93	97	95	97	83	89	82	85	97	97	96	97	83	92	95	95	90	96
15	30587	SRPH-123	93	93	94	93	85	101	93	93	80	92	79	84	95	95	95	96	86	92	93	93	90	93
16	30588	Sudha Gold-3355	103	91	103	98	92	96	94	97	81	91	81	85	87	87	95	94	86	92	92	92	89	97
17	30589	MEPH-168	103	95	100	99	88	92	90	95	85	94	84	88	88	88	98	94	84	92	93	93	90	95
18	30590	TNRH-301	101	93	98	97	89	94	92	95	81	91	80	84	89	89	97	94	85	92	92	92	88	94
19	30591	MEPH-169	99	92	96	96	86	90	88	92	80	87	74	80	82	82	90	92	83	88	86	86	84	93
20	30592	US-323	96	93	95	94	87	91	89	92	81	85	79	82	87	87	93	97	82	91	91	91	87	92
21	30593	LG-90303	101	96	104	99	86	100	93	97	82	90	83	85	94	94	98	96	85	93	95	95	90	96
22	30594	PHI-22105	105	97	103	101	98	64	97	100	84	93	84	87	92	92	99	94	92	95	96	96	92	98
23	30595	US-350	96	98	101	98	99	103	101	99	86	92	85	88	96	96	99	97	90	95	96	96	93	98
24	30596	Ankur-6077	102	93	103	99	92	97	94	97	81	93	83	86	93	93	95	96	86	92	94	94	90	96
25	30597	PHI-22106	101	95	103	99	87	95	91	96	84	95	82	87	89	89	97	94	87	93	94	94	90	95
26	30598	Pusa RH-65	112	99	104	105	98	102	100	103	93	100	83	92	102	102	103	98	97	100	101	101	97	101
27	30599	IIRRH-165	105	95	103	101	89	94	92	97	83	94	91	89	94	94	96	95	88	93	95	95	92	98
28	US-312 (NCH)		96	93	102	96	92	95	93	95	84	92	84	87	94	94	99	97	90	95	94	94	92	96
29	Gontra Bidhan-3 (NCV)		92	93	94	93	92	103	98	95	80	86	79	82	102	102	97	96	82	92	95	95	90	94
30	PR-113/Lalat/ Karjat-7/ MTU-1010 (ZCV)		89	94	94	92	92	94	93	92	77	87	78	81	85	85	89	93	85	89	87	87	85	95
31	Local Check Variety (LCV)		85	93	94	90	85	91	88	89	76	108	97	94	88	88	101	96	104	100	100	100	96	96
Experimental Mean			99	94	99	97	92	96	94	96	83	92	83	86	93	93	97	95	88	94	94	94	91	96

Appendix-6: Quality characteristics of IHRT-Mid-Early, Kharif 2022

S. No.	IET No.	Name	Hull	Mill	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
1	30573	SRH-333	82.7	64.4	55.4	6.64	2.25	2.95	LB	OC	7.0	27.80	53
2	30574	RRX-3366	82.4	68.9	60.7	7.17	2.12	3.38	LS	VOC	5.0	24.78	22
3	30575	RALLIS-21304	82.2	68.6	57.0	5.78	2.45	2.35	SB	VOC	4.0	27.92	44
4	30576	ADVRH-162108	81.6	68.5	57.3	5.86	2.33	2.51	MS	VOC	4.0	24.20	22
5	30577	HRI-216	81.5	74.9	65.6	5.88	2.31	2.54	MS	OC	7.0	24.61	22
6	30578	RNC-0752	82.8	69.4	55.9	6.60	2.27	2.90	LB	OC	7.0	24.81	23
7	30579	JKRH-1135	83.0	68.9	58.4	6.39	2.15	2.97	LB	VOC	4.6	24.20	25
8	30580	KJTRH-2107	80.4	62.1	56.9	6.52	2.22	2.93	LB	VOC	4.3	24.08	29
9	30581	JRH-136	81.4	67.1	41.2	6.39	2.12	3.01	LS	VOC	4.0	24.75	22
10	30582	PHI-22104	81.7	62.8	34.6	6.61	2.30	2.87	LB	VOC	5.1	20.91	22
11	30583	IRH-134	81.9	69.3	50.8	6.82	2.02	3.37	LS	VOC	5.6	25.10	22
12	30584	MPTH-1403	81.1	70.4	48.3	6.32	2.24	2.82	LB	VOC	4.1	16.63	80
13	30585	KAVERI-7344	81.2	68.3	40.9	5.74	2.56	2.24	SB	OC	5.6	24.61	24
14	30586	MPTH-2071	82.0	73.0	57.7	6.66	2.31	2.88	LB	VOC	5.1	22.70	25
15	30587	SRPH-123	82.7	67.7	55.8	6.98	2.28	3.06	LS	VOC	7.0	24.81	22
16	30588	Sudha Gold-3355	82.2	64.4	26.3	6.19	2.18	2.83	LB	VOC	4.0	23.29	60
17	30589	MEPH-168	80.8	67.2	58.6	6.06	2.42	2.48	LB	VOC	4.0	26.98	42
18	30590	TNRH-301	82.1	73.1	59.1	5.90	2.00	2.95	MS	VOC	4.8	21.82	25
19	30591	MEPH-169	82.3	70.8	37.0	5.56	2.19	2.53	MS	VOC	5.6	25.13	22
20	30592	US-323	81.9	67.4	44.0	6.14	2.24	2.74	LB	VOC	3.0	23.40	23
21	30593	LG-90303	81.4	69.0	55.7	6.22	2.18	2.85	LB	OC	5.5	20.91	25
22	30594	PHI-22105	80.6	69.6	35.8	5.74	2.48	2.31	SB	VOC	4.0	24.37	22
23	30595	US-350	81.3	69.9	30.8	5.78	2.34	2.47	SB	VOC	4.5	16.54	61
24	30596	Ankur-6077	82.8	68.1	45.9	6.24	2.34	2.70	LB	VOC	3.0	22.88	55
25	30597	PHI-22106	82.1	66.7	30.2	5.96	2.33	2.55	MS	VOC	4.0	24.99	42
26	30598	Pusa RH-65	81.7	71.6	65.1	7.02	1.98	3.54	LS	VOC	5.5	24.66	49
27	30599	IIRRH-165	81.4	69.7	39.3	5.71	2.05	2.78	MS	VOC	4.0	26.07	65
28	US-312 (NCH)		81.4	70.8	55.9	5.74	2.06	2.78	MS	VOC	5.0	23.32	44
29	Gontra Bidhan-3 (NCV)		80.5	70.7	55.8	5.34	2.32	2.30	SB	VOC	4.0	26.25	48
30	MTU-1010 (ZCV)		80.1	66.1	55.2	6.32	1.96	3.22	LS	VOC	7.0	24.52	67
31	Varadhan (LCV)		80.2	71.2	64.6	6.41	2.29	2.79	LB	VOC	5.0	26.84	65

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 2022

S. No.	IET No	Name	Zone-II							Zone-III								
			KUL	HR-Z2 (1)	LDH	PB-Z2 (1)	@PNT	@NGN	Z2 (2)	DNG	SGA	BR-Z3 (2)	RCI	JH-Z3 (1)	CTK	OR-Z3 (1)	MSD	RAS
1	**29616**	MALI-484					3595	6070		7563	8098	7830	5356	5356	7300	7300	7230	3886
2	30600	RRX-3484	8600	8600	5158	5158	3599	3830	6879	7770	6976	7373	8549	8549	7407	7407	6822	9266
3	30601	ADVRH-190518	7833	7833	4989	4989	1630	4205	6411	8189	7190	7689	5717	5717	6897	6897	6659	6052
4	30602	ADVRH-191788	8433	8433	6948	6948	3136	4514	7691	7643	7727	7685	4120	4120	7720	7720	7108	4936
5	30603	RNE-0456	9067	9067	5822	5822	1476	3930	7444	9298	7345	8322	6798	6798	7307	7307	7149	7820
6	30604	Indam 200-055	5733	5733	2891	2891	569	6809	4312	7982	7694	7838	8137	8137	6444	6444	7271	8671
7	30605	RNE-0463	8400	8400	3853	3853	2860	7050	6127	8322	6732	7527	7365	7365	7071	7071	7271	5810
8	30606	MPTH-1070	7800	7800	3013	3013	2251	4965	5406	7469	7167	7318	5562	5562	7410	7410	6536	6681
9	30607	KAVERI-7428	4867	4867	2926	2926	1925	6500	3896	6858	6824	6841	3863	3863	8396	8396	5555	4885
10	30608	MEPH-170	8100	8100	6207	6207	2511	3563	7154	8031	7079	7555	5408	5408	7570	7570	7006	7912
11	30609	US-362	7767	7767	4638	4638	2151	3442	6202	8448	7070	7759	4635	4635	7707	7707	7189	5906
12	30610	PHI-22107	8967	8967	5032	5032	2906	6809	7000	7335	6554	6944	4275	4275	6807	6807	7230	8072
13	30611	MEPH-171	7567	7567	4178	4178	2730	4047	5872	6371	7182	6777	4378	4378	7353	7353	7120	4428
14	30612	VNR-232	7733	7733	3555	3555	2213	3509	5644	7793	6801	7297	4893	4893	7876	7876	6740	5900
15	30613	CRHR-169	6833	6833			1064	3087	6833	9380	7531	8455	5459	5459	9475	9475	6863	5103
16	30614	PHI-22108	9933	9933	5869	5869	4386	2849	7901	8706	6901	7803	4687	4687	6647	6647	6720	5870
17	30615	CRHR-174	4267	4267	1916	1916	702	3342	3091	8401	7165	7783	4017	4017	8905	8905	6699	5059
18	30616	IIRRH-166	6867	6867	4417	4417	3999	8594	5642	7355	7061	7208	5511	5511	6374	6374	6703	5308
19	30617	CRHR-175	4367	4367			270	3358	4367	8765	7055	7910	8755	8755	8363	8363	7198	5546
20	30618	IIRRH-167	5100	5100	2519	2519	3282	3767	3809	5628	6185	5906	4996	4996	6717	6717	6700	6557
21	30619	IIRRH-168	4900	4900	3871	3871	3204	6804	4385	7269	6942	7106	5665	5665	6591	6591	6699	5518
22	30620	PHI-22109	8333	8333	6675	6675	4747	6671	7504	7505	6601	7053	5099	5099	7737	7737	6209	7556
23	HRI-174 (NCH)		7967	7967	4061	4061	3806	3567	6014	7782	6627	7204	6489	6489	6827	6827	6740	4101
24	NDR-359 (NCV)		6167	6167	3416	3416	1904	3458	4791	6742	7120	6931	5202	5202	6344	6344	4779	7654
25	PR-121/CR Dhan-300/ IR 64 /Akshayadhan/Jaya ZCV)		5200	5200	4486	4486	913	4314	4843	6794	6938	6866	3914	3914	6444	6444	5351	3826
26	Local Check Variety (LCV)		7700	7700	5380	5380	1284	4347	6540	6555	6372	6463	4996	4996	5943	5943	5433	6042
Experimental Mean			7140	7140	4427	4427	2427	4746	5830	7690	7036	7363	5532	5532	7294	7294	6653	6091
CD(0.05)			880	880	836	836	3173	282	479	726	832	554	998	998	1711	1711	560	1231
CV(%)			7.55	7.55	11.57	11.57	80.05	3.64	5.03	5.78	7.24	4.61	11.05	11.05	14.36	14.36	5.15	7.77
F-Value			**	**	**	**	ns	**	**	**	*	**	**	**	*	*	**	**
NHC+CD (0.05)									6493									
BVC+CD (0.05)									7019									
D/S			3.6.22		1.6.22		13.6.22	17.6.22		20.6.22	26.6.22		21.6.22		20.6.22		14.6.22	17.6.22
D/P			2.7.22		7.7.22		3.8.22	20.7.22		24.7.22	26.7.22		5.8.22		29.7.22		16.7.22	21.7.22
Gross Plot Size (Sq.m)			10		7.69		10.13	10		10.08	10		10		7.98		10	10.8
Net Plot Size (Sq.m)			10		6.12		7.56	7.99		9.36	10				5.68		8.16	10.1
Local Check Variety			HKR 128		PR 126		Pant Dhan-4	-		Sabour Shree	Mugdha		IR-64 drt-1		CR Dhan 316		NDR 2065	Surju 52

Note: @ Data of Nagina (NGN) not included in the analysis due to Low CV: Data of Pant Nagar (PNT) non included in the analysis due to low mean yield, high CV and non-significant F-value; **-Highly Significant; *-significant; ns-not significant

Appendix-7 (contd.): Grain yield (kg/ha) of hybrids in IHRT Medium, Kharif 2022

S. No.	IET No	Name	Zone-III contd..				Zone-IV					Zone-V						
			VRN	UP-Z3 (3)	@CHN	Z3 (7)	TTB	AS-Z4 (1)	ARD	TR-Z4 (1)	Z4 (2)	RPR	RAS	VNSR	CG-Z5 (3)	ANK	SND	MH-Z5 (2)
1	**29616**	MALI-484	7318	6529	6939	6825	6977	6977	4641	4641	5809	5062	5200	9988	6970	7273	4507	5890
2	30600	RRX-3484	8707	8108	8577	7875	4433	4433	5127	5127	4780	5375	8585	7258	6743	7517	6461	6989
3	30601	ADVRH-190518	8041	7093	6823	7024	5037	5037	5740	5740	5388	5643	6084	8685	6875	7082	6529	6805
4	30602	ADVRH-191788	9293	7473	7135	7033	5477	5477	5466	5466	5472	6103	5482	8610	6981	7847	5605	6726
5	30603	RNE-0456	9457	8185	8499	7874	7370	7370	5552	5552	6461	5462	5956	9897	7321	7717	6792	7255
6	30604	Indam 200-055	7809	7778	8499	7647	6563	6563	5584	5584	6074	6419	8346	8390	7665	7428	5846	6637
7	30605	RNE-0463	8432	7445	7719	7380	6127	6127	5217	5217	5672	5061	6617	9661	7189	7412	5871	6641
8	30606	MPTH-1070	9493	7728	7758	7212	6037	6037	4993	4993	5515	5671	6746	7526	6641	7277	5588	6433
9	30607	KAVERI-7428	7544	6201	7251	6354	6617	6617	5461	5461	6039	5881	5871	8182	6757	7407	4216	5812
10	30608	MEPH-170	9102	7988	7018	7425	4567	4567	5558	5558	5062	5902	5234	6374	5887	7037	6741	6889
11	30609	US-362	9267	7702	7680	7246	5927	5927	3938	3938	4932	5940	6428	7790	6782	7078	5368	6223
12	30610	PHI-22107	8595	7964	7563	6922	6233	6233	5409	5409	5821	5673	6152	9126	7179	7753	6107	6930
13	30611	MEPH-171	8315	6972	7641	6551	4670	4670	4343	4343	4506	5524	4888	7619	6138	7111	5689	6400
14	30612	VNR-232	7409	6849	7251	6811	5263	5263	4526	4526	4895	5340	5662	9917	7242	7302	5972	6637
15	30613	CRHR-169	9194	7378	7368	7696	6483	6483	4309	4309	5396	5427	5588	9904	7171	7530	6093	6811
16	30614	PHI-22108	9051	7457	7797	7009	6167	6167	3103	3103	4635	6145	6412	8990	7309	7163	7223	7193
17	30615	CRHR-174	5670	5950	6706	6646	5007	5007	4694	4694	4850	4555	3800	6018	4891	6133	4342	5238
18	30616	IIRRH-166	7708	6798	6940	6648	6383	6383	4725	4725	5554	6091	5976	8739	7110	7074	3887	5480
19	30617	CRHR-175	7102	6807	7251	7656	6160	6160	5167	5167	5664	5082	3199	6425	5148	6699	4759	5729
20	30618	IIRRH-167	8044	7182	6628	6405	4413	4413	5529	5529	4971	5173	4986	6516	5654	7049	2745	4897
21	30619	IIRRH-168	8013	6978	6706	6732	5473	5473	5103	5103	5288	5757	5586	7648	6410	6504	3163	4834
22	30620	PHI-22109	9666	7900	8031	7182	6703	6703	5198	5198	5951	5187	5658	9410	6905	7513	4815	6164
23	HRI-174 (NCH)		8694	6915	7875	6886	6430	6430	4216	4216	5323	5747	6745	10132	7675	7387	5218	6303
24	NDR-359 (NCV)		7177	6350	7213	6362	4477	4477	5539	5539	5008	5045	3348	5678	4858	6549	4495	5522
25	PR-121/CR Dhan-300/ IR-64/ Akshayadhan/Jaya (ZCV)		5031	4879	6628	5561	4520	4520	5135	5135	4828	4125	4462	6088	4982	5641	4798	5219
26	Local Check Variety (LCV)		6971	6134	6277	6036	6027	6027	5557	5557	5792	5248	4475	6729	5687	6361	5267	5814
Experimental Mean			8120	7106	7376	6961	5752	5752	4993	4993	5372	5486	5672	8127	6545	7109	5311	6210
CD (0.05)			970	675	1375	442	572	572	490	490	375	819	1498	1229	702	956	808	672
CV (%)			7.32	5.82	11.41	3.88	6.09	6.09	6.01	6.01	4.27	9.15	10.15	9.26	6.57	8.23	9.32	6.63
F-Value			**	**	ns	**	**	**	**	**	**	**	**	**	**	**	**	**
NHC+CD (0.05)						7328					5698							
BVC+CD (0.05)						6804					6167							
D/S			7.6.22		14.6.22		16.6.22		18.7.22			28.6.22	15.6.22	11.6.22		25.6.22	25.6.22	
D/P			28.6.22		21.7.22		19.6.22		6.8.22			6.8.22	11.7.22	2.7.22		30.7.22	20.7.22	
Gross Plot Size (Sq.m)			10		10.39		10		10			12.18	11.1	625		10.08	10	
Net Plot Size (Sq.m)			9.8		8.55		10		10			11.76	10.3	7.29		8.19	7.48	
Local Check Variety			HUR-105		Pratiksha		Shraboni		-			Maheshwari (IGKV R1244)	MTU 1010	Mahamaya		MTU 1001	SYE-2001	

Note: @ Data of Chinsurah (CHN) not included in the analysis due non-significant F-Value. **-Highly Significant; *-significant; ns-not significant

Appendix-7 (contd.): Grain yield (kg/ha) of hybrids in IHRT Medium, Kharif 2022

S. No.	IET No	Name	Zone-V contd..				Zone-VI									Zone-VII		
			JBP	WRS	MP-Z5 (2)	Z5 (7)	DHB	NVS	NWG	GJ-Z6 (3)	KJT	PDG	SHR	MH-Z6 (3)	Z6 (6)	BAY	MTU	RGL
1	**29616**	MALI-484	6011	5340	5676	6257	6961	7450	8930	7590	8395	5746	6150	6764	7162	8857	6593	7853
2	30600	RRX-3484	6629	4305	5467	6469	5327	5767	8297	6202	6931	5528	6222	6227	6235	7200	7345	7191
3	30601	ADVRH-190518	7852	6208	7030	6913	7386	6638	8763	7365	7687	5557	5048	6097	6711	9650	7286	7960
4	30602	ADVRH-191788	6955	5219	6087	6608	6373	6025	8194	6620	6866	6522	6688	6692	6688	8647	7851	8048
5	30603	RNE-0456	7259	7101	7180	7230	7386	6484	10740	7757	9025	5955	6354	7111	7446	9033	7049	7762
6	30604	Indam 200-055	6437	5140	5788	6778	7386	7046	8886	7522	7324	6071	6328	6574	7045	8953	6310	4587
7	30605	RNE-0463	6788	5311	6050	6683	5523	5844	7744	6126	7602	5855	4404	5954	6086	9623	7365	7913
8	30606	MPTH-1070	7384	6158	6771	6621	4151	7104	6739	5869	7596	5701	5298	6198	6052	11143	7400	7797
9	30607	KAVERI-7428	7555	6095	6825	6484	5065	5858	6858	5770	6715	5333	5749	5932	5881	8673	6662	7492
10	30608	MEPH-170	7326	4810	6068	6246	5915	5679	6741	5990	7192	4727	4821	5580	5793	8067	7526	6881
11	30609	US-362	7184	5136	6160	6432	6863	6635	8233	7100	7630	4896	4878	5801	6397	9870	5830	7937
12	30610	PHI-22107	8156	5695	6925	7008	6569	6853	6801	6741	8767	6669	6008	7148	6957	8230	6442	6964
13	30611	MEPH-171	7359	4802	6080	6206	6683	4816	6801	5978	5551	5548	4283	5128	5557	8033	5939	7496
14	30612	VNR-232	6955	5657	6306	6744	5049	5031	6698	5441	6655	5447	5515	5873	5683	8457	7500	7131
15	30613	CRHR-169	5077	5044	5060	6412	5853	3933	7594	5455	7271	4005	4933	5403	5469	9700	6383	7937
16	30614	PHI-22108	7872	6667	7270	7239	6340	6619	7518	6751	7455	4779	5578	5937	6332	9170	7458	7909
17	30615	CRHR-174	5991	3863	4927	5010	4183	3655	5321	4165	6799	2515	4152	4488	4368	7383	5819	6032
18	30616	IIRRH-166	6554	5791	6172	6329	5846	5803	7060	6100	4054	5587	5348	4996	5524	9390	5564	7428
19	30617	CRHR-175	4806	4606	4706	5185	6536	4748	6482	5834	7367	3088	4803	5086	5442	9357	5904	7667
20	30618	IIRRH-167	6859	5632	6245	5596	5915	3839	5963	5143	5528	4892	4152	4857	5014	8237	5632	7809
21	30619	IIRRH-168	6633	5866	6250	5906	5425	7588	6294	6439	5516	4792	4722	5010	5673	8363	5249	5246
22	30620	PHI-22109	7313	6846	7080	6730	5849	5886	6922	6098	8182	5951	7182	7105	6659	8377	7875	7948
23	HRI-174 (NCH)		6967	6308	6638	6936	6634	6267	6326	6415	6948	5103	6054	6035	6216	9000	7349	7766
24	NDR-359 (NCV)		6466	4685	5576	5278	4804	4152	3428	4220	5489	3892	3598	4326	4294	6363	6557	5452
25	PR-121/CR Dhan-300/ IR-64/ Akshayadhan/Jaya (ZCV)		4890	3834	4362	4857	4967	4631	6170	5055	7316	4877	5129	5774	5461	6807	6462	7417
26	Local Check Variety (LCV)		6350	4698	5524	5650	5621	5827	5838	5717	5548	3302	5407	4752	5201	7597	6644	7270
Experimental Mean			6755	5416	6085	6300	5946	5776	7128	6133	6977	5090	5339	5802	5975	8622	6692	7265
CD(0.05)			999	459	562	366	831	1238	2687	773	1968	598	1129	750	542	857	778	537
CV(%)			9.06	5.19	5.66	3.56	8.56	13.12	14.5	7.72	17.27	7.2	12.95	7.92	5.55	6.09	7.12	4.53
F-Value			**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
NHC+CD (0.05)						7302									6758			
BVC+CD (0.05)						6016									6003			
D/S			18.6.22	17.6.22			8.6.22	11.6.22	18.6.22		11.6.22	9.6.22	14.6.22			18.6.22	25.6.22	2.7.22
D/P			13.7.22	21.7.22			14.7.22	29.6.22	27.7.22		6.7.22	3.7.22	8.7.22			7.9.22	26.7.22	28.7.22
Gross Plot Size (Sq.m)			10	10.8			12.96	10.08	6.75		8.1	10.24	6.75			10	10.89	10.8
Net Plot Size (Sq.m)			7.99	7.99			10.2	8.1	4.83		5.67	7.67	4.73			10	8.37	8.4
Local Check Variety			Kranti	JR 206			GAR-13	GNR-3	GAR-13 (3204)		Karjat-5	Karjat-9	Ratnagiri-4			MTU 1121	MTU 1239	MTU 1210

Appendix-7 (contd.): Grain yield (kg/ha) of hybrids in IHRT Medium, Kharif 2022

S. No.	IET No	Name	Zone-VII contd…													Overall Mean (34)
			AP-Z7 (3)	BRM	MND	KA-Z7 (2)	KRK	PY-Z7 (1)	HYD	TIEH	WGL	TE-Z7 (3)	CBT	TN-Z7 (1)	Z7 (10)	
1	**29616**	MALI-484	7768	6291	3535	4459	4048	4048	7591	6807	6285	6894	8196	8196	6619	6634
2	30600	RRX-3484	7245	4879	7109	6379	5952	5952	7197	7633	5813	6881	8660	8660	6971	6785
3	30601	ADVRH-190518	8299	5939	7161	6885	5476	5476	7712	6735	6093	6847	8367	8367	7285	6887
4	30602	ADVRH-191788	8182	5800	7753	7157	7857	7857	8057	7933	6554	7515	7595	7595	7682	7023
5	30603	RNE-0456	7948	5000	4741	4790	5952	5952	7772	6585	6626	6994	9639	9639	7087	7323
6	30604	Indam 200-055	6617	5115	7920	7036	7778	7778	8553	7369	6221	7381	9584	9584	7324	6971
7	30605	RNE-0463	8300	4564	3719	4056	4207	4207	6879	6498	5287	6221	7237	7237	6392	6538
8	30606	MPTH-1070	8780	5345	8966	7793	5793	5793	7943	5049	5321	6105	9069	9069	7454	6747
9	30607	KAVERI-7428	7609	5848	8132	7406	8214	8214	8506	6015	5439	6653	7771	7771	7328	6416
10	30608	MEPH-170	7491	6364	6385	6342	7222	7222	7952	6731	6396	7026	10411	10411	7429	6742
11	30609	US-362	7879	4994	5684	5466	6746	6746	8098	5896	6318	6771	10534	10534	7276	6736
12	30610	PHI-22107	7212	3242	10224	7920	6429	6429	8249	8461	7410	8040	10103	10103	7735	7124
13	30611	MEPH-171	7156	4939	8127	7032	7143	7143	6695	7670	6118	6827	8588	8588	7143	6316
14	30612	VNR-232	7696	3697	9069	7192	5238	5238	8094	7702	5141	6979	9201	9201	7242	6540
15	30613	CRHR-169	8006	5242	6483	6069	4841	4841	7245	5379	6537	6387	9560	9560	6992	6641
16	30614	PHI-22108	8179	6024	8069	7264	5421	5421	7832	7535	5092	6820	8035	8035	7295	6929
17	30615	CRHR-174	6411	4939	2793	3549	5659	5659	5213	4958	4992	5054	6337	6337	5421	5224
18	30616	IIRRH-166	7461	3727	2540	2926	4762	4762	4630	8032	4959	5874	8213	8213	5998	6066
19	30617	CRHR-175	7643	4848	3483	3938	5635	5635	7457	5389	5086	5977	8694	8694	6407	6129
20	30618	IIRRH-167	7226	5797	8023	7446	5476	5476	5884	6894	5477	6085	7078	7078	6657	5825
21	30619	IIRRH-168	6286	4939	7931	6974	4762	4762	6090	6956	4669	5905	8937	8937	6362	6038
22	30620	PHI-22109	8067	4818	8960	7638	5238	5238	8728	8346	6229	7768	9748	9748	7728	7105
23	HRI-174 (NCH)		8038	4879	8994	7623	7698	7698	7148	6127	6722	6666	7727	7727	7427	6790
24	NDR-359 (NCV)		6124	4879	7155	6391	5159	5159	7808	6328	5738	6625	8524	8524	6459	5631
25	PR-121/CR Dhan-300/ IR-64/ Akshayadhan/Jaya (ZCV)		6895	2988	4787	4085	6667	6667	6527	5210	5771	5836	6474	6474	6023	5450
26	Local Check Variety (LCV)		7170	4515	7230	6379	5555	5555	4207	7041	5596	5614	8429	8429	6476	5960
Experimental Mean			7526	4985	6730	6161	5959	5959	7233	6741	5842	6606	8566	8566	6931	6483
CD(0.05)			481	1284	680	1213	655	655	1571	910	743	598	721	721	244	177
CV(%)			3.92	9.91	6.18	12.05	6.73	6.73	13.3	8.26	7.78	5.54	5.16	5.16	2.15	1.67
F-Value			**	**	**	**	**	**	**	**	**	**	**	**	**	**
NHC+CD (0.05)															7671	6967
BVC+CD (0.05)															6720	6137
D/S				15.6.22	16.7.22		30.8.22		17.6.22	17.6.22	17.6.22		2.6.22			
D/P				13.7.22	3.8.22		5.10.22		20.7.22	18.7.22	16.7.22		27.6.22			
Gross Plot Size (Sq.m)				10			10.4		6.73		7.02		8.78			
Net Plot Size (Sq.m)				8.25	5.8		4.2		5.19	5	7.02		6.93			
Local Check Variety				MO-4	Thanu		VGD-1		DRR Dhan 38	3TH-4322	WGL 347 (Somnath)		-			

Appendix-8 : Days to 50% Flowering (DFF) of hybrids in IHRT-Medium, Kharif 2022

S. No	IET No	Name	KUL	HR-Z2 (1)	LDH	PB-Z2 (1)	@PNT	UK-Z2 (1)	@NGN	UP-Z2 (1)	Z2 (4)	DNG	SGA	BR-Z3 (2)	RCI	JH-Z3 (1)	CTK	OR-Z3 (1)	MSD	RAS
1	**29616**	MALI-484					129	129	130	130		103	95	99	114	114	101	101	83	116
2	30600	RRX-3484	100	100	106	106	119	119	128	128	103	95	95	95	119	119	99	99	93	100
3	30601	ADVRH-190518	101	101	108	108	79	79	131	131	104	95	95	95	115	115	103	103	104	98
4	30602	ADVRH-191788	104	104	107	107	81	81	120	120	106	97	95	96	117	117	101	101	89	98
5	30603	RNE-0456	103	103	109	109	40	40	124	124	106	96	95	96	117	117	103	103	94	104
6	30604	Indam 200-055	118	118	123	123	45	45	123	123	121	103	95	99	117	117	99	99	99	114
7	30605	RNE-0463	103	103	110	110	81	81	122	122	106	96	94	95	119	119	99	99	106	103
8	30606	MPTH-1070	108	108	114	114	84	84	125	125	111	97	93	95	123	123	100	100	86	107
9	30607	KAVERI-7428	104	104	110	110	41	41	118	118	107	94	93	94	116	116	103	103	87	100
10	30608	MEPH-170	94	94	98	98	40	40	118	118	96	92	96	94	112	112	102	102	89	100
11	30609	US-362	101	101	110	110	42	42	452	452	106	97	96	96	115	115	101	101	93	104
12	30610	PHI-22107	101	101	109	109	80	80	115	115	105	90	95	92	114	114	104	104	91	98
13	30611	MEPH-171	96	96	102	102	76	76	118	118	99	88	94	91	114	114	100	100	93	96
14	30612	VNR-232	101	101	106	106	40	40	130	130	103	97	97	97	115	115	98	98	103	102
15	30613	CRHR-169	119	119			45	45	123	123	119	108	96	102	127	127	103	103	89	116
16	30614	PHI-22108	103	103	110	110	120	120	126	126	106	95	95	95	119	119	98	98	103	100
17	30615	CRHR-174	113	113	124	124	132	132	125	125	118	103	94	98	118	118	100	100	87	114
18	30616	IIRRH-166	100	100	108	108	114	114	119	119	104	89	95	92	112	112	95	95	99	96
19	30617	CRHR-175	121	121			86	86	119	119	121	106	92	99	118	118	100	100	87	108
20	30618	IIRRH-167	110	110	114	114	125	125	121	121	112	99	92	95	121	121	95	95	92	104
21	30619	IIRRH-168	99	99	106	106	116	116	122	122	102	90	95	93	119	119	98	98	93	100
22	30620	PHI-22109	101	101	107	107	114	114	116	116	104	91	96	94	114	114	98	98	89	98
23	HRI-174 (NCH)		102	102	109	109	41	41	132	132	105	97	95	96	116	116	101	101	105	102
24	NDR-359 (NCV)		99	99	104	104	115	115	120	120	102	91	95	93	122	122	100	100	99	102
25	PR-121/CR Dhan-300/ IR-64 Akshayadhan/Jaya (ZCV)		105	105	109	109	41	41	122	122	107	93	93	93	128	128	107	107	89	120
26	Local Check Variety (LCV)		104	104	107	107	78	78	119	119	105	104	97	101	120	120	101	101	93	100
Experimental Mean			104	104	109	109	81	81	135	135	107	96	95	96	118	118	100	100	94	104

Appendix-8 (contd.): Days to 50% Flowering (DFF) of hybrids in IHRT-Medium, Kharif 2022

S. No	IET No	Name	VRN	UP-Z3 (3)	@CHN	WB-Z3 (1)	Z3 (8)	TTB	AS-Z4 (1)	ARD	TR-Z4 (1)	Z4 (2)	RPR	RAS	VNR	CG-Z5 (3)	ANK	SND	MH-Z5 (2)	JBP
1	**29616**	MALI-484	117	103	117	117	103	117	117	94	94	105	101	111	109	107	106	104	105	119
2	30600	RRX-3484	92	94	105	105	99	104	104	97	97	100	104	100	90	97	105	98	101	108
3	30601	ADVRH-190518	97	100	103	103	101	101	101	94	94	97	108	99	91	99	107	100	104	111
4	30602	ADVRH-191788	97	94	109	109	99	110	110	94	94	102	108	101	92	100	109	102	105	112
5	30603	RNE-0456	101	99	107	107	101	106	106	94	94	100	117	103	92	104	109	103	106	112
6	30604	Indam 200-055	102	103	114	114	103	109	109	96	96	102	113	108	102	108	112	105	108	120
7	30605	RNE-0463	95	101	105	105	102	111	111	95	95	103	115	104	93	104	109	104	107	112
8	30606	MPTH-1070	103	97	110	110	101	107	107	93	93	100	118	106	98	108	111	104	108	115
9	30607	KAVERI-7428	102	96	109	109	99	108	108	97	97	102	108	102	93	101	108	100	104	114
10	30608	MEPH-170	92	93	101	101	97	94	94	99	99	96	105	96	89	97	107	99	103	107
11	30609	US-362	104	100	105	105	101	99	99	94	94	96	109	100	94	101	108	100	104	114
12	30610	PHI-22107	93	93	103	103	98	101	101	103	103	102	105	96	91	98	106	98	102	108
13	30611	MEPH-171	91	93	98	98	97	108	108	99	99	103	104	96	90	96	108	98	103	106
14	30612	VNR-232	97	100	101	101	101	107	107	97	97	102	105	98	92	98	108	101	104	107
15	30613	CRHR-169	113	104	116	116	107	119	119	101	101	110	119	112	104	112	112	111	112	121
16	30614	PHI-22108	98	100	103	103	101	109	109	96	96	102	106	98	91	98	108	100	104	111
17	30615	CRHR-174	100	98	108	108	102	121	121	93	93	107	118	108	100	109	113	108	111	120
18	30616	IIRRH-166	88	94	102	102	96	121	121	90	90	106	100	92	89	94	103	96	99	104
19	30617	CRHR-175	102	98	120	120	102	122	122	96	96	109	119	111	105	112	113	107	110	123
20	30618	IIRRH-167	93	95	105	105	99	108	108	92	92	100	108	100	93	101	107	103	105	117
21	30619	IIRRH-168	93	94	102	102	98	104	104	93	93	99	103	98	92	98	105	100	103	109
22	30620	PHI-22109	94	93	103	103	97	110	110	93	93	101	106	99	92	99	108	99	104	109
23	HRI-174 (NCH)		93	100	105	105	101	109	109	99	99	104	108	100	93	100	108	102	105	112
24	NDR-359 (NCV)		92	97	104	104	100	104	104	95	95	99	109	101	91	100	108	102	105	112
25	PR-121/CR Dhan-300/ IR-64 Akshayadhan/Jaya (ZCV)		115	106	129	129	106	122	122	98	98	110	101	117	82	97	101	92	96	100
26	Local Check Variety (LCV)		108	100	113	113	104	103	103	91	91	97	110	90	88	97	113	101	107	111
Experimental Mean			99	98	108	108	101	109	109	95	96	102	109	102	94	101	108	101	105	112

Appendix-8 (contd.): Days to 50% Flowering (DFF) of hybrids in IHRT-Medium, Kharif 2022

S. No	IET No	Name	WRS	MP-Z5 (2)	Z5 (7)	DHB	NVS	NWG	GJ-Z6 (3)	KJT	PDG	SHR	MH-Z6 (3)	Z6 (6)	BAY	MTU	RGL	AP-Z7 (3)	BRM	MND
1	**29616**	MALI-484	113	116	109	116	114	112	114	99	107	106	104	109	96	103	94	98	70	84
2	30600	RRX-3484	103	106	101	103	89	96	96	92	93	92	93	94	85	96	90	90	65	88
3	30601	ADVRH-190518	105	108	103	103	80	100	93	93	95	95	94	94	84	97	89	90	66	94
4	30602	ADVRH-191788	111	112	105	103	96	99	100	88	97	100	95	97	88	99	91	93	67	98
5	30603	RNE-0456	108	110	107	103	93	102	99	99	100	101	100	100	92	101	89	94	69	100
6	30604	Indam 200-055	117	118	111	115	102	112	109	99	97	106	101	105	98	109	97	101	68	90
7	30605	RNE-0463	108	110	107	103	92	105	99	99	100	102	100	100	92	98	91	94	68	100
8	30606	MPTH-1070	111	113	109	110	97	105	104	98	103	103	101	102	97	103	97	99	67	97
9	30607	KAVERI-7428	107	110	105	111	95	102	103	92	96	98	96	99	89	98	91	93	69	93
10	30608	MEPH-170	103	105	101	100	86	101	95	98	93	93	95	95	83	97	104	95	68	96
11	30609	US-362	107	110	105	106	95	104	101	98	100	101	100	101	92	101	91	95	67	98
12	30610	PHI-22107	103	106	101	101	85	102	95	88	93	91	91	93	86	93	87	89	67	91
13	30611	MEPH-171	103	104	101	104	86	104	97	99	93	94	95	96	84	94	89	89	68	91
14	30612	VNR-232	107	107	103	106	90	102	99	99	96	92	96	97	87	95	91	91	74	92
15	30613	CRHR-169	116	119	114	120	97	113	109	99	114	112	108	109	99	102	101	101	68	89
16	30614	PHI-22108	105	108	103	103	91	102	98	88	96	96	93	96	90	98	89	92	66	89
17	30615	CRHR-174	106	113	111	102	102	113	104	99	103	106	103	104	101	108	99	103	65	98
18	30616	IIRRH-166	101	102	98	102	87	100	96	88	116	89	98	97	82	90	83	85	69	81
19	30617	CRHR-175	99	111	111	112	88	114	103	98	103	112	105	104	87	103	101	97	68	86
20	30618	IIRRH-167	107	112	105	112	88	108	101	97	95	102	98	100	92	103	92	96	67	94
21	30619	IIRRH-168	105	107	102	103	93	102	99	92	93	99	94	97	87	90	84	87	68	95
22	30620	PHI-22109	104	106	103	103	89	104	98	92	93	93	93	95	87	95	89	90	69	93
23	HRI-174 (NCH)		106	109	104	107	94	102	101	93	100	98	97	99	88	96	99	94	69	92
24	NDR-359 (NCV)		105	108	104	101	90	102	97	93	93	93	93	95	87	91	91	90	67	94
25	PR-121/CR Dhan-300/ IR-64 Akshayadhan/Jaya (ZCV)		93	96	97	109	95	103	102	92	98	97	96	99	87	96	91	91	66	98
26	Local Check Variety (LCV)		98	104	102	104	81	102	95	98	106	101	102	98	103	117	104	108	70	90
Experimental Mean			106	109	105	106	92	104	100	95	99	99	98	99	90	99	93	94	68	93

Appendix-8 (contd.): Days to 50% Flowering (DFF) of hybrids in IHRT-Medium, Kharif 2022

S. No	IET No	Name	KA-Z7 (2)	KRK	PY-Z7 (1)	HYD	TIE	WGL	TE-Z7 (3)	CBT	TN-Z7 (1)	Z7 (10)	Overall Mean (34)
1	**29616**	MALI-484	91	96	96	107	108	106	107	101	101	100	105
2	30600	RRX-3484	91	92	92	99	101	91	97	95	95	93	97
3	30601	ADVRH-190518	95	91	91	101	101	96	99	98	98	95	98
4	30602	ADVRH-191788	99	98	98	105	103	100	103	99	99	98	100
5	30603	RNE-0456	101	98	98	107	107	99	104	103	103	100	102
6	30604	Indam 200-055	94	91	91	107	109	105	107	99	99	101	105
7	30605	RNE-0463	101	98	98	105	107	100	104	102	102	100	102
8	30606	MPTH-1070	99	98	98	106	105	101	104	101	101	100	103
9	30607	KAVERI-7428	96	95	95	103	103	96	101	99	99	97	100
10	30608	MEPH-170	99	91	91	99	104	93	99	99	99	97	97
11	30609	US-362	99	91	91	106	105	99	103	100	100	98	101
12	30610	PHI-22107	94	96	96	100	105	92	99	97	97	95	97
13	30611	MEPH-171	95	91	91	100	101	91	97	97	97	94	97
14	30612	VNR-232	98	91	91	101	105	96	100	99	99	96	100
15	30613	CRHR-169	93	91	91	111	110	107	110	104	104	102	108
16	30614	PHI-22108	92	92	92	99	102	97	99	96	96	95	99
17	30615	CRHR-174	98	91	91	110	107	105	108	106	106	102	105
18	30616	IIRRH-166	88	91	91	93	104	94	97	90	90	91	96
19	30617	CRHR-175	92	98	98	104	110	106	106	99	99	100	104
20	30618	IIRRH-167	96	94	94	103	104	103	103	99	99	98	101
21	30619	IIRRH-168	97	91	91	104	103	101	103	100	100	95	98
22	30620	PHI-22109	96	91	91	101	108	96	102	99	99	96	98
23	HRI-174 (NCH)		96	93	93	101	103	99	101	99	99	97	101
24	NDR-359 (NCV)		96	91	91	101	102	95	99	99	99	95	99
25	PR-121/CR Dhan-300/ IR-64 Akshayadhan/Jaya (ZCV)		99	91	91	105	105	92	101	100	100	96	100
26	Local Check Variety (LCV)		95	91	91	103	101	103	102	97	97	101	101
Experimental Mean			96	93	93	103	105	99	102	99	99	97	101

Appendix-9: Quality characteristics of IHRT-Medium, Kharif 2022

S. No.	IET No.	Name	Hull	Mill	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
1	**29616**	MALI-484	81.0	71.5	63.1	6.22	2.30	2.70	LB	VOC	4.0	24.49	42
2	30600	RRX-3484	81.1	71.3	57.6	6.25	2.21	2.82	LB	VOC	5.3	23.02	82
3	30601	ADVRH-190518	82.4	71.6	58.7	6.81	2.31	2.94	LB	VOC	4.7	26.69	36
4	30602	ADVRH-191788	83.5	67.6	55.4	6.84	2.24	3.05	LS	VOC	4.0	22.18	53
5	30603	RNE-0456	81.8	70.9	60.4	6.81	2.16	3.15	LS	OC	6.0	22.00	26
6	30604	Indam 200-055	81.7	74.1	69.8	6.66	2.33	2.85	LB	VOC	5.3	24.99	22
7	30605	RNE-0463	83.5	71.2	56.1	6.46	2.09	3.09	LS	OC	5.5	21.94	25
8	30606	MPTH-1070	81.8	71.7	37.7	6.22	2.30	2.70	LB	VOC	7.0	23.43	51
9	30607	KAVERI-7428	81.7	70.2	53.0	6.29	2.22	2.83	LB	VOC	4.0	23.70	49
10	30608	MEPH-170	82.0	70.3	56.4	6.94	2.17	3.19	LS	VOC	4.0	23.61	57
11	30609	US-362	81.1	67.1	36.2	6.77	2.29	2.95	LB	VOC	4.0	27.72	43
12	30610	PHI-22107	79.9	67.8	43.1	6.65	2.31	2.87	LB	VOC	4.0	22.88	50
13	30611	MEPH-171	81.1	70.3	54.1	6.39	2.30	2.77	LB	VOC	4.0	25.72	22
14	30612	VNR-232	81.1	68.7	47.4	6.25	2.23	2.80	LB	VOC	5.4	21.76	55
15	30613	CRHR-169	82.7	71.5	58.7	6.68	2.28	2.92	LB	VOC	5.5	25.49	46
16	30614	PHI-22108	81.6	71.9	60.0	6.33	2.26	2.80	LB	VOC	4.0	25.46	42
17	30615	CRHR-174	81.4	72.6	61.1	5.45	1.96	2.79	MS	VOC	5.0	24.55	22
18	30616	IIRRH-166	82.0	70.2	44.4	6.36	2.34	2.71	LB	VOC	5.3	28.13	24
19	30617	CRHR-175	81.8	72.5	63.3	6.31	2.17	2.90	LB	VOC	4.9	26.37	46
20	30618	IIRRH-167	82.3	72.1	58.4	5.28	2.06	2.60	MS	VOC	4.0	26.66	46
21	30619	IIRRH-168	81.9	70.2	48.3	6.01	2.28	2.63	LB	VOC	4.0	26.69	24
22	30620	PHI-22109	80.7	67.6	55.3	6.31	2.32	2.72	LB	VOC	4.0	23.70	51
23	HRI-174 (NCH)		81.8	66.0	55.6	6.19	2.29	2.70	LB	VOC	5.8	25.81	53
24	NDR-359 (NCV)		81.0	69.5	55.1	6.64	2.48	2.67	LB	OC	4.0	24.34	22
25	Jaya (ZCV)		81.5	72.1	56.1	5.63	2.56	2.19	SB	OC	7.0	24.78	22
26	DRR Dhan-38 (LCV)		82.0	73.8	67.8	5.48	2.37	2.31	SB	VOC	4.0	25.54	47

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 2022

S No.	IET No.	Name	Zone-III											Zone-IV				
			DNG	BR-Z3 (1)	LIG	RCI	JH-Z3 (2)	CTK	OR-Z3 (1)	@MSD	CHN	WB-Z3 (1)	Z3 (5)	TTB	AS-Z4 (1)	ARD	TR-Z4 (1)	Z4 (2)
1	30621	CRHR-173	7268	7268	8918	4995	6956	6391	6391	5515	5614	5614	6637	4037	4037	4395	4395	4216
2	30622	HRI-215	7419	7419	9626	3780	6703	6664	6664	5964	6004	6004	6699	6380	6380	5333	5333	5857
3	30623	RALLIS-20609	8087	8087	10362	6480	8421	7177	7177	7434	6394	6394	7700	5230	5230	4741	4741	4986
4	30624	NPH-X60	8658	8658	10124	6075	8100	6807	6807	6209	6043	6043	7542	6440	6440	5333	5333	5886
5	30625	KAVERI-7605	8084	8084	9907	5805	7856	6514	6514	6455	6745	6745	7411	4673	4673	3556	3556	4114
6	30626	MEPH-172	7348	7348	9118	4050	6584	6754	6754	6495	5224	5224	6499	4630	4630	4691	4691	4661
7	30627	RNRH-203	5269	5269	8668	6525	7597	5628	5628	5270	6784	6784	6575	5797	5797	3605	3605	4701
8	30628	CRHR-167	7348	7348	9491	6345	7918	7097	7097	6168	7537	7537	7564	5353	5353	4790	4790	5072
9	30629	CRHR-168	9414	9414	9494	6120	7807	7850	7850	6005	7407	7407	8057	4533	4533	4741	4741	4637
10	30630	IRH-120	6400	6400	9562	7470	8516	7380	7380	7332	6160	6160	7395	4463	4463	4173	4173	4318
11	30631	IIRRH-169	7041	7041	9837	8019	8928	6931	6931	7148	6706	6706	7707	4707	4707	4494	4494	4600
12	29758	KRH-11 (Repeat)	7810	7810	8978	8809	8894	6358	6358	6904	5458	5458	7483	4390	4390	4667	4667	4528
13	27P63 (NCH)		7540	7540	10045	5715	7880	6774	6774	7067	6862	6862	7387	4713	4713	5160	5160	4937
14	WGL-14 (NCV-1)		9351	9351	8530	5535	7032	7467	7467	6944	5536	5536	7284	4497	4497	4766	4766	4631
15	BPT-5204 (NCV-2)		7306	7306	7974	4815	6395	4470	4470	6291	7641	7641	6441	4630	4630	3728	3728	4179
16	Improved Samba Mahsuri/ Ketekejoha/Karjat-6/ADT-49 (ZCV)		6868	6868	8213	6165	7189	4893	4893	6250	7096	7096	6647	4877	4877	3951	3951	4414
Exp. Mean			7576	7576	9303	6044	7673	6572	6572	6466	6451	6451	7189	4959	4959	4508	4508	4734
CD(0.05)			700	700	709	917	593	1641	1641	442	1387	1387	538	416	416	441	441	287
CV(%)			5.54	5.54	4.57	9.1	4.64	14.98	14.98	4.1	12.89	12.89	4.49	5.03	5.03	5.87	5.87	3.63
F val			**	**	**	**	**	*	*	**	*	*	**	**	**	**	**	**
NHC+CD (0.05)													7925					5224
BVC+CD (0.05)													7822					4918
D/S			25.6.22		22.6.22	21.6.22		20.6.22		15.6.22	14.6.22			18.6.22		8.7.22		
D/P			24.7.22		15.7.22	3.8.22		30.7.22		17.7.22	13.7.22			18.7.22		3.8.22		
Gross Plot Size (Sq.m)			10.08			10.08		8.1		10	10.39			10		13.5		
Net Plot Size (Sq.m)			9.36		10	10		5.76		8.16	8.55			10		13.5		

Note: @ Data of Masoda (MSD) not included in the analysis due to Low CV. **-Highly Significant; *-significant; ns-not significant

Appendix-10 (contd.): Grain Yield (kg/ha) of hybrids in IHRT-Medium Slender, Kharif 2022

S No.	IET No.	Name	Zone-V											Zone-VI								
			RPR	@ VNR	CG-Z5 (1)	@ ANK	SKL	SND	MH-Z5 (2)	JBP	WRS	MP-Z5 (2)	Z5 (5)	DHB	NVS	NWG	GJ-Z6 (3)	KJT	PDG	SHR	MH-Z6 (3)	Z6 (6)
1	30621	CRHR-173	5074	7019	5074	6186	4276	5205	4741	6173	4468	5321	5039	6503	6367	8312	6785	4395	2734	4944	4024	5332
2	30622	HRI-215	5282	7063	5282	5535	5549	5248	5398	5817	4451	5134	5269	6667	6169	8334	6843	6194	3828	5309	5110	5937
3	30623	RALLIS-20609	5433	7869	5433	5596	5745	6568	6156	6310	5662	5986	5944	6013	5271	8398	6276	7202	5873	5926	6333	6318
4	30624	NPH-X60	5790	7317	5790	6089	4652	5775	5214	5520	4958	5239	5339	4836	6971	6902	6046	5374	5625	5802	5600	5825
5	30625	KAVERI-7605	6049	7635	6049	6117	6383	5789	6086	5760	4456	5108	5687	6677	5887	9004	6875	5497	5268	4822	5195	5992
6	30626	MEPH-172	4707	6783	4707	5625	4881	4372	4626	5563	3709	4636	4646	6029	4823	6589	5668	4199	4396	4351	4315	4961
7	30627	RNRH-203	5409	7100	5409	5865	6258	5521	5890	6660	4245	5452	5619	5751	4270	7458	5548	5500	4433	6318	5417	5501
8	30628	CRHR-167	4273	7881	4273	6019	4381	6007	5194	5820	5317	5568	5160	6726	5813	6586	6400	4837	3050	4060	3983	5094
9	30629	CRHR-168	4460	7720	4460	5914	5131	5254	5193	5877	5793	5835	5303	6745	6462	8270	6930	4354	3379	2860	3531	5141
10	30630	IRH-120	5639	6271	5639	5629	4714	5891	5303	6697	4278	5488	5444	4513	5216	6674	5207	4588	4028	6968	5195	5237
11	30631	IIRRH-169	5295	6318	5295	5690	6320	5668	5994	6210	5080	5645	5715	6879	4659	7265	6181	5416	4919	4056	4797	5432
12	29758	KRH-11 (Repeat)	4619	6082	4619	5661	4005	5321	4663	6350	3996	5173	4858	6569	6490	5976	6437	6304	3622	5591	5172	5760
13	27P63 (NCH)		5923	6966	5923	5893	3942	6194	5068	5610	5363	5486	5407	6291	6605	8523	6931	5821	5229	5110	5387	6115
14	WGL-14 (NCV-1)		5127	7041	5127	5702	5699	5468	5583	4730	4223	4477	5049	6928	7010	8334	7242	5707	3308	5293	4769	5966
15	BPT-5204 (NCV-2)		5437	5747	5437	5613	5882	5335	5608	4623	3801	4212	5016	5947	3981	7322	5516	4339	4950	2380	3889	4653
16	Improved Samba Mahsuri/Ketekejoha/ Karjat-6/ADT-49 (ZCV)		4340	7358	4340	5437	5674	4907	5290	4240	3975	4107	4627	4703	3271	5632	4346	5011	2734	2355	3367	3840
Exp. Mean			5179	7011	5179	5786	5218	5533	5375	5748	4611	5179	5258	6111	5579	7474	6202	5296	4211	4759	4755	5444
CD (0.05)			962	1442	962	583	938	824	640	1122	539	592	437	1182	1120	1795	766	1133	793	1174	602	485
CV (%)			11.14	12.34	11.14	6.04	10.78	8.93	7.14	11.71	7.01	6.85	4.98	11.6	12.04	11.27	7.41	12.83	11.3	14.8	7.6	5.35
F val			**	ns	**	ns	**	**	**	**	**	**	**	**	**	*	**	**	**	**	**	**
NHC+CD (0.05)													5844									6600
BVC+CD (0.05)													5486									6451
D/S			28.6.22	11.6.22		25.6.22	30.6.22	25.6.22		20.6.22	17.6.22			18.6.22	11.6.22	18.6.22		11.6.22	9.6.22	14.6.22		
D/P			25.7.22	2.7.22		30.7.22	1.8.22	20.7.22		16.7.22	19.7.22			16.7.22	29.6.22	18.7.22		4.7.22	2.7.22	7.7.22		
Gross Plot Size (Sq.m)			12	625		10.08	10	10		10	10			12.96	10.08	9.24		6.48	10.24	11.12		
Net Plot Size (Sq.m)			10.8	11.54		8.19	7.99	7.48		7.99	7.9			10.2	8.1	7.02		4.41	7.67	8.42		

Note: @ Data of Ankur Seeds (ANK) and VNR Seeds (VNR) are not included in the analysis due to non-significant of F-Value. **-Highly Significant; *-significant; ns-not significant

Appendix-10 (contd.): Grain Yield (kg/ha) of hybrids in IHRT-Medium Slender, Kharif 2022

S No.	IET No.	Name	Zone-VII																Overall Mean (27)
			BAY	BPT	@MTU	RGL	AP-Z7 (3)	BRM	MND	KA-Z7 (2)	KRK	PY-Z7 (1)	HYD	WGL	TE-Z7 (2)	CBT	TN-Z7 (1)	Z7 (9)	
1	30621	CRHR-173	9033	6059	5515	4940	6678	4879	3103	3695	8704	8704	5772	6725	6248	6776	6776	6276	5758
2	30622	HRI-215	10300	5405	5964	5186	6964	4970	8241	6967	8889	8889	3259	7009	5134	7930	7930	6865	6258
3	30623	RALLIS-20609	9653	6193	7434	8079	7975	3061	7069	5572	7593	7593	5286	7228	6257	9706	9706	7250	6714
4	30624	NPH-X60	7927	6740	6209	7313	7327	5048	6972	6163	7531	7531	4559	6362	5461	8409	8409	6824	6397
5	30625	KAVERI-7605	9633	6534	6455	6393	7520	5764	5356	5361	6543	6543	4813	7451	6132	7873	7873	6737	6311
6	30626	MEPH-172	7623	4890	6495	7443	6652	4909	5534	5317	6790	6790	5143	5031	5087	8120	8120	6217	5587
7	30627	RNRH-203	6457	6082	5270	5183	5907	4940	3006	3741	7469	7469	6006	6522	6264	8039	8039	6013	5835
8	30628	CRHR-167	9350	5681	6168	4868	6633	3242	3948	3713	6667	6667	6240	5822	6031	6610	6610	5932	5848
9	30629	CRHR-168	9100	5905	6005	4766	6590	5121	5069	5086	7161	7161	4625	6102	5363	5893	5893	6015	5976
10	30630	IRH-120	8313	6723	7332	5145	6727	3879	4351	4192	5494	5494	4791	5282	5037	7365	7365	5782	5797
11	30631	IIRRH-169	8210	5428	7148	6602	6747	5054	2471	3337	5185	5185	4768	6597	5682	6614	6614	5678	5938
12	29758	KRH-11 (Repeat)	9787	4938	6904	8075	7600	5000	8546	7247	6111	6111	6281	5987	6134	7901	7901	7032	6243
13	27P63 (NCH)		8963	6162	7067	7347	7491	4212	7276	6312	7778	7778	4997	6963	5980	6410	6410	6790	6357
14	WGL-14 (NCV-1)		8253	5197	6944	7323	6925	4030	2684	3030	8210	8210	4819	6398	5608	6078	6078	5960	5937
15	BPT-5204 (NCV-2)		7440	4663	6291	5381	5828	5242	2552	3408	6728	6728	5536	6029	5782	5503	5503	5457	5294
16	Improved Samba Mahsuri/ Ketekejoha/Karjat-6/ADT-49 (ZCV)		7393	3755	6250	4752	5300	4848	4661	4700	5185	5185	4270	4972	4621	3480	3480	4807	4888
Exp. Mean			8590	5647	6466	6175	6804	4638	5052	4865	7002	7002	5073	6280	5676	7044	7044	6227	5946
CD (0.05)			879	875	442	1043	565	862	939	1026	584	584	1056	951	765	955	955	317	204
CV (%)			6.14	9.29	4.1	10.13	4.98	8.72	11.15	12.64	5	5	12.48	9.08	8.08	8.13	8.13	3.05	2.05
F val			**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
NHC+CD (0.05)																		7107	6561
BVC+CD (0.05)																		6277	6141
D/S			18.6.22	2.8.22	25.6.22	2.7.22		15.6.22	16.7.22		16.9.22		1.7.22	24.6.22		9.6.22			
D/P			7.9.22	3.9.22	26.7.22	28.7.22		13.7.22	3.8.22		20.10.22		30.7.22	23.7.22		6.7.22			
Gross Plot Size (Sq.m)			10	9	10.89	12.15		10			12		6.44	7.92		8.82			
Net Plot Size (Sq.m)			10	6.9	8.38	9.75		8.25	5.8		5.4		4.95	7.92		7.02			

Note: @ Data of Maruteru (MTU) not included in the analysis due to Low CV. **-Highly Significant; *-significant; ns-not significant

Appendix-11: Days to 50% Flowering (DFF) of hybrids in IHRT-Medium Slender, Kharif 2022

S No.	IET No.	Name	Zone-III												Zone-IV		
			DNG	BR-Z3 (1)	LIG	RCI	JH-Z3 (2)	CTK	OR-Z3 (1)	@MSD	UP-Z3 (1)	CHN	WB-Z3 (1)	Z3 (6)	TTB	AS-Z4 (1)	Z4 (1)
1	30621	CRHR-173	101	101	96	112	104	104	104	107	107	110	110	105	122	122	111
2	30622	HRI-215	100	100	95	115	105	97	97	109	109	104	104	102	109	109	107
3	30623	RALLIS-20609	94	94	97	116	107	101	101	103	103	96	96	101	101	101	103
4	30624	NPH-X60	89	89	86	116	101	111	111	94	94	90	90	98	87	87	96
5	30625	KAVERI-7605	95	95	96	119	108	109	109	107	107	97	97	103	104	104	107
6	30626	MEPH-172	92	92	97	114	106	99	99	114	114	96	96	100	102	102	103
7	30627	RNRH-203	94	94	97	115	106	95	95	101	101	106	106	102	109	109	107
8	30628	CRHR-167	104	104	97	113	105	109	109	103	103	111	111	107	119	119	108
9	30629	CRHR-168	102	102	96	111	104	110	110	115	115	111	111	106	120	120	114
10	30630	IRH-120	90	90	86	115	100	109	109	97	97	89	89	98	88	88	92
11	30631	IIRRH-169	94	94	97	118	107	93	93	98	98	97	97	100	104	104	107
12	29758	KRH-11 (Repeat)	93	93	97	114	106	97	97	104	104	98	98	100	103	103	104
13	27P63 (NCH)		99	99	95	113	104	111	111	101	101	104	104	104	104	104	102
14	WGL-14 (NCV-1)		97	97	96	111	104	108	108	118	118	112	112	105	113	113	111
15	BPT-5204 (NCV-2)		102	102	98	114	106	109	109	111	111	105	105	106	105	105	108
16	Improved Samba Mahsuri/ Ketekejoha/Karjat-6/ADT-49 (ZCV)		106	106	97	112	104	113	113	111	111	114	114	108	121	121	114
Exp. Mean			97	97	95	114	105	105	105	106	106	103	102	103	107	107	106

Appendix-11 (contd.): Days to 50% Flowering (DFF) of hybrids in IHRT-Medium Slender, Kharif 2022

S No.	IET No.	Name	Zone-V											Zone-VI							
			RPR	@VNR	CG-Z5 (1)	@ANK	SKL	SND	MH-Z5 (2)	JBP	WRS	MP-Z5 (2)	Z5 (7)	DHB	NVS	NWG	GJ-Z6 (3)	PDG	SHR	MH-Z6 (2)	Z6 (5)
1	30621	CRHR-173	112	100	112	113	106	103	104	121	111	116	110	119	96	111	108	105	105	103	105
2	30622	HRI-215	105	95	105	105	101	105	103	116	104	110	106	111	92	100	101	109	94	101	101
3	30623	RALLIS-20609	101	91	101	105	100	102	101	112	103	108	104	104	91	100	98	95	95	95	96
4	30624	NPH-X60	101	85	101	102	95	96	96	105	94	100	98	98	80	88	89	90	91	92	90
5	30625	KAVERI-7605	106	93	106	105	103	104	103	114	104	109	106	103	92	96	97	97	101	99	98
6	30626	MEPH-172	102	89	102	106	96	100	98	110	101	106	102	104	89	92	95	96	95	94	95
7	30627	RNRH-203	103	90	103	102	98	103	101	114	101	108	104	109	87	94	97	92	94	94	95
8	30628	CRHR-167	111	101	111	115	105	108	106	116	112	114	111	114	98	104	106	106	104	103	104
9	30629	CRHR-168	110	102	110	115	107	106	106	120	111	116	111	119	98	106	108	107	105	103	106
10	30630	IRH-120	98	83	98	99	92	96	94	105	93	99	97	105	81	91	93	88	84	89	91
11	30631	IIRRH-169	101	90	101	102	98	100	99	111	99	105	102	96	88	96	93	93	90	93	93
12	29758	KRH-11 (Repeat)	103	92	103	106	95	103	99	111	104	108	103	107	90	94	97	101	91	97	97
13	27P63 (NCH)		108	95	108	109	102	103	102	115	103	109	106	106	102	101	103	100	103	98	101
14	WGL-14 (NCV-1)		118	100	118	114	105	108	106	121	108	114	112	118	103	112	111	110	105	104	108
15	BPT-5204 (NCV-2)		109	93	109	109	103	105	104	116	107	112	108	106	84	102	96	96	97	97	97
16	Improved SambaMahsuri/ Ketekejoha/Karjat-6/ADT-49 (ZCV)		117	104	117	114	110	109	109	115	114	115	113	118	89	96	102	114	116	110	106
Exp. Mean			107	94	107	107	101	103	102	114	104	109	106	109	91	99	100	100	98	98	99

Appendix-11 (contd.): Days to 50% Flowering (DFF) of hybrids in IHRT-Medium Slender, Kharif 2022

S No.	IET No.	Name	Zone-VII																Overall Mean (29)
			BAY	BPT	@MTU	RGL	AP-Z7 (4)	BRM	MND	KA-Z7 (2)	KRK	PY-Z7 (1)	HYD	WGL	TE-Z7 (2)	CBT	TN-Z7 (1)	Z7 (9)	
1	30621	CRHR-173	100	100	103	103	101	65	92	92	80	80	100	103	102	107	107	98	104
2	30622	HRI-215	91	95	96	95	94	62	91	92	80	80	98	98	98	101	101	94	100
3	30623	RALLIS-20609	89	92	95	91	90	61	94	93	76	76	99	97	98	102	102	92	98
4	30624	NPH-X60	81	91	90	78	83	66	90	93	76	76	93	82	88	96	96	87	93
5	30625	KAVERI-7605	88	96	96	91	92	65	99	98	80	80	98	98	98	103	103	94	100
6	30626	MEPH-172	85	96	96	85	89	66	90	93	76	76	93	92	92	97	97	90	96
7	30627	RNRH-203	85	93	96	83	87	69	86	92	76	76	92	93	93	97	97	89	97
8	30628	CRHR-167	99	101	103	101	100	68	93	95	80	80	102	105	103	106	106	99	104
9	30629	CRHR-168	97	101	101	103	100	59	92	90	80	80	101	104	103	106	106	97	105
10	30630	IRH-120	79	94	90	80	84	59	87	87	75	75	91	82	86	95	95	86	92
11	30631	IIRRH-169	84	91	94	85	86	68	83	90	75	75	92	93	92	96	96	88	95
12	29758	KRH-11 (Repeat)	89	103	96	90	94	66	90	93	80	80	95	94	94	98	98	93	98
13	27P63 (NCH)		96	94	97	95	95	68	95	97	80	80	98	96	97	98	98	95	101
14	WGL-14 (NCV-1)		100	101	103	100	100	59	100	96	80	80	104	104	104	107	107	99	105
15	BPT-5204 (NCV-2)		94	100	101	103	99	67	101	101	76	76	101	96	98	104	104	97	102
16	Improved Samba Mahsuri/ Ketekejoha/Karjat-6/ADT-49 (ZCV)		97	100	102	101	99	61	99	96	75	75	103	99	101	106	106	97	105
Exp. Mean			91	97	97	93	93	64	93	94	78	78	97	96	97	101	101	93	100

Appendix-12: Quality characteristics of IHRT-Medium Slender, Kharif 2022

S. No.	IET No.	Name	Hull	Mill	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
1	30621	CRHR-173	82.3	74.3	71.3	5.79	1.98	2.92	MS	VOC	7.0	24.31	22
2	30622	HRI-215	82.6	66.2	57.3	5.19	1.99	2.60	MS	VOC	7.0	26.42	40
3	30623	RALLIS-20609	80.5	70.8	61.7	5.45	1.96	2.78	MS	A	4.0	21.67	40
4	30624	NPH-X60	80.6	70.3	34.9	5.80	2.37	2.44	SB	VOC	7.0	24.87	22
5	30625	KAVERI-7605	82.5	69.3	59.7	5.39	1.93	2.79	MS	VOC	4.0	23.93	37
6	30626	MEPH-172	82.2	73.1	59.6	5.58	1.94	2.87	MS	VOC	4.0	23.84	22
7	30627	RNRH-203	80.6	72.0	56.2	5.53	2.20	2.51	MS	VOC	4.0	22.35	22
8	30628	CRHR-167	81.3	73.2	68.2	5.62	1.87	2.97	MS	VOC	5.0	24.78	22
9	30629	CRHR-168	82.0	73.7	70.2	5.59	1.95	2.86	MS	VOC	4.0	24.55	22
10	30630	IRH-120	82.2	74.3	65.5	6.75	2.05	3.29	LS	VOC	7.0	24.55	22
11	30631	IIRRH-169	82.1	70.6	48.0	6.01	2.29	2.62	LB	VOC	4.0	26.34	22
12	29758	KRH-11 **(Repeat)**	80.1	71.7	53.6	5.50	2.06	2.66	MS	VOC	4.0	23.81	22
13	27P63 (NCH)		81.0	71.1	58.3	5.34	2.01	2.65	MS	VOC	4.0	24.11	22
14	WGL-14 (NCV-1)		79.8	71.6	65.9	5.35	1.91	2.80	MS	A	5.0	22.96	22
15	BPT-5204 (NCV-2)		82.0	74.3	66.6	5.47	1.92	2.84	MS	A	4.0	24.40	32
16	ADT-49 (ZCV)		77.8	66.3	60.6	4.88	1.85	2.63	MS	VOC	7.0	23.26	30

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

ADVANCE VARIETY TRIAL -2 AEROBIC (AVT 2-AEROB)

Locations: 27 **Test Entries: 16**

Checks: CR Dhan 201 (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:2.1**

The Advanced Variety Trial 2 - Aerobic (AVT -2- Aerobic) was constituted with 16 test entries in (3rd year of testing) along with four checks (NC, ZC, HC and LC). The trial was despatched to 27 locations but data was received from 18 centres. The data not received from Karnal, Bhubaneswar, Hazaribagh, Varanasi, Arundhutinagar Jabalpur, Rudrur, Jagital and Mugadh. Data received from Rewa, Raipur, Parbhani, Coimbatore and Mandya was not analysed due to low experimental mean (<3000 kg/ha) and Derol due to low experimental mean yield and high CV (30.5). The overall experimental mean grain yield ranged from 3337 kg/ha (Zonal check) to 5014 kg/ha (IET 29412). The data on yield, days to 50% flowering, plant height, panicles/m^2 and quality are presented in tables 2.2, 2.3 and 2.4 respectively.

The performance of 16 test entries across three years is discussed below.

IET 29411 (CR4161-5-6-IR 14L572) possessing LS grains derived from the cross IR 10L146 / IR 10L149 outperformed the best varietal check in the second year and third year (2021: 14%, 2022:15%) in Zone II. State wise it outperformed the best varietal check for 2 years continuously in Haryana (2021:14% and 2022: 42%). In zone III it was superior to the best varietal check for 3 years (2020:9%, 2021:13%, 2022:24%). State wise it outperformed the best varietal check for 3 consistent years in Bihar (2020:6%, 2021:14%, 2022:29%). In zone VI, it was superior to the best varietal check for 3 years (2020:8%, 2021:41%, 2022:5%). State wise it showed yield gain over the best varietal check in 2nd year & 3rd year in Gujarat (2021:34%, 2022:5%). It showed good quality parameters including high HRR (58.3%), intermediate amylose (24.7%), GC (22 mm) and ASV (7). ***Hence it is identified for the state of Haryana (Zone II), Bihar (zone III), and Gujarat in zone VI.***

IET 29405 (RCPR70-IR84899-B-184-16-1-1-1) derived from the cross IR78877-208-B-1-1/IRRI132 was found promising in zone V and Chattisgarh state with 66% yield superiority over the best check in the first year. In the second year it was superior to best check in zone VI by 11% yield gain. State-wise it recorded 9% yield advantage over the best check in Gujarat. In the third year it was found promising in zone III with 13% yield improvement over the best check. State-wise it outperformed the best check by 20%, 7% and 26% in the states of Odisha, Bihar and Jharkhand respectively. Since it has not shown consistent performance across the states in any of the zones either in 3 years or in first & third year or second & third year. It showed good quality parameters including high HRR (57.6%), intermediate amylose (23.1%), GC (37 mm) and ASV (4*).* ***Hence it is discontinued for further testing owing to its inconsistent performance***.

IET 29396 (CRR822-20-1-2-2) derived from the cross IR11L152/Sabitri. In zone III it was found superior to best check by 21% and state-wise in Odisha it showed that 30% yield improvement over the best check in the 1st year. Similarly in zone V it out-yielded the best check in zonal mean yield and Chattisgarh state by 77%. In 1st year. During second year in

zone II and Haryana state it was found superior to best check by 17%. In zone III it could not show any yield improvement in zonal mean yield but in Bihar state it outperformed the best check by 9%. In third year, zone-wise it performed well in zone II and Haryana with 14% and 18% yield gain respectively. This entry could not show consistency in yield performance in zone III in the first year (Odisha) and second year (Bihar) in the third year not shown promising performance in zone III. However, in zone II it showed yield superiority in two consecutive years (2nd & 3rd year) in Haryana. It showed good quality parameters including high HRR (53.6%), intermediate amylose (23.7%), GC (56mm) and ASV (5). ***Hence it is recommended for Haryana.***

IET 29394 (CSR88) derived from the cross CSR30/CSR36. In the first year only it was found promising over the best check in zone VII (10%) and in two states *viz.,* Tamil Nadu (29%) and Karnataka (18%). In the second year it showed 13% yield advantage both in zone II and Haryana state mean yield over the best check. In zone III it outperformed the best check by 8% and also in the states of Odisha and Bihar by 30% and 5% respectively. In the third year it failed to show superiority in any of the zones and states. It showed good quality parameters including high HRR (60.4%), intermediate amylose (22.2%), GC (22mm) and ASV (7). ***Since it recorded yield superiority in different zones in different years (2020: Zone VII, 2021: Zone II & III) it is discontinued for further testing.***

IET 29409 (TRC2020-14) derived from the cross Hakuchuk/Naveen. In the first year although it showed 6% yield improvement over the best check in zone VI, it failed to show superior performance in the states of Maharashtra and Gujarat. In the second year it could record 18% yield gain both in zone II and Haryana (zone II). In zone III it could not show yield superiority but in Bihar state it was superior to best check by 7%. In zone VI it out-yielded best check by 25% and in Gujarat showed 12 % improvement. In the third year in zone II mean yield it could not record yield gain but exhibited 19% yield improvement in Haryana. In zone III it was superior to best check 8% and state-wise in Bihar exhibited 9% yield gain. It showed consistent yield superiority for two continuous years for 2nd and 3rd year in Haryana (Zone II) and Bihar (Zone III). It showed good quality parameters including high HRR (56.6%), intermediate amylose (21.9%), GC (26mm) and ASV (7). ***Hence IET 29409 was found promising for the states of Haryana (Zone II) and Bihar (Zone III).***

IET 29421 (RP6324-123-14-4-1) derived from the cross CR691-1/CR Dhan202 recorded superior yield performance over best varietal check in zone III during 1st year (2020: 21%). State-wise it exhibited 27% yield superiority in Odisha for a single year only. In zone VII, it registered yield superiority of 22% in first year and 48% in second year in Tamil Nadu state. In zone VI, it was found promising in 2nd year (2021: 15%) & 3rd year (2022:14%) and in state-wise it showed yield gain in Gujarat in 2nd & 3rd years (2021:6%, 2022: 14%). It showed good quality parameters including high HRR (56.8%), intermediate amylose (24.7%), GC (26 mm) and ASV (7*). **IET 29421 was found promising in Gujarat state continuously for two consecutive years (2nd & 3rd year).***

IET 29412 (US393) a hybrid entry registered yield superiority of 124% and 121% in the first year (2020) in zone V as well as Chattisgarh state over the best varietal check and best hybrid check respectively. In the third year (2022) also it exhibited yield improvement of 35% over best varietal check but 19% over best hybrid check in zone V in the state of Chattisgarh. It showed good quality parameters including high HRR (60%), intermediate amylose (22.8%), GC (22 mm) and ASV (7). Based on consistent performance recorded in 1st & 3rd year IET 29412 (1st year: 124 % (BVC) 121% (HC) & 3rd year: 35% (BVC) & 19% (HC), ***Hence IET 29412 is found promising for state of Chhattisgarh.***

IET 29422 (CRR756-21) derived from the cross IR08L183/MTU1010 although exhibited yield advantage in zone III, it was found promising in two different states Odisha (27%) and Bihar (11%) in 1st year and 2nd year only respectively. In zone II, it outperformed the best check by 9% in second year (2021) in zone and Haryana state. ***It is found promising in Chattisgarh since its yield improvement is consistent in first (17%) and third year (15%) in zone V and found promising for the state Chhattisgarh.*** It showed good quality parameters including high HRR (52.5%), intermediate amylose (23.4%), GC (46mm) and ASV (5).

IET 29410 (RP5594-147-23-1) derived from the cross MTU1010/RPHR1005 exhibited yield gain in the first two years in Odisha (2020:27%, 2021:30%) in Zone III. In third year (2022) it could not show yield improvement across different zones and states. ***Due to inconsistent performance over years, it is discontinued.*** It showed good quality parameters including high HRR (63.6%), intermediate amylose (24%), GC (25mm) and ASV (4).

IET 29430 (CR4118-1-1-2-2-1) derived from the cross CR Dhan201/IR84549-B-183-13-1-1-2 recorded 10% yield advantage in Bihar in zone III during second year (2021). In third year (2022) also it recorded 12% yield advantage in Bihar (zone III). Similarly it could record yield gain of 9% and 36% during second year (2021) and third year (2022) respectively in Haryana (zone II). ***Hence it is found promising for Haryana (zone II) and Bihar (zone III)*** as it showed consistent yield superiority in 2nd year & 3rd year**.** It showed good quality parameters including high HRR (53.6%), intermediate amylose (27.7%), GC (33mm) and ASV (4).

IET 29415 (RP 6326-278-14-1) derived from the cross MTU1010/WGL505. It showed yield superiority in Odisha (zone III) during second year (2021: 19%) and third year (2022: 25%) in zone III. It also registered yield gain 26% during second year and 9% during third year in Gujarat (Zone VI). ***Hence it is found promising in Gujarat (Zone VI) and Odisha state (Zone III).*** It showed good quality parameters including high HRR (59.6%), intermediate amylose (21.2%), GC (39mm) and ASV (3).

IET 29446 (CR3918-109-5-6-4-1) derived from the cross Savitri/Pokkali. It recorded 30% yield superiority in Odisha (zone III) during first year. However it could not show yield gain in Odisha during 2nd & 3rd years. In the same zone it also recorded 9% yield gain in Bihar in second year only (2021). In the third year it could not outperform the best check in zones as well as states. ***Hence it is discontinued.*** It showed good quality parameters including high HRR (55.1%), amylose (19.2%), GC (55mm) and ASV (4).

IET 29423 (TRC2020-3) derived from the cross Hakuchuk2/Tripura Nirog. It exhibited 27% yield gain in Odisha (zone III) in the first year. However it could not register yield gain in the second and third year in Odisha. In zone II it showed 22% yield improvement in Haryana (zone II) in the second year only. But failed to show yield improvement during third year (zone II). ***Hence it is discontinued.*** It showed good quality parameters including high HRR (57.7%), intermediate amylose (21.6%), GC (57mm) and ASV (4).

IET 29436 (CRR821-21-2-1-3) derived from the cross IR09L337/IR09L154 exhibited 29% yield gain in Odisha (zone III), but failed to show the required yield improvement in 2nd year & 3rd year. It was also found promising in Bihar (27%) in zone IIII during third year only (2022). In zone II it is promising in Haryana with 32% yield advantage

during second year (2021) and also during third year (2022) with 38% yield gain. In zone VI it recorded yield improvement of 11% and 12 % yield gain during second and third years respectively in Gujarat. In zone VII it showed 27% yield advantage in Tamil Nadu during first year only (2020). ***Based on its continuous yield superiority during second and third year, it was found promising in Gujarat (Zone VI) and Haryana (Zone II).*** It showed good quality parameters including high HRR (52%), intermediate amylose (23.7%), GC (47mm) and ASV (7).

IET 29424 (CR 4317-2-IR97034-21-2-1-3) derived from the cross IR09L337/IR09L154 showed yield advantage in first year (2020: 21%) and third year (2022: 21%) in Odisha in zone III. It also exhibited consistent yield superiority of 29% and 26% in second year and third year respectively in Haryana (zone II). Similarly in zone VI it showed 9% and 6% yield superiority during second year and third year respectively in Gujarat state (zone VI). ***Therefore, it is found promising for the states of Odisha (zone III), Gujarat (zone VI) and Haryana (zone II).*** It showed good quality parameters including high HRR (51.4%), intermediate amylose (23.2%), GC (22mm) and ASV (5)

IET 28636 (RP 6361-RAF-252-GSR-IR1-DQ146-L18-Y1) showed yield superiority for two years (1st year: 2019: 20%, 3rd year: 2022:14%) in Bihar state (zone III). Similarly, it also showed yield improvement continuously for two years (2nd year: 2020: 13%, 3rd year: 2022: 11%) in Gujarat (zone VI). Quality wise it showed HRR (53.05%), intermediate amylose (24.4%), GC (33mm) and ASV (5). ***Hence it is promising for the states of Bihar and Gujarat.***

IET No	Year	Overall yield (Kg/ha)	Yield adv (%) over BVC	Zone (Locations)	Yield (kg/ha)	Yield adv (%). over BVC/HC	States (Locations)	Yield (kg/ha)	Yield adv (%) over BVC	Remarks
29411	2020	3788	17	ZIII (3)	3254	9	BI(2L)	3092	6	Promising in Haryana (Z II), Bihar (Z III) & Gujarat (Z VI)
							OD(1L)	3578	-	
				ZV(1)	5226	69	CH(1L)	5226	69	
				ZVI(2)	4612	8	MH(1L)	3347	7	
							GU(1L)	5876	-	
				ZVII(2)	3046	-	TN(1L)	3403	-	
							KA(1L)	2688	-	
	2021	5024	19	ZII (2)	5174	14	HA(2L)	5174	14	
				ZIII (4)	5044	13	OD(1L) BI(2L) UP(1L)	5720 5673 3109	30 14 -	
				ZIV(1)	6231	21	TR(1L)	6231	21	
				ZV(2)	4163	14	CH(2L)	4163	14	
				ZVI(2)	5667	41	MH(1L) GU(2L)	3727 6638	- 34	
				ZVII(2)	4130	-	TN(1L)	4240	10	
							KA(1L)	4019	-	
	2022	4628	18	ZII(2)	5655	15	PU(1L)	5282	-	
							HA(IL)	6028	42	
				ZIII(4)	4851	24	OD(1L)	3314	7	
							BI(3L)	5778	29	
							JH(1L)	4916	32	
							UP(1L)	3543	-	
				ZIV(1)	3327		TR(1L)	3327	-	
				ZV(1)	3303	-	CH(1L)	3303	-	
				ZVI(2)	4246	5	GU(2L)	4246	5	
29405	2020	3644	13(BVC)	ZIII(3)	3018	-	OD(1L)	4357	-	Repeat
							BI(2L)	2349	-	
				ZV(1)	5111	66	CH(1L)	5111	66	
				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	47(HC)	TR(1L)	5067	-	
				ZV(2)	3944	-	CH(2L)	3944	-	
				ZVI(2)	4461	11	MH(1L)	2545	-	
							GU(2L)	5420	9	
				ZVII(2)	4064	-	TN(1L)	3263	-	
							KA(1L)	4864	-	
	2022	4193	7	ZII(2)	4641	-	PU(1L)	4699	-	
							HA(IL)	4583	8	
				ZIII(4)	4405	13	OD(1L)	3241	20	
							BI(3L)	4804	7	
							JH(1L)	4698	26	

IET No	Year	Overall yield (Kg/ha)	Yield adv (%) over BVC	Zone (Locations)	Yield (kg/ha)	Yield adv (%). over BVC/HC	States (Locations)	Yield (kg/ha)	Yield adv (%) over BVC	Remarks
							UP(1L)	4079	-	
				ZIV(1)	3025	-	TR(1L)	3025	-	
				ZV(1)	3446	5	CH(1L)	3446	5	
				ZVI(2)	4064	-	GU(2L)	4064	-	
29396	2020	3546	10	ZIII(3)	3620	21	OD(1L)	6513	30	Promising in Haryana (Z II)
							BI(2L)	2173	-	
				ZV(1)	5473	77	CH(1L)	5473	77	
				ZVI(2)	3194	-	MH(1L)	1924	-	
							GU(1L)	4463	-	
				ZVII(2)	2823	-	TN(1L)	3403	-	
							KA(1L)	2242	-	
	2021	4134	-	ZII(2)	5323	17	HA(2L)	5323	17	
				ZIII (4)	4349	-	OD(1L)	3248	-	
							BI(2L)	5404	9	
							UP(1L)	3342	-	
				ZIV(1)	3065	-	TRI(1L)	3065	-	
				ZV(2)	3773	-	CH(2L)	3773	-	
				ZVI(2)	3803	-	MH(1L)	3052	-	
							GU(2L)	4179	-	
				ZVII(2)	3910	-	TN(1L)	3319	-	
							KA(1L)	4501	10	
	2022	4168	6	ZII(2)	5621	14	PU(1L)	6223	-	
							HA(1L)	5019	18	
				ZIII(4)	3910	-	OD(1L)	3438	11	
							BI(3L)	4658	-	
							JH(1L)	2427	-	
							UP(1L)	3623	-	
				ZIV(1)	3414	13	TRI(1L)	3414	-	
				ZV(1)	3596	9	CH(1L)	3596	9	
				ZVI(2)	4149	-	GU(2L)	4149	-	
29394	2020	3132	-	ZIII(3)	2751	-	OD(1L)	4896	-	Discontinued
							BI(2L)	1679	-	
				ZV(1)	1836	-	CH(1L)	1836	-	
				ZVI(2)	3119	-	MH(1L)	2454	-	
							GU(1L)	3783	-	
				ZVII(2)	4365	10	TN(1L)	5177	29	
							KA(1L)	3552	18	
	2021	4404	-	ZII(2)	5127	13	HA(2L)	5127	13	
				ZIII(4)	4801	8	OD(1L)	5708	30	
							BI(2L)	5226	5	
							UP(1L)	3044	-	
				ZIV(1)	4374	-	TRI(1L)	4374	-	
				ZV(2)	2813	-	CH(2L)	2813	-	
				ZVI(2)	4252	6	MH(1L)	3440	-	
							GU(2L)	4659	-	
				ZVII(2)	4722	-	TN(1L)	4267	10	
							KA(1L)	5176	-	
	2022	3490	-	ZII(2)	3856	-	PU(1L)	4410	-	
							HA(1L)	3301	-	
				ZIII(4)	3516	-	OD(1L)	3139	-	
							BI(3L)	4376	-	

IET No	Year	Overall yield (Kg/ha)	Yield adv (%) over BVC	Zone (Locations)	Yield (kg/ha)	Yield adv (%). over BVC/HC	States (Locations)	Yield (kg/ha)	Yield adv (%) over BVC	Remarks
							JH(1L)	2551	-	
							UP(1L)	2281	-	
				ZIV(1)	1917	-	TR(1L)	1917	-	
				ZV(1)	2977	-	CH(1L)	2977	-	
				ZVI(2)	4087	-	GU(2L)	4087	-	
29409	2020	3112	-	ZIII(3)	2759	-	OD(1L)	3779	-	Promising in Haryana (Z II) & Bihar (Z III)
							BI(2L)	2250	-	
				ZV(1)	1568	-	CH(1L)	1568	-	
				ZVI(2)	4536	6	MH(1L)	3186	-	
							GU(1L)	5885	-	
				ZVII(2)	2988	-	TN(1L)	3063	-	
							KA(1L)	2913	-	
	2021	4589	9	ZII(2)	5361	18	HA(2L)	5361	18	
				ZIII(4)	4350	-	OD(1L)	3217	-	
							BI(2L)	5310	7	
							UP(1L)	3563	-	
				ZIV(1)	4327	-	TR(1L)	4327	-	
				ZV(2)	3780	-	CH(2L)	3780	-	
				ZVI(2)	5030	25	MH(1L)	4018	9	
							GU(2L)	5537	12	
				ZVII(2)	4573	-	TN(1L)	3318	-	
							KA(1L)	5828	-	
	2022	4217	8	ZII(2)	5112	-	PU(1L)	5177	-	
							HA(1L)	5046	19	
				ZIII(4)	4215	8	OD(1L)	2848	-	
							BI(3L)	4855	9	
							JH(1L)	3827	-	
							UP(1L)	4053	-	
				ZIV(1)	4327	13	TRI(1L)	4327	13	
				ZV(1)	3662	11	CH(1L)	3662	11	
				ZVI(2)	3552	-	GU(2L)	3552	-	
29421	2020	3571	10	ZIII(3)	3601	21	OD(1L)	6565	31	Promising in Gujarat (Z VI)
							BI(2L)	2119	-	
				ZV(1)	2067	-	CH(1L)	2067	-	
				ZVI(2)	3850	-	MH(1L)	2881	-	
							GU(1L)	4818	-	
				ZVII(2)	3999	-	TN(1L)	4896	22	
							KA(1L)	3102	-	
	2021	4373	-	ZII(2)	4985	10	HA(2L)	4985	10	
				ZIII(4)	4122	-	OD(1L)	4274	-	
							BI(2L)	4517	-	
							UP(1L)	3180	-	
				ZIV(1)	3462	-	TR(1L)	3462	-	
				ZV(2)	3446	-	CH(2L)	3446	-	
				ZVI(2)	4634	15	MH(1L)	3342	-	
							GU(2L)	5280	6	
				ZVII(2)	5256	11	TN(1L)	5732	48	
							KA(1L)	4779	-	
	2022	3813	-	ZII(2)	4351	-	PU(1L)	4992	-	
							HA(1L)	3710	-	
				ZIII(4)	3507	-	OD(1L)	2648	-	

IET No	Year	Overall yield (Kg/ha)	Yield adv (%) over BVC	Zone (Locations)	Yield (kg/ha)	Yield adv (%). over BVC/HC	States (Locations)	Yield (kg/ha)	Yield adv (%) over BVC	Remarks
							BI(3L)	4255	-	
							JH(1L)	3671	-	
							UP(1L)	1959	-	
				ZIV(1)	3718	-	TR(1L)	3718	-	
				ZV(1)	3088	-	CH(1L)	3088	-	
				ZVI(2)	4603	14	GU(2L)	4603	14	
29412 (Hybrid)	2020	3889	20 (BVC) 16(HC)	ZIII(3)	2547	-	OD(1L)	3221	-	Promising in Chattisgarh (ZV)
							BI(2L)	2210	-	
				ZV(1))	6907	124(BVC) 121(HC)	CH(1L)	6907	124(BVC) 121(HC)	
				ZVI(2)	3910	-	MH(1L)	2145	-	
							GU(1L)	5674	-	
				ZVII(2)	4372	10(BVC) 44(HC)	TN(1L)	6155	53(BVC) 100(HC)	
							KA(1L)	2589	-	
	2021	5062	20 (BVC) 6 (HC)	ZII(2)	6365	40(BVC) 10(HC)	HA(2L)	6365	40(BVC) 10.4(HC)	
				ZIII(4)	5218	17(BVC) -(HC)	OD(1L)	3889	-	
							BI(2L)	6553	32(BVC) 29(HC)	
							UP(1L)	3878	-	
				ZIV(1)	4390	- (BVC) 27(HC)	TRI(1L)	4390	- BVC 27(HC)	
				ZV(2)	4108	12(HC)	CH(2L)	4108	-BVC 12(HC	
				ZVI(2)	5402	34(BVC)	MH(1L)	2619	-	
							GU(2L)	6794	37(BVC) 15(HC)	
				ZVII(2)	4230	-	TN(1L)	3409	-	
							KA(1L)	5051	-(BVC) 24(HC)	
	2022	5014	28 (BVC) 9 (HC)	ZII(2)	6258	27(BVC) 14(HC)	PU(1L)	7415	13(BVC) 22(HC)	
							HA(1L)	5101	20(BVC) -(HC)	
				ZIII(4)	4806	23(BVC)	OD(1L)	3228	20(BVC) -(HC)	
							BI(3L)	6090	36(BVC) -(HC)	
							JH(1L)	3204	-	
							UP(1L)	4133	5(BVC) -(HC)	
				ZIV(1)	4765	24(BVC) 58(HC)	TR(1L)	4765	24(BVC) 58(HC)	
				ZV(1)	4434	35(BVC) 19(HC)	CH(1L)	4434	35(BVC) 19(HC)	
				ZVI(2)	4808	19(BVC)	GU(2L)	4808	19(BVC) -(HC)	
29422	2020	3660	13	ZIII(3)	4003	34	OD(1L)	6390	27	Promising in Chattisgarh (ZV)
							BI(2L)	1615	-	
				ZV(1)	3609	17	CH(1L)	3609	17	
				ZVI(2)	3602	-	MH(1L)	2438	-	
							GU(1)	4766	-	

IET No	Year	Overall yield (Kg/ha)	Yield adv (%) over BVC	Zone (Locations)	Yield (kg/ha)	Yield adv (%). over BVC/HC	States (Locations)	Yield (kg/ha)	Yield adv (%) over BVC	Remarks
				ZVII(2)	3403	12	TN(1L)	3753	-	
							KA(1L)	3052	-	
	2021	4153	-	ZII(2)	4951	9	HA(2L)	4951	9	
				ZIII(4)	4512	-	OD(1L)	3748	-	
							BI(2L)	5526	11	
							UP(1L)	3248	-	
				ZIV(1)	4312	-	TR(1L)	4312	-	
				ZV(2)	3488	-	CH(2L)	3488	-	
				ZVI(2)	3960	-	MH(1L)	2439	-	
							GU(2L)	4721	-	
				ZVII(2)	3516	-	TN(1L)	2332	-	
							KA(1L)	4700	-	
	2022	3590	-	ZII(2)	3502	-	PU(1L)	4221	-	
							HA(1L)	2782	-	
				ZIII(4)	3675	-	OD(1L)	3165	-	
							BI(3L)	4248	-	
							JH(1L)	4231	13	
							UP(1L)	1906	-	
				ZIV(1)	3060	-	TR(1L)	3060	-	
				ZV(1)	3766	15	CH(1L)	3766	15	
				ZVI(2)	3602	-	GU(2L)	3602	-	
29410	2020	3391	-	ZIII(3)	3553	19	OD(1L)	6377	27	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	8	
							KA(1L)	2361	-	
	2021	3701	-	ZII(2)	3355	-	HA(2L)	3355	-	
				ZIII(4)	4715	6	OD(1L)	5726	30	
							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	-	
				ZIV(1)	2119	-	TR(1L)	2119	-	
				ZV(1)	3181	-	CH(1L)	3181	-	
				ZVI(2)	3141	-	GU(2L)	3141	-	
29430	2020	3204	-	ZIII(3)	3281	10	OD(1L)	6351	27	Promising in Haryana (Z II) & Bihar (Z III)
							BI(2L)	1746	-	
				ZV(1)	1277	-	CH(1L)	1277	-	
				ZVI(2)	4237	-	MH(1L)	3051	-	
							GU(1L)	5422	-	
				ZVII(2)	3021	-	TN(1L)	3378	-	

IET No	Year	Overall yield (Kg/ha)	Yield adv (%) over BVC	Zone (Locations)	Yield (kg/ha)	Yield adv (%). over BVC/HC	States (Locations)	Yield (kg/ha)	Yield adv (%) over BVC	Remarks
							KA(1L)	2663	-	
	2021	4063	-	ZII(2)	4965	9	HA(2L)	4965	9	
				ZIII(4)	4392	-	OD(1L)	3663	-	
							BI(2L)	5436	10	
							UP(1L)	3031	-	
				ZIV(1)	3839	-	TR(1L)	3839	-	
				ZV(2)	3047	-	CH(2L)	3047	-	
				ZVI(2)	4175	-	MH(1L)	3633	-	
							GU(2L)	4447	-	
				ZVII(2)	3466	-	TN(1L)	4143	7	
							KA(1L)	2789	-	
	2022	4127	5	ZII(2)	4881	-	PU(1L)	3978	-	
							HA(1L)	5783	36	
				ZIII(4)	4423	13	OD(1L)	3305	7	
							BI(3L)	5009	12	
							JH(1L)	4262	14	
							UP(1L)	3945	-	
				ZIV(1)	2913	-	TR(1L)	2913	-	
				ZV(1)	3129	-	CH(1L)	3129	-	
				ZVI(2)	3594	-	GU(2L)	3594	-	
29415	2020	3717	15	ZIII(3)	3063	-	OD(1L)	4247	-	Promising in Gujarat (ZVI) & Odisha (Z III)
							BI(2L)	2472	-	
				ZV(1)	4699	52	CH(1L)	4699	52	
				ZVI(2)	4182	-	MH(1L)	2431	-	
							GU(1L)	5933	-	
				ZVII(2)	3741	-	TN(1L)	4042	-	
							KA(1L)	3439	-	
	2021	4614	9	ZII(2)	5218	15	HA(2L)	5218	15	
				ZIII(4)	4793	7	OD(1L)	5238	19	
							BI(2L)	5067	-	
							UP(1L)	3801	-	
				ZIV(1)	3965	-	TR(1L)	3965	-	
				ZV(2)	4293	-	CH(2L)	4293	-	
				ZVI(2)	5072	26	MH(1L)	2714	31	
							GU(2L)	6251	26	
				ZVII(2)	3612	-	TN(1L)	3005	-	
							KA(1L)	4218	-	
	2022	4100	5	ZII(2)	5211	6	PU(1L)	6439	-	
							HA(1L)	3983	-	
				ZIII(4)	3915	-	OD(1L)	3878	25	
							BI(3L)	4811	8	
							JH(1L)	3516	-	
							UP(1L)	1664	-	
				ZIV(1)	3136	-	TRI(1L)	3136	-	
				ZV(1)	3313	-	CH(1L)	3313	-	
				ZVI(2)	4419	9	GU(2L)	4419	9	
29446	2020	3302	-	ZIII (3)	3741	25	OD(1L)	6506	30	Discontinued
							BI(2L)	2358	-	
				ZV(1)	2330	-	CH(1L)	2330	-	
				ZVI(2)	3513	-	MH(1L)	2146	-	

IET No	Year	Overall yield (Kg/ha)	Yield adv (%) over BVC	Zone (Locations)	Yield (kg/ha)	Yield adv (%). over BVC/HC	States (Locations)	Yield (kg/ha)	Yield adv (%) over BVC	Remarks
							GU(1L)	4880	-	
				ZVII(2)	2919	-	TN(1L)	3255	-	
							KA(1L)	2583	-	
	2021	4104	-	ZII(2)	5396	19	HA(2L)	5396	19	
				ZIII(4)	4272	-	OD(1L)	3217	-	
							BI(2L)	5389	9	
							UP(1L)	3095	-	
				ZIV(1)	3053	-	TR(1L)	3053	-	
				ZV(2)	3510	-	CH(2L)	3510	-	
				ZVI(2)	4553	13	MH(1L)	3508	-	
							GU(2L)	5076	-	
				ZVII(2)	2925	-	TN(1L)	2647	-	
							KA(1L)	3203	-	
	2022	3787	-	ZII(2)	5104	-	PU(1L)	6852	-	
							HA(1L)	3355	-	
				ZIII(4)	3443	-	OD(1L)	2860	-	
							BI(3L)	3818	-	
							JH(1L)	2800	-	
							UP(1L)	3543	-	
				ZIV(1)	3878	-	TRI(1L)	3878	-	
				ZV(1)	3347	-	CH(1L)	3347	-	
				ZVI(2)	3676	-	GU(2L)	3676	-	
29423	2020	3634	12	ZIII (3)	4003	34	OD(1L)	6377	27	Discontinued
							BI(2L)	2816	-	
				ZV(1)	2933	-	CH(1L)	2933	-	
				ZVI(2)	4273	-	MH(1L)	2887	-	
							GU(1L)	5659	-	
				ZVII(2)	2792	-	TN(1L)	2792	-	
							KA(1L)	2791	-	
	2021	4077	-	ZII(2)	5552	22	HA(2L)	5552	22	
				ZIII(4)	3925	-	OD(1L)	3651	-	
							BI(2L)	4514	-	
							UP(1L)	3020	-	
				ZIV(1)	2880	-	TR(1L)	2880	-	
				ZV(2)	3942	-	CH(2L)	3942	-	
				ZVI(2)	3736	-	MH(1L)	2255	-	
							GU(2L)	4477	-	
				ZVII(2)	4154	-	TN(1L)	3658	-	
							KA(1L)	4649	-	
	2022	3663	-	ZII(2)	4573	-	PU(1L)	5382	-	
							HA(1L)	3764	-	
				ZIII(4)	3567	-	OD(1L)	2766	-	
							BI(3L)	4480	-	
							JH(1L)	3182	-	
							UP(1L)	2013	-	
				ZIV(1)	2858	-	TRI(1L)	2858	-	
				ZV(1)	3141	-	CH(1L)	3141	-	
				ZVI(2)	3705	-	GU(2L)	3705	-	

IET No	Year	Overall yield (Kg/ha)	Yield adv (%) over BVC	Zone (Locations)	Yield (kg/ha)	Yield adv (%). over BVC/HC	States (Locations)	Yield (kg/ha)	Yield adv (%) over BVC	Remarks
29436	2020	3643	13	ZIII(3)	4011	34	OD(1L)	6474	29	Promising in Gujarat (Z VI) & Haryana (Z II)
							BI(2L)	2780	-	
				ZV(1)	2122	-	CH(1L)	2122	-	
				ZVI(2)	3722	-	MH(1L)	2729	-	
							GU(1L)	4714	-	
				ZVII(2)	3775	-	TN(1L)	5118	27	
							KA(1L)	2431	-	
	2021	4340	-	ZII(2)	6020	32	HA(2L)	6020	32	
				ZIII(4)	3956	-	OD(1L)	3987	-	
							BI(2L)	4289	-	
							UP(1L)	3257	-	
				ZIV(1)	3446	-	TR(1L)	3446	-	
				ZV(2)	3754	-	CH(2L)	3754	-	
				ZVI(2)	4711	17	MH(1L)	3147	-	
							GU(2L)	5494	11	
				ZVII(2)	3904	-	TN(1L)	4088	6	
							KA(1L)	3719	-	
	2022	4666	19	ZII(2)	5506	12	PU(1L)	5147	-	
							HA(1L)	5865	38	
				ZIII(4)	4798	23	OD(1L)	3493	13	
							BI(3L)	5691	27	
							JH(1L)	4169	12	
							UP(1L)	4053	-	
				ZIV(1)	3433	-	TR(1L)	3433	-	
				ZV(1)	3682	12	CH(1L)	3682	12	
				ZVI(2)	4540	12	GU(2L)	4540	12	
29424	2020	3659	13	ZIII(3)	4090	37	OD(1L)	6461	21	Promising in Odisha (Z III) , Gujarat (Z VI) & Haryana (ZII)
							BI(2L)	2905	-	
				ZV(1)	2309	-	CH(1L)	2309	-	
				ZVI(2)	4105	-	MH(1L)	3161	-	
							GU(1L)	5049	-	
				ZVII(2)	3242	-	TN(1L)	4809	19	
							KA(1L)	1674	-	
	2021	4580	9	ZII(2)	5886	29	HA(2L)	5886	29	
				ZIII(4)	4588	-	OD(1L)	4847	10	
							BI(2L)	5239	6	
							UP(1L)	3027	-	
				ZIV(1)	3588	-	TR(1L)	3588	-	
				ZV(2)	4045	-	CH(2L)	4045	-	
				ZVI(2)	4590	14	MH(1L)	2978	-	
							GU(2L)	5397	9	
				ZVII(2)	4276	-	TN(1L)	4107	6	
							KA(1L)	4444	-	
	2022	4455	14	ZII(2)	5592	14	PU(1L)	5837	-	
							HA(1L)	5346	26	
				ZIII(4)	4541	16	OD(1L)	3244	21	
							BI(3L)	5046	13	
							JH(1L)	4916	32	
							UP(1L)	3945	-	
				ZIV(1)	2968	-	TR(1L)	2968	-	

IET No	Year	Overall yield (Kg/ha)	Yield adv (%) over BVC	Zone (Locations)	Yield (kg/ha)	Yield adv (%). over BVC/HC	States (Locations)	Yield (kg/ha)	Yield adv (%) over BVC	Remarks
				ZV(1)	3462	5	CH(1L)	3462	5	
				ZVI(2)	4302	6	GU(2L)	4302	6	
28636	2019	5021	9	ZII(2)	2350	-	HA(1L)	2350	-	Discontinued
				ZIII(2)	5687	20	BI(3L)	5687	20	
				ZV(2)	5564	-	CH(2L)	5564	-	
				ZVI(2)	4492	-	GU(2L)	4492	-	
				ZVII(3)	5343	-	TE(1L)	5780	-	
							TN(1L)	4906	-	
	2020	3648	-	ZII(1)	4005	-	PU(1L)	4005	-	
				ZIII(4)	3307	-	OD(1L)	4602	-	
							BI(3L)	2934	-	
							JH(1L)	2333	-	
							UP(1L)	4101	10	
				ZV(2)	3893	-	CH(2L)	3893	-	
				ZVI(2)	3782	5	MH(1L)	2634	-	
							GU(2L)	4356	13	
				ZVII(2)	4045	-	TN(1L)	5497	8	
							KA(1L)	2593	-	
	2022	3934	-	ZII	4226	-	PU(1L)	5015	-	
							HA(1L)	3437	-	
				ZIII	3868	-	OD(1L)	2855	-	
							BI(3L)	5090	14	
							JH(1L)	3204	-	
							UP(1L)	1879	-	
				ZIV	3563	-	TR(1L)	3563	-	
				ZV	3015	-	CH(1L)	3015	-	
				ZVI	4483	11	GU(2L)	4483	11	

ADVANCE VARIETY TRIAL-1- AEROBIC (AVT 1 -AEROB)

Locations: 27 **Test Entries: 31**

Checks: CR Dhan 201 (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:2.5**

The Advance Variety Trial 1- Aerobic (AVT 1- Aerobic) consisted of 31 test entries (2nd year of testing) including four checks (NC: CR Dhan 201, 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 27 locations but data was received from 21 centres. The data was not received from 6 locations *i.e.*, Bhubaneswar, Hazaribagh, Arundhutinagar, Jabalpur, Jagtial and Mugad. The data received from 9 centres was not considered for analysis due to low experimental mean (<3000 kg/ha) at Masodha, Rewa, Derol, Vyara, Coimbatore, Jagadalpur, Parbhani, and Mandya and low CV% at Lembucherra (CV %< 5). The locationwise experimental mean grain yield ranged from 1078 kg/ha at Rewa to 5773 kg/ha at Bikramganj. The CV% ranged from 3.28 (Parbhani) to 36.27 (Derol).

Overall performance of entries

On overall basis**,** mean yield of the entries ranged from 3236kg/ha (IET 30027) to 5102 kg/ha (PA 6129) while, the days to 50% flowering ranged from 82 days (IET 30038) to 106 days (IET 30013). The plant height ranged from 89 cm (IET 30037) to 117 cm (IET 30000). The highest number of panicles/m^2 (284) was found in IET 30051 while the lowest panicle number (229) was recorded in IET 30006. Among the varietal checks, local check was the best performing check (3845 kg/ha) followed by national check (3675 kg/ha) and Zonal Check (3263 kg/ha). The data on grain yield, days to 50% flowering, plant height, panicles/m^2 and quality were furnished in tables 2.6, 2.7 and 2.8 respectively.

Seven entries *i.e.*, IETs 30008, 30023, 30032, 30051, 30024, 30028 and 30004 were found significantly superior to the best variety check (LC) with desirable quality parameters and hence promoted to 3rd year of testing in AVT-2-Aerobic.

Zone II (Northern)

In Zone II, the trial was sent to 3 locations namely Ludhiana (Punjab); Kaul and Karnal (Haryana). All locations sent the data. The mean CV ranged from 8.35% (Kaul) to 14.88% (Karnal). The zonal mean yield ranged from 2305 kg/ha (IET 30021) to 5478 kg/ha (IET 30020). Days to 50% flowering (DFF) ranged from 85 days (IET 30038) to 112 days (IET 30013).

Four entries exhibited significant yield superiority over the best varietal check, (LC) along with desirable quality attributes namely IETs 30034, 30008, 30023 & 30051 and therefore promoted to AVT-2-Aerobic trial.

Zone III (Eastern)

The trial was sent to 9 centres across Odisha (Cuttack, Bhubaneswar), Bihar (Bikramganj, Pusa and Patna), Jharkhand (Ranchi, Hazaribagh) and Uttar Pradesh (Varanasi, Masodha) states in Zone III. The data was received from 7 centres except Bhubaneswar and Hazaribagh. The data received from Masodha was not included in analysis due to low experimental yield (<3000 kg/ha). The mean yield of test entries ranged from 2578 kg/ha (IET 30027) to 5197 kg/ha. (IET 30005, Hybrid). DFF varied from 80 days (IET 30038) to 110 days (IET 30029). Local Check was the top yielder among the checks (3649 kg/ha).

Eight entries (IETs 30028, 30023, 30051, 30032, 30004, 30008, 30024 and 30029 recorded significant yield superiority over the best Check (LC*)*. Also, they recorded desirable grain quality traits. Hence, they are promoted to AVT-2-Aerobic trial.

Zone IV (North Eastern)

In Zone IV, the trial was sent to two centres in Tripura (Lembucherra and Arundhutinagar) The experiment failed at Arundhutinagar. The data was not considered from Lembucherra as CV was low (CV%.(4.34).

Zone V (Central)

The trial was sent to Madhya Pradesh (Rewa and Jabalpur) and Chhattisgarh (Raipur and Jagdalpur). The data was not received from Jabalpur. Data was not analysed at Jagadalpur and Rewa due to non-significant F values and low experimental mean yield (1078 kg/ha) respectively. The mean yield ranged from 1953 kg/ha (IET 29425) to 5246 kg/ha (IET 30020). The DFF ranged from 78 days (IET 30038) to 105 days (IET 30013).

None of the entries could recorded significant yield superiority over national check, the best varietal check /hybrid check, hence no entry was promoted.

Zone VI (Western)

In Zone VI, the trial was sent to 4 Locations *i.e.,* Parbhani (Maharashtra) along with Navsari, Derol and Vyara (Gujarat). Data from Parbhani was not considered for analysis due to low CV% (3.28) while at Derol (1079 kg/ha) and Vyara (2682 kg/ha) low experimental mean yield was reported. Overall mean yield ranged from 1295 kg/ha (IET 29447) to 6046 kg/ha (IET 30005). The flowering duration ranged from 67 days (Zonal Check) to 114 days (IET 30029).

A hybrid entry, IET 30005 with good grain quality traits was found to be significantly superior to best varietal check (LC) and Hybrid check respectively and thus promoted to AVT-2-Aerobic trial.

Zone VII (Southern)

In Zone VII, the trial was sent to 5 locations across three states *i.e.,* Rudrur and Jagtial (Telangana), Mandya and Mugad (Karnataka) and Coimbatore (Tamilnadu). Two centres, Jagtial and Mugad failed to send the data. The experimental mean yield data found to be very low (<3000 Kg/ha) at Coimbatore and Mandya with 2831 kg/ha and 2960 kg/ha respectively,

consequently, data from these two centres are not analyzed. The mean yield ranged from 3173 kg/ha (IET 30029) to 5946 kg/ha (IET 30003). The DFF ranged from 85 days (IET 30032, 30034) to 101 days (IET 30024).

In Zone VII, IET 30021 not only recorded significant yield superiority over the best check (LC) but also showed good quality traits and hence promoted to AVT-2-Aerobic trial.

Overall performance of the test entries across zones in AVT 1 (Aerobic trial), 2022

S.No.	Entry No/Designation	Yield Kg/ha DFF	Remarks
1	IET 30020 CRR 842-IR14L159	4587* 87	Dropped HRR (54.7), AC (23.58), GC (100), ASV (7)
2	IET 30022 RCPR 80-IR 14L 157	4570* 87	Dropped (Low HRR: 43.3%) HRR (43.3), AC (25.4), GC (66), ASV (5.2)
3	IET 30008 BRR 0180-IR14L157	4386* 86	Promoted
4	IET 30035 NVSR 726	4332* 91	Dropped (Low HRR: 23.9%) HRR (23.9), AC (28.4), GC (59), ASV (4)
5	IET 30023 TRC 184-B-B-76-1-1	4323* 84	Promoted
6	IET 30045 BRR 2185	4322* 86	Dropped (Low HRR: 42.6%) HRR (42.6), AC (25), GC (81), ASV (7)
7	IET 30052 R 1672-126-1-24-1	4307* 85	Dropped (Low HRR: 32.5%) HRR (32.5), AC (28.1), GC (46), ASV (4)
8	IET 30032 BRR 0181-IR 93827-29-1-1-4	4286* 90	Promoted
9	IET 30051 CRR 790-69	4168* 91	Promoted
10	IET 30024 NVSR 3110	4155* 86	Promoted
11	IET 30000 CRR 780-B-B-14-1	4154* 92	Dropped (Low HRR: 31.6%) HRR (31.6), AC (27.6), GC (69), ASV (4)
12	IET 30006 TRC H2TN 203-B-B-67-3	4146* 84	Dropped (Low HRR: 37.8%) HRR (37.8), AC (22.7), GC (83), ASV (3)
13	IET 30028 CR 3937-1-1-1-1-1-2-3	4146* 100	Promoted
14	IET 30004 CSR PET 27	4113* 89	Promoted
15	IET 30003 RCPR 79-IR 84899-B-185-8-1-1-1	4104* 86	Dropped (Low HRR: 42.4%) HRR (42.4), AC (21.7), GC (92), ASV (3)
	CR Dhan 201 (NC)	3675 90	
	Zonal Check	3263 90	
	Local Check (Best check)	**3845** **89**	
	PA 6129 (HC)	5102 86	
	CD	246	

Performance of the test entries in Zone II (Northern)

S. No	Entry No/ Designation	Yield (Kg/ha) DFF	Remarks
1	IET 30020 CRR 842-IR14L159	5478* 95	Dropped HRR (54.7), AC (23.58), GC (100), ASV (7)
2	IET 30045 BRR 2185	5388* 93	Dropped (Low HRR: 42.6%) HRR (42.6), AC (25.05), GC (81), ASV (7)
3	IET 30022 RCPR 80-IR 14L 157	5097* 94	Dropped (Low HRR: 43.3 %) HRR (43.3), AC (25.4), GC (66), ASV (5.2)
4	IET 30034 TRC 185-B-B-82-2-11	4962* 86	Promoted
5	IET 30006 TRC H2TN 203-B-B-67-3	4820* 86	Dropped (Low HRR: 37.8%) HRR (37.8), AC (22.7), GC (83), ASV (3)
6	IET 30008 BRR 0180-IR14L157	4603* 93	Promoted
7	IET 30023 TRC 184-B-B-76-1-1	4586* 88	Promoted
8	IET 30051 CRR 790-69	4586* 95	Promoted
	National Check (CR Dhan 201)	3993 95	
	Zonal Check	2724 96	
	Local Check (Best check)	**4023 88**	
	PA 6129 (HC)	4970 89	
	CD	536	

Performance of the test entries in Zone III (Eastern)

S.No.	Entry No/ Designation	Yield (Kg/ha) DFF	Remarks
1	IET 30028 CR 3937-1-1-1-1-1-2-3	4466* 100	Promoted
2	IET 30022 RCPR 80-IR 14L 157	4424* 86	Dropped (Low HRR: 43.3%) HRR (43.3), AC (25.4), GC (66), ASV(5.2)
3	IET 30035 NVSR 726	4397* 92	Dropped (Low HRR: 23.9% HRR (23.9), AC (28.4),GC (59), ASV(4)
4	IET 30023 TRC 184-B-B-76-1-1	4340* 82	Promoted
5	IET 30051 CRR 790-69	4311* 91	Promoted
6	IET 30032 BRR 0181-IR 93827-29-1-1-4	4178* 88	Promoted
7	IET 30000 CRR 780-B-B-14-1	4144* 90	Dropped (Low HRR: 31.6%) HRR (31.6), AC (27.6), GC (69), ASV(4)
8	IET 30052 R 1672-126-1-24-1	4119* 84	Dropped (Low HRR: 32.5%) HRR (32.5), AC (28.1), GC (46), ASV(4)

S.No.	Entry No/ Designation	Yield (Kg/ha) DFF	Remarks
9	IET 30004 CSR PET 27	4111* 86	Promoted
10	IET 30008 BRR 0180-IR14L157	4085* 84	Promoted
11	IET 30024 NVSR 3110	4105* 83	Promoted
12	IET 30029 BRR 2183	4100* 110	Promoted
13	IET 30020 CRR 842-IR14L159	3973* 85	Dropped HRR (54.7), AC (23.5), GC (100), ASV(7)
	CR Dhan 201 (NC)	3531 88	
	Zonal Check	3557 91	
	Local Check (Best check)	**3649 91**	
	PA 6129 (HC)	5371 84	
	CD	304	

Performance of the test entries in Zone VI (Western)

S.No.	Entry No/ Designation	Yield (Kg/ha) DFF	Remarks
1	IET 30005 (H) US 391 (Hybrid)	6046*# 78	Promoted
2	IET 30006 TRC H2TN 203-B-B-67-3	5525* 78	Dropped (Low HRR: 37.8%) HRR (37.8), AC (22.7), GC (83), ASV (3)
3	IET 30045 BRR 2185	5421* 80	Dropped (Low HRR: 42.6%) HRR (42.6), AC (25), GC (81), ASV (7)
	CR Dhan 201 (NC)	3007 85	
	Zonal Check	2509 67	
	Local Check (Best check)	**4457 84**	
	PA 6129 (HC)	4673 84	
	CD	905	

Performance of the test entries in Zone VII (Southern)

S.No.	Entry No / Designation	Yield Kg/ha DFF	Remarks
1	IET 30003 RCPR 79-IR 84899-B-185-8-1-1-1	5946* 87	Dropped (Low HRR: 42.4%) HRR (42.4), AC (21.7), GC (92), ASV(3)
2	IET 30024 NVSR 3110	5841* 86	Dropped (Low HRR: 53.4%) HRR (53.4), AC (25.9), GC (60), ASV(3)
3	IET 30035 NVSR 726	5407* 97	Dropped (Low HRR: 23.9%) HRR (23.9), AC (28.4), GC (59), ASV(4)
4	IET 30021 HURS 21-2-IR15T1473	5258* 100	Promoted
5	IET 30045 BRR 2185	5066* 86	Dropped (Low HRR: 42.6%) HRR (42.6), AC (25), GC (81), ASV(7)
	CR Dhan 201 (NC)	3610 90	
	Zonal Check	3295 86	
	Local Check (Best check)	**4089 89**	
	PA 6129 (HC)	3995 86	
	CD	`970	

*Significantly superior to best varietal check # significantly superior to best hybrid check

A set of 7, 4, 8, 1 and 1 entries were found significantly superior to the best check in overall mean and in zones II, III, VI and VII respectively and therefore promoted to AVT-2-Aerobic trial.

List of entries promoted to AVT 2 (Aerobic)

Overall/Zones	No.	Entries promoted
Overall	7	IETs 30008, 30023, 30032, 30051, 30024, 30028 and 30004
Zone II	4	IETs 30034, 30008, 30023 & 30051
Zone III	8	IETs 30028, 30023, 30051, 30032, 30004, 30008, 30024, 30029
Zone IV	-	None
Zone V	-	None
Zone VI	1	IET 30005 (Hybrid)
Zone VII	1	IETs 30021

INITIAL VARIETY TRIAL - AEROBIC (IVT-AEROBIC)

Locations: 27 **Test Entries: 64**

Checks: CR Dhan 201 (National); CR Dhan 202 (Northern, Eastern, North Eastern and Central), AAUDR-1 (Western), MAS 946-1 (Southern)- Zonal; PA 6129 (Hybrid), DRR Dhan (National Observational), US 380 and GK 5022 (Hybrid Observational) and local check **Table:2.9**

The Initial Variety Trial- Aerobic (IVT-Aerobic) was constituted with 64 test entries and four checks (NC): CR Dhan 201; Observational 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: US 380, Observational Hybrid Check 2: GK 5022; and Local Check. Although the trial was sent to 27 locations, data was not received from 9 locations including Bhubaneswar, Hazaribagh, Varanasi, Rewa, Jagityal,Jabalpur, Jagadalpur, Rudrur and Mugad. Failure in seed germination was reported at a few centres. IET Nos: 30899, 30905, 30908, 30923 and CR Dhan 202 (ZC) could not germinate at Kaul while IET NOs. 30904, 30905, 30906, 30907 and 30908 and CR Dhan 202 at Raipur and IET 30908 at Navsari.The data received from 7/18 centers was not considered for analysis due to low mean yield at Ludhiana (2139 kg/ha), Cuttack (2909 kg/ha), Pusa (2599 kg/ha), Masodha (2550 kg/ha), Parbhani (2887kg/ha), Derol (797 kg/ha) and Mandya (2499 kg/ha). High CV value of 63.2% was recorded in Derol. The CV% at experimental locations varied from 5.16 (Parbhani) to 63.27 (Derol). The experimental mean of grain yield ranged from 797 kg/ha (Derol) to 4976 kg/ha at Bikramganj.

Overall performance of entries

The overall mean grain yield ranged from 2893 kg/ha (IET 30924) to 4779 kg/ha (IET 30919), days to 50% flowering ranged from 75days (IET 30898) to 103days (IET Nos. 30941 and 30923); plant height ranged from 85 cm (IET 30896) to 115 cm (IET 30891) and number of panicles/m^2 ranged from 223 (ZC) to 322 (IET 30899). Among the varietal checks, the observational National Check, DRR Dhan 54 topped in yield (4421 kg/ha) followed by local Check (3882 kg/ha), national check: CR Dhan 201, (3822 kg/ha) and Zonal Check (2942 kg/ha). Among the hybrid checks, PA6129 outyielded (4466 kg/ha) followed by the observational hybrid check 1 (GK 502- 4412kg/ha) and observational hybrid check 2 (US 380: 4310 kg/ha).The data pertaining to yield, flowering duration, plant height and panicles/m^2 were presented in tables 2.10 and 2.11respectively.

The inbred entries were compared with the best check (Local check) in overall mean, Zone II and Zone V while national check (BC) in Zone III. The hybrid entries were compared with hybrid check (PA 6129) as well as the best varietal check. The entries with significant superiority over the best check were promoted to 2nd year of testing (AVT-1-Aerobic) trial as mentioned in the table below.

Overall and zonal performance of entries in IVT-Aerobic, Kharif 2022

S.No.	IET No/ Designation	Overall GY (kg/ha)/ DFF	Performance of entries in different zones						Remarks
			Zone II	Zone III	Zone IV	Zone V	Zone VI	Zone VII	
1	IET 30919 IIRRH 159 (Hybrid)	4779*# (90)	-	6322*# (93)	-	6298*# (93)	-	-	Promoted
2	IET 30932 CR 4402-(1,2,3,4)-89-1-3-1	4705* (85)	-	5410* (88)	-	5429* (87)	-	-	Promoted
3	IET 30911 (CR 4338-2-1-1)	4650* (86)	4680* (96)	4670* (89)	-	6878* (85)	-	-	Promoted
4	IET 30917 (RCPR 92-IR 97069-1-1-1-1)	4646* (82)	5245* (89)	5078* (84)	-	-	-	-	Promoted
5	IET 30935 RP6252-BV/RIL-BV 2024	4450* (91)	-	5142* (90)	-	-	-	-	Promoted
6	IET 30910 IIABR-13/IIAB-4/IR15L1505	4367* (81)	4495* (87)	4245* (83)	-	-	-	-	Promoted
7	IET 30912 (NVSR 911)	4366* (88)	4550* (92)	4361* (90)	-	5421* (93)	-	-	Promoted
8	IET 30895 (TRC GN 116-B-B-14-2)	4337* (82)		4655* (83)	-		-	-	Promoted
9	IET 30929 (CR3516-11-2-2-1-1-1)	4315* (97)			-	5984* (98)	-	-	Promoted
10	IET 30904 (CR44-5-1-IR117841-4-1 RGA-1 RGA-1 RGA-2)	4311* (79)	5035* (77)	-	-	-	-	-	Promoted
11	IET 30902 (RCPR 93-IR 106312-50-1-1-1)	4289* (82)	5050* (88)	4920* (84)	-	-	-	-	Promoted
12	IET 30907 RP 5594-97-5-1 (PSV222)	4214* (87)		4370* (89)					Promoted
13	IET 30939 (RP 6327-13-171-3-2)	4205* (80)	4670* (80)	-	-	-	-	-	Promoted
14	IET 30890 (CRR 806-2)	-	4520* (85)	-	-	-	-	-	Promoted

S.No.	IET No/ Designation	Overall GY (kg/ha)/ DFF	Performance of entries in different zones						Remarks
			Zone II	Zone III	Zone IV	Zone V	Zone VI	Zone VII	
15	IET 30897 (CSR BT-252-201)	-	4400* (106)	-	-	6446* (103)	-	-	Promoted
16	IET 30892 (H) IIRRH 161 (Hybrid)	-	-	6040*# (93)	-	-	-	-	Promoted
17	IET 30936 ***IIRRH 162 (Hybrid)***	-	-	5963*# (83)	-	5665*# (80)	-	-	Promoted
18	IET 30934 CR 3553-1-5-1-2-1-1			4665* (103)					
19	IET 30893 (RP 6616-CGR 7)	-	-	4638* (86)	-	-	-	-	Promoted
20	IET 30933 (NVSR929)	-	-	4651* (86)	-	-	-	-	Promoted
21	IET 30927 (CR 3561-5-2-1-1-1-1)	-	-	4633* (98)	-	7197* (95)	-	-	Promoted
22	IET 30901 (RNR 28373)	-	-	4510* (86)			-	-	Promoted
23	IET 30925 (R 2220-39-1-4-1)	-	-	4445* (84)	-	-	-	-	Promoted
24	IET 30906 PAU 7592-366-1-1-B (RYT 4009)	-	-	4357* (92)	-	-	-	-	Promoted
25	IET 30938 (CR 4121-142-36-24-1)	-	-	4290* (92)	-	-	-	-	Promoted
26	IET 30942 (H) ***IIRRH 160 (Hybrid)***	-	-		-	6313*# (80)	-	-	Promoted
27	IET 30937 (CRR 790-43)	-	-	-	-	6025* (80)	-	-	Promoted
28	IET 30894 (BRR2152)	-	-	-	-	5279* (97)	-	-	Promoted
29	IET 30918 (RNR 39027)	-	-	4388* (89)	-	-	-	-	Promoted
30	IET 30928 (NWGR17133)	-	-	4313* (95)	-	-	-	-	Promoted
	CR Dhan 201 (NC)	3822 (84)	3085 (94)	***3668*** (86)	-	3432 (84)	-	-	-
	DRR Dhan 54 (ONC)	4421 (85)	3910 (90)	5440 (86)	-	4920 (88)	-	-	-

S.No.	IET No/ Designation	Overall GY (kg/ha)/ DFF	Performance of entries in different zones						Remarks
			Zone II	Zone III	Zone IV	Zone V	Zone VI	Zone VII	
	CR Dhan 202 (ZC)	2942 (77)	2370 (105)	2587 (77)	-	-	-	-	-
	PA 6129 (HC)	4466 (83)	4400 (87)	4692 (83)	-	3120 (85)	-	-	-
	US 380 (OHC 1)	4310 (88)	2590 (98)	4164 (93)	-	5750 (91)	-	-	-
	GK 5022 (OHC 2)	4412 (89)	2725 (97)	5165 (91)	-	5713 (88)	-	-	-
	Local Check (LC)	***3882*** (85)	***3755*** (88)	2656 (90)	-	***3688*** (80)	-	-	-
	CD	301	562	577	-	1395	-	1024	

*Significantly superior to best varietal check # significantly superior to hybrid check

Among 6 zones, in only 3 zones *i.e.*, Zone-II, Zone III and Zone V, a set of 9, 22 and 11entries exhibited significant superiority over the best check respectively. In overall mean thirteen entries were significantly superior to best check and hence promoted to AVT-1 (Aerobic) trial.

List of entries promoted to AVT-1 (Aerobic)

Overall/Zones	No.	Entries promoted
Overall	13	IETs 30919 (H), 30932, 30911, 30917, 30935, 30910, 30912, 30895, 30929, 30904, 30902, 30907, 30939
Zone-II	9	IETs 30911, 30917, 30910, 30912, 30902, 30904, 30939, 30890, 30897
Zone III	22	IETs 30919 (H), 30932, 30910, 30911, 30935, 30912, 30895, 30902, 30907, 30892 (H), 30936 (H), 30917, 30934, 30893, 30933, 30927, 30901, 30925, 30906, 30938, 30918, 30928
Zone-V	11	IETs30919, 30932, 30911, 30912, 30929, 30897, 30936, 30927, 30942 (H), 30937, 30894

Table No.2.1: Composition of entries in Advance Variety Trial 2-Aerobic (AVT 2-AEROB), Kharif 2022

Entry No.	IET No.	Designation	Cross Combination	GT
3rd year of testing				
4501	29411	CR 4161-5-6-IR 14L572	IR10L146 / IR10L149	LS
4502	29405	RCPR 70- IR 84899-B-184-16-1-1-1	IR 78877-208-B-1-1 / IRRI 132	LB
4503	29396	CRR 822-20-1-2-2	IR11L152 / Sabitri	LS
4504	29394	CSR 88	CSR30 / CSR36	LS
4505	**CR Dhan 201 (NC)**			
4506	29409	TRC 2020–14	Hakuchuk 1 / Naveen	MS
4507	29421	RP 6324-123-14-4-1	CR 691-1 / CR Dhan 202	MS
4508	29412	***US 393 (Hybrid)***	**-**	LB
4509	29422	CRR 756-21	IR08L183 / MTU 1010	LS
4510	29410	RP 5594-147-23-1	MTU 1010 / RPHR 1005	LS
4511	**CR Dhan 202 (Northern, Eastern, North Eastern and Central), AAUDR-1 (Western), MAS 946-1 (Southern)-ZC**			
4512	29430	CR 4118-1-1-2-2-1	CR Dhan 201 / IR 84549-B-183-13-1-1-2	LS
4513	29415	RP 6326-278-14-1	MTU 1010 / WGL 505	LB
4514	**PA 6129 (HC)**			
4515	29446	CR 3918-109-5-6-4-1	Savithri / Pokkali	LS
4516	29423	TRC 2020–3	Hakuchuk 2 / Tripura Nirog	LS
4517	29436	CRR 821-21-2-1-3	IR09L337 / IR09L154	LB
4518	29424	CR 4317-2-IR 97034-21-2-1-3	IR09L337 / IR09L154	LB
4519	**Local Check (LC)**			
4520	28636	RP 6361-RAF-252-GSR-IR1-DQ146-L18-Y1		LS

Table No. 2.2: Grain Yield (kg/ha) in AVT 2 – AEROB, Kharif 2022

ENTRY NO	IET NO	ZONE II-NORTHERN									ZONE III-EASTERN		
		PUNJAB (1)			HARYANA (1)			Zone II (2)			ODISHA (1)		
		LUDHIANA			KAUL			Mean			ICAR-NRRI (Cuttack)		
4501	29411	5282	9		6028	1 *	42% # 22%	5655	2 *	15%	3314	4	7% 23%
4502	29405	4699			4583	9	8%	4641			3241	7	20%
4503	29396	6223	5		5019	7 *	18%	5621	3 *	14%	3438	3	11% 28%
4504	29394	4410			3301			3856			3139	10	17%
4505	CR Dhan 201 (NC)	5069			4255	10		4662			3091	15%	
4506	29409	5177	10		5046	6 *	19%	5112	8		2848		
4507	29421	4992			3710			4351			2648		
4508	29412	7415	1 *	13% # 22%	5101	5 *	20%	6258	1 *	27% # 14%	3228	8	20%
4509	29422	4221			2782			3502			3165	9	18%
4510	29410	4780			4092			4436			2732		
4511	Zonal Check (ZC)	4217			2482			3350			2683		
4512	29430	3978			5783	3 *	36% # 17%	4881			3305	5	7% 23%
4513	29415	6439	4		3983			5211	7	6%	3878	1	25% # 44%
4514	PA 6129 (HC)	6088	6		4937	8	16%	5513	5		2690		
4515	29446	6852	2	# 13%	3355			5104	9		2860		
4516	29423	5382	8		3764			4573			2766		
4517	29436	5147			5865	2 *	38% # 19%	5506	6 *	12%	3493	2	13% 30%
4518	29424	5837	7		5346	4 *	26%	5592	4 *	14%	3244	6	21%
4519	Local Check (LC)	6539	3		3301			4920	10		2936		
4520	28636	5015			3437			4226			2855		
Exp. Mean		**5388**			**4309**			**4848**			**3078**		
CD		634			722			533			944		
CV%		**7.11**			**10.14**			**6.65**			**18.55**		
D/S		08-06-2022			11-06-2022						30-06-2022		
D/P													
Local Check Name		PR 126			HKR-48						CR DHAN 205		

***Superior to best check; #Superior to hybrid check**

Table No. 2.2 (Contd): Grain Yield (kg/ha) in AVT 2 – AEROB, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN											
		BIHAR						BIHAR (3)			JHARKHAND (1)		
		BIKRAMGANJ (Dhangain)		PUSA		Patna-ICAR		Mean			RANCHI		
4501	29411	6302	6	4615	1	6417	3	5778	2 *	29%	4916	1 *	32%
4502	29405	5590		2885		5938	6	4804	10	7%	4698	3 *	26%
4503	29396	4965		3077	8	5931	7	4658			2427		
4504	29394	5649	10	2179		5299		4376			2551		
4505	CR Dhan 201 (NC)	4648		2500		4257		3802			2769		
4506	29409	5880	7	3205	5	5479	10	4855	8	9%	3827	8	
4507	29421	5124		2885		4757		4255			3671	10	
4508	29412	7674	2	4577	3	6019	5	6090	1 *	36%	3204		
4509	29422	5552		2628		4565		4248			4231	6	13%
4510	29410	3741		3141	6	4348		3743			2822		
4511	Zonal Check (ZC)	5628		2756		5034		4473			3453		
4512	29430	5711	9	2692		6623	1	5009	7 *	12%	4262	5	14%
4513	29415	5842	8	2949	10	5642	8	4811	9	8%	3516		
4514	PA 6129 (HC)	7764	1	3077	8	6068	4	5636	4		4573	4	
4515	29446	5297		2756		3401		3818			2800		
4516	29423	5614		4615	1	3211		4480			3182		
4517	29436	7315	3	3141	6	6616	2	5691	3 *	27%	4169	7	12%
4518	29424	6586	5	2949	10	5604	9	5046	6 *	13%	4916	1 *	32%
4519	Local Check (LC)	4855		2885		5390		4377			3733	9	
4520	28636	6670	4	4551	4	4049		5090	5 *	14%	3204		
Exp. Mean		**5820**		**3203**		**5232**		**4752**			**3646**		
CD		1036		559		1088		521			735		
CV%		**10.77**		**10.56**		**12.58**		**6.64**			**12.19**		
D/S		28-06-2022		06-07-2022		14-06-2022					18-06-2022		
D/P													
Local Check Name		Sabour Shree		Rajendra Mahsuri		Rajendra Bhagwati					BVD-203		

Table No. 2.2 (Contd): Grain Yield (kg/ha) in AVT 2 – AEROB, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN				ZONE IV- NORTH EASTERN			ZONE V- CENTRAL			
		UTTAR PRADESH (1)		Zone III (6)		TRIPURA (1)			CHHATTISGARH (1)		Zone V (1)	
		MASODHA		Mean		Lembucherra			JAGADALPUR		Mean	
4501	29411	3543		4851	1 * 24%	3327	10	11%	3303		3303	
4502	29405	4079	3	4405	7 * 13%	3025			3446	8	3446	8
4503	29396	3623	10	3910		3414	9	13%	3596	6	3596	6 9%
4504	29394	2281		3516		1917			2977		2977	
4505	CR Dhan 201 (NC)	3516		3464		3841	4		2910		2910	
4506	29409	4053	4	4215	8 8%	4327	2 * 13% #	44%	3662	5	3662	5 11%
4507	29421	1959		3507		3718	5 #	24%	3088		3088	
4508	29412	4133	1 5%	4806	2 * 23%	4765	1 * 24% #	8%	4434	1	4434	1 * 35%
4509	29422	1906		3675		3060			3766	2	3766	2 15%
4510	29410	3972	6	3459		2119			3181		3181	
4511	Zonal Check (ZC)	3918	9	3912	10	3451	7		3288		3288	
4512	29430	3945	7	4423	6 * 13%	2913			3129		3129	
4513	29415	1664		3915	9	3136			3313	10	3313	10
4514	PA 6129 (HC)	4106	2	4713	4	3009			3723	3	3723	3 13%
4515	29446	3543		3443		3878	3 #	29%	3347	9	3347	9
4516	29423	2013		3567		2858			3141		3141	
4517	29436	4053	4	4798	3 * 23%	3433	8 #	14%	3682	4	3682	4 12%
4518	29424	3945	7	4541	5 * 16%	2968			3462	7	3462	7 5%
4519	Local Check (LC)	3328		3855		2895			3024		3024	
4520	28636	1879		3868		3563	6 #	18%	3015		3015	
Exp. Mean		**3273**		**4042**		**3281**			**3374**		**3374**	
CD		391		337		411			813		813	
CV%		**7.22**		**5.05**		**7.57**			**14.58**		**14.58**	
D/S		18-07-2022				10-07-2022			13-06-2022			
D/P						44776						
Local Check Name		Shushak Smrat				TRC 2015-5			Indira Aerobic 1			

Table No. 2.2 (Contd): Grain Yield (kg/ha) in AVT 2 – AEROB, Kharif 2022

ENTRY NO	IET NO	ZONE VI- WESTERN											
		GUJARAT				GUJARAT (2)			Zone VI (2)			Overall Mean(12)		
		NAVSARI		Vyara		Mean			Mean					
4501	29411	6298	1	2193		4246	8		4246	8		4628	3 *	18%
4502	29405	5128	7	3000		4064			4064			4193	7 *	7%
4503	29396	5867	3	2431		4149	9		4149	9		4168	8 *	6%
4504	29394	4552		3622	6	4087	10		4087	10		3490		
4505	CR Dhan 201 (NC)	4274		2705		3490			3490			3653		
4506	29409	4659		2445		3552			3552			4217	6 *	8%
4507	29421	4540		4665	1	4603	3	14%	4603	3	14%	3813		
4508	29412	5881	2	3735	4	4808	1 *	19%	4808	1 *	19%	5014	1 *	28% #
4509	29422	4378		2826		3602			3602			3590		
4510	29410	3870		2412		3141			3141			3434		
4511	Zonal Check (ZC)	2545		584		1565			1565			3337		
4512	29430	4686	10	2502		3594			3594			4127	9	5%
4513	29415	5235	5	3602	8	4419	6	9%	4419	6	9%	4100	10	
4514	PA 6129 (HC)	4944	9	4468	2	4706	2		4706	2		4621	4	
4515	29446	3904		3448	10	3676			3676			3787		
4516	29423	4576		2834		3705			3705			3663		
4517	29436	5166	6	3913	3	4540	4	12%	4540	4	12%	4666	2 *	19%
4518	29424	5073	8	3531	9	4302	7	6%	4302	7	6%	4455	5 *	14%
4519	Local Check (LC)	4375		3728	5	4052			4052			3916		
4520	28636	5347	4	3619	7	4483	5	11%	4483	5	11%	3934		
Exp. Mean		**4765**		**3113**		**3939**			**3939**			**4040**		
CD		789		958		635			635			238		
CV%		**10.02**		**18.62**		**9.76**			**9.76**			**3.57**		
D/S		06-06-2022		22-06-2022										
D/P														
Local Check Name		GNR-8		NAUR-1										

Table No. 2.2: Grain Yield (kg/ha) in AVT 2 – AEROB, (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED					
		MADHYA PRADESH		CHHATTISGARH		MAHARASHTRA (0)	
		@REWA		@RAIPUR		@Parbhani	
4501	29411	3542	3	2172		3089	4
4502	29405	3646	2	2807	5	3002	6
4503	29396	2587	10	1884		2084	
4504	29394	2053		2129		2893	7
4505	CR Dhan 201 (NC)	2109		1717		3273	2
4506	29409	1276		1785		3613	1
4507	29421	2682	8	2179		3271	3
4508	29412	3516	4	3712	1	2729	10
4509	29422	2083		2366	10	1867	
4510	29410	2669	9	1532		2571	
4511	Zonal Check (ZC)	1337		2778	6	2851	8
4512	29430	2431		3091	4	2327	
4513	29415	4740	1	2512	8	2776	9
4514	PA 6129 (HC)	3372	5	3598	2	2707	
4515	29446	1888		1390		2460	
4516	29423			2378	9	1831	
4517	29436	3294	6	3397	3	2280	
4518	29424	2982	7	2762	7	2407	
4519	Local Check (LC)			1746		3076	5
4520	28636	2257		1630		2076	
Exp. Mean		**2692**		**2378**		**2659**	
CD		749		624		225	
CV%		**16.78**		**15.88**		**5.12**	
D/S		16-07-2022		28-06-2022		02-07-2022	
D/P							
Local Check Name		MTU 1010		Indira Aerobic 1		Avishkar	

Table No. 2.2 (Contd): Grain Yield (kg/ha) in AVT 2 – AEROB, (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED					
		GUJARAT		TAMIL NADU (0)		KARNATAKA (0)	
		@Derol		@COIMBATORE		@MANDYA	
4501	29411	940		2943	5	1621	
4502	29405	1470	7	2694	9	1873	
4503	29396	1052		2520		1815	
4504	29394	754		2644		1014	
4505	CR Dhan 201 (NC)	1082		2813	6	1893	
4506	29409	1116		2689	10	2319	6
4507	29421	1205	9	3103	2	2112	8
4508	29412	1694	4	1499		2300	7
4509	29422	501		2774	7	3107	4
4510	29410	987		2038		4651	3
4511	Zonal Check (ZC)	1799	2	1883		1550	
4512	29430	1476	6	3064	3	1744	
4513	29415	1394	8	2252		1718	
4514	PA 6129 (HC)	1762	3	2974	4	1693	
4515	29446	740		2430		1421	
4516	29423	875		2051		3088	5
4517	29436	1184	10	2548		1970	9
4518	29424	1560	5	2697	8	1919	10
4519	Local Check (LC)	2248	1	3210	1	4664	2
4520	28636	956		2507		5401	1
Exp. Mean		**1240**		**2567**		**2394**	
CD		627		562		477	
CV%		**30.59**		**13.24**		**12.06**	
D/S		28-06-2022		15-09-2022		09-07-2022	
D/P							
Local Check Name		GR 9		CO 53		KMP-175	

Table No. 2.3: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 – AEROB, Kharif 2022

ENTRY NO	IET NO	ZONE II-NORTHERN									ZONE III-EASTERN		
		PUNJAB (1)			HARYANA (1)			Zone II (2)			ODISHA (1)		
		LUDHIANA			KAUL			Mean			ICAR-NRRI (Cuttack)		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4501	29411	78	107	423	91	97	296	84	102	360	76	106	234
4502	29405	75	121	400	87	113	243	81	117	322	84	102	212
4503	29396	72	102	447	86	104	266	79	103	356	77	91	255
4504	29394	78	106	427	89	115	247	84	111	337	92	98	207
4505	CR Dhan 201 (NC)	81	108	433	94	120	277	88	114	355	98	96	262
4506	29409	74	122	447	87	124	282	81	123	365	82	102	232
4507	29421	69	113	450	84	115	252	77	114	351	84	94	224
4508	29412	83	108	440	94	99	280	88	104	360	82	89	223
4509	29422	84	86	437	97	85	231	91	85	334	84	90	288
4510	29410	80	116	437	90	111	274	85	113	355	82	95	188
4511	Zonal Check (ZC)	80	131	423	98	132	251	89	131	337	97	99	247
4512	29430	84	109	467	95	124	282	90	117	374	80	113	233
4513	29415	81	108	423	92	115	252	87	112	338	82	102	265
4514	PA 6129 (HC)	84	102	473	90	89	259	87	95	366	84	86	219
4515	29446	76	98	440	92	86	240	84	92	340	76	88	214
4516	29423	77	99	447	90	96	246	84	97	346	89	90	242
4517	29436	79	112	447	88	111	299	84	111	373	76	94	210
4518	29424	82	109	440	89	118	285	86	114	363	89	96	257
4519	Local Check (LC)	80	100	427	90	105	245	85	103	336	83	111	206
4520	28636	80	106	430	87	94	238	84	100	334	82	94	214
Exp. Mean		**79**	**108**	**438**	**91**	**108**	**262**	**85**	**108**	**350**	**84**	**97**	**232**

Table No. 2.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 – AEROB, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN														
		BIHAR									BIHAR (3)			JHARKHAND (1)		
		BIKRAMGANJ (Dhangain)			PUSA			Patna-ICAR			Mean			RANCHI		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4501	29411	81	115	238	81	102	217	91	86	198	84	101	218	86	91	202
4502	29405	81	134	267	81	104	142	94	98	197	85	112	202	85	106	176
4503	29396	79	106	312	75	88	185	89	80	189	81	91	228	79	86	164
4504	29394	84	125	272	85	100	198	89	83	206	86	103	225	85	100	156
4505	CR Dhan 201 (NC)	84	112	280	81	102	199	96	86	200	87	100	227	87	92	160
4506	29409	84	136	324	79	101	200	94	89	197	86	109	240	84	103	141
4507	29421	76	115	303	77	100	184	84	89	187	79	102	225	82	90	179
4508	29412	81	125	295	76	88	182	88	82	191	82	98	223	82	83	149
4509	29422	82	96	310	79	97	186	96	81	187	85	91	228	86	88	196
4510	29410	79	116	307	80	97	162	94	85	196	84	99	222	85	101	156
4511	Zonal Check (ZC)	83	122	312	81	122	162	103	97	203	89	114	225	93	102	168
4512	29430	81	122	320	86	102	166	104	93	188	90	106	225	94	100	177
4513	29415	80	129	297	81	103	152	98	85	205	86	106	218	85	93	141
4514	PA 6129 (HC)	81	113	309	80	101	160	91	85	182	84	100	217	86	95	169
4515	29446	79	124	283	77	97	139	88	74	172	82	98	198	82	84	136
4516	29423	80	107	353	79	96	188	95	82	183	84	95	241	86	83	131
4517	29436	78	123	345	79	102	171	91	91	212	83	105	243	86	101	136
4518	29424	81	134	313	80	104	196	96	91	216	85	109	242	86	99	199
4519	Local Check (LC)	98	107	332	77	99	218	91	95	202	89	100	251	99	95	236
4520	28636	84	117	290	101	87	208	89	80	156	91	94	218	87	87	150
Exp. Mean		**82**	**119**	**303**	**81**	**100**	**181**	**93**	**87**	**193**	**85**	**102**	**226**	**86**	**94**	**166**

Table No. 2.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 – AEROB, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN						ZONE IV- NORTH EASTERN			ZONE V- Central					
		UTTAR PRADESH (1)			Zone III (6)			TRIPURA			CHHATTISGARH (1)			Zone V (1)		
		MASODHA			Mean			Lembucherra			JAGADALPUR			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4501	29411	69	77	222	81	96	219	94	107	250	84	90	247	84	90	247
4502	29405	61	86	249	81	105	207	83	104	292	84	85	208	84	85	208
4503	29396	71	74	218	78	88	220	80	91	275	83	87	271	83	87	271
4504	29394	72	79	178	84	97	203	68	91	283	83	104	143	83	104	143
4505	CR Dhan 201 (NC)	70	77	218	86	94	220	80	102	292	82	88	244	82	88	244
4506	29409	67	82	265	82	102	226	83	102	300	82	100	217	82	100	217
4507	29421	76	76	180	80	94	210	79	117	350	78	101	291	78	101	291
4508	29412	71	92	248	80	93	215	75	107	367	84	84	245	84	84	245
4509	29422	67	67	182	82	86	225	76	91	375	86	77	265	86	77	265
4510	29410	64	81	266	81	96	213	70	114	333	87	93	160	87	93	160
4511	Zonal Check (ZC)	67	84	257	87	104	225	73	127	350	92	104	176	92	104	176
4512	29430	50	92	254	83	104	223	80	107	267	92	102	194	92	102	194
4513	29415	71	78	138	83	98	200	69	102	267	87	97	177	87	97	177
4514	PA 6129 (HC)	67	87	266	82	94	217	80	89	275	86	92	204	86	92	204
4515	29446	68	81	219	79	91	194	81	94	192	78	88	268	78	88	268
4516	29423	63	78	146	82	89	207	80	91	267	86	72	204	86	72	204
4517	29436	65	87	234	79	100	218	74	94	308	87	95	176	87	95	176
4518	29424	63	94	223	82	103	234	77	117	350	84	98	233	84	98	233
4519	Local Check (LC)	71	85	221	86	99	236	76	114	325	79	99	276	79	99	276
4520	28636	65	87	150	85	92	195	62	94	342	86	89	166	86	89	166
Exp. Mean		**67**	**82**	**217**	**82**	**96**	**215**	**77**	**103**	**303**	**85**	**92**	**218**	**85**	**92**	**218**

Table No. 2.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 – AEROB, Kharif 2022

ENTRY NO	IET NO	ZONE VI - WESTERN												Overall Mean(12)		
		GUJARAT						GUJARAT (2)			Zone VI (2)					
		NAVSARI			Vyara			Mean			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4501	29411	82	127	192	83	112	240	83	119	216	83	119	216	83	101	247
4502	29405	76	117	197	79	133	251	78	125	224	78	125	224	81	108	236
4503	29396	76	104	164	84	100	199	80	102	182	80	102	182	79	93	245
4504	29394	78	100	167	79	107	249	79	104	208	79	104	208	82	101	228
4505	CR Dhan 201 (NC)	84	108	200	83	119	245	84	113	223	84	113	223	85	101	251
4506	29409	81	86	193	78	118	259	80	102	226	80	102	226	81	105	255
4507	29421	68	94	233	79	122	289	74	108	261	74	108	261	78	102	260
4508	29412	73	85	198	79	113	242	76	99	220	76	99	220	81	96	255
4509	29422	75	110	240	82	94	230	79	102	235	79	102	235	83	88	260
4510	29410	78	109	202	79	122	268	78	115	235	78	115	235	81	103	246
4511	Zonal Check (ZC)	94	121	191	63	127	235	79	124	213	79	124	213	85	114	248
4512	29430	84	113	189	88	110	276	86	112	233	86	112	233	85	107	251
4513	29415	75	104	197	80	127	259	78	115	228	78	115	228	82	104	231
4514	PA 6129 (HC)	72	103	189	78	117	261	75	110	225	75	110	225	82	96	247
4515	29446	69	105	210	78	112	266	74	108	238	74	108	238	79	94	232
4516	29423	75	119	236	79	108	245	77	113	241	77	113	241	82	93	241
4517	29436	74	132	207	79	122	267	77	127	237	77	127	237	80	105	251
4518	29424	80	114	193	79	121	244	79	118	218	79	118	218	82	108	262
4519	Local Check (LC)	66	105	208	79	111	283	73	108	246	73	108	246	82	102	265
4520	28636	79	107	204	80	92	223	80	99	213	80	99	213	82	94	231
Exp. Mean		**77**	**108**	**201**	**79**	**114**	**252**	**78**	**111**	**226**	**78**	**111**	**226**	**82**	**101**	**247**

Table No. 2.3: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2-AEROB, (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED								
		MADHYA PRADESH (0)			CHATTISGARH			MAHARASHTRA (0)		
		@REWA			@RAIPUR			@Parbhani		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4501	29411	94	82	218	83	82	81	83	60	326
4502	29405	86	100	252	78	78	83	82	87	306
4503	29396	89	73	241	74	74	71	78	70	162
4504	29394	91	86	184	83	83	85	80	61	288
4505	CR Dhan 201 (NC)	92	81	187	84	84	77	83	67	348
4506	29409	92	86	198	83	83	65	82	74	363
4507	29421	86	87	252	78	77	90	79	71	339
4508	29412	94	70	209	79	77	90	79	69	277
4509	29422	92	70	227	82	82	65	84	55	78
4510	29410	94	85	279	81	81	53	85	72	266
4511	Zonal Check (ZC)	96	88	274	91	89	100	65	92	320
4512	29430	100	77	214	91	90	103	88	64	198
4513	29415	90	81	215	80	80	63	83	67	259
4514	PA 6129 (HC)	96	73	239	81	81	77	84	56	239
4515	29446	88	79	245	77	77	60	83	62	221
4516	29423				81	82	95	83	49	113
4517	29436	93	80	243	78	78	90	83	49	187
4518	29424	96	83	228	80	80	87	84	61	204
4519	Local Check (LC)				80	81	82	83	72	361
4520	28636	96	80	187	82	82	66	86	41	160
Exp. Mean		**92**	**81**	**227**	**81**	**81**	**79**	**82**	**65**	**251**

Table No. 2.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2-AEROB, (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED								
		GUJARAT			TAMIL NADU (0)			KARNATAKA (0)		
		@Derol			@COIMBATORE			@MANDYA		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4501	29411	86	76	157	81	84	462	94	73	380
4502	29405	82	98	200	81	97	454	85	79	313
4503	29396	78	78	187	80	80	469	87	69	253
4504	29394	83	77	111	85	91	443	91	70	293
4505	CR Dhan 201 (NC)	81	84	213	80	90	461	86	71	420
4506	29409	84	84	217	81	87	461	83	84	467
4507	29421	78	95	216	82	87	464	79	70	320
4508	29412	84	68	224	83	78	470	91	63	287
4509	29422	83	71	171	80	70	484	89	56	327
4510	29410	80	96	173	80	97	472	85	70	320
4511	Zonal Check (ZC)	68	110	277	84	75	468	93	64	480
4512	29430	89	91	235	93	90	470	96	78	413
4513	29415	82	77	189	81	88	464	82	64	367
4514	PA 6129 (HC)	85	81	200	90	84	455	88	66	347
4515	29446	82	77	184	79	89	484	74	55	393
4516	29423	83	78	169	79	73	484	79	58	373
4517	29436	83	89	211	82	83	464	79	71	347
4518	29424	86	88	252	82	84	448	78	60	300
4519	Local Check (LC)	69	112	172	85	101	524	76	84	247
4520	28636	79	73	143	85	81	468	82	56	353
Exp. Mean		**81**	**85**	**195**	**83**	**86**	**468**	**85**	**68**	**350**

Table No. 2.4: Grain quality characteristics of entries in AVT 2-Aerobic, kharif 2022

Entry No.	IET No.	Hull %	Mill %	HRR %	KL	KB	L/B	Grain type	Grain Chalk	ASV	AC	GC
4501	29411	78	63.4	58.3	7.26	1.99	3.66	LS	VOC	7	24.78	22
4502	29405	76.2	65.5	57.6	6.15	2.27	2.7	LB	VOC	4	23.11	37
4503	29396	78.8	64	53.6	6.58	2.08	3.16	LS	VOC	5	23.7	56
4504	29394	77.3	70.7	60.4	7.66	1.93	3.96	LS	VOC	7	22.29	22
4505	CR Dhan 201(NC)	78	68.1	55.2	6.36	1.99	3.19	LS	VOC	7	23.58	22
4506	29409	73.3	63.3	56.6	5.85	2.22	2.63	MS	VOC	7	21.91	26
4507	29421	81	69.4	56.8	5.51	2.01	2.74	MS	VOC	7	24.72	26
4508	29412	79.6	70.3	60	6.25	2.15	2.9	LB	VOC	7	22.88	22
4509	29422	79.4	67.8	52.5	6.39	2.03	3.14	LS	VOC	5	23.46	46
4510	29410	77.6	70.9	63.6	6.75	2.09	3.22	LS	VOC	4	24.02	25
4511	CR Dhan 202(ZC)	80.1	69.6	59.2	5.35	2.12	2.52	MS	VOC	4	26.04	73
4512	29430	80.7	69.6	53.6	6.86	2.05	3.34	LS	VOC	4	27.74	33
4513	29415	76.4	66.6	59.6	6.04	2.13	2.83	LB	VOC	3	21.29	39
4514	PA 6129 (HC)	82.8	76.1	59.6	6.17	2.12	2.91	LB	VOC	7	24.55	46
4515	29446	78.5	70	55.1	6.3	2.06	3.05	LS	VOC	4	19.21	55
4516	29423	79	70.4	57.7	6.4	1.88	3.4	LS	VOC	4	21.61	57
4517	29436	79.2	66.1	52	6.6	2.29	2.88	LB	VOC	7	23.76	47
4518	29424	79.1	69.1	51.4	6.15	2.27	2.7	LB	VOC	5	23.23	22
4519	Sabour Shree (LC)	77.3	60.6	52.5	5.6	2.3	2.43	SB	VOC	5	23.32	31
4520	28636	79.8	56.6	53.05	6.41	1.92	3.33	LS	VOC	5	24.4	33

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. 2.5: Composition of entries in Advance Variety Trial 1-Aerobic (AVT 1-AEROB), Kharif 2022

Entry No.	IET No.	Designation	Cross Combination	GT
2nd year of testing				
4601	30003	RCPR 79-IR 84899-B-185-8-1-1-1	IR 78877-208-B-1-1 / IRRI 132	MS
4602	30013	BRR 2137	CR 3939-18 Selection (IR 73907-753-2-3 / Pratiksya)	LS
4603	30004	CSR PET 27	CSR 30 / CSR 27	LS
4604	30008	BRR 0180-IR14L157	IR 81039-B-173-U 3-3 / IR 81063-B-94-U 3-1	LS
4605	30023	TRC 184-B-B-76-1-1	Tripura Nirog / TRC 87-251	SB
4606	30028	CR 3937-1-1-1-1-1-2-3	IR 73895-33-1-3-2 / Lalat	SB
4607	30041	BRR 2184	HHZ 14-Sal-10-DT-1-DT-1-Selection (Huang-Hua-Zhan * 2 / IR 64)	LS
4608	30020	CRR 842-IR14L159	IR 10N102 / IR 86931-B-400	LS
4609	30022	RCPR 80-IR 14L 157	IR 81039-B-173-U 3-3 / IR 81063-B-94-U 3-1	LB
4610	30000	CRR 780-B-B-14-1	Naveen / IR 87707-446-B	MS
4611	30006	TRC H2TN 203-B-B-67-3	Hakuchuk 2 / Tripura Nirog	MS
4612	30034	TRC 185-B-B-82-2-11	Tripura Nirog / TRC 87-251	MS
4613	30045	BRR 2185	BP 11820-5F-KN-10-2-Selection	LS
4614	30035	NVSR 726	GAR-13 / Z-31	LB
4615	30052	R 1672-126-1-24-1	R 1027-2282-2-1 / Danteshwari	MS
4616	30027	CSR YET 78	CSR 30 / CSR 23	LS
4617	30021	HURS 21-2-IR15T1473	IR 11T252 / IR 09N522	LS
4618	30005	***US 391 (Hybrid)***	-	MS
4619	30001	R 2220-381-1-243-1	R 156-1328-1-40-1 / Mahamaya	MS
4620	30032	BRR 0181-IR 93827-29-1-1-4	IR 81039-B-173-U 3-3 / IR 81063-B-94-U 3-1	LS
4621	30051	CRR 790-69	CR Dhan 40 / IR 73963-86-1-5-2-2 (NPT PSR 12)	MS
4622	30037	PAU 5729-60-5-4-1 (RYT 3704)	IRBB 60 / PAU 3699-13-2-2-4	LS
4623	**CR Dhan 201 (NC)**			
4624	29425	RP 6482-RAF 2-GSR-IR-1-DQ62-D7-D1		LS
4625	**PA 6129 (HC)**			
4626	30029	BRR 2183	IR 74355-CN3 / CN 6-78	MS
4627	29447	RP 6483-RAF 27-GSR-IR-1-DQ125-R4-Y1		LS
4628	**CR Dhan 202 (Northern, Eastern, North Eastern and Central), AAUDR-1 (Western), MAS 946-1 (Southern)-ZC**			
4629	30038	HURS 21-5-IR 10L 14	IR 06L161 / IR 80508-B-57-3-B	LS
4630	30024	NVSR 3110	IR 28 / GAR 13	SS
4631	**Local Check (LC)**			

Table No. 2.6: Grain Yield (kg/ha) in AVT 1 – AEROB, Kharif 2022

ENTRY NO	IET NO	ZONE II-NORTHERN									
		Punjab (1)		Haryana				Haryana (2)		Zone II (3)	
		Ludhiana		Kaul		Karnal (ICAR-CSSRI)		Mean		Mean	
4601	30003	3927		4692		2940		3816		3853	
4602	30013			2946		2750		2848		2848	
4603	30004	3308		3901		5550	1	4726	8	4253	
4604	30008	4115		5674	2	4020		4847	6	4603	8 *
4605	30023	4940	8	3628		5190	6	4409		4586	9 *
4606	30028			4528		3840		4184		4184	
4607	30041	6504	1	4392		2770		3581		4555	
4608	30020	5662	5	5401	4	5370	2	5386	1 * #	5478	1 *
4609	30022	4551		6001	1	4740	9	5371	3 * #	5097	3 *
4610	30000	3316		5646	3	3200		4423		4054	
4611	30006	5825	3	4446		4190		4318		4820	6 *
4612	30034	4603				5320	4	5320	4 * #	4962	5 *
4613	30045	5419	6	5374	5	5370	2	5372	2 * #	5388	2 *
4614	30035	3581		4419		3430		3925		3810	
4615	30052	4351		4637		4630		4634	10	4539	
4616	30027	3406		4474		5190	6	4832	7	4357	
4617	30021	1389				3220		3220		2305	
4618	30005	4906	9	5374	5	4000		4687	9	4760	7 *
4619	30001	4252		4828	8	3410		4119		4163	
4620	30032	4943	7	4965	7	3250		4108		4386	
4621	30051	3739		4828	8	5190	6	5009	5 *	4586	9 *
4622	30037	3825		4719	10	4050		4385		4198	
4623	CR Dhan 201 (NC)	3415		3873		4690	10	4282		3993	
4624	29425	4825	10	2973		2970		2972		3589	
4625	PA 6129 (HC)	5833	2	4228		4850	8	4539		4970	4
4626	30029			3492		3780		3636		3636	
4627	29447	4346		4201		2600		3401		3716	
4628	Zonal Check (ZC)	2145		3028		3000		3014		2724	
4629	30038	4825	10	3546		2740		3143		3704	
4630	30024	4547		3983		3230		3607		3920	
4631	Local Check (LC)	5765	4	3655		2650		3153		4023	
Exp. Mean		**4367**		**4409**		**3940**		**4170**		**4195**	
F Value		15.46(p<0.0001)S		14.21(p<0.0001)S		7.92(p<0.0001)S		11.90(p<0.0001)S		13.73(p<0.0001)S	
CD		791		602		958		609		536	
CV%		**11.07**		**8.35**		**14.88**		**8.95**		**7.83**	
D/S		13-06-2022		18-06-2022		28-06-2022					
D/P											
Local Check Name		PR 126		HKR-48		CSR 27					

For Promotion of entries:
***For Varietal entries: Yield of entry should be superior over yield of BVC+CD (at 5%level of significance).**
#For hybrid entries: Yield of entry should be superior over yield of BVC+CD and over yield of BHC+CD (at 5% level of significance)
In locations where the F variance ratio between treatments is non-significant, data from such locations was not considered in analysis.

Table No. 2.6 (Contd): Grain Yield (kg/ha) in AVT 1 – AEROB, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN									
		Odisha (1)		Bihar						Bihar (3)	
		ICAR-NRRI (Cuttack)		Bikramganj (Dhangain)		Pusa		Patna-ICAR		Mean	
4601	30003	2838		5669		4000		4131		4600	
4602	30013	3087		5431		4762	8	3055		4416	
4603	30004	3642	7	5230		4952	4	5036		5073	10 *
4604	30008	3273		6087	8	3429		4206		4574	
4605	30023	3669	6	5963		5048	3	4591		5201	7 *
4606	30028	3760	3	5678		4857	6	5457	9	5331	6 *
4607	30041	2016		7242	2	4857	6	2303		4801	
4608	30020	2580		6052	10	4952	4	3937		4980	*
4609	30022	2927		6106	7	4571	9	5723	6	5467	4 *
4610	30000	3738	4	5260		2286		5635	8	4394	
4611	30006	3269		5720		2190		3457		3789	
4612	30034	2793		5716		3048		2555		3773	
4613	30045	3193		5788		2286		4027		4034	
4614	30035	3064		6074	9	4476	10	5661	7	5404	5 *
4615	30052	2807		5516		2286		6503	3	4768	
4616	30027	1413		4813		2286		2538		3212	
4617	30021	3040		4749		2857		3653		3753	
4618	30005	3627	8	6914	4	5429	2	6207	5	6183	2 *
4619	30001	2560		4604		2381		6441	4	4475	
4620	30032	3368	9	6957	3	3238		5065	10	5087	9 *
4621	30051	2459		6603	5	2952		7116	2	5557	3 *
4622	30037	2620		5303		2857		4657		4272	
4623	CR Dhan 201 (NC)	3787	2	5320		3143		3195		3886	
4624	29425	3341		5618		1714		2280		3204	
4625	PA 6129 (HC)	4362	1	6116	6	5524	1	7185	1	6275	1
4626	30029	3360	10	8188	1	2762		4509		5153	8 *
4627	29447	2500		5094		3524		4116		4245	
4628	Zonal Check (ZC)	2900		5501		2381		3643		3842	
4629	30038	2471		5898		2476		1661		3345	
4630	30024	3709	5	5370		3905		4890		4722	
4631	Local Check (LC)	2367		4377		4476	10	4413		4422	
Exp. Mean		**3050**		**5773**		**3545**		**4447**		**4588**	
F Value		4.42(p<0.0001)S		8.21(p<0.0001)S		15.24(p<0.0001)S		56.02(p<0.0001)S		26.85(p<0.0001)S	
CD		886		834		812		532		430	
CV%		**17.79**		**8.84**		**14.02**		**7.33**		**5.73**	
D/S		23-06-2022		03-07-2022		05-07-2022		13-06-2022			
D/P											
Local Check Name		CR DHAN 205		Sabaour Ardhjal		Rajendra Mahsuri		Rajendra Bhagwati			

Table No. 2.6 (Contd): Grain Yield (kg/ha) in AVT 1 – AEROB, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN						ZONE V – CENTRAL			
		Jharkhand (1)		Uttar Pradesh (1)		Zone III (6)		Chhattisgarh (1)		Zone V (1)	
		Ranchi		Varanasi		Mean		Raipur		Mean	
4601	30003	2889		3071		3766		3992		3992	
4602	30013	3778		1626		3623		2860		2860	
4603	30004	2733		3072		4111	*	2613		2613	
4604	30008	3778		3736	5 *	4085	*	4950	4	4950	4
4605	30023	3689		3082		4340	6 *	4016		4016	
4606	30028	3978	8	3063		4466	3 *	2797		2797	
4607	30041	3800		3068		3881		4304	10	4304	10
4608	30020	3222		3093		3973	*	5246	2	5246	2
4609	30022	4111	5	3103		4424	4 *	4539	6	4539	6
4610	30000	4711	3 *	3236	8	4144	9 *	4200		4200	
4611	30006	4000	7	3708	6 *	3724		3535		3535	
4612	30034	3822		3092		3504		3138		3138	
4613	30045	3822		3071		3698		3025		3025	
4614	30035	4022	6	3082		4397	5 *	3646		3646	
4615	30052	3467		4132	3 *	4119	10 *	4469	7	4469	7
4616	30027	2311		2109		2578		3326		3326	
4617	30021	2933		1758		3165		2806		2806	
4618	30005	4778	2 *	4229	2 *	5197	2 *	3889		3889	
4619	30001	3978	8	3181	9	3858		3775		3775	
4620	30032	3356		3081		4178	8 *	4343	8	4343	8
4621	30051	3622		3116		4311	7 *	2967		2967	
4622	30037	3644		3071		3692		4061		4061	
4623	CR Dhan 201 (NC)	2667		3075		3531		4317	9	4317	9
4624	29425	2911		5139	1 *	3501		1953		1953	
4625	PA 6129 (HC)	4911	1	4125	4	5371	1	5417	1	5417	1
4626	30029	4333	4	1450		4100	*	5120	3	5120	3
4627	29447	2711		3082		3505		1969		1969	
4628	Zonal Check (ZC)	3844	10	3070		3557		3845		3845	
4629	30038	2444		1992		2824		4759	5	4759	5
4630	30024	3156		3597	7	4105	*	3960		3960	
4631	Local Check (LC)	3111		3149	10	3649		3636		3636	
Exp. Mean		**3566**		**3112**		**3915**		**3789**		**3789**	
F Value		6.51(p<0.0001)S		19.73(p<0.0001)S		27.50(p<0.0001)S		4.60(p<0.0001)S		4.60(p<0.0001)S	
CD		802		478		304		1160		1160	
CV%		**13.76**		**9.41**		**4.75**		**18.75**		**18.75**	
D/S		17-06-2022		16-06-2022				26-06-2022			
D/P											
Local Check Name		BVD-203		HUR-3022				Indira Aerobic 1			

Table No. 2.6 (Contd): Grain Yield (kg/ha) in AVT 1 – AEROB, Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN				ZONE VII – SOUTHERN				Overall Mean (12)	
		Gujarat (1)		Zone VI (1)		Telanagana (1)		Zone 7(1)			
		Navasari		Mean		Rudrur		Mean			
4601	30003	5154	6	5154	6	5946	1 * #	5946	1 * #	4104	*
4602	30013	2135		2135		3826		3826		3296	
4603	30004	5280	4	5280	4	4042		4042		4113	*
4604	30008	5112	8	5112	8	4255	8	4255	8	4386	5 *
4605	30023	4660		4660		3400		3400		4323	7 *
4606	30028	3775		3775		3873		3873		4146	*
4607	30041	4574		4574		3362		3362		4099	*
4608	30020	4738		4738		4794	6	4794	6	4587	3 *
4609	30022	4920	10	4920	10	3552		3552		4570	4 *
4610	30000	4906		4906		3712		3712		4154	*
4611	30006	5525	2 *	5525	2 *	3887		3887		4146	*
4612	30034	5276	5	5276	5	3727		3727		3917	
4613	30045	5421	3 *	5421	3 *	5066	5 * #	5066	5 * #	4322	8 *
4614	30035	5125	7	5125	7	5407	3 * #	5407	3 * #	4332	6 *
4615	30052	4257		4257		4634	7	4634	7	4307	9 *
4616	30027	3301		3301		3669		3669		3236	
4617	30021	4646		4646		5258	4 * #	5258	4 * #	3301	
4618	30005	6046	1 * #	6046	1 * #	3651		3651		4921	2 *
4619	30001	3940		3940		4191	9	4191	9	3962	
4620	30032	4928	9	4928	9	3943		3943		4286	10 *
4621	30051	3764		3764		3657		3657		4168	*
4622	30037	3521		3521		3590		3590		3827	
4623	CR Dhan 201 (NC)	3007		3007		3610		3610		3675	
4624	29425	3157		3157		3345		3345		3352	
4625	PA 6129 (HC)	4673		4673		3995		3995		5102	1
4626	30029	2591		2591		3173		3173		3887	
4627	29447	1295		1295		3578		3578		3251	
4628	Zonal Check (ZC)	2509		2509		3295		3295		3263	
4629	30038	3056		3056		3307		3307		3265	
4630	30024	3676		3676		5841	2 * #	5841	2 * #	4155	*
4631	Local Check (LC)	4457		4457		4089	10	4089	10	3845	
Exp. Mean		**4175**		**4175**		**4054**		**4054**		**4010**	
F Value		11.70(p<0.0001)S		11.70(p<0.0001)S		4.59(p<0.0001)S		4.59(p<0.0001)S		30.80(p<0.0001)S	
CD		905		905		970		970		246	
CV%		**13.27**		**13.27**		**14.65**		**14.65**		**3.75**	
D/S		10-06-2022				30-06-2022					
D/P											
Local Check Name		GNR-8				MTU 1010					

Table No. 2.6 (Contd): Grain Yield (kg/ha) in AVT 1– AEROB, (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED									
		Uttar Pradesh		Tripura		Madya Pradesh		Chattisgarh		Maharashtra	
		@Masodha		@Lembucherra		@Rewa		@Jagadalpur		@Parbhani	
4601	30003	2733	3	4386		2101	3	3138		2718	
4602	30013	1000		3964		226		3084		3291	6
4603	30004	2222		4112		582		3058		2729	
4604	30008	2800	2	4542	7	1988	4	2961		2631	
4605	30023	1156		4334		1233		2973		3107	
4606	30028	2667	4	4631	4	803		3763	2	3278	8
4607	30041	2111		4253		751		3751	3	3060	
4608	30020	2022		4297		1532	8	3224	10	2918	
4609	30022	1378		4408	10	1710	7	3152		3149	
4610	30000	1978		4519	8	1259		3108		2851	
4611	30006	2422	8	4297		1393	10	3433	5	3060	
4612	30034	2036		4464	9	616		3293	8	2673	
4613	30045	1578		3792		1124		2903		2740	
4614	30035	1544		4179		378		2997		2813	
4615	30052	2556	7	4149		2309	1	3120		3202	
4616	30027	2200		3630		1211		2993		2860	
4617	30021	2244	10	4594	5	148		3193		2747	
4618	30005	2267	9	4408	10	1819	6	3092		3404	3
4619	30001	2578	6	4186		1827	5	2945		3353	5
4620	30032	1129		3964		903		3285	9	3387	4
4621	30051	2589	5	4371		2266	2	3132		3218	10
4622	30037	1000		4371		634		3399	7	3162	
4623	CR Dhan 201 (NC)	1556		4853	1	616		3076		2720	
4624	29425	2822	1	3890		660		2911		2736	
4625	PA 6129 (HC)	1644		4112		1432	9	3429	6	2962	
4626	30029	1267		4556	6	130		4104	1	2842	
4627	29447	2076		4001		386		3649	4	2676	
4628	Zonal Check (ZC)	1400		4816	2	612		3024		3509	2
4629	30038	2178	#	3072		538		3218		3560	1
4630	30024	1282		4371		1159		3221		3289	7
4631	Local Check (LC)	2156		4668	3			2941		3222	9
Exp. Mean		**1954**		**4264**		**1078**		**3212**		**3028**	
F Value		28.32(p<0.0001)S		14.98(p<0.0001)S		33.72(p<0.0001)S		0.42(p=0.9958)NS		22.16(p<0.0001)S	
CD		293		302		304		1225		162	
CV%		**9.17**		**4.34**		**17.25**		**23.36**		**3.28**	
D/S		19-07-2022		12-07-2022		17-07-2022		11-06-2022		29-06-2022	
D/P				44776							
Local Check Name		Shushak Smrat		TRC 2015-5		MTU 1010		Indira Aerobic 1		Avishkar	

Table No. 2.6 (Contd): Grain Yield (kg/ha) in AVT 1– AEROB, (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED							
		Gujarat				Tamil Nadu		Karnataka	
		@Derol		@Vyara		@Coimbatore		@Mandya	
4601	30003	802		2769		2619		3148	
4602	30013	82		4264	1	2990		3009	
4603	30004	741		2440		2751		1937	
4604	30008	1627	4	3824	3	3021	7	2917	
4605	30023	1186		3654	6	2991	10	3410	9
4606	30028	844		4118	2	4084	1	4414	2
4607	30041	1538	5	2968	10	2677		2546	
4608	30020	824		2590		3056	6	2415	
4609	30022	1250	8	2120		2889		2477	
4610	30000	961		2021		3430	3	2870	
4611	30006	1238	9	3787	4	2679		2986	
4612	30034	679		2867		2082		2230	
4613	30045	960		2593		2674		2407	
4614	30035	1161		964		2064		2662	
4615	30052	1072		1623		2833		4961	1
4616	30027	960		1492		2751		2438	
4617	30021	521		2549		2874		1605	
4618	30005	1674	3	3196	8	3003	8	3326	10
4619	30001	1752	2	3162	9	2613		3542	7
4620	30032	852		3215	7	3170	5	3650	5
4621	30051	1196	10	3731	5	2620		3233	
4622	30037	1304	7	2166		2561		3534	8
4623	CR Dhan 201 (NC)	992		2647		2640		2037	
4624	29425	1077		2038		2918		1798	
4625	PA 6129 (HC)	2192	1	2727		3655	2	3750	4
4626	30029	574		2896		2801		3650	5
4627	29447	693		2542		2992	9	2894	
4628	Zonal Check (ZC)	1081		1529		2194		2708	
4629	30038	1008		2543		2578		2037	
4630	30024	1464	6	2001		2210		2901	
4631	Local Check (LC)	1151		2110		3350	4	4259	3
Exp. Mean		**1079**		**2682**		**2831**		**2960**	
F Value		4.20(p<0.0001)S		7.43(p<0.0001)S		3.97(p<0.0001)S		12.51(p<0.0001)S	
CD		639		812		591		612	
CV%		**36.27**		**18.55**		**12.78**		**12.66**	
D/S		04-07-2022		22-06-2022		15-09-2022		09-07-2022	
D/P									
Local Check Name		GR 9		NAUR-1		CO 53		KMP-175	

Table No. 2.7: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 1 – AEROB, Kharif 2022

ENTRY NO	IET NO	ZONE II-NORTHERN														
		Punjab (1)			Haryana						Haryana (2)			Zone 2(3)		
		Ludhiana			Kaul			Karnal (ICAR-CSSRI)			Mean			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4601	30003	88	129	340	89	126	277	100	124	320	95	125	298	92	126	312
4602	30013				104	99	221	119	93	310	112	96	266	112	96	266
4603	30004	86	96	397	87	106	255	103	103	263	95	105	259	92	102	305
4604	30008	89	102	407	87	107	292	103	101	391	95	104	342	93	104	363
4605	30023	82	113	453	90	108	272	92	113	354	91	111	313	88	111	360
4606	30028				111	108	230	110	79	344	111	94	287	111	94	287
4607	30041	82	91	503	90	101	241	100	96	332	95	99	287	91	96	359
4608	30020	87	104	480	94	111	284	103	96	350	98	104	317	95	104	371
4609	30022	85	107	433	93	109	302	104	122	450	98	116	376	94	113	395
4610	30000	93	126	483	96	133	282	102	121	346	99	127	314	97	127	371
4611	30006	84	115	333	87	107	240	88	101	329	88	104	285	86	108	301
4612	30034	83	105	463				88	134	340	88	134	340	86	119	402
4613	30045	90	104	413	94	111	274	97	92	406	95	102	340	93	103	364
4614	30035	88	105	423	95	109	252	100	100	320	97	105	286	94	105	332
4615	30052	87	106	397	88	112	296	94	100	360	91	106	328	90	106	351
4616	30027	89	113	473	92	113	275	94	108	377	93	110	326	92	111	375
4617	30021	107	95	480		.		109	77	409	109	77	409	108	86	445
4618	30005	91	106	413	92	89	269	92	106	371	92	97	320	92	100	351
4619	30001	88	102	507	87	116	256	90	101	266	89	109	261	88	106	343
4620	30032	104	100	545	94	114	303	97	98	411	95	106	357	98	104	420
4621	30051	93	105	483	95	99	281	98	105	473	96	102	377	95	103	412
4622	30037	93	89	440	95	90	278	94	86	419	95	88	348	94	88	379
4623	CR Dhan 201 (NC)	87	108	457	98	105	262	104	119	394	101	112	328	96	111	371
4624	29425	78	90	533	97	80	233	94	91	258	96	86	245	90	87	341
4625	PA 6129 (HC)	82	102	513	95	98	300	90	99	351	92	99	326	89	100	388
4626	30029				117	99	258	124	75	324	120	87	291	120	87	291
4627	29447	81	89	460	89	97	274	91	97	315	90	97	294	87	94	350
4628	Zonal Check (ZC)	91	121	363	93	118	262	103	127	346	98	122	304	96	122	324
4629	30038	75	99	387	86	111	270	94	110	299	90	110	284	85	107	318
4630	30024	82	90	460	89	99	253	98	83	308	93	91	281	89	91	340
4631	Local Check (LC)	81	96	473	89	117	276	92	103	307	91	110	292	88	105	352
Exp. Mean		**87**	**104**	**447**	**93**	**107**	**268**	**99**	**102**	**350**	**96**	**104**	**312**	**94**	**104**	**353**

Table No. 2.7 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 1 – AEROB, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN														
		Odisha (1)			Bihar									Bihar (3)		
		ICAR-NRRI (Cuttack)			Bikramganj (Dhangain)			Pusa			Patna-ICAR			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4601	30003	88	106	214	80	125	288	75	115	171	91	92	225	82	111	228
4602	30013	109	111	203	96	125	317	95	89	165	120	90	225	104	101	236
4603	30004	90	98	217	75	115	281	82	82	159	89	76	235	82	91	225
4604	30008	82	109	228	81	120	312	79	99	182	92	79	263	84	99	252
4605	30023	78	102	242	79	110	239	76	97	157	87	83	230	81	97	209
4606	30028	109	116	239	91	123	331	89	99	195	113	112	225	98	111	250
4607	30041	86	87	206	79	108	354	79	89	177	87	85	240	82	94	257
4608	30020	88	91	224	76	110	285	79	96	174	89	82	246	81	96	235
4609	30022	86	103	256	77	116	295	83	87	201	90	94	263	83	99	253
4610	30000	94	112	277	78	128	287	77	101	186	100	102	251	85	110	242
4611	30006	82	105	183	79	124	278	79	94	148	87	81	210	82	99	212
4612	30034	85	98	198	76	116	282	78	99	177	87	89	259	80	101	239
4613	30045	76	102	307	74	107	298	81	96	135	88	76	175	81	93	202
4614	30035	79	109	186	88	126	316	90	101	147	100	75	233	93	101	232
4615	30052	76	94	250	81	109	286	83	102	160	91	92	265	85	101	237
4616	30027	88	98	185	84	127	296	86	99	174	96	94	256	89	107	242
4617	30021	95	103	226	89	106	300	88	93	163	107	85	210	95	95	224
4618	30005	86	97	203	79	127	294	77	94	219	89	82	220	82	101	244
4619	30001	82	93	260	79	105	300	81	100	176	90	89	227	83	98	234
4620	30032	98	96	255	78	112	272	79	92	183	92	78	237	83	94	231
4621	30051	108	101	220	81	124	311	82	100	189	92	86	270	85	103	257
4622	30037	87	90	232	82	103	276	81	94	178	91	75	253	85	91	236
4623	CR Dhan 201 (NC)	95	107	253	83	125	272	81	99	183	89	75	258	84	99	237
4624	29425	78	94	262	74	104	296	78	91	162	88	81	211	80	92	223
4625	PA 6129 (HC)	81	95	207	75	110	287	78	97	226	87	78	236	80	95	250
4626	30029	111	109	235	106	111	303	108	89	196	121	86	229	112	95	242
4627	29447	78	101	223	79	100	283	80	92	211	87	86	165	82	92	220
4628	Zonal Check (ZC)	90	114	223	78	142	272	82	118	185	99	96	174	86	119	210
4629	30038	78	94	242	77	124	288	73	89	163	85	77	212	78	97	221
4630	30024	86	98	260	79	100	289	79	101	105	89	83	270	82	95	221
4631	Local Check (LC)	82	116	236	79	116	259	101	87	208	91	91	268	90	98	245
Exp. Mean		**88**	**102**	**231**	**81**	**116**	**292**	**83**	**96**	**176**	**94**	**85**	**234**	**86**	**99**	**234**

Table No. 2.7 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 1 – AEROB, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN									ZONE V-CENTRAL					
		Jharkhand (1)			Uttar Pradesh (1)			Zone III (6)			Chhattisgarh (1)			Zone V (1)		
		Ranchi			Varanasi			Mean			Raipur			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4601	30003	88	114	144	85	101	262	84	109	217	81	81	163	81	81	163
4602	30013	102	79	253	115	101	229	106	99	232	105	105	163	105	105	163
4603	30004	86	107	189	95	90	266	86	95	225	92	92	148	92	92	148
4604	30008	87	104	241	85	82	288	84	99	252	78	81	166	78	81	166
4605	30023	85	105	174	86	91	238	82	98	213	86	86	159	86	86	159
4606	30028	94	107	189	102	127	242	100	114	237	98	98	171	98	98	171
4607	30041	92	95	189	90	76	217	85	90	231	88	88	205	88	88	205
4608	30020	88	98	183	90	80	292	85	93	234	82	82	193	82	82	193
4609	30022	87	103	199	95	87	319	86	98	255	83	84	156	83	84	156
4610	30000	93	126	206	97	95	238	90	111	241	87	87	191	87	87	191
4611	30006	89	105	174	82	91	245	83	100	206	84	85	143	84	85	143
4612	30034	87	107	148	82	93	246	82	100	218	87	88	164	87	88	164
4613	30045	89	100	201	88	75	238	83	93	226	88	89	157	88	89	157
4614	30035	89	109	195	104	92	227	92	102	217	89	89	133	89	89	133
4615	30052	88	110	187	87	92	291	84	100	240	84	84	175	84	84	175
4616	30027	94	109	165	90	87	263	90	102	223	87	87	170	87	87	170
4617	30021	97	97	190	103	80	223	97	94	219	89	96	153	89	96	153
4618	30005	90	104	186	91	86	302	85	98	237	86	87	180	86	87	180
4619	30001	90	102	171	93	93	276	86	97	235	83	83	210	83	83	210
4620	30032	88	96	213	91	84	298	88	93	243	90	89	184	90	89	184
4621	30051	88	109	218	95	91	313	91	102	254	83	83	151	83	83	151
4622	30037	93	87	193	102	77	233	89	88	227	90	90	169	90	90	169
4623	CR Dhan 201 (NC)	88	105	168	92	95	272	88	101	234	87	88	192	87	88	192
4624	29425	86	97	168	80	83	326	81	92	237	83	88	133	83	88	133
4625	PA 6129 (HC)	93	107	201	90	92	270	84	96	238	86	88	167	86	88	167
4626	30029	93	96	227	122	82	237	110	95	238	105	105	202	105	105	202
4627	29447	92	96	170	90	71	232	85	91	214	94	94	108	94	94	108
4628	Zonal Check (ZC)	93	113	192	102	106	259	91	115	218	91	91	175	91	91	175
4629	30038	81	99	162	85	77	240	80	93	218	78	79	175	78	79	175
4630	30024	82	96	187	85	89	271	83	94	230	82	82	152	82	82	152
4631	Local Check (LC)	103	101	239	90	72	288	91	97	250	83	85	164	83	85	164
Exp. Mean		**90**	**103**	**191**	**93**	**88**	**263**	**88**	**98**	**231**	**87**	**88**	**167**	**87**	**88**	**167**

Table No.2.7 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 1 – AEROB, Kharif 2022

ENTRY NO	IET NO	ZONE VI-WESTERN						ZONE VII – SOUTHERN						Overall Mean (12)		
		Gujarat (1)			Zone VI (1)			Telanagana (1)			Zone VII (1)					
		Navasari			Mean			Rudrur			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4601	30003	85	127	199	85	127	199	87	131	289	87	131	289	86	114	241
4602	30013	111	103	244	111	103	244	92	109	211	92	109	211	106	100	231
4603	30004	87	107	232	87	107	232	93	88	261	93	88	261	89	97	242
4604	30008	78	99	283	78	99	283	86	97	259	86	97	259	86	98	276
4605	30023	76	105	237	76	105	237	87	95	240	87	95	240	84	101	250
4606	30028	84	96	240	84	96	240	100	132	232	100	132	232	100	109	240
4607	30041	80	94	218	80	94	218	91	85	229	91	85	229	87	91	259
4608	30020	78	99	246	78	99	246	87	102	263	87	102	263	87	96	268
4609	30022	78	113	247	78	113	247	87	112	231	87	112	231	87	103	279
4610	30000	84	130	233	84	130	233	96	142	240	96	142	240	92	117	268
4611	30006	78	113	229	78	113	229	88	104	240	88	104	240	84	102	229
4612	30034	79	120	279	79	120	279	85	124	249	85	124	249	83	107	255
4613	30045	80	104	227	80	104	227	89	94	273	89	94	273	86	96	259
4614	30035	73	122	207	73	122	207	94	98	281	94	98	281	91	103	243
4615	30052	76	101	233	76	101	233	88	106	258	88	106	258	85	101	263
4616	30027	81	122	258	81	122	258	94	86	217	94	86	217	90	104	259
4617	30021	110	109	287	110	109	287	100	96	273	100	96	273	100	94	265
4618	30005	78	120	252	78	120	252	93	87	233	93	87	233	87	99	262
4619	30001	80	117	251	80	117	251	86	95	264	86	95	264	86	100	264
4620	30032	81	108	241	81	108	241	85	94	239	85	94	239	90	97	282
4621	30051	87	107	257	87	107	257	91	93	239	91	93	239	91	100	284
4622	30037	88	87	235	88	87	235	88	95	236	88	95	236	90	89	262
4623	CR Dhan 201 (NC)	85	109	256	85	109	256	91	83	234	91	83	234	90	101	267
4624	29425	84	99	290	84	99	290	97	87	216	97	87	216	85	90	257
4625	PA 6129 (HC)	84	103	214	84	103	214	91	94	243	91	94	243	86	97	268
4626	30029	114	103	212	114	103	212	97	80	234	97	80	234	111	94	241
4627	29447	88	92	212	88	92	212	91	95	235	91	95	235	87	92	241
4628	Zonal Check (ZC)	67	131	263	67	131	263	92	85	231	92	85	231	90	114	246
4629	30038	81	99	287	81	99	287	90	92	215	90	92	215	82	96	245
4630	30024	84	98	265	84	98	265	101	106	288	101	106	288	86	94	259
4631	Local Check (LC)	84	105	286	84	105	286	88	98	288	88	98	288	89	99	274
Exp. Mean		**84**	**108**	**246**	**84**	**108**	**246**	**91**	**100**	**246**	**91**	**100**	**246**	**89**	**100**	**257**

Table No. 2.7: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 1-AEROB, (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED														
		Uttar Pradesh			Tri{pura			Madhya Pradesh			Chhattisgarh			Maharashtra		
		@Masodha			@Lembucherra			@Rewa			@Jagadalpur			@Parbhani		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4601	30003	71	85	213	69	91	289	81	110	204	84	104	138	83	81	252
4602	30013	106	84	128	72	105	353	110	81	200	100	97	208	103	81	382
4603	30004	76	95	193	73	100	317	89	74	169	81	96	185	86	56	257
4604	30008	69	75	218	71	119	319	85	74	226	81	90	308	85	53	382
4605	30023	72	84	133	70	79	336	87	74	196	81	100	230	81	71	387
4606	30028	65	92	234	65	100	333	104	89	179	94	115	289	91	84	379
4607	30041	75	82	207	66	88	286	87	76	163	86	81	265	89	48	381
4608	30020	67	74	211	63	99	294	86	77	218	84	87	172	89	54	387
4609	30022	67	81	155	69	118	325	86	83	206	83	96	183	88	54	384
4610	30000	71	75	175	70	82	256	89	78	288	90	123	181	92	70	308
4611	30006	63	76	240	63	86	342	82	84	182	81	93	309	82	60	357
4612	30034	65	66	172	73	98	272	83	89	177	85	92	116	85	90	293
4613	30045	62	69	145	74	88	331	89	76	132	86	93	210	87	51	305
4614	30035	64	71	144	69	86	339	86	80	243	96	85	120	87	60	317
4615	30052	62	86	223	71	95	311	89	79	199	90	84	304	88	58	391
4616	30027	68	80	196	74	97	264	96	68	164	96	99	166	91	56	355
4617	30021	69	89	190	73	103	211	83	71	222	95	80	184	91	49	318
4618	30005	64	91	185	72	103	244	86	76	197	84	94	189	86	51	395
4619	30001	63	81	217	73	106	239	89	85	175	90	87	175	88	52	385
4620	30032	102	84	125	71	105	367	86	83	189	85	86	154	87	45	368
4621	30051	69	87	220	76	123	225	95	69	183	85	95	173	87	45	315
4622	30037	108	93	126	73	103	331	85	78	207	80	102	173	88	50	315
4623	CR Dhan 201 (NC)	62	78	161	74	102	283	86	69	251	81	90	264	84	59	252
4624	29425	66	70	255	88	102	253	88	73	173	85	93	162	87	53	247
4625	PA 6129 (HC)	71	85	157	68	96	281	85	62	199	89	96	202	88	55	263
4626	30029	67	84	162	71	117	289	88	73	195	104	88	269	87	58	307
4627	29447	66	79	185	69	92	242	95	87	179	93	84	143	90	52	251
4628	Zonal Check (ZC)	60	86	152	81	121	297	83	83	233	94	111	149	65	73	388
4629	30038	68	83	198	73	98	256	85	67	137	86	82	215	80	58	391
4630	30024	69	75	155	69	123	342	87	79	185	84	73	308	81	49	390
4631	Local Check (LC)	69	85	207	73	94	272				85	98	230	80	82	307
Exp. Mean		**71**	**81**	**183**	**71**	**101**	**293**	**88**	**78**	**196**	**88**	**93**	**206**	**87**	**60**	**336**

Table No. 2.7 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 1-AEROB, (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED											
		Gujarat						Tamil Nadu			Karnataka		
		@Derol			@Vyara			@Coimbatore			@Mandya		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4601	30003	80	88	237	81	115	147	82	99	474	87	94	520
4602	30013	97	68	183	101	105	175	90	88	492	102	93	407
4603	30004	79	73	196	81	106	175	90	84	488	88	76	380
4604	30008	84	73	313	80	113	213	80	82	462	88	70	433
4605	30023	80	81	240	77	109	169	81	88	492	87	78	447
4606	30028	94	103	251	85	116	144	83	106	490	88	102	353
4607	30041	83	76	269	82	103	182	92	76	491	95	71	380
4608	30020	82	71	311	82	106	173	82	85	508	87	71	347
4609	30022	79	74	257	80	116	181	83	79	490	88	75	553
4610	30000	91	83	296	88	101	137	84	96	508	89	97	513
4611	30006	74	79	192	77	113	190	79	89	504	84	73	467
4612	30034	80	88	200	82	110	139	79	101	473	84	83	333
4613	30045	82	65	239	83	104	111	78	79	517	87	67	467
4614	30035	85	82	275	85	103	128	91	82	491	99	71	287
4615	30052	85	73	303	82	110	218	81	84	507	99	85	427
4616	30027	87	87	300	85	76	170	84	85	463	95	87	413
4617	30021	94	65	215	88	114	186	94	79	483	108	65	340
4618	30005	83	74	255	81	96	192	82	78	475	95	74	480
4619	30001	87	83	277	81	112	153	80	82	483	88	84	447
4620	30032	88	64	288	83	112	140	85	78	513	89	79	587
4621	30051	81	74	285	84	103	171	82	83	485	88	74	680
4622	30037	82	77	319	77	103	192	92	69	523	103	70	427
4623	CR Dhan 201 (NC)	81	70	240	81	102	171	82	90	504	88	70	373
4624	29425	81	71	260	79	106	179	83	76	473	98	65	500
4625	PA 6129 (HC)	84	74	272	82	101	151	90	87	499	99	71	447
4626	30029	95	80	337	102	101	226	89	73	493	100	76	367
4627	29447	80	68	217	84	123	177	89	74	499	101	66	327
4628	Zonal Check (ZC)	71	106	221	77	101	172	86	73	503	95	75	440
4629	30038	74	61	248	81	107	171	81	89	481	82	68	320
4630	30024	79	65	259	79	97	163	78	68	495	82	70	493
4631	Local Check (LC)	70	106	233	83	89	182	85	99	538	84	95	413
Exp. Mean		**83**	**77**	**258**	**83**	**106**	**170**	**84**	**84**	**493**	**92**	**77**	**431**

Table No. 2.8: Grain quality characteristics of entries in AVT 1-AEROB, kharif 2022

Entry No.	IET No.	Hull	Mill	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
4601	30003	77.8	65.0	42.4	5.76	2.27	2.53	MS	OC	3.0	21.79	92
4602	30013	78.1	67.2	57.5	6.60	2.05	3.21	LS	VOC	7.0	25.37	44
4603	30004	78.6	65.8	55.9	7.20	1.84	3.91	LS	VOC	7.0	25.28	40
4604	30008	80.1	61.9	55.6	6.39	2.07	3.08	LS	VOC	7.0	25.98	79
4605	30023	79.7	67.8	57.3	5.54	2.26	2.45	SB	VOC	7.0	24.72	69
4606	30028	81.5	69.0	55.1	5.39	2.36	2.28	SB	VOC	4.0	23.73	65
4607	30041	79.2	66.4	61.2	6.40	1.88	3.40	LS	VOC	5.0	17.45	88
4608	30020	80.6	61.4	54.7	7.11	1.90	3.74	LS	VOC	7.0	23.58	100
4609	30022	79.9	62.5	43.3	6.10	2.09	2.91	LB	VOC	5.2	25.46	66
4610	30000	80.4	61.9	31.6	5.73	2.27	2.52	MS	OC	4.0	27.66	69
4611	30006	78.8	64.1	37.8	5.68	2.26	2.51	MS	F	3.0	22.70	83
4612	30034	79.2	66.2	52.9	5.91	2.28	2.59	MS	OC	7.0	23.64	56
4613	30045	79.2	64.7	42.6	6.12	1.96	3.12	LS	VOC	7.0	25.05	81
4614	30035	81.8	60.9	23.9	6.67	2.55	2.61	LB	F	4.0	28.48	59
4615	30052	80.2	61.7	32.5	5.66	2.11	2.68	MS	VOC	4.0	28.18	46
4616	30027	76.4	65.2	57.5	7.78	1.77	4.39	LS	VOC	7.0	24.75	28
4617	30021	78.5	65.2	55.5	6.92	2.27	3.04	LS	VOC	3.0	23.23	57
4618	30005	81.1	63.4	55.9	5.99	2.16	2.77	MS	VOC	3.0	23.52	56
4619	30001	80.6	61.5	36.4	5.45	2.17	2.51	MS	VOC	3.0	28.24	47
4620	30032	80.2	62.5	57.6	6.47	2.08	3.11	LS	OC	7.0	25.78	48
4621	30051	80.4	62.7	55.8	5.53	1.96	2.82	MS	OC	3.0	21.29	25
4622	30037	78.3	67.1	59.1	6.54	2.12	3.08	LS	VOC	7.0	26.69	47
4623	CR Dhan 201(NC)	78.6	62.7	55.5	6.17	2.28	2.70	LB	VOC	7.0	25.78	22
4624	29425	79.4	69.2	56.8	6.48	2.11	3.07	LS	VOC	7.0	26.10	54
4625	PAC129 (HC)	81.2	65.3	55.7	6.18	2.20	2.80	LB	OC	7.0	25.57	56
4626	30029	80.7	70.7	64.6	5.74	2.12	2.70	MS	A	4.0	26.81	46
4627	29447	77.7	60.7	42.4	6.10	1.87	3.26	LS	VOC	7.0	28.45	22
4628	CR Dhan 202(ZC)	79.1	67.5	55.9	5.39	2.19	2.46	SB	OC	4.0	25.87	71
4629	30038	78.3	59.9	54.8	6.45	1.91	3.37	LS	OC	3.0	24.14	98
4630	30024	79.7	65.7	53.4	5.65	1.87	3.02	SS	VOC	3.0	25.96	60
4631	Sabour Ardhajal (LC)	80.1	65.1	55.5	6.57	1.95	3.36	LS	VOC	3.0	21.44	77

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. 2.9: Composition of entries in Initial Variety Trial-Aerobic (IVT-AEROB), Kharif, 2022

Entry No.	IET No.	Designation	Cross Combination	GT
1st year of testing				
4701	30890	CRR 806-2	IR 98003:257/MR 219	LS
4702	30891	RP 6702-MS-SS-112-9-3-6-9-9-2	Samba Mahsuri Mutant -112 / BPT 5204	MS
4703	30892	***IIRRH 161 (Hybrid)***	-	MS
4704	30048 (R)	CR 4060-1318-5-2-2-2-1-5-2-1	IET 22729 / Brown gora	LB
4705	30893	RP 6616-CGR 7	Samba Mahsuri *2 / Oryza rufipogon-VN90-1032-58 (3)	MS
4706	30894	BRR 2152	CR 2582-2 / Varshadhan / IR 82809-237	MS
4707	30895	TRC GN 116-B-B-14-2	Gomati / Tripura Nirog	MB
4708	30896	ACK 12024	Mutant of White Ponni-WP22-2	MS
4709	30897	CSR BT-252-201	CSR 89 IR15 / PB1	LS
4710	30898	JDP 0321	Pokkali / IR 50138	SB
4711	**CR Dhan 201 (NC)**			
4712	30899	RP Bio 4918-NPS 56-2	Swarna / O.nivara	MS
4713	30900	***US 386 (Hybrid)***	-	LB
4714	30901	RNR 28373	Bhadrakali / IR 79216-141-1-3-3-3	LB
4715	30902	RCPR 93-IR106312-50-1-1-1	IR06N155 / IR09L120	LS
4716	30903	UPRI 2019-40-Sahel 108	IR 30 / BABAWEE // IR 36	LS
4717	**CR Dhan 202 (Northern, Eastern, North Eastern and Central), AAUDR-1 (Western), MAS 946-1 (Southern)-ZC**			
4718	30904	CR 4403-5-1-IR 117841-4-1 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
4719	30905	NWGR-18217	GR-11 / Pusa Basmati / 1-2-2-1-2-1-10	MS
4720	30906	PAU 7592-366-1-1-B (RYT 4009)	PR 123 / RYT 4051	LB
4721	30907	RP 5594-97-5-1 (PSV 222)	MTU 1010 / RPHR 1005	MS
4722	30908	RP 6705-MS-SS-3-7-1-6-8-4-3	Samba Mahsuri Mutant -3 / BPT 5204	MS
4723	30031 (R)	CR 4075-1341-3-3-2-2-1-3-2	Jaya / PKV HMT	LS
4724	30909	RP 6529- RMS-1788-19-25-44	MTU 1010* 2/ Improved Samba Mahsuri (Xa 21+pi54)	LS
4725	**PA 6129 (HC)**			
4726	30910	IIABR-13/IIAB-4/IR15L1505	IR 10L411 / IR11L261	LS
4727	30911	CR 4338-2-1-1	CR 3856-29-2-1-2 / Heera	LB
4728	30912	NVSR 911	IET 22121 / IET 24026	MS
4729	30913	PAU 6456-8-2-1-1-1 (RYT 4004)	PAU 3699-13-2-2-4 / IR 78908-181-B-4-8 // HKR 07-95	LS
4730	30914	CR 4384-RGA-182	C 745-3-1-1-1-1 / IET 27218 // N 22	MS

Entry No.	IET No.	Designation	Cross Combination	GT
4731	30915	JDP 1021	PS-55-AIRI / Danteshwari	LB
4732	30916	CR 4061-1325-1-1-2-5	Pyari / IET 22704	MS
4733	30917	RCPR 92-IR 97069-1-1-1-1	IR 09L317 / IR 10L137	LS
4734	**DRR Dhan 54 (Observational National Check)**			
4735	30918	RNR 39027	IR 14G3964	
4736	30919	***IIRRH 159 (Hybrid)***	-	
4737	30920	RP 6458-C1-225	Swarna // 166S-Swarana / O.nivara	
4738	30921	BRR 2136	S.Shree / KL-3 / sampada / TJP-27 // MTU 1081	
4739	30922	RP 6616-CGR 18	BPT 5204*2 / Oryza rufipogon (VN 90-1032-58(3))	LB
4740	30923	RP 5285-154-64-2-2-1-1	Sona / Malaysia // Sona	LS
4741	**US 380 (Hybrid Check Observational)**			
4742	30924	NVSR 3506	GR 7 / Desi Dangi	LB
4743	30925	R 2220-39-1-4-1	R 1546-1328-1-40-1 / Mahamaya	SB
4744	30926	UPRI 2019-38-IR 126182-1-1-1	CO 39*4 /CIRAD 394:C1	MS
4745	30927	CR 3561-5-2-1-1-1-1	Surendra / Annapurna	MS
4746	30928	NWGR 17133	GR-12 / NWGR-7022 / 1-5-1-1-1-1-1	MS
4747	30929	CR 3516-11-2-2-1-1-1	Birupa / Pusa 44	SB
4748	30930	CSR BT-252-41	PS5 / CSR10	SS
4749	30931	CR 4391-RGA-20	CR Dhan 202 / Annada	MS
4750	**GK 5022 (Hybrid Check Observational)**			
4751	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
4752	30933	NVSR 929	Gurjari / IR-28	LB
4753	30934	CR 3553-1-5-1-2-1-1	ADT 43 /Ananga	SB
4754	30935	RP 6252-BV/RIL-BV2024	BPT5204 / Vardhan	SB
4755	30936	***IIRRH 162 (Hybrid)***	-	LS
4756	30937	CRR 790-43	CR Dhan 40 / NPT PSR12	MS
4757	30938	CR 4121-142-36-24-1	CR 3856-44-22-2-1-11*3 / IRBB 60 / Swarna Sub1	LB
4758	30939	RP 6327-13-171-3-2 (PSV-1128)	IR 79156B / Swarna	LS
4759	30940	TRC H2TS 18-B-B-5-3	Hakuchuk 2 / Tripura Sarat	LS
4760	30941	RP 5285-168-31-1-1-2-1	Sona / Malaysia // Sona	LS
4761	30942	***IIRRH 160 (Hybrid)***	-	LS
4762	30943	CR 3845-5-10-3-4	Gontra Bidhan/ srimati	LS
4763	30944	UPRI-2019-8-IRRI 147	IR 51511-B-B-34-B / TCCP266-2-49-B-B-3	SB
4764	**Local Check (LC)**			

Table No. 2.10: Grain Yield (kg/ha) in IVT – AEROB, Kharif 2022

ENTRY NO	IET NO	ZONE II-NORTHERN								ZONE III-EASTERN			
		Haryana				Haryana (2)		Zone 2(2)		Bihar			
		Kaul		Karaikal		Mean		Mean		Bikramganj		Patna-ICAR	
4701	30890	5700	1	3340		4520	7 *	4520	7 *	4175		2298	
4702	30891	2550		2680		2615		2615		5117		850	
4703	30892	4350		4670	8	4510	8 *	4510	8 *	5743		5289	4
4704	30048 (R)	2700		2030		2365		2365		4254		4225	
4705	30893	2250		3420		2835		2835		4560		4630	8
4706	30894	2100		2140		2120		2120		5247		2146	
4707	30895	2800		5050	6	3925		3925		4866		4200	
4708	30896	1950		3240		2595		2595		5694		1295	
4709	30897	4300		4500		4400	10 *	4400	10 *	4196		1784	
4710	30898	1800		4310		3055		3055		3611			
4711	CR Dhan 201 (NC)	2100		4070		3085		3085		5040		2726	
4712	30899			1930		1930		1930		4163		1488	
4713	30900	2650		2680		2665		2665		6370	2	3990	
4714	30901	1950		4300		3125		3125		5526		2578	
4715	30902	4450	9	5650	2	5050	2 * #	5050	2 * #	5068		5228	6
4716	30903	1700		3720		2710		2710		5026		3319	
4717	Zonal Check (ZC)			2370		2370		2370		3510			
4718	30904	4500	8	5570	3	5035	3 * #	5035	3 * #	5206		2729	
4719	30905			2590		2590		2590		5834		1179	
4720	30906	3300		3530		3415		3415		5557		3051	
4721	30907	5200	3	2680		3940		3940		5065		4281	9
4722	30908			2020		2020		2020		3997			
4723	30031 (R)			3760		3760		3760		4858		1784	
4724	30909	2050		3690		2870		2870		4717		1716	
4725	PA 6129 (HC)	5650	2	3150		4400	10	4400	10	6141	6	3296	
4726	30910	4350		4640	9	4495	9 *	4495	9 *	4563		2921	
4727	30911	4100		5260	4	4680	4 *	4680	4 *	5843		3880	
4728	30912	5050	4	4050		4550	6 *	4550	6 *	4855		4641	7
4729	30913	2250		3200		2725		2725		5106		2896	
4730	30914	1950		3200		2575		2575		5015		1825	
4731	30915	2450		2300		2375		2375		4444		2106	
4732	30916	2000		3820		2910		2910		3401		2076	
4733	30917	4750	7	5740	1	5245	1 * #	5245	1 * #	5090		5243	5
4734	DRR Dhan 54 (Observational National Check)	3950		3870		3910		3910		5230		5578	3
4735	30918	2450		3390		2920		2920		5981	8	2108	
4736	30919	4850	5	3670		4260		4260		5826		6840	2
4737	30920	3400		2230		2815		2815		2457		2569	
4738	30921	2050		2410		2230		2230		5752		2213	
4739	30922	4000		2650		3325		3325		4452		1851	
4740	30923			2520		2520		2520		4836		963	
4741	US 380 (Hybrid Check Observational)	2500		2680		2590		2590		5658		2109	
4742	30924	1700		2220		1960		1960		3277		2060	
4743	30925	3200		2800		3000		3000		4759		2800	
4744	30926	1550		2730		2140		2140		4166		1921	
4745	30927	1950		4120		3035		3035		4452		4109	
4746	30928	2150		2600		2375		2375		4345		3956	
4747	30929	2550		1880		2215		2215		6327	3	2463	
4748	30930	2050		1920		1985		1985		4440		2025	
4749	30931	3350		4590	10	3970		3970		4608		1884	
4750	GK 5022 (Hybrid Check Observational)	2950		2500		2725		2725		6234	4	3923	
4751	30932	3500		2950		3225		3225		7291	1	3340	
4752	30933	3050		2350		2700		2700		4800		4165	
4753	30934	1950		2730		2340		2340		5942	9	2715	
4754	30935	2400		4300		3350		3350		5854	10	3798	
4755	30936	3650		2810		3230		3230		6099	7	7240	1
4756	30937	4200		2040		3120		3120		4726		1906	
4757	30938	4850	5	3350		4100		4100		5754		4228	10
4758	30939	4250		5090	5	4670	5 *	4670	5 *	4643		3038	
4759	30940			4310		4310		4310		4974		2594	
4760	30941	3200		2130		2665		2665		4554		1750	
4761	30942	4400	10	2880		3640		3640		5710		3334	
4762	30943	3550		5040	7	4295		4295		6182	5	2814	
4763	30944			3040		3040		3040		3443		2391	
4764	Local Check (LC)	3850		3660		3755		3755		3846		2810	
Exp. Mean		**3187**		**3356**		**3248**		**3248**		**4976**		**3035**	
F Value		**18.94(p<0.0001)S**		**12.99(p<0.0001)S**		**20.00(p<0.0001)S**		**20.00(p<0.0001)S**		**5.29(p<0.0001)S**		**39.27(p<0.0001)S**	
CD		743		812		562		562		1070		612	
CV%		**11.63**		**12.12**		**8.66**		**8.66**		**10.76**		**10.08**	
D/S		27-06-2022		28-06-2022						04-07-2022		25-06-2022	
D/P													
Local Check Name		HKR-48		CSR 27						Sabaour Ardhjal		Rajendra Bhagwati	

For Promotion of entries:

***For Varietal entries: Yield of entry should be superior over yield of BVC+CD (at 5%level of significance).**

#For hybrid entries: Yield of entry should be superior over yield of BVC+CD and over yield of BHC+CD (at 5% level of significance)

In locations where the F variance ratio between treatments is non-significant, data from such locations was not considered in analysis

Table No. 2.10 (Contd): Grain Yield (kg/ha) in IVT – AEROB, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN						ZONE IV- NORTH EASTERN			
		Bihar (2)		Jharkhand (1)		Zone 3(3)		Tripura			
		Mean		Ranchi		Mean		Arundhuti Nagar		Lembucherra	
4701	30890	3237		3063		3179		4380	7	4523	
4702	30891	2984		4550	*	3506		3695		5495	7
4703	30892	5516	3 * #	7088	1 * #	6040	2 * #	3495		3830	
4704	30048 (R)	4240		4200		4226		2590		3830	
4705	30893	4595	*	4725	*	4638	*	3385		3164	
4706	30894	3697		4200		3864		3760		4496	
4707	30895	4533		4900	*	4655	*	3590		3830	
4708	30896	3495		2538		3176		4345	8	3164	
4709	30897	2990		5075	*	3685		3705		3663	
4710	30898	3611		2275		2943		4160		2165	
4711	CR Dhan 201 (NC)	3883		3238		3668		4925	5	4829	
4712	30899	2826		3763		3138		2560		3996	
4713	30900	5180	6 *	5250	*	5203	6 *	2595		3996	
4714	30901	4052		5425	9 *	4510	*	3705		4829	
4715	30902	5148	8 *	4463	*	4920	10 *	3240		1499	
4716	30903	4173		4375	*	4240		3265		3830	
4717	Zonal Check (ZC)	3510		1663		2587		3500			
4718	30904	3968		3150		3695		5470	1	3830	
4719	30905	3507		4463	*	3825		3355		3497	
4720	30906	4304		4463	*	4357	*	5015	4	2747	
4721	30907	4673	*	3763		4370	*	3805		3080	
4722	30908	3997		3063		3530		3635			
4723	30031 (R)	3321		4463	*	3702		2885		3663	
4724	30909	3217		4900	*	3778		2660		2914	
4725	PA 6129 (HC)	4719		4638		4692		2950		3913	
4726	30910	3742		5250	*	4245		4125		4496	
4727	30911	4862	*	4288		4670	*	2770		4363	
4728	30912	4748	*	3588		4361	*	2825		4163	
4729	30913	4001		2800		3601		3970		4912	
4730	30914	3420		5863	3 * #	4234		2540		3164	
4731	30915	3275		5863	3 * #	4138		2535		3097	
4732	30916	2739		3325		2934		2700		3830	
4733	30917	5167	7 *	4900	*	5078	9 *	2680		4163	
4734	DRR Dhan 54 (Observational National Check)	5404	4 * #	5513	8 *	5440	4 * #	2575		4729	
4735	30918	4045		5075	*	4388	*	2640		4480	
4736	30919	6333	2 * #	6300	2 * #	6322	1 * #	2675		4146	
4737	30920	2513		4288		3105		3230		1832	
4738	30921	3983		2538		3501		2685		3830	
4739	30922	3152		4375	*	3559		5055	3	2248	
4740	30923	2900		4025		3275		2845		2714	
4741	US 380 (Hybrid Check Observational)	3884		4725	*	4164		4600	6	4632	
4742	30924	2669		4200		3179		5070	2	3081	
4743	30925	3780		5775	5 * #	4445	*	4210	10	4829	
4744	30926	3044		3675		3254		4095		3663	
4745	30927	4281		5338	*	4633	*	3465		4496	
4746	30928	4151		4638	*	4313	*	2560		3663	
4747	30929	4395		3850		4213		3900		5828	4
4748	30930	3233		4288		3584		2480		3247	
4749	30931	3246		4025		3506		2495		4246	
4750	GK 5022 (Hybrid Check Observational)	5079	9 *	5338	*	5165	7 *	2790		5079	9
4751	30932	5316	5 *	5600	7 *	5410	5 * #	2635		5895	3
4752	30933	4483		4988	*	4651	*	3010		2581	
4753	30934	4329		5338	*	4665	*	2635		6161	1
4754	30935	4826	*	5775	5 * #	5142	8 *	2535		4829	
4755	30936	6670	1 * #	4550	*	5963	3 * #	2955		4163	
4756	30937	3316		4550	*	3727		3240		2914	
4757	30938	4991	10 *	2888		4290	*	2755		4945	10
4758	30939	3841		4113		3931		3940		5645	5
4759	30940	3784		3413		3660		3525		4682	
4760	30941	3152		4288		3531		4315	9	5581	6
4761	30942	4522		4550	*	4531	*	3395		5939	2
4762	30943	4498		1663		3553		3375		3797	
4763	30944	2917		4638	*	3491		3220		4415	
4764	Local Check (LC)	3328		1313		2656		3945		5174	8
Exp. Mean		**4018**		**4300**		**4100**		**3401**		**4039**	
F Value		**14.06(p<0.0001)S**		**8.04(p<0.0001)S**		**15.85(p<0.0001)S**		**4.64(p<0.0001)S**		**33.32(p<0.0001)S**	
CD		**666**		1083		**577**		1007		503	
CV%		**8.29**		**12.6**		**7.04**		**14.82**		**6.23**	
D/S				24-06-2022				09-07-2022		10-07-2022	
D/P								28-07-2022		01-08-2022	
Local Check Name				BVD-110				Gomati (4764)		TRC 2015-5	

Table No. 2.10 (Contd): Grain Yield (kg/ha) in IVT – AEROB, Kharif 2022

ENTRY NO	IET NO	ZONE IV- NORTH EASTERN				ZONE-V – CENTRAL		ZONE VI – WESTERN			
		Tripura (2)		Zone 4(2)		Chattisgarh (1)		Gujarat			
		Mean		Mean		Raipur		Navasari		Vyara	
4701	30890	4452	#	4452	#	3955		3512		3793	
4702	30891	4595	8 #	4595	8 #	4756	#	3726		5230	3
4703	30892	3663		3663		3378		4193		4491	
4704	30048 (R)	3210		3210		2459		2176		3554	
4705	30893	3275		3275		3492		4806		4750	
4706	30894	4128	#	4128	#	5279	* #	3625		3832	
4707	30895	3710		3710		3554		5919	5	4586	
4708	30896	3755		3755		3746		3401		3334	
4709	30897	3684		3684		6446	3 * #	2509		3552	
4710	30898	3163		3163		3342		2544		4270	
4711	CR Dhan 201 (NC)	4877	2	4877	2	3432		3212		4440	
4712	30899	3278		3278		3451		1855		3822	
4713	30900	3296		3296		4814	#	5365		4602	
4714	30901	4267	#	4267	#	3319		5658	9	2782	
4715	30902	2370		2370		4908	#	4482		4276	
4716	30903	3548		3548		1691		3595		4245	
4717	Zonal Check (ZC)	3500		3500				2237		2767	
4718	30904	4650	6 #	4650	6 #			5066		3419	
4719	30905	3426		3426				4859		3680	
4720	30906	3881		3881				5850	6	3179	
4721	30907	3443		3443				5702	8	4044	
4722	30908	3635		3635						4804	
4723	30031 (R)	3274		3274		4001		4836		1522	
4724	30909	2787		2787		3761		4663		3488	
4725	PA 6129 (HC)	3432		3432		3120		6183	2	4706	
4726	30910	4311	#	4311	#	3695		5467		4189	
4727	30911	3567		3567		6878	2 * #	5211		4113	
4728	30912	3494		3494		5421	* #	3746		5177	4
4729	30913	4441	#	4441	#	4999	#	3990		4850	9
4730	30914	2852		2852		4348		5020		4228	
4731	30915	2816		2816		5014	#	2813		3006	
4732	30916	3265		3265		1498		5228		3169	
4733	30917	3422		3422		3160		6477	1	4821	10
4734	DRR Dhan 54 (Observational National Check)	3652		3652		4920	#	4404		4131	
4735	30918	3560		3560		3158		5626	10	4071	
4736	30919	3411		3411		6298	5 * #	3480		4994	6
4737	30920	2531		2531		2817		5371		3362	
4738	30921	3258		3258		3067		5111		2752	
4739	30922	3652		3652		3877		3999		4348	
4740	30923	2780		2780		3572		2159		3809	
4741	US 380 (Hybrid Check Observational)	4616	7 #	4616	7 #	5750	8 * #	5567		4343	
4742	30924	4076	#	4076	#	1896		4089		3244	
4743	30925	4520	10 #	4520	10 #	4226		3266		4392	
4744	30926	3879		3879		3446		3426		4344	
4745	30927	3981		3981		7197	1 * #	3133		2053	
4746	30928	3112		3112		4019		2827		4284	
4747	30929	4864	3 #	4864	3 #	5984	7 * #	5991	3	5330	1
4748	30930	2864		2864		3112		2470		3336	
4749	30931	3371		3371		4170		5322		3557	
4750	GK 5022 (Hybrid Check Observational)	3935		3935		5713	9 * #	4984		4083	
4751	30932	4265	#	4265	#	5429	* #	5364		4465	
4752	30933	2796		2796		3760		3794		3559	
4753	30934	4398	#	4398	#	4034		4433		4424	
4754	30935	3682		3682		4726	#	5934	4	4613	
4755	30936	3559		3559		5665	10 * #	5380		4722	
4756	30937	3077		3077		6025	6 * #	3594		3379	
4757	30938	3850		3850		4169		3668		4994	6
4758	30939	4793	4 #	4793	4 #	4242		4383		3356	
4759	30940	4104	#	4104	#	2627		2749		4893	8
4760	30941	4948	1 #	4948	1 #	2280		3118		4002	
4761	30942	4667	5 #	4667	5 #	6313	4 * #	5319		5153	5
4762	30943	3586		3586		4213		5810	7	3633	
4763	30944	3818		3818		3704		2602		4220	
4764	Local Check (LC)	4560	9	4560	9	3688		5334		5234	2
Exp. Mean		**3713**		**3713**		**4173**		**4296**		**4028**	
F Value		**8.56(p<0.0001)S**		**8.56(p<0.0001)S**		**6.66(p<0.0001)S**		**6.50(p<0.0001)S**		**3.64(p<0.0001)S**	
CD		599		599		1395		1349		1296	
CV%		**8.08**		**8.08**		**16.69**		**15.71**		**16.1**	
D/S						27-06-2022		26-07-2022		22-06-2022	
D/P											
Local Check Name						Indira Aerobic-1		GNR-8		NAUR-1	

Table No. 2.10 Contd): Grain Yield (kg/ha) in IVT – AEROB, Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN				ZONE VII – SOUTHERN				Overall Mean (11)	
		Gujarat (2)		Zone 6(2)		Tamil Nadu (1)		Zone 7(1)			
		Mean		Mean		Coimbatore		Mean			
4701	30890	3653		3653		3304		3304		3822	
4702	30891	4478		4478		4367		4367		3911	
4703	30892	4342		4342		5234	3	5234	3	4706	2 *
4704	30048 (R)	2865		2865		3153		3153		3197	
4705	30893	4778		4778		4075		4075		3932	
4706	30894	3729		3729		3859		3859		3699	
4707	30895	5253	6	5253	6	4413		4413		4337	*
4708	30896	3368		3368		4415		4415		3375	
4709	30897	3031		3031		4272		4272		4000	
4710	30898	3407		3407		2751		2751		3123	
4711	CR Dhan 201 (NC)	3826		3826		4026		4026		3822	
4712	30899	2839		2839		4111		4111		3114	
4713	30900	4984	9	4984	9	4504		4504		4256	*
4714	30901	4220		4220		4510		4510		4053	
4715	30902	4379		4379		3915		3915		4289	*
4716	30903	3920		3920		4929	6	4929	6	3609	
4717	Zonal Check (ZC)	2502		2502		4545		4545		2942	
4718	30904	4243		4243		4167		4167		4311	*
4719	30905	4270		4270		4731	8	4731	8	3799	
4720	30906	4515		4515		2733		2733		3943	
4721	30907	4873		4873		4522		4522		4214	*
4722	30908	4804		4804		4594	10	4594	10	3686	
4723	30031 (R)	3179		3179		4648	9	4648	9	3642	
4724	30909	4076		4076		3667		3667		3475	
4725	PA 6129 (HC)	5445	3	5445	3	5382	1	5382	1	4466	8
4726	30910	4828		4828		4343		4343		4367	*
4727	30911	4662		4662		4445		4445		4650	4 *
4728	30912	4462		4462		4510		4510		4366	*
4729	30913	4420		4420		3216		3216		3835	
4730	30914	4624		4624		2447		2447		3600	
4731	30915	2910		2910		3846		3846		3407	
4732	30916	4199		4199		2736		2736		3071	
4733	30917	5649	2	5649	2	4079		4079		4646	5 *
4734	DRR Dhan 54 (Observational National Check)	4268		4268		3735		3735		4421	10 *
4735	30918	4849		4849		5143	4	5143	4	4011	
4736	30919	4237		4237		3486		3486		4779	1 * #
4737	30920	4367		4367		2701		2701		3114	
4738	30921	3932		3932		2091		2091		3136	
4739	30922	4174		4174		2341		2341		3563	
4740	30923	2984		2984		4362		4362		3181	
4741	US 380 (Hybrid Check Observational)	4955	10	4955	10	4847	7	4847	7	4310	*
4742	30924	3667		3667		985		985		2893	
4743	30925	3829		3829		3213		3213		3952	
4744	30926	3885		3885		3568		3568		3326	
4745	30927	2593		2593		3924		3924		4022	
4746	30928	3556		3556		3187		3187		3475	
4747	30929	5661	1	5661	1	3359		3359		4315	*
4748	30930	2903		2903		3550		3550		2993	
4749	30931	4440		4440		2547		2547		3709	
4750	GK 5022 (Hybrid Check Observational)	4534		4534		4943	5	4943	5	4412	*
4751	30932	4915		4915		5290	2	5290	2	4705	3 *
4752	30933	3677		3677		4520		4520		3689	
4753	30934	4429		4429		3751		3751		4010	
4754	30935	5274	5	5274	5	4190		4190		4450	9 *
4755	30936	5051	8	5051	8	3078		3078		4574	7 *
4756	30937	3487		3487		2731		2731		3573	
4757	30938	4331		4331		2478		2478		4007	
4758	30939	3870		3870		3559		3559		4205	*
4759	30940	3821		3821		2880		2880		3665	
4760	30941	3560		3560		3158		3158		3489	
4761	30942	5236	7	5236	7	3903		3903		4627	6 *
4762	30943	4722		4722		3422		3422		3954	
4763	30944	3411		3411		3755		3755		3543	
4764	Local Check (LC)	5284	4	5284	4	3849		3849		3882	
Exp. Mean		**4166**		**4166**		**3797**		**3797**		**3869**	
F Value		**4.96(p<0.0001)S**		**4.96(p<0.0001)S**		**5.78(p<0.0001)S**		**5.78(p<0.0001)S**		**22.78(p<0.0001)S**	
CD		1034		1034		1024		1024		301	
CV%		**12.42**		**12.42**		**13.49**		**13.49**		**3.9**	
D/S						05-09-2022					
D/P											
Local Check Name						CO 53					

Table No. 2.10 (Contd): Grain Yield (kg/ha) in IVT – AEROB, Kharif 2022, (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIAL NOT CONSIDERED					
		Punjab (0)		Odisha (0)		Bihar	
		@Ludhiana		@ICAR-NRRI (Cuttack)		@Pusa	
4701	30890	3369	5	2400		2827	
4702	30891			3778	9	2530	
4703	30892	1268		2310		2679	
4704	30048 (R)	1440		4768	3	2232	
4705	30893	2798	10	2217		2232	
4706	30894			2274		2232	
4707	30895	1976		3370		2381	
4708	30896	1083		2326		2232	
4709	30897	2429		1772		2679	
4710	30898	2976	7	2530		3795	1
4711	CR Dhan 201 (NC)	2238		2148		3274	7
4712	30899			4640	5	2976	
4713	30900	2827	8	2630		2827	
4714	30901	2821	9	2367		2232	
4715	30902	2685		2294		2381	
4716	30903	1518		3367		2530	
4717	Zonal Check (ZC)			3280		3125	9
4718	30904	3476	4	2284		2158	
4719	30905			3727		2232	
4720	30906	1679		2340		2679	
4721	30907	2423		2606		2530	
4722	30908			3362		2530	
4723	30031 (R)	1080		2469		2083	
4724	30909	1970		3030		2232	
4725	PA 6129 (HC)	2393		3018		2827	
4726	30910	2185		2648		2902	
4727	30911	1786		2022		2307	
4728	30912	1762		4087	6	2381	
4729	30913	2214		2498		3125	9
4730	30914	1929		3237		3690	2
4731	30915	1524		3150		2232	
4732	30916			4684	4	2679	
4733	30917	2500		3090		2827	
4734	DRR Dhan 54 (Observational National Check)	2262		2178		2679	
4735	30918	3196	6	1940		2128	
4736	30919	1518		4010	7	2381	
4737	30920	1613		3266		2381	
4738	30921			2705		2083	
4739	30922	3583	3	2790		2232	
4740	30923			2400		2232	
4741	US 380 (Hybrid Check Observational)	1744		2520		3571	4
4742	30924	1536		4770	2	2381	
4743	30925	1631		3280		2232	
4744	30926	1756		3430		2232	
4745	30927	1000		2400		2083	
4746	30928	792		3880	8	2232	
4747	30929			2748		2381	
4748	30930	1220		2770		2738	
4749	30931	2036		1988		2976	
4750	GK 5022 (Hybrid Check Observational)	2268		2790		3690	2
4751	30932	1664		2140		2679	
4752	30933	1930		1968		2530	
4753	30934			2507		2158	
4754	30935	2327		2450		2202	
4755	30936	2393		2810		3571	4
4756	30937	2000		2020		2530	
4757	30938	2083		2588		2827	
4758	30939	2625		3380		2083	
4759	30940	1048		2850		3125	9
4760	30941			2028		2381	
4761	30942	2673		2490		3125	9
4762	30943	2500		3773	10	2232	
4763	30944	3708	2	5443	1	2232	
4764	Local Check (LC)	3780	1	3160		3423	6
Exp. Mean		**2139**		**2909**		**2599**	
F Value		**8.04(p<0.0001)S**		**4.24(p<0.0001)S**		**5.62(p<0.0001)S**	
CD		723		1092		545	
CV%		**16.84**		**18.79**		**10.49**	
D/S		22.06.22		23-06-2022		05-07-2022	
D/P							
Local Check Name		PR 126		CR DHAN 205		Rajendra Nilam (4764)	

Table No. 2.10 (Contd): Grain Yield (kg/ha) in IVT – AEROB, Kharif 2022, (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIAL NOT CONSIDERED							
		Uttar Pradesh (0)		Maharashtra (0)		Gujarat		Karnataka (0)	
		@Masodha		@Parbani		@Derol		@Mandya	
4701	30890	3457		2310		644		2882	
4702	30891	1190		3010		953		3040	
4703	30892	3324		3100		1175	8	3945	3
4704	30048 (R)	3657	8	2760		431		2666	
4705	30893	1995		3800	8	242		2467	
4706	30894	1563		3805	7	144		2101	
4707	30895	3989	2	3875	6	916		1836	
4708	30896	2061		3305		31		1470	
4709	30897	1749		2225		592		1163	
4710	30898	3324		1955		423		1196	
4711	CR Dhan 201 (NC)	3125		2080		316		2641	
4712	30899	1330		2180		232		1196	
4713	30900	3989	2	3430		1751	2	3696	8
4714	30901	1729		3880	5	809		1321	
4715	30902	3723	5	2230		444		2799	
4716	30903	3191		2675		1107		3439	
4717	Zonal Check (ZC)	3657	8	4125	1	1135	10	2342	
4718	30904	3524	10	4110	2	1014		4219	2
4719	30905	1815		3150		860		2118	
4720	30906	1795		2800		655		2699	
4721	30907	3225		2995		917		3846	4
4722	30908	1449		225					
4723	30031 (R)	2660		2265		930		2027	
4724	30909	3324		3040		232		2267	
4725	PA 6129 (HC)	3231		3320		810		3364	
4726	30910	3457		3470		1160	9	2375	
4727	30911	1995		2540		854		3389	
4728	30912	2766		3040		679		3621	
4729	30913	3285		2440		897		2774	
4730	30914	2859		2790		900		3588	
4731	30915	3185		2280		639		3671	10
4732	30916	3191		2130		1470	4	3754	6
4733	30917	3657	8	4010	3	1067		2450	
4734	DRR Dhan 54 (Observational National Check)	3856	4	3935	4	1002		2492	
4735	30918	2148		3650	10	516		1478	
4736	30919	3298		3000		1035		3272	
4737	30920	2088		3040		536		1537	
4738	30921	1190		2780		843		681	
4739	30922	1150		3000		584		2334	
4740	30923	1735		3040		1133		1470	
4741	US 380 (Hybrid Check Observational)	1330		3230		643		3065	
4742	30924	1995		3630		558		2409	
4743	30925	2859		3550		1535	3	3679	9
4744	30926	2048		2800		394		1453	
4745	30927	2699		2850		649		2583	
4746	30928	2387		2600		560		2633	
4747	30929	4056	1	3000		758		2259	
4748	30930	1370		3125		1095		3704	7
4749	30931	3723	5	2585		955		1520	
4750	GK 5022 (Hybrid Check Observational)	2660		2950		375		3256	
4751	30932	2480		2940		1803	1	3804	5
4752	30933	3324		2565		1083		2267	
4753	30934	1297		2780		786		2483	
4754	30935	3324		2665		692		1055	
4755	30936	1157		2360		1216	7	2201	
4756	30937	1184		2650		1119		1586	
4757	30938	1316		2575		741		2350	
4758	30939	3231		2400		654		1620	
4759	30940	1336		2135		647		1121	
4760	30941	1390		2850		53		855	
4761	30942	3285		2855		911		3455	
4762	30943	1250		1850		1323	6	1977	
4763	30944	2726		2275		170		1877	
4764	Local Check (LC)	2826		3765	9 #	1424	5	4568	1
Exp. Mean		**2550**		**2887**		**797**		**2499**	
F Value		**8.04(p<0.0001)S**		**39.38(p<0.0001)S**		**1.46(p=0.0699)NS**		**34.05(p<0.0001)S**	
CD		508		298		1008		450	
CV%		**9.96**		**5.16**		**63.27**		**9.01**	
D/S		20-07-2022		01-07-2022		04-07-2022		08-07-2022	
D/P									
Local Check Name		Shushak Smart		Avishkar		GR 9		KMP-175	

Table No. 2.11: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – AEROB, Kharif 2022

ENTRY NO	IET NO	ZONE II - NORTHERN												ZONE III - EASTERN		
		Haryana						Haryana (2)			Zone II (2)			Bihar		
		Kaul			Karaikal			Mean			Mean			Bikramganj		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4701	30890	76	109	287	94	97	330	85	103	309	85	103	309	78	92	372
4702	30891	105	102	235	112	119	271	109	111	253	109	111	253	99	127	393
4703	30892	94	106	269	104	101	274	99	103	271	99	103	271	86	107	316
4704	30048 (R)	83	114	245	95	131	170	89	123	207	89	123	207	77	130	277
4705	30893	86	97	239	95	110	216	91	104	227	91	104	227	80	101	300
4706	30894	106	104	204	111	87	300	108	95	252	108	95	252	96	110	359
4707	30895	85	105	242	97	123	216	91	114	229	91	114	229	81	127	369
4708	30896	93	101	223	111	78	259	102	90	241	102	90	241	88	99	374
4709	30897	102	94	265	110	102	271	106	98	268	106	98	268	94	122	293
4710	30898	83	86	232	81	80	379	82	83	306	82	83	306	72	107	357
4711	CR Dhan 201 (NC)	90	93	196	98	110	346	94	102	271	94	102	271	77	110	371
4712	30899				111	70	340	111	70	340	111	70	340	99	95	361
4713	30900	94	84	209	89	109	261	91	97	235	91	97	235	84	115	360
4714	30901	106	91	210	85	103	246	95	97	228	95	97	228	82	105	307
4715	30902	81	120	271	95	106	217	88	113	244	88	113	244	76	125	382
4716	30903	91	83	233	105	95	281	98	89	257	98	89	257	79	113	304
4717	Zonal Check (ZC)				105	97	239	105	97	239	105	97	239	74	100	144
4718	30904	73	107	274	80	102	215	77	105	244	77	105	244	77	97	355
4719	30905		.		122	84	223	122	84	223	122	84	223	93	110	281
4720	30906	83	94	237	93	89	287	88	91	262	88	91	262	82	98	278
4721	30907	90	111	285	93	111	206	92	111	245	92	111	245	83	106	388
4722	30908				103	96	226	103	96	226	103	96	226	73	110	93
4723	30031 (R)				92	111	256	92	111	256	92	111	256	72	107	370
4724	30909	93	87	237	97	106	223	95	97	230	95	97	230	78	108	298
4725	PA 6129 (HC)	81	112	293	93	104	261	87	108	277	87	108	277	73	116	385
4726	30910	80	120	267	95	101	295	87	110	281	87	110	281	81	104	362
4727	30911	89	114	243	104	110	202	96	112	222	96	112	222	81	102	373
4728	30912	86	106	275	98	107	237	92	107	256	92	107	256	81	110	357
4729	30913	92	87	228	95	85	231	93	86	229	93	86	229	99	126	362
4730	30914	90	89	218	93	106	198	92	97	208	92	97	208	81	114	292
4731	30915	79	109	201	93	107	186	86	108	194	86	108	194	81	109	360
4732	30916	108	81	214	107	76	258	108	79	236	108	79	236	94	107	299
4733	30917	80	123	280	98	112	201	89	118	240	89	118	240	82	126	369
4734	DRR Dhan 54 (Observational National Check)	85	127	230	96	126	215	90	127	222	90	127	222	84	131	340
4735	30918	90	94	215	97	96	213	94	95	214	94	95	214	81	99	326
4736	30919	100	101	297	104	97	204	102	99	251	102	99	251	86	112	366
4737	30920	92	107	252	107	94	221	99	101	236	99	101	236	91	104	363
4738	30921	107	82	224	109	85	222	108	84	223	108	84	223	92	116	362
4739	30922	75	121	269	80	112	207	78	117	238	78	117	238	81	116	278
4740	30923				120	68	213	120	68	213	120	68	213	81	107	300
4741	US 380 (Hybrid Check Observational)	100	94	245	96	111	229	98	102	237	98	102	237	85	110	333
4742	30924	72	95	222	74	85	278	73	90	250	73	90	250	72	92	264
4743	30925	86	102	236	94	104	267	90	103	251	90	103	251	82	107	302
4744	30926	94	77	187	96	83	297	95	80	242	95	80	242	72	85	402
4745	30927	108	94	218	107	103	228	108	98	223	108	98	223	96	115	364
4746	30928	105	99	266	106	110	238	105	105	252	105	105	252	86	135	374
4747	30929	108	86	243	109	112	191	108	99	217	108	99	217	94	130	292
4748	30930	93	89	217	86	102	234	90	95	225	90	95	225	85	105	340
4749	30931	95	83	226	104	95	238	100	89	232	100	89	232	86	100	378
4750	GK 5022 (Hybrid Check Observational)	98	95	237	97	107	218	97	101	227	97	101	227	83	99	300
4751	30932	84	106	230	87	115	214	86	111	222	86	111	222	80	111	366
4752	30933	88	100	228	91	91	218	89	96	223	89	96	223	85	113	300
4753	30934	108	90	213	113	107	226	110	98	219	110	98	219	96	115	362
4754	30935	103	89	238	106	118	279	104	104	259	104	104	259	85	112	363
4755	30936	84	110	230	82	108	257	83	109	243	83	109	243	75	117	400
4756	30937	87	101	265	92	115	323	89	108	294	89	108	294	81	108	305
4757	30938	93	105	275	96	120	268	94	112	271	94	112	271	86	98	365
4758	30939	81	98	261	79	96	241	80	97	251	80	97	251	78	101	296
4759	30940				106	105	245	106	105	245	106	105	245	86	112	248
4760	30941	111	89	247	116	75	239	114	82	243	114	82	243	98	103	295
4761	30942	86	102	257	91	116	203	88	109	230	88	109	230	80	113	401
4762	30943	89	98	249	98	94	240	93	96	244	93	96	244	79	113	373
4763	30944				101	103	298	101	103	298	101	103	298	83	103	374
4764	Local Check (LC)	88	107	234	88	88	224	88	97	229	88	97	229	99	115	400
Exp. Mean		**91**	**99**	**241**	**98**	**101**	**245**	**96**	**100**	**244**	**96**	**100**	**244**	**83**	**110**	**334**

Table No. 2.11 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – AEROB, Kharif 2022

ENTRY NO	IET NO	ZONE III - EASTERN												ZONE IV- NORTH EASTERN		
		Bihar			Bihar (2)			Jharkhand (1)			Zone III (3)			Tripura		
		Patna-ICAR			Mean			Ranchi			Mean			Arundhuti Nagar		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4701	30890	88	64	282	83	78	327	90	79	129	85	78	261	68	110	354
4702	30891	123	88	176	111	107	285	103	111	147	108	108	239	62	99	369
4703	30892	95	93	307	90	100	311	97	91	164	93	97	262	66	110	363
4704	30048 (R)	90	106	216	83	118	246	88	104	172	85	113	221	66	90	328
4705	30893	90	80	239	85	91	269	89	94	229	86	92	256	65	120	334
4706	30894	107	97	275	101	103	317	92	95	249	98	100	294	63	111	329
4707	30895	88	89	314	84	108	342	82	92	175	83	103	286	67	114	285
4708	30896	101	64	239	94	81	306	90	64	150	93	76	254	64	85	282
4709	30897	111	91	314	102	107	304	103	104	195	102	106	267	64	105	311
4710	30898		.		72	107	357	82	80	113	77	94	235	53	98	343
4711	CR Dhan 201 (NC)	95	91	226	86	100	299	88	100	121	86	100	239	69	110	305
4712	30899	118	71	306	108	83	333	105	81	275	107	82	314	66	112	311
4713	30900	86	93	311	85	104	335	81	94	164	83	101	278	69	112	330
4714	30901	93	82	248	87	93	278	83	89	194	86	92	250	63	106	290
4715	30902	88	105	215	82	115	298	89	98	181	84	109	259	66	116	286
4716	30903	93	84	329	86	98	316	88	98	224	86	98	286	67	98	352
4717	Zonal Check (ZC)		.		74	100	144	80	.	0	77	100	72	68	110	260
4718	30904	85	76	317	81	87	336	88	79	191	83	84	288	66	99	296
4719	30905	101	89	316	97	99	298	104	101	142	99	100	246	65	90	287
4720	30906	96	66	295	89	82	286	98	80	146	92	82	239	67	98	283
4721	30907	95	96	315	89	101	351	90	99	140	89	100	281	71	110	270
4722	30908		.		73	110	93	79	76	129	76	93	111	69	90	313
4723	30031 (R)	96	81	174	84	94	272	89	89	139	85	92	227	64	104	324
4724	30909	92	71	269	85	89	283	88	91	177	86	90	248	72	103	363
4725	PA 6129 (HC)	88	89	270	81	102	327	88	102	158	83	102	271	73	98	367
4726	30910	86	88	246	84	96	304	82	97	152	83	96	253	71	116	311
4727	30911	93	92	200	87	97	286	93	100	193	89	98	255	63	96	310
4728	30912	96	83	293	88	96	325	95	91	153	90	95	267	65	105	351
4729	30913	97	80	200	98	103	281	97	90	183	98	99	248	65	126	283
4730	30914	94	93	221	87	103	256	95	94	166	90	100	226	86	119	270
4731	30915	86	74	264	83	92	312	87	104	195	84	96	273	74	93	299
4732	30916	104	86	328	99	97	313	103	75	212	100	89	280	68	71	351
4733	30917	87	92	312	84	109	340	83	100	238	84	106	306	68	112	320
4734	DRR Dhan 54 (Observational National Check)	88	109	239	86	120	289	88	103	170	86	114	249	68	99	298
4735	30918	97	63	206	89	81	266	91	77	195	89	80	242	73	117	320
4736	30919	97	92	308	91	102	337	98	91	164	93	98	279	73	113	301
4737	30920	95	91	271	93	98	317	97	98	174	94	98	269	69	119	288
4738	30921	123	77	237	107	96	299	103	75	113	106	89	237	73	115	336
4739	30922	87	86	242	84	101	260	88	102	109	85	101	210	86	109	274
4740	30923	128	66	237	104	87	269	121	89	233	110	87	257	73	115	309
4741	US 380 (Hybrid Check Observational)	98	86	297	91	98	315	97	91	162	93	96	264	67	117	295
4742	30924	89	68	265	80	80	264	84	89	200	81	83	243		112	270
4743	30925	88	84	326	85	95	314	84	89	141	84	93	256	81	118	279
4744	30926	86	74	253	79	79	327	88	68	193	82	75	283	81	104	323
4745	30927	104	94	234	100	105	299	96	88	221	98	99	273	84	121	432
4746	30928	102	96	298	94	116	336	99	98	179	95	110	284	81	113	494
4747	30929	110	90	243	102	110	267	104	99	163	103	106	232	81	113	530
4748	30930	93	72	181	89	88	260	87	85	187	88	87	236	80	142	626
4749	30931	95	85	172	91	93	275	91	85	166	91	90	238	81	113	396
4750	GK 5022 (Hybrid Check Observational)	95	85	269	89	92	284	97	93	168	91	92	245	81	117	427
4751	30932	97	96	192	88	104	279	87	97	130	88	101	229	72	106	296
4752	30933	88	95	232	87	104	266	86	96	169	86	101	233	74	91	297
4753	30934	109	94	214	103	104	288	104	94	197	103	101	258	74	103	362
4754	30935	97	96	244	91	104	303	89	103	221	90	104	276	72	114	395
4755	30936	89	104	292	82	110	346	86	95	180	83	105	291	78	126	507
4756	30937	91	70	267	86	89	286	88	93	158	87	90	243	72	94	264
4757	30938	93	91	227	90	95	296	96	89	95	92	93	229	75	116	525
4758	30939	88	73	294	83	87	295	82	93	199	82	89	263	73	113	528
4759	30940	104	86	266	95	99	257	100	91	214	96	96	242	83	131	296
4760	30941	125	83	300	111	93	298	117	82	213	113	89	269	78	113	296
4761	30942	88	87	226	84	100	313	88	90	102	85	97	243	73	113	264
4762	30943	95	81	202	87	97	288	91	94	83	88	96	219	74	112	363
4763	30944	93	80	330	88	92	352	86	94	133	87	92	279	74	103	447
4764	Local Check (LC)	96	89	262	98	102	331	74	100	158	90	101	273	79	132	494
Exp. Mean		**96**	**85**	**259**	**89**	**98**	**295**	**92**	**92**	**168**	**90**	**96**	**252**	**71**	**109**	**343**

Table No.2.11 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – AEROB, Kharif 2022

ENTRY NO	IET NO	ZONE IV- NORTH EASTERN									ZONE-V – CENTRAL			ZONE VI - WESTERN		
		Tripura			Tripura (2)			Zone IV (2)			Chattisgarh (1)			Gujarat		
		Lembucherra			Mean			Mean			Raipur			Navasari		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4701	30890	82	91	263	75	101	308	75	101	308	85	85	166	73	90	208
4702	30891	92	128	275	77	114	322	77	114	322	102	101	151	87	109	282
4703	30892	87	102	275	76	106	319	76	106	319	88	87	135	85	95	224
4704	30048 (R)	96	113	300	81	102	314	81	102	314	87	86	166	80	95	193
4705	30893	80	89	363	73	105	348	73	105	348	84	83	155	78	95	118
4706	30894	92	102	413	77	107	371	77	107	371	97	96	142	90	74	297
4707	30895	85	106	200	76	110	243	76	110	243	84	83	160	73	107	188
4708	30896	77	94	238	70	90	260	70	90	260	85	86	150	85	79	168
4709	30897	86	103	238	75	104	274	75	104	274	103	101	142	84	93	242
4710	30898	73	68	213	63	83	278	63	83	278	75	75	147	75	74	164
4711	CR Dhan 201 (NC)	84	111	350	76	111	327	76	111	327	84	84	138	79	99	202
4712	30899	94	97	325	80	105	318	80	105	318	103	103	126	77	73	219
4713	30900	93	102	363	81	107	346	81	107	346	82	80	164	77	109	215
4714	30901	82	97	325	73	102	308	73	102	308	88	88	161	78	92	310
4715	30902	87	130	375	76	123	331	76	123	331	79	78	131	76	96	170
4716	30903	80	95	288	74	97	320	74	97	320	83	82	108	83	76	180
4717	Zonal Check (ZC)		.		68	110	260	68	110	260		.		61	107	138
4718	30904	77	91	200	71	95	248	71	95	248		.		76	105	183
4719	30905	87	112	225	76	101	256	76	101	256		.		96	76	149
4720	30906	85	87	250	76	93	267	76	93	267		.		79	81	202
4721	30907	88	86	188	79	98	229	79	98	229		.		80	92	211
4722	30908		.		69	90	313	69	90	313		.			.	
4723	30031 (R)	79	97	213	71	101	268	71	101	268	85	84	106	80	96	219
4724	30909	83	99	363	78	101	363	78	101	363	81	81	148	80	93	138
4725	PA 6129 (HC)	87	93	388	80	96	377	80	96	377	85	84	151	79	98	186
4726	30910	85	88	250	78	102	280	78	102	280	77	76	128	74	101	288
4727	30911	83	115	313	73	106	311	73	106	311	85	84	159	81	89	309
4728	30912	98	119	300	81	112	326	81	112	326	93	93	166	80	94	241
4729	30913	82	98	325	73	112	304	73	112	304	89	88	163	80	78	191
4730	30914	84	97	225	85	108	247	85	108	247	91	90	157	78	96	225
4731	30915	83	92	238	78	93	268	78	93	268	86	86	159	80	97	141
4732	30916	92	87	225	80	79	288	80	79	288	103	103	134	90	94	182
4733	30917	80	145	275	74	129	298	74	129	298	79	77	116	78	91	152
4734	DRR Dhan 54 (Observational National Check)	96	116	200	82	108	249	82	108	249	88	88	139	73	113	204
4735	30918	80	106	138	76	112	229	76	112	229	86	85	132	80	88	302
4736	30919	87	101	263	80	107	282	80	107	282	93	92	141	80	100	270
4737	30920	84	95	263	76	107	275	76	107	275	93	93	168	80	78	171
4738	30921	87	90	338	80	103	337	80	103	337	100	99	124	95	88	193
4739	30922	83	92	238	84	101	256	84	101	256	78	77	109	71	112	204
4740	30923	100	87	300	86	101	305	86	101	305	111	110	161	99	71	201
4741	US 380 (Hybrid Check Observational)	87	106	325	77	112	310	77	112	310	91	90	144	82	92	196
4742	30924	77	72	175	77	92	222	77	92	222	78	77	97	75	86	213
4743	30925	83	83	188	82	101	233	82	101	233	87	86	138	83	81	298
4744	30926	77	88	263	79	96	293	79	96	293	82	81	137	77	93	308
4745	30927	87	103	263	85	112	347	85	112	347	95	94	163	90	94	293
4746	30928	86	121	338	83	117	416	83	117	416	98	96	143	87	105	216
4747	30929	92	120	325	86	117	427	86	117	427	98	97	166	99	102	185
4748	30930	81	89	188	80	116	407	80	116	407	86	86	151	80	75	174
4749	30931	84	105	400	83	109	398	83	109	398	87	85	135	80	85	188
4750	GK 5022 (Hybrid Check Observational)	84	106	500	82	112	463	82	112	463	88	88	166	80	105	309
4751	30932	88	106	288	80	106	292	80	106	292	87	86	155	83	94	222
4752	30933	84	90	138	79	91	217	79	91	217	86	87	142	80	93	236
4753	30934	86	103	288	80	103	325	80	103	325	100	99	160	89	101	206
4754	30935	90	107	213	81	111	304	81	111	304	92	91	150	80	96	192
4755	30936	80	96	313	79	111	410	79	111	410	80	79	142	77	100	207
4756	30937	86	109	275	79	102	270	79	102	270	80	80	147	76	98	200
4757	30938	83	132	350	79	124	438	79	124	438	90	89	138	81	102	193
4758	30939	80	87	238	76	100	383	76	100	383	79	79	126	74	106	228
4759	30940	88	101	300	85	116	298	85	116	298	104	107	164	92	83	162
4760	30941	93	94	163	85	104	229	85	104	229	111	111	161	99	82	255
4761	30942	75	101	238	74	107	251	74	107	251	80	80	131	77	93	195
4762	30943	82	105	263	78	109	313	78	109	313	96	96	108	94	95	266
4763	30944	93	96	325	83	100	386	83	100	386	86	85	158	79	80	263
4764	Local Check (LC)	96	106	200	87	119	347	87	119	347	80	81	148	75	115	291
Exp. Mean		**85**	**101**	**275**	**78**	**105**	**309**	**78**	**105**	**309**	**88**	**88**	**144**	**81**	**93**	**215**

Table No. 2.11 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – AEROB, Kharif 2022

ENTRY NO	IET NO	ZONE VI - WESTERN									ZONE VII – SOUTHERN			Overall Mean (11)		
		Gujarat			Gujarat (2)			Zone VI (2)			Tamil Nadu (1)					
		Vyara			Mean			Mean			Coimbatore					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4701	30890	85	96	296	79	93	252	79	93	252	88	85	506	82	91	290
4702	30891	79	148	238	83	128	260	83	128	260	83	129	602	95	115	285
4703	30892	88	111	280	86	103	252	86	103	252	86	90	441	88	99	277
4704	30048 (R)	86	136	204	83	115	198	83	115	198	95	118	441	85	111	246
4705	30893	84	126	245	81	110	182	81	110	182	84	92	511	83	99	268
4706	30894	83	114	240	86	94	268	86	94	268	89	85	470	93	98	298
4707	30895	79	131	250	76	119	219	76	119	219	83	95	404	82	107	255
4708	30896	83	99	223	84	89	195	84	89	195	85	85	579	87	85	262
4709	30897	87	146	245	85	120	243	85	120	243	94	108	528	94	106	277
4710	30898	78	104	227	76	89	195	76	89	195	81	78	534	75	85	271
4711	CR Dhan 201 (NC)	81	130	251	80	114	227	80	114	227	85	101	523	84	103	275
4712	30899	99	103	274	88	88	247	88	88	247	97	73	665	97	88	320
4713	30900	80	113	270	78	111	243	78	111	243	85	100	542	83	101	290
4714	30901	86	101	198	82	96	254	82	96	254	86	93	508	85	95	272
4715	30902	82	128	270	79	112	220	79	112	220	84	96	496	82	109	272
4716	30903	81	113	286	82	95	233	82	95	233	88	95	326	85	94	264
4717	Zonal Check (ZC)	67	144	298	64	125	218	64	125	218	87	86	482	77	107	223
4718	30904	82	140	213	79	123	198	79	123	198	86	100	516	79	100	276
4719	30905	96	188	214	96	132	182	96	132	182	86	99	532	94	105	263
4720	30906	77	109	309	78	95	256	78	95	256	88	102	596	85	90	288
4721	30907	80	131	200	80	111	205	80	111	205	99	106	582	87	105	278
4722	30908	81	137	211	81	137	211	81	137	211	85	99	479	81	101	242
4723	30031 (R)	77	112	177	78	104	198	78	104	198	93	108	514	82	99	249
4724	30909	87	113	236	84	103	187	84	103	187	91	96	545	85	95	272
4725	PA 6129 (HC)	79	121	252	79	109	219	79	109	219	83	93	568	83	101	298
4726	30910	84	119	193	79	110	240	79	110	240	83	93	486	81	100	271
4727	30911	82	128	215	81	108	262	81	108	262	93	96	530	86	102	277
4728	30912	87	127	264	83	110	252	83	110	252	93	98	419	88	103	278
4729	30913	81	113	270	81	95	231	81	95	231	89	86	463	88	96	263
4730	30914	80	107	226	79	101	225	79	101	225	92	100	506	87	100	246
4731	30915	87	115	220	84	106	180	84	106	180	86	94	444	84	98	246
4732	30916	97	93	241	93	93	211	93	93	211	96	78	460	96	87	264
4733	30917	83	119	248	80	105	200	80	105	200	85	91	459	82	108	270
4734	DRR Dhan 54 (Observational National Check)	83	108	222	78	111	213	78	111	213	87	109	461	85	112	247
4735	30918	87	102	230	83	95	266	83	95	266	94	95	580	87	93	259
4736	30919	79	131	310	79	116	290	79	116	290	95	89	557	90	102	289
4737	30920	81	108	201	80	93	186	80	93	186	88	90	485	89	98	259
4738	30921	81	123	234	88	106	213	88	106	213	94	83	481	96	94	260
4739	30922	81	134	237	76	123	220	76	123	220	81	100	535	81	106	245
4740	30923	97	111	226	98	91	213	98	91	213	99	86	522	103	91	270
4741	US 380 (Hybrid Check Observational)	80	117	220	81	104	208	81	104	208	87	99	458	88	101	264
4742	30924	82	103	255	78	94	234	78	94	234	82	79	429	78	87	242
4743	30925	82	106	207	82	94	253	82	94	253	86	94	469	85	96	259
4744	30926	87	108	250	82	101	279	82	101	279	83	86	471	84	86	280
4745	30927	96	108	232	93	101	262	93	101	262	98	91	502	96	100	286
4746	30928	94	139	290	91	122	253	91	122	253	98	92	484	94	109	302
4747	30929	86	126	184	92	114	184	92	114	184	86	98	544	97	107	279
4748	30930	78	91	264	79	83	219	79	83	219	86	88	456	85	93	274
4749	30931	79	103	216	79	94	202	79	94	202	89	81	491	88	93	273
4750	GK 5022 (Hybrid Check Observational)	88	268	240	84	187	275	84	187	275	93	90	455	89	114	299
4751	30932	77	240	215	80	167	218	80	167	218	93	108	505	85	115	255
4752	30933	94	223	139	87	158	187	87	158	187	89	94	488	86	107	235
4753	30934	81	113	206	85	107	206	85	107	206	88	97	543	95	101	270
4754	30935	99	109	254	89	103	223	89	103	223	87	104	456	91	104	273
4755	30936	87	134	296	82	117	251	82	117	251	87	93	566	82	106	308
4756	30937	82	104	258	79	101	229	79	101	229	79	106	460	83	98	265
4757	30938	90	125	276	85	114	234	85	114	234	88	96	577	88	106	299
4758	30939	84	102	268	79	104	248	79	104	248	89	88	575	80	94	296
4759	30940	95	108	254	94	96	208	94	96	208	89	95	601	95	102	275
4760	30941	89	104	202	94	93	229	94	93	229	98	76	406	103	92	252
4761	30942	79	134	294	78	113	244	78	113	244	83	89	595	82	102	264
4762	30943	87	131	278	90	113	272	90	113	272	88	93	495	88	101	265
4763	30944	80	111	229	80	96	246	80	96	246	86	95	477	86	95	303
4764	Local Check (LC)	79	112	273	77	113	282	77	113	282	81	117	540	85	106	293
Exp. Mean		**84**	**124**	**241**	**83**	**109**	**228**	**83**	**109**	**228**	**88**	**95**	**505**	**87**	**100**	**271**

Table No. 2.11 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT-AEROB, (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED											
		Punjab			Odisha			Bihar			Uttar Pradesh		
		@Ludhiana			@ICAR-NRRI (Cuttack)			@Pusa			@Masodha		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4701	30890	82	93	415	80	93	248	81	73	143	63	66	242
4702	30891				100	100	201	101	108	132	66	71	131
4703	30892	102	86	425	87	96	190	86	94	134	63	69	222
4704	30048 (R)	88	114	315	87	104	318	81	95	127	63	86	238
4705	30893	85	88	515	87	89	227	80	88	118	65	95	151
4706	30894				83	104	239	99	89	127	63	97	131
4707	30895	86	108	445	87	107	243	80	96	141	69	87	239
4708	30896	99	83	505	80	101	265	83	84	129	70	79	151
4709	30897	100	105	490	90	92	247	95	102	164	68	69	139
4710	30898	101	92	465	100	108	208	76	76	166	67	89	228
4711	CR Dhan 201 (NC)	84	100	450	89	102	225	80	93	180	62	89	203
4712	30899				103	113	311	116	73	172	66	78	138
4713	30900	78	101	450	80	107	241	79	86	130	70	89	220
4714	30901	84	91	410	92	105	221	83	91	169	72	96	171
4715	30902	81	103	455	83	106	230	78	82	175	67	92	260
4716	30903	90	95	555	109	109	278	86	73	139	67	95	215
4717	Zonal Check (ZC)				93	114	263	83	108	170	71	75	239
4718	30904	74	95	445	93	98	217	73	80	149	72	89	203
4719	30905		.		92	107	262	103	98	171	75	82	149
4720	30906	94	83	495	87	97	196	81	93	114	73	89	150
4721	30907	97	98	505	89	98	241	85	88	149	71	79	221
4722	30908				89	99	245	81	97	157	70	89	126
4723	30031 (R)	96	99	475	93	107	212	77	94	102	70	70	207
4724	30909	93	95	490	93	114	167	81	91	120	64	90	225
4725	PA 6129 (HC)	92	95	395	83	109	230	77	93	168	70	96	223
4726	30910	80	94	445	93	110	212	75	81	103	69	82	221
4727	30911	95	95	515	92	108	238	87	81	125	71	89	153
4728	30912	98	100	475	105	96	240	92	90	123	72	78	211
4729	30913	96	90	450	81	110	168	80	102	175	67	92	220
4730	30914	95	95	440	92	89	287	84	93	188	68	96	185
4731	30915	91	93	395	96	109	196	85	86	139	70	96	236
4732	30916				87	108	250	102	69	152	64	66	214
4733	30917	84	99	510	90	123	230	79	84	106	65	67	239
4734	DRR Dhan 54 (Observational National Check)	85	124	540	82	106	221	79	107	151	65	85	221
4735	30918	81	96	435	92	97	201	79	75	86	67	92	205
4736	30919	102	96	415	108	103	250	85	102	169	70	85	211
4737	30920	92	96	515	92	100	212	85	87	116	70	96	154
4738	30921				80	95	228	90	97	114	66	69	162
4739	30922	78	118	435	86	104	206	75	92	80	71	68	160
4740	30923				92	95	218	121	59	134	67	84	151
4741	US 380 (Hybrid Check Observational)	97	103	455	103	110	237	84	117	169	70	86	139
4742	30924	81	76	490	92	110	191	77	78	90	72	96	183
4743	30925	91	95	385	79	95	239	83	105	149	70	81	200
4744	30926	90	75	495	100	97	238	81	81	130	70	84	149
4745	30927	104	91	470	102	107	236	95	98	155	72	69	174
4746	30928	103	98	435	76	94	252	92	106	133	74	78	181
4747	30929				93	118	242	105	100	148	67	79	230
4748	30930	86	85	465	89	105	262	85	78	128	71	79	182
4749	30931	97	91	445	91	91	247	80	89	123	67	82	240
4750	GK 5022 (Hybrid Check Observational)	96	98	535	86	95	268	80	104	149	70	73	219
4751	30932	95	107	480	92	95	218	86	98	34	71	79	160
4752	30933	94	99	405	87	95	235	81	92	100	61	92	221
4753	30934				90	104	218	95	109	133	69	91	130
4754	30935	98	105	395	76	94	243	86	94	123	64	96	229
4755	30936	80	105	420	88	117	185	81	90	130	70	102	136
4756	30937	84	103	475	87	93	270	82	99	140	66	96	150
4757	30938	95	92	420	83	102	197	84	100	148	70	101	151
4758	30939	78	95	465	80	99	227	85	81	130	71	72	235
4759	30940	108	91	460	87	103	219	103	94	141	71	75	151
4760	30941				80	92	279	119	78	138	67	69	130
4761	30942	78	104	405	92	92	295	82	88	200	73	87	221
4762	30943	87	103	440	102	111	225	81	92	100	73	96	151
4763	30944	83	99	440	80	98	293	86	101	113	75	89	154
4764	Local Check (LC)	78	91	425	100	109	196	83	96	190	70	75	218
Exp. Mean		**90**	**96**	**455**	**90**	**102**	**234**	**86**	**91**	**137**	**68**	**84**	**189**

Table No. 2.11 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT-AEROB, (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED								
		Maharashtra			Gujarat			Karnataka		
		@Pharbani			@Derol			@Mandya		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4701	30890	84	49	194	81	73	164	91	59	338
4702	30891	101	91	284	92	95	256	97	95	318
4703	30892	93	58	278	85	75	250	100	79	284
4704	30048 (R)	89	79	238	85	84	196	94	95	345
4705	30893	88	53	293	84	72	148	91	74	433
4706	30894	94	59	294	99	72	270	102	60	277
4707	30895	86	56	292	82	84	296	90	74	345
4708	30896	93	40	273	88	51	222	94	51	332
4709	30897	105	53	172	89	86	192	123	78	413
4710	30898	93	39	165	81	69	270	90	60	460
4711	CR Dhan 201 (NC)	105	66	170	84	74	154	91	68	359
4712	30899	84	42	225	97	53	252	120	58	345
4713	30900	92	58	286	85	77	278	98	75	501
4714	30901	91	57	304	85	84	188	97	77	264
4715	30902	86	55	196	81	66	254	89	90	453
4716	30903	89	50	233	81	78	272	94	76	521
4717	Zonal Check (ZC)	66	63	353	67	111	282	100	60	304
4718	30904	88	38	347	80	75	226	91	63	379
4719	30905	98	53	278	101	84	190	102	77	379
4720	30906	94	50	247	84	70	286	102	68	379
4721	30907	95	62	281	86	83	196	98	80	413
4722	30908	95	60	19		.			.	
4723	30031 (R)	91	65	233	79	83	270	94	78	325
4724	30909	90	49	273	93	76	200	93	66	386
4725	PA 6129 (HC)	85	60	287	82	83	200	100	74	284
4726	30910	82	56	297	81	73	284	90	72	467
4727	30911	91	57	232	83	83	232	94	73	386
4728	30912	90	63	299	91	76	236	105	77	406
4729	30913	92	48	252	88	71	268	97	78	392
4730	30914	89	62	272	86	75	236	97	86	541
4731	30915	89	57	242	85	75	220	90	95	447
4732	30916	100	52	209	100	73	340	108	76	413
4733	30917	83	57	314	82	86	308	96	76	447
4734	DRR Dhan 54 (Observational National Check)	91	82	319	79	85	166	98	82	230
4735	30918	94	51	282	77	74	248	100	59	298
4736	30919	96	54	286	91	79	286	105	73	419
4737	30920	94	52	288	89	79	222	108	72	379
4738	30921	104	42	245	88	78	284	108	55	264
4739	30922	81	72	273	82	83	268	90	84	392
4740	30923	105	43	289	96	64	268	120	56	447
4741	US 380 (Hybrid Check Observational)	91	58	301	82	75	234	100	78	318
4742	30924	81	40	282	80	72	246	91	57	426
4743	30925	89	53	284	84	84	234	96	76	406
4744	30926	81	41	268	80	55	260	90	48	562
4745	30927	101	56	279	98	67	286	105	69	426
4746	30928	103	66	271	88	84	268	104	79	352
4747	30929	102	72	276	99	75	236	100	87	507
4748	30930	84	42	302	82	67	270	91	80	433
4749	30931	94	51	242	84	68	178	106	62	257
4750	GK 5022 (Hybrid Check Observational)	95	50	274	100	72	288	106	68	480
4751	30932	89	101	274	83	103	264	105	79	372
4752	30933	88	53	239	83	85	254	102	84	474
4753	30934	103	71	249	98	83	318	104	81	406
4754	30935	95	61	244	87	85	222	97	81	345
4755	30936	87	49	217	79	77	184	90	70	359
4756	30937	89	55	246	80	76	254	89	64	501
4757	30938	91	63	238	86	71	276	91	77	277
4758	30939	87	48	205	76	64	264	91	47	541
4759	30940	102	56	201	98	84	278	112	59	250
4760	30941	103	50	241	100	61	132	123	64	365
4761	30942	81	51	239	79	83	172	91	76	453
4762	30943	94	58	128	87	73	216	97	73	392
4763	30944	88	49	204	99	83	190	97	67	304
4764	Local Check (LC)	81	80	334	70	113	166	84	96	332
Exp. Mean		**91**	**56**	**255**	**86**	**77**	**239**	**99**	**73**	**386**

ADVANCE VARIETY TRIAL 2– MEDIUM SLENDER (AVT 2– MS)

Locations: 43 **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); Hybrid: 27P63 and Local Check** **Table:3.1**

AVT 2 – MS trial is evaluated with 5test entries (1 hybrid and 3 varieties) and in the third year of testing along with 5 checks (two NCs, one each of ZC, HC and LC). The trial was sent to 43 locations and data was not received from 8 centers (Bhubaneswar, Chinsurah, Gerua, Jabalpur, Dabhoi, Mugad, Malagi and Kurumbapet). Though the data was received from 35 locations, data from 6 locations not considered (Pusa, Arundhutinagar, Lembucherra, Sindewahi, Vyara and Sirsi); due to low experimental yield) and due to low CV in Masodha and Mandya. The experimental yield ranged from 2766 kg/ha Sirsi to 7089 kg/ha at Rajendranagar. Similarly, the CV is in the range from 2.76% (Mandya) to 16.49% at Cuttack. The data pertaining to yield, days to 50% flowering, plant height, panicles/m^2 and quality are presented in tables 3.2, 3.3 and 3.4 respectively.

Performance of entries on Zonal basis during IIIrd year of testing in Kharif 2022

In ***Zone III,*** none of the entries (varieties or hybrid) out-yielded the checks. The hybrid check (27P 63; 5805 kg/ha) and best varietal check (WGL-14; 5547 kg/ha) were the best yielders.

In ***Zone IV,*** the hybrid check (27P 63; 5517 kg/ha) and local check (LC; 5744 kg/ha) exhibited the highest yield, hence none of the test entries were found to out-yield the checks.

In Zone V, IET 29523 and IET 29536 were the best performing entries showing a yield advantage of 15.5% and 8.6% over WGL-14, the best varietal check and are medium slender grain type. The mean days to 50% flowering, plant height and panicles/m^2 of IET 29523 were 101, 107.83 cm and 233 respectively. Similarly, IET 29536 had 100 days, 121.38 cm, and 230 respectively.

In Zone VI, IET 29017, a hybrid entry out-yielded the hybrid check and best varietal check i.e., 27P 63 and WGL-14 respectively. But the yield advantage showed by IET 29017 ***over the HC was only 3.0%*** and 10.0% yield advantage over the BVC, ***hence it is dropped.***

In ***Zone VII,*** among the varieties, WGL-14, the best varietal check was the highest yielder (6359 kg/ha). Hence, none of the varietal test entries showed yield advantage over the BVC. But, IET 29017, a hybrid entry out-yielded the 27P 63, the hybrid check by 5.75% but it showed only 2.7% yield advantage over the WGL-14, the BVC. The mean days to 50% flowering, plant height and panicles/m^2 of IET 29523 were 101, 107.83 cm and 233 respectively. ***Since IET 29017 did not show the required 10.0% yield advantage over the BVC, it is dropped.***

Zonal performance of promising entries in Advance Variety Trial – 2 Medium Slender (AVT - 2 MS) during Kharif 2022

Rank	IET No./ Designation/Cross Combination	GY DFF GT	% Yield Adv. over NC1/NC2/ZC/LC/HC	% Increase over BVC & HC			
				Rank	Yield	% BVC	% HC
Zone V							
1	IET 29523 R2054-685-1-205-1 R 1033-2559-1-1 / Gopal Bhog	5162 101 MS	***15.5*** 52.7 17.3 3.4 15.6	CG-1 MH-6	6278 4045	33.5 -12.7	23.7 -17.5
2	IET 29536 OR 2674-14-6-2 CRMS 32A / OR 1889-5	4854 100 MS	***8.6*** 43.6 10.3 -2.7 8.7	CG-5 MH-1	4677 5031	-0.05 8.6	-7.9 2.6
	WGL 14 (NC 1) BPT 5204 (NC 2) Zonal check (ZC) ***Local check (LC)*** Hybrid check (HC)	4469 3381 4399 4991 4464					

Performance of entries during IVT (2020), AVT 1 (2021) and AVT 2 (2022)

IET 29536 (OR 2674-14-6-2), a derivative of CRMS32A / OR 1889-5 cross showed a superior yield performance over the BVC during 2020, 2021, 2022 by 13.0%, 25.0% and 8.6% respectively in Zone V. But, it has shown yield advantage of 27.0% and 0.2% (7306 kg/ha) only in IVT and AVT-1 respectively over the BVC in Zone VI. In Zone V, it has exhibited yield advantage in IVT (13.0%), AVT 1 (14.5%) and AVT 2 (8.6%) in Maharashtra but, only during AVT 1 (12.0%) in Chhattisgarh. The quality of IET 29536 is: HRR – 60.5%; AC – 26.01; GC – 38; ASV – 7.0. ***Based on its performance for the past three years, IET 29536 is found promising for Maharashtra in Zone V.***

IET 29523 (R 2054-685-1-205-1), a derivative of R 1033-2559-1-1 / Gopal Bhog cross exhibited a yield advantage over the BVC during IVT (2020; 39.0%), and AVT 2 (2022; 15.5%) in Zone V. But, it has shown yield advantage of 6.0% and 43.0% in IVT and AVT-1 respectively over the BVC in Zone VI. In Zone V, it has exhibited yield advantage in IVT (10.3%%), AVT 1 (11.5%) and AVT 2 (34.0%) in Chhattisgarh but, only during IVT (39.0%) in Maharashtra. The quality of IET 29523 is: HRR – 58.4%; AC – 24.34; GC – 22.0; ASV – 4.0. ***Based on its performance for the past three years, IET 29523 is found promising for Chhattisgarh State.***

Three-year performance of the entries on Zonal basis in IVT (2020), AVT – 1 (2021), AVT - 2 (2022)

Entry	Years	Zone II		Zone III		Zone IV		Zone V		Zone VI		Zone VII	
		Yield	% BVC & HC	Yield	% BVC & HC	Yield	% BVC & HC	Yield	% BVC	Yield	% BVC	Yield	% BVC
29523	2020	-	-	-	-	-	-	4097	39.0	4716	6.0	-	-
	2021	-	-	-	-	-	-	4720	-1.2	6030	43.0	-	-
	2022	-	-	-	-	-	-	5162	15.5	-	-	-	-
29536	2020	-	-	-	-	-	-	3337	13.0	5678	27.0	-	-
	2021	-	-	-	-	-	-	5425	25.0	5270	0.2	-	-
	2022	-	-	-	-	-	-	4854	8.6	-	-	-	-

State level performance of entries during AVT-2 (2022), AVT-1 (2021) and IVT (2020)

Entry	Year	Zone	Yield (kg/ha)	Yield adv. over BVC	States	Yield (Kg/ha)	Yield adv. Over BVC	Remarks
29523	2020	Z5	4097	39.0	CG-8* MH-8$	1753 4097	10.3 39.0	Exhibited yield advantage during IVT, AVT 1, AVT 2 in Chhattisgarh and IVT in Maharashtra.
	2021	Z5	4720	-1.2	CG-9 MH	6019 4071	11.5 -8.9	
	2023	Z5	5162	15.5	CG-1 MH	6278 4045	34.0 -12.7	
29536	2020	Z5	3337	13.0	CG* MH$	1216 3337	-23.5 13.0	Exhibited yield advantage during IVT, AVT 1, AVT 2 in Maharashtra and AVT 1 in Chhattisgarh.
	2021	Z5	5425	14.0	CG-7 MH-5	6036 5120	12.0 14.5	
	2022	Z5	4854	8.6	CG MH	4677 5031	-0.2 8.6	

*** Only one center data was available i.e., that is Raipur and it was not considered (@)**
$Only one center data considered i.e., Sakoli

ADVANCE VARIETY TRIAL 1 – MEDIUM SLENDER (AVT 1 – MS)

Locations: **43** **Test Entries: 18**

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:3.5**

The Advanced Variety Trial 1 –Medium Slender (AVT 1 – MS) was constituted with 18 test entries (17 varieties and 1 hybrid) along with two national checks (WGL 14 and BPT 5204), one hybrid check (27 P 63), one zonal check and a local check. AVT 1 – MS was sent to 43 locations and data was received from 33 centers. The data was not received from: Bhubaneswar, Chinsurah, Gerua-ICAR, Jabalpur, Dabhoi, Kunaram, Jagtial, Mugad, Malagi and Kurumbapet. The zone-wise discussion along with the overall performance is presented below. The data was not considered from Pusa, Titabar, Arundhatinagar, Lembucherra, Navasari, Vyara, Pattambi and Mandya due to low/high CV and low mean. The data pertaining to yield, days to 50% flowering, plant height, panicles/m^2 and quality are presented in tables 3.6, 3.7 and 3.8 respectively.

Performance of entries on Zonal basis in AVT 1 – MS during Kharif 2022

Zone III

In Zone III, the mean experimental yield ranged from 4061 kg/ha (Jeypore) to 6946 kg/ha (Varanasi) while, the mean CV was 5.19% at Masodha and 15.46% at Cuttack. The mean yield ranged from 4097 kg/ha (IET 30066) to 6508 kg/ha (27P63). Days to 50% flowering exhibited a range of 102 days (IET 30101) to 127 (IET 30078). The range of plant height was from 81.0 cm (BPT 5204) to 108.0 cm (IET 30088). HC had the highest panicles/m^2(313) while IET 30085 had the lowest (248). ***None of the entries were promoted based on their yield performance.***

Zone V

In Zone V, the trial was sent to Chhattisgarh (Raipur), Madhya Pradesh (Jabalpur) and Maharashtra (Sakoli and Sindewahi). The experimental mean yield ranged from 4093 kg/ha (Sakoli) to 4682 kg/ha (Raipur). The CV was highest at Sakoli (11.01%) and lowest at Raipur (10.4%). Among the entries, highest grain yield (5188 kg/ha) was recorded in IET 30107 and lowest (2526 kg/ha) in IET 30106. Days to 50% flowering varied from 91 days (IET 30066) to 127 days (IET 30106). The range of plant height was from 92 cm (ZC) to 128 cm (IET 30088). The panicles/m^2 varied from 268 (WGL 14 & BPT 5204) to 169 (IET 30085). ***None of the entries were promoted based on their yield performance.***

Zone VI

In Zone VI, the mean experimental yield ranged from 4342 kg/ha (Shirgoan) to 6835 kg/ha (Nawagam) while, the mean CV was 10.07% at Karjat and 12.46% at Radhanagari. The mean

yield ranged from 4452 kg/ha (IET 30101) to 6723 kg/ha (IET 30083). Days to 50% flowering exhibited a range of 91 days (IET 30101) to 125 (IET 30106). The range of plant height was from 92.0 cm (BPT 5204) to 129.0 cm (IET 30093). IET 30108 had the highest panicles/m^2 (235) while IET 30075 had the lowest (201). ***None of the entries were promoted based on their yield performance.***

Zone VII

The trial was sent across 6 states (Andhra Pradesh, Telangana, Karnataka, Kerala, Puducherry and Tamil Nadu). The mean experimental yield ranged from 4678 kg/ha at Bapatla to 7514 kg/ha at Kampasagar. The CV varied from 4.48% (Tirur) to 19.676% (Sirsi). IET 30083 was the highest yielder (7129 kg/ha) while, IET 30101 was the lowest yielder (4598 kg/ha). The flowering duration ranged from 95 days (IET 30101) to 121 days (IET 30106). The range of plant height is between 98.0 cm (BPT 5204) to 132.0 (IET 30093) whereas the panicles/m^2 ranges from 300 (IET 30097) to 376 (IET 30093). IET 30083 (7129 kg/ha), IET 30078 (6670 kg/ha), and IET 30107 (6591 kg/ha) ***exhibited significant yield superiority over the best check also had desirable quality and hence promoted.***

Overall

On overall basis, IET 30083 had the highest yield (6425 kg/ha) while IET 30101 had lowest yield of 4481 kg/ha. The flowering duration ranged from 97 days (IET 30101) to 124 days (IET 30106). The range of plant height is between 92.0 cm (BPT 5204) to 124.0 (IET 30093) whereas the panicles/m^2 ranges from 264 (IET 30085) to 306 (BPT 5204). ***Based on yield advantage (6425 kg/ha) and desirable grain quality, IET 30083 is promoted.***

Performance of entries on Zonal basis during Kharif 2022

Rank	IET No./Designation/ Cross Combination	GY (kg/ha)/ DFF/GT	Remarks
Zone VII			
1	IET 30083 BRR2152 CR2582-2/Varshdhan/IR82809-237	7129* 106 MS	Promoted
2	IET 30078 MTU 1382 MTU1075/MTU1001	6670* 112 MS	Promoted
3	IET 30107 RP6528-RMS1421-43-25-29 Improved Samba Mashuri*2//Habataki/ST 12	6591* 103 MS	Promoted
	WGL 14 (NC1) BPT 5204 (NC2) Zonal Check (ZC) 27P63 (HC1) ***Local Check (LC)***	5951 6132 5471 6125 ***6263***	
	CD	294	

Rank	IET No./Designation/ Cross Combination	GY (kg/ha)/ DFF/GT	Remarks
Overall			
1	IET 30083 BRR2152 CR2582-2/Varshdhan/IR82809-237	6425* 111 MS	Promoted
	WGL 14 (NC1) BPT 5204 (NC2) Zonal Check (ZC) 27P63 (HC1) Local Check (LC)	***6018*** 5763 5351 6159 5628	
	CD	216	

List of entries promoted to AVT 2 MS

Overall basis: IET 30083

Zone VII: IET 30083, IET 30078 and IET 30107.

INITIAL VARIETY TRIAL – MEDIUM SLENDER (IVT-MS)

Locations: **43** **Test Entries: 59**

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:3.9**

Initial Variety Trial - Medium Slender grain (IVT-MS) was constituted with 59 entries and five checks, National (Telangana Sona (Early), WGL 14 (Medium) & BPT 5204 (Late)); Zonal-Improved Samba Mahsuri (Eastern and Central), Ketekejoha (North Eastern), Karjat-6 (Western), ADT49 (Southern) and Local Check. The trial was sent to 43 locations and data was received from 32 locations. Eleven locations viz., Chiplima, Varanasi, Gerua – ICAR, Jabalpur, Radhanagari, Dabhoi, Kunaram, Jagtial, Mugad, Malagi and Kurumbapet could not send data. Data from ten centres were not considered for analysis due to high CV (NRRI-Cuttack), low CV (Pusa, Chinsurah, Titabar), low experimental mean yield (Jeypore,

Arundhutinagar, Mandya and Sirsi). Data from Pattambi location was not included in analysis due to non-significant F value for treatments. The data pertaining to yield, days to 50% flowering, plant height, panicles/m2 and quality are presented in the tables 3.10, 3.11 and 3.12 respectively.

Performance of the entries on overall mean basis

Across the locations on overall basis the mean yield ranged from 4036 kg/ha (IET 30965) to 6229 kg/ha (IET 30989); days to 50% flowering ranged from 92 days (IET 30959) to 121 days (IET 330954). Among the checks, local check was the highest yielder (5448 kg/ha). Four entries viz., IET 30989 (6229 kg/ha), IET 30957 (5987 kg/ha), IET 30961 (5957 kg/ha) and IET 31002 (5717 kg/ha) were found to be significantly superior to the best check (local check) possessing MS grain type and thus promoted to AVT1-MS.

Overall mean performance of entries in IVT-MS, Kharif, 2022

Rank	IET No/ Designation/ CrossCombination	GY/ FD/GT	Zone/ Rank/Yield (kg/ha)	State/rank/ yield (Kg/ha)	Remarks
1	**IET 30989** (WGL 1367) WGL 32100 / NR6226	6229* 100 MS	Z VI-2 6001	UP-9 6250 MH-5 5316 GU-2 5797	Promoted
2	**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	5987* 104 MS	Z IV-2 9221 Z VI-1 6004	Tripura-2 9221 MH-1 6231	Promoted
3	**IET 30961** **(**CR 4425-1-1-3-1-1) CR 3696-24-1-2-1-1-1 / CB 09 123	5957* 104 MS	Z VI-3 5837	MH-7 5279 GU-1 5891	Promoted
4	**IET 31002** (RP Bio 4918-NPS-58-1-2) Swarna / O. nivara	5717* 102 MS		TN-1 7553	Promoted
	NC Early (Telangana Sona)	5152 103			
	NC Medium (WGL14)	5315 105			
	NC Late (BPT5204)	5055 108			
	Zonal check (ZC)	4527 105			
	Local check (LC)	*5448* *103*			
	CD	247			

Zonal performance of the entries North Eastern Zone (Zone IV)

In Zone IV three entries showed adequate yield advantage over the best check (National check Telangana Sona-8271 kg/ha. The entry IET 31001 has recorded significant grain yield of 9585 kg/ha (Days to 50% flowering-66 days). IET 30957 (9221 kg/ha and days to 50%

flowering-68 days) and IET 30966 (9166 kg/ha and 80 days to 50% flowering) over best check hence promoted to AVT 1 MS.

Performance of entries in IVT-MS Zone IV, Kharif 2022

Rank	IET No/ Designation/ CrossCombination	GY/ FD/GT	Remarks
1	**IET 31001** (NVSR 934) NAUR-1 / Danteshwari	9585* 66 MS	Promoted
2	**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	9221* 68 MS	Promoted
3	**IET 30966** **(**RP 6686-CGR 22) Samba Mahsuri / Oryza rufipogon 38-5	9166* 80 MS	Promoted
	NC Early (Telangana Sona)	*8271* *74*	
	NC Medium (WGL14)	6998 73	
	NC Late (BPT5204)	7426 71	
	Zonal check	6081 78	
	Local check	5018 78	
	CD	686	

Central Zone (Zone V)

The trial was evaluated at three locations *viz*., Raipur (Chhattisgarh), Sakoli and Sindewahi (Maharashtra) in Central Zone. The National check BPT 5204 with yield potential of 4812 kg/ha and 111 days to 50 % flowering stood as best check, over the best check one entry IET 30959 with grain yield of 5639 kg/ha and 89 days to 50 % flowering had significant yield advantage over best check

Performance of entries in IVT-MS Zone V, Kharif 2022

Rank	IET No/ Designation/ CrossCombination	GY/ FD/GT	Remarks
1	**IET 30959** (JGL 38105) CN 1757-5-3-7 / MTU 1075	5639* 89 MS	Promoted
	NC Early (Telangana Sona)	3464 105	
	NC Medium (WGL14)	4771 106	
	NC Late (BPT5204)	*4812* *111*	
	Zonal check (ZC)	4343 108	
	Local check (LC)	4565 101	
	CD	660	

Western Zone (Zone VI)

The trial was evaluated at only six locations *viz*., Karjat, Shirgaon and Vadagaon (Maharashtra); Navsari, Nawagam and Vyara (Gujarat) and all location data was considered for analysis. Local check with yield potential of 4793 kg/ha and 102 days to 50 % flowering (DFF) was recorded as best check and the CD value was 446. Nine entries *viz*., IETs 30957 (6004 kg/ha; 105 DFF), 30989 (6001 kg/ha; 100 DFF), 30961 (5837 kg/ha; 107), 30978 (5625 kg/ha; 105), 30949 (5600 kg/ha; 101 DFF), 30981 (5361 kg/ha; 100), 30958 (5339 kg/ha; 105), 30969 (5256 kg/ha; 101 DFF) and 30959 (5248 kg/ha; 90 DFF) recorded significant superior yield performance over the best check

Performance of entries in IVT-MS Zone VI, Kharif 2022

Rank	IET No/ Designation/ Cross Combination	GY/ FD/ GT	State/rank/ Yield (Kg/ha)	Remarks
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	6004* 105 MS	MH (2) -1 6921	Promoted
2	**IET 30989** (WGL 1367) WGL 32100 / NR6226	6001* 100 MS	MH (2) - 4 6205 GU-2 5797	Promoted
3	**IET 30961** **(**CR 4425-1-1-3-1-1) CR 3696-24-1-2-1-1-1 / CB 09123	5837* 107 MS	MH (2) - 5 5783 GU-1 5891	Promoted
4	**IET 30978** (BPT 3284) BPT 2270 / BPT 2605	5625* 105 MS	MH (2) - 6 5740	Promoted
5	**IET 30949** (NWGR 17123) GAR-13 / IET-2006 / 1-1-1-1-4-1	5600* 101 MS	MH (2) – 7 5616	Promoted
6	**IET 30981** (NWGR 17111) GAR-13 / Yamini / 2-1-1-1-1-1-1	5361* 100 MS	-	Promoted
7	**IET 30958** (Pusa 2070-22-1) BPT 5204 / Swarna	5339* 105 MS	-	Promoted
8	**IET 30969** (CR 3741-1-1-2-1-1-2) Pooja / Surendra	5256* 101 MS	MH (2) - 2 6464	Promoted
9	**IET 30959** (JGL 38105) CN 1757-5-3-7 / MTU 1075	5248* 90 MS	-	Promoted
	NC Early (Telangana Sona)	4495 108		
	NC Medium (WGL14)	4542 106		
	NC Late (BPT5204)	3826 109		
	Zonal check	3650 110		
	Local check	*4793* *102*		
	CD	446		

Southern Zone (Zone VII)

The trial was evaluated at twelve locations however data from eight locations *viz*., Maruteru, Bapatla, Rajendranagar, Warangal, Adhuturai, Coimbatore, Tirur, and Gangavathi was considered for analysis. While data from locations Kampasagar, Pattambi, Mandya, and Sirsi not considered for analysis due to low /high CV and Low mean. Local check with yield potential of 6214 kg/ha and 106 days to 50 % flowering (DFF) was recorded as best check. None of the entries recorded significant superior yield performance over the best check, hence none of the entries are promoted to AVT 1 in Zone VII.

Entries promoted to AVT- 1-MS

On basis of	Entries
Over all basis	**IETs 30989, 30957, 30961 and 31002**
Zone IV	**IETs 31001, 30957 and 30966**
Zone V	**IET 30959**
Zone VI	**IETs 30957, 30989, 30961, 30978, 30949, 30981, 30958, 30969 and 30959**

Table No. 3.1: Composition of entries in Advance Variety Trial 2-Medium Slender Grain (AVT 2-MS), Kharif 2022

Entry No.	IET No.	Designation	Cross Combination	GT
3rd year of testing				
4801	29536	OR 2674-14-6-2	CRMS 32A / OR 1889-5	MS
4802	29523	R 2054-685-1-205-1	R 1033-2559-1-1 / Gopal bhog	MS
4803	**WGL-14 (NC-Medium Duration)**			
4804	29539	MTU 1362 (MTU 2578-5-2-1-1-1)	MTU 1156 / MTU 1081	MS
4805	**BPT 5204 (NC-Late Duration)**			
4806	29492	CSR 27 SM160	CSR 27 / BPT 5204	MS
4807	**Improved Samba Mahsuri (Eastern & Central), Ketekijoha (North Eastern), Karjat-6 (Western), ADT 49 (Southern)-- ZC**			
4808	29017	***RALLIS-19608 (Hybrid)***	**-**	MS
4809	**27P 63 (HC)**			
4810	**Local Check (LC)**			

Table No. 3.2: Grain Yield (kg/ha) in AVT 2 – MS, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN									
		ODISHA						ODISHA (3)		BIHAR (1)	
		ICAR-NRRI (Cuttack)		Jeypore		Chiplima		Mean		Bikramganj (Dhangain)	
4801	29536	5214	5	3807	9	5526	7	4849	9	6015	6
4802	29523	4714	10	4012	8	4854	9	4527	10	6459	5
4803	WGL-14 (NC-Medium Duration)	4973	8	4428	4	5234	8	4878	8	6881	2
4804	29539	6028	1	3727	10	6573	3	5443	4	5307	7
4805	BPT 5204 (NC-Late Duration)	5050	6	4582	3	5673	5	5102	7	5067	9
4806	29492	5798	3	4084	7	5702	4	5195	6	7296	1 6%
4807	Zonal Check (ZC)	5001	7	4389	5	7193	2	5528	3	4363	10
4808	29017	5937	2	5070	2	4620	10	5209	5	6874	3
4809	27P 63 (HC)	4956	9	4367	6	7456	1	5593	1	6674	4
4810	Local Check (LC)	5753	4	5280	1	5643	6	5559	2	5082	8
Exp. Mean		**5342**		**4375**		**5847**		**5188**		**6002**	
CD		1511		726		1118		620		966	
CV%		**16.49**		**9.68**		**11.15**		**6.96**		**9.38**	
D/S		04-07-2022		06-07-2022		13-07-2022				26-06-2022	
D/P		27-08-2022		06-08-2022		05-09-2022				31-07-2022	
Local Check Name		CR DHAN 910		Kalinga Dhan 1203		MTU-1156				R. Sweta	

***Superior to best check; #Superior to hybrid check**

Table No. 3.2 (Contd): Grain Yield (kg/ha) in AVT 2 – MS, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN						ZONE IV- NORTH EASTERN			
		JHARKHAND (1)		UTTAR PRADESH (1)		Zone III (6)		ASSAM (1)		Zone IV (1)	
		Ranchi		Varanasi		Mean		Titabar		Mean	
4801	29536	4473	6	4740	7	4963	9	4867	5	4867	5
4802	29523	4816	4 15%	6490	2	5224	6	5733	2	5733	2
4803	WGL-14 (NC-Medium Duration)	5329	2	6438	4	5547	3	4750	6	4750	6
4804	29539	4864	3 16%	4531	8	5172	7	4517	8	4517	8
4805	BPT 5204 (NC-Late Duration)	3324	10	4354	9	4675	10	4467	9	4467	9
4806	29492	4082	8	5396	6	5393	4	4533	7	4533	7
4807	Zonal Check (ZC)	4033	9	5406	5	5064	8	4900	4	4900	4
4808	29017	4498	5	6453	3	5575	2	4350	10	4350	10
4809	27P 63 (HC)	4204	7	7172	1	5805	1	5517	3	5517	3
4810	Local Check (LC)	5769	1	4203	10	5288	5	5744	1	5744	1
Exp. Mean		**4539**		**5518**		**5271**		**4938**		**4938**	
CD		1040		892		427		503		503	
CV%		**13.36**		**9.43**		**4.72**		**5.94**		**5.94**	
D/S		18-06-2022		06-06-2022				10-06-2022			
D/P		25-07-2022		26-06-2022				08-07-2022			
Local Check Name		SWARNA		HUR-917				Ranjit Sub 1			

Table No. 3.2 (Contd): Grain Yield (kg/ha) in AVT 2 – MS, Kharif 2022

ENTRY NO	IET NO	ZONE-V – CENTRAL						ZONE VI – WESTERN			
		CHHATTISGARH (1)		MAHARASHTRA 1 (1)		Zone V (2)		MAHARASHTRA 2			
		Raipur		Sakoli		Mean		KARJAT		Shirgaon	
4801	29536	4677	5	5031	1 9%	4854	3 9%	6940	4	5317	4
4802	29523	6278	1 * 34% # 24%	4045	6	5162	1 * 16%	7393	2	4509	7
4803	WGL-14 (NC-Medium Duration)	4307	7	4631	3	4469	5	5803	9	5106	5
4804	29539	4136	8	3779	8	3958	8	7333	3	2918	9
4805	BPT 5204 (NC-Late Duration)	3898	9	2863	10	3381	10	5906	8	3022	8
4806	29492	3784	10	3673	9	3729	9	5966	7	5041	6
4807	Zonal Check (ZC)	4614	6	4184	5	4399	7	5256	10	2204	10
4808	29017	5502	2 * 17%	3931	7	4717	4 6%	8051	1	6245	1
4809	27P 63 (HC)	5077	3	4905	2	4991	2	6342	5	5788	2
4810	Local Check (LC)	4702	4	4225	4	4464	6	6120	6	5630	3
Exp. Mean		**4698**		**4127**		**4412**		**6511**		**4578**	
CD		563		762		538		1174		1077	
CV%		**6.99**		**10.76**		**7.1**		**10.51**		**13.71**	
D/S		29-06-2022		01-07-2022				17-06-2022		16-06-2022	
D/P		18-07-2022		03-08-2022				13-07-2022		14-07-2022	
Local Check Name		Chhattisgarh Devbhog		PDKV Kisan				Karjat 9		Ratnagiri 8	

Table No.3.2 (Contd): Grain Yield (kg/ha) in AVT 2 – MS, Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN											
		MAHARASHTRA 2				MAHARASHTRA 2(4)			MAHARASHTRA (5)			GUJARAT	
		Vadagaon		Radhanagari		Mean			Mean			NAVSARI	
4801	29536	5978	1	4862	5	5774	3 *	9%	5626	3	* 9%	5771	6
4802	29523	5390	5	5315	4	5652	4	7%	5330	4		6087	5
4803	WGL-14 (NC-Medium Duration)	5440	4	4812	7	5290	5		5158	5		6530	1
4804	29539	5078	6	5537	3	5217	6		4929	7		5475	7
4805	BPT 5204 (NC-Late Duration)	4564	7	4796	9	4572	9		4230	9		4853	9
4806	29492	4163	10	4808	8	4995	8		4730	8		6478	2
4807	Zonal Check (ZC)	4305	8	4728	10	4123	10		4135	10		4323	10
4808	29017	5522	3	6370	1 *	6547	1 *	24% #	6024	1	* 17% 4.89%	6290	3
4809	27P 63 (HC)	5536	2	6143	2	5952	2		5743	2		6098	4
4810	Local Check (LC)	4195	9	4816	6	5190	7		4997	6		5268	8
Exp. Mean		**5017**		**5219**		**5331**			**5090**			**5717**	
CD		903		895		378			337			927	
CV%		**10.49**		**9.99**		**4.13**			**3.86**			**9.45**	
D/S		21-06-2022		14-06-2022								11-06-2022	
D/P		22-07-2022		09-07-2022								29-06-2022	
Local Check Name		Kundalika		Phule Radha								GNR-7	

Table No. 3.2 (Contd): Grain Yield (kg/ha) in AVT 2 – MS, Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN						ZONE VII – SOUTHERN			
		GUJARAT		GUJARAT (2)		Zone VI (6)		ANDHRA PRADESH			
		NAWAGAM		Mean		Mean		MARUTERU		Bapatla	
4801	29536	5745	5	5758	4	5769	3	5349	10	6186	1
4802	29523	5225	6	5656	5	5653	4	6807	1	5455	3
4803	WGL-14 (NC-Medium Duration)	6187	2	6359	1	5646	5	6556	2	5079	6
4804	29539	5812	3	5644	6	5359	7	6123	4	4447	8
4805	BPT 5204 (NC-Late Duration)	5104	8	4979	9	4708	9	5693	7	3179	10
4806	29492	5801	4	6140	3	5376	6	5690	8	4088	9
4807	Zonal Check (ZC)	4297	10	4310	10	4186	10	5824	6	4882	7
4808	29017	4805	9	5548	7	6214	1 * 10%	5877	5	6031	2
4809	27P 63 (HC)	6273	1	6186	2	6030	2	5538	9	5080	5
4810	Local Check (LC)	5165	7	5217	8	5199	8	6272	3	5424	4
Exp. Mean		**5441**		**5579**		**5414**		**5973**		**4985**	
CD		705		444		298		956		590	
CV%		**7.55**		**4.63**		**3.21**		**9.33**		**6.89**	
D/S		13-06-2022						25-06-2022		02-08-2022	
D/P		18-07-2022						22-07-2022		06-09-2022	
Local Check Name		GAR 13						MTU 1224		BPT 2782	

Table No.3.2 (Contd): Grain Yield (kg/ha) in AVT 2 – MS, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN									
		ANDHRA PRADESH (2)		TELANGANA							
		Mean		RAJENDRANAGAR		Kampasagar		Kunaram		WARANGAL	
4801	29536	5768	5	7765	2	5652	9	5572	3	5449	3
4802	29523	6131	1 # 15%	7249	5	7604	5	5429	6	6086	1
4803	WGL-14 (NC-Medium Duration)	5818	4	7404	4	6877	7	5524	4	5340	5
4804	29539	5285	8	6761	7	8468	1	5433	5	5571	2
4805	BPT 5204 (NC-Late Duration)	4436	10	6566	8	7993	3	3308	10	4848	8
4806	29492	4889	9	7190	6	7878	4	4075	9	5043	7
4807	Zonal Check (ZC)	5353	6	5944	10	6886	6	4974	7	4833	9
4808	29017	5954	2 # 12%	7918	1	8372	2	6645	1	5154	6
4809	27P 63 (HC)	5309	7	7674	3	6694	8	4755	8	4351	10
4810	Local Check (LC)	5848	3	6422	9	3932	10	6247	2	5347	4
Exp. Mean		**5479**		**7089**		**7036**		**5196**		**5202**	
CD		562		765		623		787		889	
CV%		**5.98**		**6.29**		**5.16**		**8.83**		**9.97**	
D/S				20-06-2022		02-07-2022		25-06-2022		24-06-2022	
D/P				15-07-2022		27-07-2022		21-07-2022		23-07-2022	
Local Check Name				RNR 11718		RNR-15048		KNM 1638		WGL 32100	

Table No. 3.2 (Contd): Grain Yield (kg/ha) in AVT 2 – MS, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN									
		TELANGANA		TELANGANA (5)		TAMIL NADU					
		Jagtial		Mean		ADUTHURAI		COIMBATORE		Tirur	
4801	29536	7381	2	6364	5	6399	6	7796	3	5061	9
4802	29523	5838	6	6441	2	7341	4	5987	7	6408	2
4803	WGL-14 (NC-Medium Duration)	7019	3	6433	4	7877	1	7961	2	5469	7
4804	29539	4837	10	6214	6	7168	5	7006	4	5717	4
4805	BPT 5204 (NC-Late Duration)	5710	7	5685	9	4737	9	5705	8	5367	8
4806	29492	4965	8	5830	7	4737	9	4882	9	5531	6
4807	Zonal Check (ZC)	4934	9	5514	10	7664	2	4638	10	6564	1
4808	29017	6265	5	6871	1 * 7% #	6002	7	7976	1	5039	10
4809	27P 63 (HC)	8717	1	6438	3	5704	8	6727	5	5653	5
4810	Local Check (LC)	6530	4	5696	8	7550	3	6152	6	5814	3
Exp. Mean		**6220**		**6149**		**6518**		**6483**		**5662**	
CD		932		373		1227		886		512	
CV%		**8.74**		**3.54**		**10.98**		**7.96**		**5.28**	
D/S		16-06-2022				11-09-2022		02-06-2022		01-07-2022	
D/P		19-07-2022				28-10-2022		24-06-2022		21-07-2022	
Local Check Name		JGL 11470				CO52		CO 52		CO 52	

Table No. 3.2 Contd): Grain Yield (kg/ha) in AVT 2 – MS, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN								Overall Mean (27)	
		TAMIL NADU (3)		KERALA (1)		KARNATAKA (1)		Zone 7(12)			
		Mean		PATTAMBI		GANGAVATI		Mean			
4801	29536	6419	5	4491	9	8994	1 * 23%	6341	3	5743	5
4802	29523	6579	3 #	4811	8	6590	5	6300	4	5812	4
4803	WGL-14 (NC-Medium Duration)	7102	1	5364	4	5833	8	6359	2	5820	3
4804	29539	6630	2 #	5218	6 # 17%	6519	6	6106	6	5514	7
4805	BPT 5204 (NC-Late Duration)	5270	9	5031	7	5340	9	5290	10	4852	10
4806	29492	5050	10	5620	1 # 26%	6250	7	5496	9	5280	8
4807	Zonal Check (ZC)	6289	7	5509	3	4705	10	5613	8	5058	9
4808	29017	6339	6	5229	5 # 17%	7827	3 7%	6528	1	6032	1 *
4809	27P 63 (HC)	6028	8	4458	10	8724	2	6173	5	5948	2
4810	Local Check (LC)	6505	4	5562	2	7301	4	6046	7	5561	6
Exp. Mean		**6221**		**5129**		**6808**		**6002**		**5546**	
CD		483		539		286		357		189	
CV%		**4.53**		**6.12**		**8.35**		**3.46**		**1.99**	
D/S				20-06-2022		05-07-2022					
D/P				16-07-2022		06-08-2022					
Local Check Name						GANGAVATHI SONA					

Table No.3.2 (Contd): Grain Yield (kg/ha) in AVT 2 – MS, (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED							
		BIHAR		UTTARPRADESH 1		TRIPURA (0)			
		@PUSA		@MASODHA		@ARUNDHUTI NAGAR		@Lembucherra	
4801	29536	2619	10	5998	3	3533	6	3878	5
4802	29523	2810	9	5395	4	3543	5	5233	2
4803	WGL-14 (NC-Medium Duration)	4190	4	3690	10	4000	3	3377	7
4804	29539	4524	3	6143	1	2975	10	3748	6
4805	BPT 5204 (NC-Late Duration)	3524	6	3811	9	3292	8	6216	1
4806	29492	5905	1	6065	2	4349	2	4769	3
4807	Zonal Check (ZC)	3714	5	4670	6	3444	7	2820	8
4808	29017	3190	8	4270	8	5032	1	2820	8
4809	27P 63 (HC)	3524	6	5298	5	3654	4	4082	4
4810	Local Check (LC)	4619	2	4452	7	3124	9	2078	10
Exp. Mean		**3862**		**4979**		**3695**		**3902**	
CD		326		300		766		298	
CV%		**4.93**		**3.51**		**12.09**		**4.46**	
D/S		01-07-2022		16-06-2022		15-07-2022		13-07-2022	
D/P		23-07-2022		18-07-2022		03-08-2022		03-08-2022	
Local Check Name		Rajendra Mahsuri		Sambha Mahsuri-Sub 1		Tripura Chikan Dhan		CHIKAN DHAN	

Table No. 3.22 (Contd): Grain Yield (kg/ha) in AVT 2 – MS, (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED							
		MAHARASTHRA 1		GUJARAT		KARNATAKKA			
		@Sindewahi		@Vyara		@MANDYA		@Sirsi	
4801	29536	4988	1	3904	2	4089	7	2947	4
4802	29523	3741	8	4176	1	5188	3	3323	2
4803	WGL-14 (NC-Medium Duration)	3899	4	3068	6	3943	8	2407	7
4804	29539	3348	9	3386	4	4482	5	3300	3
4805	BPT 5204 (NC-Late Duration)	2972	10	2484	10	2920	10	3633	1
4806	29492	4639	2	2887	8	3751	9	2047	10
4807	Zonal Check (ZC)	4365	3	2728	9	4123	6	2380	8
4808	29017	3753	7	3893	3	4987	4	2180	9
4809	27P 63 (HC)	3872	5	2964	7	5409	1	2660	6
4810	Local Check (LC)	3867	6	3370	5	5196	2	2783	5
Exp. Mean		**3944**		**3286**		**4409**		**2766**	
CD		718		648		209		543	
CV%		**10.62**		**11.5**		**2.76**		**11.45**	
D/S		27-06-2022		13-06-2022		09-07-2022		21-06-2022	
D/P		26-07-2022		08-07-2022		05-08-2022		03-08-2022	
Local Check Name		PKV Ganesh		GNR-7		Thanu			

Table No. 3.3: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 – MS, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN														
		ODISHA									ODISHA (3)			BIHAR (1)		
		ICAR-NRRI (Cuttack)			JEYPORE			CHIPLIMA			Mean			BIKRAMGANJ (Dhangain)		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4801	29536	122	104	330	115	91	342	117	92	306	118	96	326	93	108	349
4802	29523	118	94	303	113	74	273	120	83	322	117	83	299	101	100	390
4803	WGL-14 (NC-Medium Duration)	122	97	301	111	90	315	127	97	286	120	94	301	104	112	367
4804	29539	124	84	315	117	75	351	129	79	236	123	79	301	112	100	300
4805	BPT 5204 (NC-Late Duration)	120	81	292	107	75	326	117	77	227	115	78	281	109	98	298
4806	29492	123	87	312	118	76	435	119	80	318	120	81	355	109	101	297
4807	Zonal Check (ZC)	125	88	298	113	73	376	133	75	301	124	79	325	118	89	295
4808	29017	115	96	286	106	91	286	119	89	240	113	92	271	96	102	287
4809	27P 63 (HC)	118	91	300	107	86	321	117	85	255	114	87	292	92	119	293
4810	Local Check (LC)	122	104	299	111	83	362	102	84	329	112	90	330	109	92	262
Exp. Mean		**121**	**92**	**304**	**112**	**81**	**339**	**120**	**84**	**282**	**117**	**86**	**308**	**104**	**102**	**314**

Table No. 3.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 – MS, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN									ZONE IV- NORTH EASTERN					
		JHARKHAND (1)			UTTAR PRADESH (1)			Zone III (6)			ASSAM (1)			Zone IV (1)		
		RANCHI			VARANASI			Mean			TITABAR			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4801	29536	113	96	175	98	112	194	110	100	282	111	130	306	111	130	306
4802	29523	116	82	167	107	106	181	112	90	273	108	114	320	108	114	320
4803	WGL-14 (NC-Medium Duration)	113	100	204	113	115	201	115	102	279	113	131	256	113	131	256
4804	29539	120	87	192	120	96	196	120	87	265	130	117	307	130	117	307
4805	BPT 5204 (NC-Late Duration)	115	83	236	122	94	211	115	85	265	117	112	285	117	112	285
4806	29492	111	86	164	116	96	229	116	88	293	122	108	318	122	108	318
4807	Zonal Check (ZC)	118	88	235	116	94	220	121	85	288	116	128	290	116	128	290
4808	29017	108	89	184	100	114	177	107	97	243	105	127	267	105	127	267
4809	27P 63 (HC)	108	92	198	107	108	218	108	97	264	115	124	273	115	124	273
4810	Local Check (LC)	120	91	170	116	96	215	113	92	273	127	133	268	127	133	268
Exp. Mean		**114**	**89**	**193**	**112**	**103**	**204**	**114**	**92**	**273**	**116**	**122**	**289**	**116**	**122**	**289**

Table No. 3.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 – MS, Kharif 2022

ENTRY NO	IET NO	ZONE-V – CENTRAL									ZONE VI – WESTERN					
		CHHATTISGARH (1)			MAHARASHTRA 1 (1)			Zone V (2)			MAHARASHTRA 2					
		RAIPUR			SAKOLI			Mean			KARJAT			Shirgaon		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4801	29536	97	127	159	103	116	301	100	121	230	97	123	226	103	121	168
4802	29523	100	107	194	101	108	271	101	108	233	99	112	218	111	108	111
4803	WGL-14 (NC-Medium Duration)	102	126	197	106	111	287	104	118	242	100	121	207	105	117	139
4804	29539	105	106	190	108	98	235	107	102	213	114	106	252	113	98	145
4805	BPT 5204 (NC-Late Duration)	105	110	189	103	100	209	104	105	199	97	104	232	112	100	119
4806	29492	102	108	190	108	95	224	105	102	207	97	98	221	105	100	180
4807	Zonal Check (ZC)	105	104	190	108	91	275	107	97	233	114	107	214	112	103	159
4808	29017	94	118	188	99	104	260	97	111	224	98	117	219	101	117	119
4809	27P 63 (HC)	98	118	185	102	103	295	100	110	240	99	119	248	102	115	151
4810	Local Check (LC)	102	106	251	106	107	264	104	107	258	98	115	226	86	104	122
Exp. Mean		**101**	**113**	**194**	**104**	**103**	**262**	**103**	**108**	**228**	**101**	**112**	**226**	**105**	**108**	**141**

Table No. 3.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 – MS, Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN														
		MAHARASHTRA 2						MAHARASHTRA 2(4)			MAHARASHTRA (5)			GUJARAT		
		Vadagaon			Radhanagari			Mean			Mean			NAVSARI		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4801	29536	110	113	277	100	88	201	102	111	218	102	112	235	92	131	195
4802	29523	109	90	251	107	79	181	106	97	190	105	99	206	99	119	156
4803	WGL-14 (NC-Medium Duration)	107	99	260	100	98	247	103	109	213	104	109	228	100	118	193
4804	29539	110	83	246	100	74	220	109	90	216	109	92	220	108	107	209
4805	BPT 5204 (NC-Late Duration)	103	93	232	108	74	219	105	93	200	104	94	202	100	106	194
4806	29492	103	83	221	108	76	248	103	89	217	104	90	219	99	104	223
4807	Zonal Check (ZC)	113	82	240	109	79	246	112	93	215	111	92	227	113	105	270
4808	29017	105	98	268	97	92	209	100	106	204	100	106	215	91	115	189
4809	27P 63 (HC)	104	88	275	98	90	218	101	103	223	101	103	237	93	115	208
4810	Local Check (LC)	100	86	225	94	94	205	94	100	195	97	101	208	96	100	176
Exp. Mean		**106**	**91**	**249**	**102**	**84**	**219**	**104**	**99**	**209**	**104**	**100**	**220**	**99**	**112**	**201**

Table No. 3.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 – MS, Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN									ZONE VII – SOUTHERN					
		GUJARAT			GUJARAT (2)			Zone VI (6)			ANDHRA PRADESH					
		NAWAGAM			Mean			Mean			MARUTERU			Bapatla		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4801	29536	103	130	288	97	131	242	101	118	226	96	135	462	102	111	346
4802	29523	106	102	283	103	110	220	105	102	200	99	114	462	99	134	335
4803	WGL-14 (NC-Medium Duration)	108	126	286	104	122	240	103	113	222	104	120	385	104	127	357
4804	29539	113	102	284	111	104	247	110	95	226	112	110	462	99	113	360
4805	BPT 5204 (NC-Late Duration)	105	98	282	103	102	238	104	96	213	97	120	506	93	110	286
4806	29492	103	105	284	101	104	254	102	94	230	109	98	374	99	100	366
4807	Zonal Check (ZC)	114	107	277	114	106	274	113	97	234	105	115	363	103	107	243
4808	29017	97	123	282	94	119	236	98	110	214	96	129	396	95	119	256
4809	27P 63 (HC)	100	119	292	97	117	250	99	108	232	97	119	374	95	120	333
4810	Local Check (LC)	103	117	281	100	108	229	96	103	206	111	110	396	112	101	303
Exp. Mean		**105**	**113**	**284**	**102**	**112**	**243**	**103**	**103**	**220**	**103**	**117**	**418**	**100**	**115**	**318**

Table No. 3.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 – MS, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN														
		ANDHRA PRADESH (2)			TELANGANA											
		Mean			RAJENDRANAGAR			Kampasagar			Kunaram			WARANGAL		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4801	29536	99	123	404	108	107	369	96	124	484	94	147	354	101	147	385
4802	29523	99	124	399	107	102	398	99	108	385	100	125	341	102	123	349
4803	WGL-14 (NC-Medium Duration)	104	124	371	108	105	371	101	123	440	99	133	282	103	138	370
4804	29539	105	111	411	110	95	404	105	102	374	106	122	326	110	117	370
4805	BPT 5204 (NC-Late Duration)	95	115	396	101	100	353	97	113	407	96	112	334	101	124	376
4806	29492	104	99	370	110	91	433	98	104	330	100	115	321	105	117	358
4807	Zonal Check (ZC)	104	111	303	110	102	387	105	108	473	100	129	383	105	137	365
4808	29017	96	124	326	107	103	364	95	115	451	95	140	301	100	136	354
4809	27P 63 (HC)	96	120	354	103	104	407	97	109	429	99	129	330	101	134	364
4810	Local Check (LC)	112	106	349	110	102	427	98	128	396	93	113	361	100	123	368
Exp. Mean		**101**	**116**	**368**	**107**	**101**	**391**	**99**	**113**	**417**	**98**	**126**	**333**	**103**	**130**	**366**

Table No. 3.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 – MS, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN														
		TELANGANA			TELANGANA (5)			TAMIL NADU								
		Jagtial			Mean			ADUTHURAI			COIMBATORE			Tirur		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4801	29536	112	130	375	102	131	394	93	92	265	103	123	353	90	108	312
4802	29523	115	111	352	105	114	365	95	93	291	111	95	298	83	103	378
4803	WGL-14 (NC-Medium Duration)	119	124	352	106	124	363	99	84	334	109	113	298	86	111	354
4804	29539	125	113	387	111	110	372	95	96	372	113	95	311	90	97	357
4805	BPT 5204 (NC-Late Duration)	111	107	351	101	111	364	99	98	240	109	103	326	87	104	314
4806	29492	114	101	365	106	105	361	99	80	232	108	88	340	95	95	321
4807	Zonal Check (ZC)	116	115	361	107	118	394	93	94	292	112	108	362	90	105	418
4808	29017	108	116	356	101	122	366	94	83	258	103	111	320	86	105	281
4809	27P 63 (HC)	109	116	362	102	118	378	99	75	240	102	115	298	86	101	275
4810	Local Check (LC)	120	115	375	104	116	385	100	85	343	114	118	340	102	114	403
Exp. Mean		**115**	**115**	**364**	**104**	**117**	**374**	**97**	**88**	**287**	**108**	**107**	**325**	**90**	**104**	**341**

Table No. 3.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2 – MS, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN												Overall Mean (27)		
		TAMIL NADU (3)			KERALA (1)			KARNATAKA (1)			Zone VII (12)					
		Mean			PATTAMBI			GANGAVATI			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4801	29536	96	108	310	96	91	453	108	117	394	100	119	379	103	115	310
4802	29523	96	97	322	96	99	468	109	88	386	101	108	370	105	103	299
4803	WGL-14 (NC-Medium Duration)	98	103	328	98	101	487	108	105	392	103	115	368	106	113	302
4804	29539	99	96	346	99	94	506	109	91	355	106	104	382	111	98	306
4805	BPT 5204 (NC-Late Duration)	99	102	293	98	99	495	108	85	369	100	106	363	105	99	293
4806	29492	101	88	298	99	95	572	106	85	363	103	97	365	107	95	305
4807	Zonal Check (ZC)	98	102	357	100	99	514	116	99	396	105	110	380	110	101	313
4808	29017	94	99	286	98	100	467	106	102	360	99	113	347	100	109	282
4809	27P 63 (HC)	96	97	271	98	95	495	105	102	360	99	110	356	102	107	296
4810	Local Check (LC)	105	106	362	120	86	465	108	103	394	107	108	381	107	104	305
Exp. Mean		**98**	**100**	**317**	**100**	**96**	**492**	**108**	**97**	**377**	**102**	**109**	**369**	**106**	**104**	**301**

Table No. 3.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2-MS, (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED											
		BIHAR			UTTAR PRADESH			TRIPURA (0)					
		@PUSA			@MASODHA			@ARUNDHUTI NAGAR			@Lembucherra		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4801	29536	99	128	260	111	116	261	97	121	390	87	120	292
4802	29523	104	103	210	103	95	263	94	107	317	78	90	367
4803	WGL-14 (NC-Medium Duration)	109	111	268	105	107	262	83	121	381	83	107	283
4804	29539	113	88	230	117	96	279	99	103	394	82	93	458
4805	BPT 5204 (NC-Late Duration)	104	92	237	115	92	230	85	107	352	80	94	500
4806	29492	105	97	237	108	95	267	92	99	409	87	86	342
4807	Zonal Check (ZC)	112	83	214	98	107	254	75	125	351	90	105	333
4808	29017	96	116	223	104	97	239	100	124	357	82	111	267
4809	27P 63 (HC)	98	116	256	114	88	238	92	109	337	85	109	200
4810	Local Check (LC)	103	97	242	113	75	245	93	106	366	77	93	275
Exp. Mean		**104**	**103**	**238**	**109**	**97**	**254**	**91**	**112**	**365**	**83**	**101**	**332**

Table No. 3.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 2-MS, (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED											
		MAHARASTHRA			GUJARAT			KARNATAKKA					
		@Sindewahi			@Vyara			@MANDYA			@Sirsi		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4801	29536	105	134	329	96	125	165	105	104	373	112	98	314
4802	29523	107	99	343	102	115	171	110	77	253	117	85	269
4803	WGL-14 (NC-Medium Duration)	107	128	324	102	128	208	109	89	233	117	92	286
4804	29539	108	98	322	106	108	207	103	74	247	114	86	310
4805	BPT 5204 (NC-Late Duration)	108	87	356	101	120	203	101	80	333	124	86	284
4806	29492	108	99	390	101	106	191	104	78	327	116	95	286
4807	Zonal Check (ZC)	109	95	365	114	104	229	105	92	300	116	89	292
4808	29017	102	128	282	98	131	147	104	94	247	113	93	337
4809	27P 63 (HC)	104	127	324	97	124	160	101	92	280	111	84	303
4810	Local Check (LC)	101	144	384	101	122	182	100	106	233	123	88	277
Exp. Mean		**106**	**114**	**342**	**102**	**118**	**186**	**104**	**89**	**283**	**116**	**90**	**296**

Table No. 3.4: Grain quality characteristics of entries in AVT 2-MS, kharif 2022

Entry No.	IET No.	Hull %	Mill %	HRR %	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
4801	29536	79.8	68.5	60.1	5.32	2.00	2.66	MS	VOC	7.0	26.01	38
4802	29523	79.7	69.1	58.4	5.25	2.05	2.56	MS	VOC	4.0	24.34	22
4803	WGL-14 (NC)	81.3	71.4	64.6	5.27	1.90	2.77	MS	A	4.0	24.11	22
4804	29539	81.6	69.2	55.5	4.91	1.89	2.59	MS	A	4.0	25.81	46
4805	BPT 5204 (NC)	81.9	71.9	62.5	4.95	1.78	2.78	MS	VOC	4.0	23.76	22
4806	29492	79.2	72.2	63.4	5.32	1.89	2.81	MS	VOC	7.0	23.40	22
4807	ADT 49 (ZC)	78.7	72.6	69.6	5.09	1.78	2.85	MS	VOC	4.0	23.32	22
4808	29017	82.3	72.7	56.3	5.20	1.94	2.68	MS	VOC	7.0	25.52	47
4809	27P63 (HC)	82.4	72.0	64.5	5.31	1.95	2.72	MS	VOC	4.0	24.72	22
4810	RNR 11718 (LC)	79.1	70.2	67.9	5.48	2.12	2.58	MS	VOC	4.0	26.37	48

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. 3.5: Composition of entries in Advance Variety Trial 1-Medium Slender Grain (AVT 1-MS), Kharif 2022

Entry No.	IET No.	Designation	Cross Combination	GT
2nd year of testing				
4901	30072	AGR 297	BPT 5204 mutant	MS
4902	30083	BRR 2152	CR 2582-2 / Varshadhan / IR 82809-237	MS
4903	30088	MSN 113	Meenakshi / CRMS 32 b (47-6)	MS
4904	30071	NVSR 3314	GAR 13 / Purna	MS
4905	30101	CB 16605	CO 51 / JGL 17211	SS
4906	30106	MTU 1358	MTU 1061 / TKM 6	MS
4907	30108	NDR 9077	BKP 242 / NDR 30030 // Swarna	MS
4908	30084	RP 6528-RMS-1693-13-15-29	Improved Samba Mashuri*2 / Habataki / ST 12	MS
4909	**WGL-14 (NC-Medium Duration)**			
4910	30093	CB 17135	CB 06651 / JGL 17197	MS
4911	30097	NWGR 16050	NWGR-3119 / Mahisugandha (52-4-1-1-1-1-1)	MS
4912	**BPT 5204 (NC-Late Duration)**			
4913	30066	CSR 27 SM 132	CSR 27 / BPT 5204	MS
4914	30075	RNR 31622	HHZ 5-SAL 10 DT2-DT-1 / RNR 15048	SS
4915	**Improved Samba Mahsuri (Eastern and Central), Ketekijoha (North Eastern), Karjat-6 (Western), ADT 49 (Southern)-- ZC**			
4916	30116	RP 6493-MAID-103-10-3-1-1-1	WGL 14 / Improved Samba Mahsuri // WGL14 / RP Bio Patho-2 /// WGL 14 / RP 5925-24 // WGL14 / IR 81896 - 96-B-B-195	MS
4917	30078	MTU 1382	MTU 1075 / MTU 1001	MS
4918	30085	RP 6112-MS-M-99-99-22-11-6-4-7	BPT 5204 Mutant	MS
4919	**27P 63 (HC)**			
4920	29763	***CRHR-154 (Hybrid)***	-	MS
4921	30109	KNM 11601	KNM 1638 / BPT 5204	MS
4922	30107	RP 6528-RMS 1421-43-25-29	Improved Samba Mahsuri *2 // Habataki / ST 12	MS
4923	**Local Check (LC)**			

Table No. 3.6: Grain Yield (kg/ha) in AVT 1 – MS, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN									
		Odisha						Odisha (3)		Bihar (1)	
		ICAR-NRRI (Cuttack)		Jeypore		Chiplima		Mean		Bikaramganj	
4901	30072	5377	5	4398	9	5585		5120		6426	9
4902	30083	6529	2	4368	10	4905		5267	9	6779	6
4903	30088	3398		3839		5290		4176		6278	10
4904	30071	5553	4	3728		6643	5	5308	7	7278	2
4905	30101	2547		3755		5733		4012		4726	
4906	30106	5026	7	4664	8	5762		5151		3956	
4907	30108	3090		2930		7270	3	4430		5778	
4908	30084	3724		4049		4669		4147		3207	
4909	WGL-14 (NC-Medium Duration)	5004	8	3460		8156	1	5540	5	7589	1
4910	30093	6344	3	4835	6	6531	8	5903	2	6241	
4911	30097	3344		3273		4994		3870		5944	
4912	BPT 5204 (NC-Late Duration)	5287	6	3828		4078		4398		6585	7
4913	30066	2728		2031		3576		2778		4207	
4914	30075	2788		3429		3635		3284		5631	
4915	Zonal Check (ZC)	4646		3270		6619	6	4845		6533	8
4916	30116	4533		5053	3	6206	9	5264	10	5686	
4917	30078	4720		4917	4	7033	4	5557	4	4756	
4918	30085	4705		4361		7801	2	5622	3	5594	
4919	27P 63 (HC)	6592	1	4709	7	6560	7	5954	1	5896	
4920	29763	4720		4890	5	5644		5085		7096	3
4921	30109	4224		2796		4728		3916		6974	5
4922	30107	4799	9	5381	2	5940	10	5373	6	6993	4
4923	Local Check (LC)	4750	10	5438	1	5644		5277	8	5162	
Exp. Mean		**4540**		**4061**		**5783**		**4795**		**5883**	
F Value		**7.76(p<0.0001)S**		**30.41(p<0.0001)S**		**6.38(p<0.0001)S**		**15.69(p<0.0001)S**		**12.01(p<0.0001)S**	
CD		1155		436		1372		591		893	
CV%		**15.46**		**6.52**		**14.42**		**7.49**		**9.22**	
D/S		30-06-2022		08-07-2022		26-07-2022				26-06-2022	
D/P		18-08-2022		08-08-2022		09-09-2022				31-07-2022	
Local Check Name		CR Dhan 308		Kalinga Dhan 1203		MTU-1156				R. Sweta	

For Promotion of entries:
***For Varietal entries: Yield of entry should be superior over yield of BVC+CD (at 5%level of significance).**
#For hybrid entries: Yield of entry should be superior over yield of BVC+CD and over yield of BHC+CD (at 5% level of significance)
In locations where the F variance ratio between treatments is non-significant, data from such locations was not considered in analysis.

Table No. 3.6 (Contd): Grain Yield (kg/ha) in AVT 1 – MS, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN									
		Jharkhand (1)		Uttar Pradesh				Uttar Pradesh (2)		Zone III (7)	
		Ranchi		Masodha		Varanasi		Mean		Mean	
4901	30072	3484		5958	4	6396		6177	10	5375	
4902	30083	5476	9 #	4375		8361	4	6368	9	5828	5
4903	30088	3982		5904	5	7410		6657	7	5157	
4904	30071	4836		5904	5	8111	9	7008	4	6008	4
4905	30101	5902	5 #	5126	10	4202		4664		4570	
4906	30106	5689	6 #	2925		4102		3514		4589	
4907	30108	5049		4938		7326		6132		5197	
4908	30084	6187	1 #	4750		4105		4428		4384	
4909	WGL-14 (NC-Medium Duration)	6044	3 #	5153	9	9417	2	7285	2	6403	2
4910	30093	5547	8 #	3481		7056		5269		5719	6
4911	30097	6044	3 #	5233	8	8417	3	6825	5	5321	
4912	BPT 5204 (NC-Late Duration)	5120		4442		8299	5	6371	8	5377	
4913	30066	4551		6119	2	5465		5792		4097	
4914	30075	5120		5824	7	4958		5391		4484	
4915	Zonal Check (ZC)	6044	3	4106		8194	7	6150		5630	7
4916	30116	5476	9 #	4079		6785		5432		5403	10
4917	30078	4551		3194		4347		3771		4788	
4918	30085	4764		4616		6083		5350		5418	9
4919	27P 63 (HC)	4196		6173	1	11431	1	8802	1	6508	1
4920	29763	2987		5099		8271	6	6685	6	5530	8
4921	30109	3129		4106		7792	10	5949		4821	
4922	30107	5262		5985	3	8160	8	7073	3	6074	3
4923	Local Check (LC)	5618	7	4563		5069		4816		5178	
Exp. Mean		**5003**		**4872**		**6946**		**5909**		**5298**	
F Value		**5.11(p<0.0001)S**		**39.09(p<0.0001)S**		**33.55(p<0.0001)S**		**48.80(p<0.0001)S**		**26.97(p<0.0001)S**	
CD		1131		416		902		470		336	
CV%		**13.73**		**5.19**		**7.89**		**4.84**		**3.86**	
D/S		21-06-2022		21-06-2022		06-06-2022					
D/P		12-08-2022		23-07-2022		01-07-2022					
Local Check Name		SWARNA		Sambha Mahsuri-Sub 1		HUR-917					

Table No.3.6 (Contd): Grain Yield (kg/ha) in AVT 1 – MS, Kharif 2022

ENTRY NO	IET NO	ZONE-V – CENTRAL										ZONE VI – WESTERN	
		Chhattisgarh (1)		Maharashtra 1				Maharashtra 1 (2)		Zone V (3)		Maharashtra 2	
		Raipur		Sakoli		Sindewahi		Mean		Mean		Karjat	
4901	30072	4698		4828	2	5597	3	5213	1 #	5041	3	6137	
4902	30083	5381	4	3639		5918	2	4779	5	4979	4	7308	5
4903	30088	3683		3928		3196		3562		3602		5248	
4904	30071	5610	2	3713		4441		4077		4588	10	8051	1
4905	30101	4162		4909	1	2713		3811		3928		2496	
4906	30106	1128		3983		2468		3226		2526		5308	
4907	30108	4459		3901		3744		3823		4035		7128	8
4908	30084	3570		3437		3497		3467		3501		4615	
4909	WGL-14 (NC-Medium Duration)	5483	3	4693	6	4639	9	4666	6	4938	6	7444	3
4910	30093	4819		4763	3	4473		4618	7	4685	8	7085	9
4911	30097	5202	9	4397	9			4397	10	4800	7	5624	
4912	BPT 5204 (NC-Late Duration)	5046		3836		6364	1	5100	2	5082	2	5932	
4913	30066	5240	7	4623	7	5061	5	4842	4	4975	5	3718	
4914	30075	4760		3612		4697	8	4155		4356		3846	
4915	Zonal Check (ZC)	4735		4064		4758	6	4411	9	4519		5658	
4916	30116	5344	5	3209		3706		3458		4086		6094	
4917	30078	3304		4714	4	2497		3606		3505		5496	
4918	30085	4883		3297		3811		3554		3997		6179	
4919	27P 63 (HC)	5176	10	4228	10	4636	10	4432	8	4680	9	7188	6
4920	29763	5251	6	3639		4747	7	4193		4546		7376	4
4921	30109	4841		3464		3896		3680		4067		7137	7
4922	30107	5697	1	4698	5	5169	4	4934	3	5188	1 #	7752	2
4923	Local Check (LC)	5205	8	4555	8	3328		3942		4363		6530	10
Exp. Mean		**4682**		**4093**		**4243**		**4171**		**4347**		**6059**	
F Value		**11.71(p<0.0001)S**		**4.12(p<0.0001)S**		**16.33(p<0.0001)S**		**9.71(p<0.0001)S**		**17.40(p<0.0001)S**		**14.99(p<0.0001)S**	
CD		801		741		717		512		425		1004	
CV%		**10.4**		**11.01**		**10.25**		**7.46**		**5.94**		**10.07**	
D/S		29-06-2022		01-07-2022		27-06-2022						17-06-2022	
D/P		28-07-2022		01-08-2022		28-07-2022						13-07-2022	
Local Check Name		Chhattisgarh Debhog		PDKV Kisan		PKV Ganesh						Karjat 9	

Table No. 3.6 (Contd): Grain Yield (kg/ha) in AVT 1 – MS, Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN									
		Maharashtra 2						Maharashtra 2 (4)		Maharashtra (6)	
		Shirgaon		Vadagaon		Radhanagari		Mean		Mean	
4901	30072	3368		8155	1	5052		5678	9	5523	4
4902	30083	5683	1	7607	2	5587		6546	1 *	5957	1 8%
4903	30088	4691	8	6558	8	5203		5425		4804	
4904	30071	3398		6215		5412		5769	7	5205	9
4905	30101	3337		6624	6	4680		4284		4127	
4906	30106	4938	6	6837	5	3489		5143		4504	
4907	30108	2975		6482	9	5787	9	5593		5003	
4908	30084	5653	2	5118		5681		5267		4667	
4909	WGL-14 (NC-Medium Duration)	4381		6579	7	5375		5945	4	5519	5
4910	30093	4460		7211	3	5919	8	6169	3	5652	3
4911	30097	5556	3	5323		5737	10	5560		5327	8
4912	BPT 5204 (NC-Late Duration)	4295		5908		6159	7	5574		5416	7
4913	30066	3723		5675		6339	4	4864		4857	
4914	30075	5290	4	5733		6404	3	5318		4930	
4915	Zonal Check (ZC)	3793		5627		4487		4891		4731	
4916	30116	5044	5	6005		6188	6	5833	5	5041	
4917	30078	4506	10	5656		6269	5	5482		4856	
4918	30085	3456		6359		6516	2	5628		4936	
4919	27P 63 (HC)	4690	9	7019	4	7032	1	6482	2	5799	2
4920	29763	3331		6475	10	5467		5662	10	5173	10
4921	30109	4487				5462		5695	8	4889	
4922	30107	3919		6220		5352		5811	6	5518	6
4923	Local Check (LC)	4879	7	5230		4872		5378		4899	
Exp. Mean		**4342**		**6301**		**5586**		**5565**		**5101**	
F Value		**6.33(p<0.0001)S**		**3.99(p<0.0001)S**		**3.46(p<0.0002)S**		**6.27(p<0.0001)S**		**9.23(p<0.0001)S**	
CD		889		1061		1145		547		393	
CV%		**12.44**		**10.22**		**12.46**		**5.97**		**4.68**	
D/S		16-06-2022		29-06-2022		14-06-2022					
D/P		26-07-2022		02-08-2022		13-07-2022					
Local Check Name		Ratnagiri 8		Kundalika		Phjule Radha					

Table No. 3.6 (Contd): Grain Yield (kg/ha) in AVT 1 – MS, Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN				ZONE VII – SOUTHERN					
		Gujarat (1)		Zone VI (5)		Andhra Pradesh				Andhra Pradesh (2)	
		Nawagam		Mean		Maruteru		Bapatla		Mean	
4901	30072	7644	2	6071	7	5809	6	5700	4	5755	4 #
4902	30083	7432	7	6723	1	6800	3	5917	2	6359	1 * #
4903	30088	6584		5657		3721		4812	9	4267	
4904	30071	7573	3	6130	5	4517		4090		4304	
4905	30101	5123		4452		3881		3971		3926	
4906	30106	6575		5429		6470	4	4125		5298	8 #
4907	30108	7554	5	5985	10	4877		4286		4582	
4908	30084	5702		5354		3748		4219		3984	
4909	WGL-14 (NC-Medium Duration)	7532	6	6262	4	5122	10	5138	6	5130	9
4910	30093	7140		6363	3	4929		4904	8	4917	#
4911	30097	7420	8	5932		4160		4657		4409	
4912	BPT 5204 (NC-Late Duration)	7573	3	5973		5296	8	4531		4914	
4913	30066	5022		4895		3846		4436		4141	
4914	30075	5017		5258		4173		4534		4354	
4915	Zonal Check (ZC)	6532		5219		5518	7	3441		4480	
4916	30116	6002		5867		5081		5025	7	5053	10 #
4917	30078	7202	10	5826		5267	9	6389	1	5828	2 #
4918	30085	7906	1	6083	6	4970		5711	3	5341	7 #
4919	27P 63 (HC)	7194		6625	2	4907		3695		4301	
4920	29763	7107		5951		4843		3904		4374	
4921	30109	7127		6053	9	6860	1	4093		5477	6 #
4922	30107	7030		6055	8	6847	2	4741	10	5794	3 #
4923	Local Check (LC)	7219	9	5746		6135	5	5270	5	5703	5 #
Exp. Mean		**6835**		**5735**		**5121**		**4678**		**4899**	
F Value		**11.71(p<0.0001)S**		**8.53(p<0.0001)S**		**16.80(p<0.0001)S**		**7.37(p<0.0001)S**		**16.07(p<0.0001)S**	
CD		1262		502		664		755		470	
CV%		**11.22**		**5.32**		**7.88**		**9.81**		**5.84**	
D/S		13-06-2022				25-06-2022		02-08-2022			
D/P		18-07-2022				25-07-2022		06-09-2022			
Local Check Name		GAR 13				MTU 1224		BPT 2782			

Table No. 3.6 (Contd): Grain Yield (kg/ha) in AVT 1 – MS, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN									
		Telangana						Telangana (3)		Tamilnadu	
		Rajendranagar		Kampasagar		Warangal		Mean		Aduthurai	
4901	30072	7023	9	7627		5791		6814		4676	
4902	30083	7321	7	10575	1	6736	4	8211	2 *	5880	5
4903	30088	6863		6758		4846		6156		5454	
4904	30071	7800	3	9739	4	6543	6	8027	3 *	4329	
4905	30101	5056		4327		3624		4336		4630	
4906	30106	3570		5497		5007		4691		4306	
4907	30108	7176	8	7725	10	5203		6701		4861	
4908	30084	6437		6333		4613		5794		5903	4
4909	WGL-14 (NC-Medium Duration)	6854		6065		6357	7	6425		5556	10
4910	30093	6709		6614		5051		6125		9074	1 * #
4911	30097	8198	2	7346		5693		7079	9	5718	8
4912	BPT 5204 (NC-Late Duration)	6986	10	9111	6	6056	8	7384	5	5648	9
4913	30066	5523		5569		4914		5335		4792	
4914	30075	6741		8752	7	4224		6572		4815	
4915	Zonal Check (ZC)	5657		6824		4096		5526		5787	6
4916	30116	6608		9216	5	5126		6983	10	5324	
4917	30078	6168		10353	2	5022		7181	8	4815	
4918	30085	6772		7444		5926	9	6714		4572	
4919	27P 63 (HC)	9087	1	7647		6764	3	7833	4	6250	2
4920	29763	7664	4	9961	3	7611	1	8412	1 * #	6227	3
4921	30109	6882		7876	9	6812	2	7190	7	4213	
4922	30107	7339	6	8105	8	6588	5	7344	6	4167	
4923	Local Check (LC)	7383	5	3366		5879	10	5543		5764	7
Exp. Mean		**6775**		**7514**		**5586**		**6625**		**5337**	
F Value		**7.50(p<0.0001)S**		**24.87(p<0.0001)S**		**13.12(p<0.0001)S**		**34.67(p<0.0001)S**		**17.53(p<0.0001)S**	
CD		1107		1024		761		500		691	
CV%		**9.93**		**8.28**		**8.28**		**4.58**		**7.87**	
D/S		21-06-2022		02-07-2022		24-06-2022				11-09-2022	
D/P		15-07-2022		26-07-2022		23-07-2022				28-10-2022	
Local Check Name		RNR 11718		RNR-15048		WGL 32100				CO52	

Table No. 3.6 (Contd): Grain Yield (kg/ha) in AVT 1 – MS, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN							
		Tamilnadu				Tamilnadu (3)		Karnataka	
		Coimbatore		Tirur		Mean		Sirsi	
4901	30072	7384	2	5292		5784	5	7420	6
4902	30083	6648	3	5719	8	6082	2 #	7740	4
4903	30088	4675		5708	10	5279		4300	
4904	30071	5845	7	5500		5225		4480	
4905	30101	4105		5103		4613		4340	
4906	30106	7909	1	5372		5862	3	7980	3
4907	30108	4111		5636		4869		4100	
4908	30084	4572		6386	1	5620	10	5080	
4909	WGL-14 (NC-Medium Duration)	6392	5	5236		5728	7	5440	
4910	30093	5148		5206		6476	1 * #	7000	10
4911	30097	4706		4828		5084		4730	
4912	BPT 5204 (NC-Late Duration)	4913		6222	2	5594		7040	9
4913	30066	3377		5889	6	4686		8220	2
4914	30075	5700	10	5128		5214		6620	
4915	Zonal Check (ZC)	5281		6167	4	5745	6	5810	
4916	30116	5365		6208	3	5632	9	7140	8
4917	30078	5760	9	5719	8	5431		7210	7
4918	30085	6579	4	5956	5	5702	8	5300	
4919	27P 63 (HC)	5168		5319		5579		4600	
4920	29763	4345		5361		5311		5040	
4921	30109	4151		5361		4575		6300	
4922	30107	6293	6	5275		5245		7640	5
4923	Local Check (LC)	5838	8	5869	7	5824	4	9630	1
Exp. Mean		**5403**		**5585**		**5442**		**6224**	
F Value		**12.31(p<0.0001)S**		**5.99(p<0.0001)S**		**10.66(p<0.0001)S**		**3.00(p=0.0062)S**	
CD		884		465		402		2540	
CV%		**9.94**		**5.06**		**4.48**		**19.676**	
D/S		03-06-2022		01-07-2022				21-06-2022	
D/P		28-06-2022		27-07-2022				03-08-2022	
Local Check Name		CO 52		CO 52				.	

Table No. 3.6 (Contd): Grain Yield (kg/ha) in AVT 1 – MS, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN						Overall Mean(25)	
		Karnataka		Karnataka (2)		Zone VII (10)			
		Gangavathi		Mean		Mean			
4901	30072	6596		7008	10 13%	6332	4	5857	6
4902	30083	7949	7	7845	5 # 26%	7129	1 * #	6425	1 * #
4903	30088	7558	10	5929		5470		5195	
4904	30071	6776		5628		5962		5843	7
4905	30101	6942		5641		4598		4481	
4906	30106	5500		6740		5574		4903	
4907	30108	7468		5784		5544		5354	
4908	30084	7115		6098		5441		4895	
4909	WGL-14 (NC-Medium Duration)	7346		6393		5951		6018	4
4910	30093	8013	6	7507	7 # 21%	6265	5	5942	5
4911	30097	8141	5	6436		5818		5612	
4912	BPT 5204 (NC-Late Duration)	5513		6277		6132	9	5763	9
4913	30066	7359		7790	6 # 26%	5393		4880	
4914	30075	9436	2	8028	4 # 29%	6012		5235	
4915	Zonal Check (ZC)	6128		5969		5471		5351	
4916	30116	6199		6670		6129	10	5628	
4917	30078	9994	1	8602	1 # 39%	6670	2 * #	5594	
4918	30085	9013	3	7157	8 15%	6224	7	5703	10
4919	27P 63 (HC)	7808	9	6204		6125		6159	3
4920	29763	7128		6084		6208	8	5767	8
4921	30109	7885	8	7093	9 14%	6043		5442	
4922	30107	8910	4	8275	3 # 33%	6591	3 * #	6170	2
4923	Local Check (LC)	7500		8565	2	6263	6	5628	
Exp. Mean		**7490**		**6857**		**5902**		**5500**	
F Value		**8.76(p<0.0001)S**		**4.52(p<0.0004)S**		**23.85(p<0.0001)S**		**37.75(p<0.0001)S**	
CD		1114		1287		294		216	
CV%		**7.174**		**9.05**		**3.03**		**2.38**	
D/S		07-05-2022							
D/P		08-06-2022							
Local Check Name		GANGAVATHI SONA							

Table No.3.6 (Contd): Grain Yield (kg/ha) in AVT 1– MS, (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED							
		BIHAR		Assam		Tripura			
		@Pusa		@Titabar		@Arundhatinagar		@Lembucherra	
4901	30072	2237		5794	3	4153	4	4453	
4902	30083	2851		5294	5	4036	5	6309	3
4903	30088	4649	3	3267		2862		4212	
4904	30071	2368		5221	7	3167		5604	6
4905	30101	2500		1868		5011	1	3600	
4906	30106	2149		6133	2	3044		2950	
4907	30108	2193		4917	9	3689	8	4954	10
4908	30084	4289	5	3060		3589	10	7151	1
4909	WGL-14 (NC-Medium Duration)	3377	6	4951	8	2958		3377	
4910	30093	2939	10	4311		2987		3600	
4911	30097	2281		3983		4542	3	4936	
4912	BPT 5204 (NC-Late Duration)	5132	1	4444		3653	9	6049	4
4913	30066	2939	10	3035		3724	7	4286	
4914	30075	2412		4067		3849	6	2931	
4915	Zonal Check (ZC)	2939	10	4833	10	2882		3963	
4916	30116	2325		3239		2887		5047	9
4917	30078	2566		6167	1	3284		3859	
4918	30085	2368		2978		2827		5381	7
4919	27P 63 (HC)	4711	2	4078		2831		6921	2
4920	29763	2895		4368		4873	2	3321	
4921	30109	3202	7	3903		2938		6001	5
4922	30107	2982	8	5611	4	2907		5251	8
4923	Local Check (LC)	4605	4	5261	6	3320		4175	
Exp. Mean		**3083**		**4382**		**3479**		**4710**	
F Value		**55.24(p<0.0001)S**		**249.89(p<0.0001)S**		**11.87(p<0.0001)S**		**84.29(p<0.0001)S**	
CD		341		194		535		365	
CV%		**6.73**		**2.7**		**9.35**		**4.71**	
D/S		01-07-2022		15-06-2022		04-08-2022		10-07-2022	
D/P		23-07-2022		11-07-2022		30-08-2022		01-08-2022	
Local Check Name		Rajendra Mahsuri		Ranjit sub 1		CO-51		TRIPURA CHIKAN	

Table No. 3.6 (Contd): Grain Yield (kg/ha) in AVT 1– MS, (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED							
		Gujarat				Kerala		Karnataka	
		@Navasari		@Vyara		@Pattambi		@Mandya	
4901	30072	3857		4652	1 #	5507	2	4850	6
4902	30083	4305	9	3772	5	5131	9	4985	4
4903	30088	3754		3177		5353	5	4203	
4904	30071	4989	5	4569	2	4869		4141	
4905	30101	2356		2811		5204	8	3268	
4906	30106	2204		861		4916		1849	
4907	30108	3868		3707	8	5109		4225	10
4908	30084	2403		2271		4880		2913	
4909	WGL-14 (NC-Medium Duration)	3220		3371		5638	1	3447	
4910	30093	2459		3427	9	5253	7	3695	
4911	30097	2955		3772	5	5104		3732	
4912	BPT 5204 (NC-Late Duration)	3966		3267		5089		2876	
4913	30066	2595		3165		5009		1276	
4914	30075	3950		2877		5078		3882	
4915	Zonal Check (ZC)	3789		3135		5058		3516	
4916	30116	5252	2	3716	7	5400	4	4273	9
4917	30078	5196	4	2758		5256	6	3914	
4918	30085	4771	6	3393	10	4824		4342	7
4919	27P 63 (HC)	4614	7	3777	4	5453	3	5610	1
4920	29763	5218	3	2311		4918		4898	5
4921	30109	5554	1	2781		4542		4287	8
4922	30107	4078	10	3289		5111	10	5033	3
4923	Local Check (LC)	4353	8	4084	3	5007		5497	2
Exp. Mean		**3900**		**3258**		**5118**		**3944**	
F Value		**16.41(p<0.0001)S**		**7.22(p<0.0001)S**		**0.86(p=0.6500)NS**		**96.12(p<0.0001)S**	
CD		701		813		847		294	
CV%		**10.92**		**15.17**		**10.06**		**4.52**	
D/S		11-06-2022		13-06-2022		20-06-2022		09-07-2022	
D/P		03-07-2022		08-07-2022		16-07-2022		05-08-2022	
Local Check Name		GNR-7		GNR-7		RED MASHURI		Thanu	

Table No. 3.7: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – MS, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN														
		Odisha									Odisha (3)			Bihar (1)		
		ICAR-NRRI (Cuttack)			Jeypore			Chiplima			Mean			Bikaramganj		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4901	30072	140	91	235	115	80	397	123	70	306	126	81	313	121	93	393
4902	30083	131	108	264	107	87	439	118	75	322	119	90	342	103	106	409
4903	30088	116	108	253	103	96	414	113	82	286	111	95	318	99	137	377
4904	30071	116	98	227	100	83	350	112	81	236	110	87	271	101	112	394
4905	30101	111	95	268	98	90	325	111	77	227	107	88	273	89	111	390
4906	30106	140	103	235	117	84	362	120	80	318	126	89	305	131	101	392
4907	30108	115	93	253	98	75	361	112	79	301	108	82	305	99	106	392
4908	30084	117	93	253	99	88	336	110	73	240	109	85	276	101	102	387
4909	WGL-14 (NC-Medium Duration)	128	108	271	105	94	364	123	78	255	119	93	297	103	110	401
4910	30093	130	125	224	110	101	337	123	86	329	121	104	297	115	125	389
4911	30097	113	198	260	95	81	320	110	80	325	106	120	302	89	111	382
4912	BPT 5204 (NC-Late Duration)	130	92	231	103	66	421	116	77	332	117	78	328	111	95	375
4913	30066	111	94	249	96	82	380	110	70	222	105	82	284	91	100	392
4914	30075	114	95	253	103	76	351	112	68	279	110	80	294	90	104	381
4915	Zonal Check (ZC)	130	95	257	114	64	364	123	75	312	122	78	311	107	103	396
4916	30116	114	98	260	107	79	453	116	79	359	113	85	357	98	106	402
4917	30078	140	102	264	116	83	463	127	71	283	128	86	337	123	97	375
4918	30085	128	105	227	99	92	332	115	78	205	114	92	255	103	122	366
4919	27P 63 (HC)	116	96	271	103	86	494	115	73	260	111	85	342	102	115	389
4920	29763	119	96	264	109	72	408	116	73	303	115	80	325	96	108	395
4921	30109	116	97	227	103	72	430	114	79	314	111	83	324	99	104	371
4922	30107	114	100	242	106	78	359	123	80	288	115	86	296	103	99	384
4923	Local Check (LC)	132	117	282	103	82	344	106	81	262	114	93	296	109	100	370
Exp. Mean		**123**	**105**	**251**	**105**	**82**	**383**	**116**	**77**	**285**	**114**	**88**	**306**	**104**	**107**	**387**

Table No. 3.7 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – MS, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN														
		Jharkhand (1)			Uttar Pradesh						Uttar Pradesh (2)			Zone III (7)		
		Ranchi			Masodha			Varanasi			Mean			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4901	30072	136	63	121	119	85	332	120	104	297	120	94	314	125	84	297
4902	30083	139	76	165	119	84	301	111	121	270	115	103	286	118	94	310
4903	30088	121	85	132	117	127	329	102	121	230	110	124	279	110	108	289
4904	30071	121	74	190	108	106	335	102	108	217	105	107	276	109	95	278
4905	30101	112	85	153	113	88	281	78	105	213	95	96	247	102	93	265
4906	30106	136	70	132	127	112	214	113	103	290	120	108	252	126	93	278
4907	30108	123	67	136	123	84	266	91	103	254	107	94	260	109	87	280
4908	30084	116	85	114	110	86	264	93	107	255	102	97	260	107	91	264
4909	WGL-14 (NC-Medium Duration)	131	87	164	113	100	265	108	122	288	110	111	277	116	100	287
4910	30093	139	88	165	119	110	225	115	133	228	117	122	226	121	110	271
4911	30097	117	76	130	106	80	256	102	113	263	104	96	260	105	106	277
4912	BPT 5204 (NC-Late Duration)	139	59	163	125	78	280	118	100	318	122	89	299	120	81	303
4913	30066	112	75	168	117	101	336	87	105	248	102	103	292	103	90	285
4914	30075	121	59	131	119	96	272	91	104	213	105	100	242	107	86	269
4915	Zonal Check (ZC)	136	63	185	123	71	261	111	103	293	117	87	277	121	82	295
4916	30116	123	76	163	126	85	231	94	104	255	110	95	243	111	90	303
4917	30078	140	69	145	128	96	214	112	109	261	120	103	237	127	90	286
4918	30085	131	75	167	123	105	240	105	117	202	114	111	221	115	99	248
4919	27P 63 (HC)	122	72	220	112	90	305	100	114	255	106	102	280	110	92	313
4920	29763	131	65	161	119	82	288	112	107	260	115	95	274	114	86	297
4921	30109	123		163	125	82	234	99	101	298	112	92	266	111	89	291
4922	30107	130	61	195	112	89	294	113	103	233	113	96	263	115	87	285
4923	Local Check (LC)	138	64	203	115	70	267	118	105	244	117	88	255	117	88	282
Exp. Mean		**128**	**72**	**159**	**118**	**92**	**273**	**104**	**109**	**256**	**111**	**100**	**265**	**114**	**92**	**285**

Table No. 3.7 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – MS, Kharif 2022

ENTRY NO	IET NO	ZONE-V – CENTRAL											
		Chhattisgarh (1)			Maharashtra 1						Maharashtra 1(2)		
		Raipur			Sakoli			Sindewahi			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4901	30072	124	107	172	117	98	292	123	89	269	120	93	281
4902	30083	108	112	122	109	113	255	113	114	309	111	114	282
4903	30088	95	135	167	96	113	266	103	135	265	99	124	266
4904	30071	99	109	120	102	107	188	109	120	324	105	114	256
4905	30101	86	123	158	88	105	304	121	113	256	105	109	280
4906	30106	134	104	174	121	99	258	126	89	234	124	94	246
4907	30108	96	110	170	100	106	257	100	95	300	100	101	279
4908	30084	97	115	119	108	102	160	100	114	290	104	108	225
4909	WGL-14 (NC-Medium Duration)	106	127	166	107	112	273	105	113	364	106	112	319
4910	30093	110	143	200	109	121	291	115	114	303	112	118	297
4911	30097	97	109	130	97	110	274					110	
4912	BPT 5204 (NC-Late Duration)	110	97	210	110	96	221	114	94	374	112	95	298
4913	30066	87	113	133	88	105	283	98	96	279	93	101	281
4914	30075	92	109	81	94	106	241	98	95	298	96	100	269
4915	Zonal Check (ZC)	109	96	176	109	93	281	111	85	309	110	89	295
4916	30116	97	114	131	98	101	203	104	92	314	101	97	259
4917	30078	122	114	193	119	97	302	103	85	199	111	91	251
4918	30085	103	119	146	97	113	194	108	107	167	103	110	181
4919	27P 63 (HC)	100	118	121	101	102	274	105	120	324	103	111	299
4920	29763	103	108	192	107	97	204	112	99	280	109	98	242
4921	30109	97	107	202	98	101	193	103	89	343	101	95	268
4922	30107	105	106	164	108	108	291	109	102	279	109	105	285
4923	Local Check (LC)	106	110	145	105	109	288	105	132	258	105	120	273
Exp. Mean		**104**	**113**	**156**	**104**	**105**	**252**	**109**	**104**	**288**	**106**	**105**	**270**

Table No. 3.7 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – MS, Kharif 2022

ENTRY NO	IET NO	ZONE-V – CENTRAL			ZONE VI – WESTERN								
		Zone V (3)			Maharashtra 2								
		Mean			Karjat			Shirgaon			Vadagaon		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4901	30072	121	98	244	121	109	219	122	110	113	112	92	267
4902	30083	110	113	229	110	118	234	115	116	128	105	98	280
4903	30088	98	128	233	96	126	205	106	129	160	101	105	267
4904	30071	103	112	211	96	116	218	109	102	154	101	90	236
4905	30101	98	114	239	91	102	196	92	99	140	95	94	278
4906	30106	127	97	222	128	114	210	130	116	120	119	91	268
4907	30108	99	104	242	98	106	219	98	99	151	102	83	281
4908	30084	102	110	190	93	98	198	102	107	107	95	83	223
4909	WGL-14 (NC-Medium Duration)	106	117	268	97	123	224	115	113	108	107	100	287
4910	30093	111	126	265	111	145	213	114	134	113	107	116	276
4911	30097		109		96	116	204	103	105	128	99	90	230
4912	BPT 5204 (NC-Late Duration)	111	96	268	110	105	184	93	94	108	108	80	275
4913	30066	91	105	231	91	101	193	115	98	122	95	86	248
4914	30075	95	103	206	97	116	168	101	104	129	96	86	225
4915	Zonal Check (ZC)	110	92	255	115	110	194	113	93	139	108	77	239
4916	30116	99	102	216	98	111	215	105	109	119	102	91	271
4917	30078	115	99	231	113	115	184	123	108	113	115	85	243
4918	30085	103	113	169	97	113	205	114	120	124	108	101	255
4919	27P 63 (HC)	102	113	240	98	116	215	109	109	109	103	86	292
4920	29763	107	101	225	95	103	208	114	97	138	105	84	268
4921	30109	100	99	246	97	114	214	103	97	136		.	
4922	30107	107	105	245	97	123	218	115	101	111	103	86	246
4923	Local Check (LC)	105	117	230	98	119	206	93	94	114	99	84	231
Exp. Mean		**106**	**108**	**232**	**102**	**114**	**206**	**109**	**107**	**125**	**104**	**90**	**259**

Table No. 3.7 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – MS, Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN														
		Maharashtra 2			Maharashtra 2 (4)			Maharashtra (6)			Gujarat (1)			Zone VI (5)		
		Radhanagari			Mean			Mean			Nawagam			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4901	30072	89	90	195	111	100	198	114	98	226	127	114	285	114	103	216
4902	30083	105	85	180	109	104	205	109	107	231	111	128	282	109	109	221
4903	30088	101	100	222	101	115	213	100	118	231	99	133	276	101	118	226
4904	30071	102	103	208	102	103	204	103	106	221	108	110	283	103	104	220
4905	30101	91	99	145	92	99	190	97	102	220	85	109	267	91	101	205
4906	30106	111	96	163	122	104	190	123	101	209	135	117	277	125	107	208
4907	30108	100	92	239	99	95	223	100	97	241	99	108	283	99	98	235
4908	30084	94	89	228	96	94	189	99	99	201	94	112	270	96	98	205
4909	WGL-14 (NC-Medium Duration)	106	87	224	106	106	211	106	108	247	106	125	279	106	110	224
4910	30093	105	111	166	109	126	192	110	124	227	114	137	278	110	129	209
4911	30097	94	80	166	98	98	182		100		99	115	286	98	101	203
4912	BPT 5204 (NC-Late Duration)	108	75	199	105	89	192	107	91	227	115	107	283	107	92	210
4913	30066	111	92	211	103	94	193	100	96	223	87	115	271	100	98	209
4914	30075	99	85	213	98	98	184	98	98	212	96	113	268	98	101	201
4915	Zonal Check (ZC)	116	79	239	113	90	203	112	90	233	115	103	275	113	93	217
4916	30116	96	87	238	101	100	211	101	99	227	95	126	271	99	105	223
4917	30078	93	99	240	111	101	195	111	98	213	116	129	281	112	107	212
4918	30085	103	97	231	106	108	204	105	108	196	108	124	287	106	111	220
4919	27P 63 (HC)	103	87	197	103	100	203	103	103	235	96	113	282	102	102	219
4920	29763	104	80	224	105	91	209	106	93	220	109	111	281	105	95	224
4921	30109	92	87	216	97	99		99	97		96	105	280	97	101	
4922	30107	103	92	207	105	101	195	106	102	225	108	116	279	105	104	212
4923	Local Check (LC)	94	93	250	96	97	200	99	105	225	104	113	281	97	101	216
Exp. Mean		**101**	**91**	**209**	**104**	**100**	**199**	**105**	**102**	**223**	**105**	**117**	**278**	**104**	**104**	**215**

Table No. 3.7 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – MS, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN														
		Andhra Pradesh						Andhra Pradesh (2)			Telangana					
		Maruteru			Bapatla			Mean			Rajendranagar			Kampasagar		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4901	30072	121	122	319	115	126	347	118	124	333	116	105	400	114	114	440
4902	30083	108	124	286	103	134	321	106	129	304	110	104	362	102	126	440
4903	30088	101	132	264	95	148	256	98	140	260	99	111	311	92	129	440
4904	30071	97	119	308	111	130	334	104	124	321	102	103	340	95	107	374
4905	30101	81	110	275	93	123	205	87	116	240	87	103	369	115	102	528
4906	30106	131	135	539	122	118	333	126	126	436	135	104	400	104	112	462
4907	30108	90	119	319	88	103	232	89	111	275	99	104	351	94	109	407
4908	30084	97	116	286	95	126	302	96	121	294	95	97	371	91	113	352
4909	WGL-14 (NC-Medium Duration)	106	132	275	102	137	348	104	135	312	110	104	380	100	110	440
4910	30093	109	158	352	106	165	361	108	162	357	112	116	373	103	146	528
4911	30097	96	120	275	90	117	252	93	118	264	100	103	327	93	109	319
4912	BPT 5204 (NC-Late Duration)	114	109	308	102	110	258	108	110	283	116	96	464	106	102	462
4913	30066	90	111	319	84	97	165	87	104	242	90	95	378	119	103	506
4914	30075	95	112	297	95	116	311	95	114	304	99	92	344	94	102	440
4915	Zonal Check (ZC)	105	127	264	107	123	323	106	125	294	116	106	411	103	122	462
4916	30116	98	114	286	100	114	301	99	114	293	103	95	442	93	109	484
4917	30078	121	128	275	113	134	304	117	131	290	122	104	333	111	126	341
4918	30085	103	131	319	99	130	281	101	130	300	110	105	349	96	124	286
4919	27P 63 (HC)	98	121	297	96	128	254	97	125	276	101	104	318	97	121	429
4920	29763	106	119	319	100	117	303	103	118	311	107	102	369	100	106	385
4921	30109	96	114	308	92	109	217	94	111	263	100	93	411	95	109	539
4922	30107	104	119	286	96	111	274	100	115	280	106	100	384	102	108	286
4923	Local Check (LC)	109	110	286	112	106	339	110	108	312	105	99	407	100	119	418
Exp. Mean		**103**	**122**	**307**	**101**	**123**	**288**	**102**	**122**	**298**	**106**	**102**	**374**	**101**	**114**	**425**

Table No. 3.7 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – MS, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN											
		Telangana			Telangana (3)			Tamilnadu					
		Warangal			Mean			Aduthurai			Coimbatore		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4901	30072	122	111	366	118	110	402	99	99	223	114	110	358
4902	30083	110	127	365	107	119	389	100	100	320	106	110	329
4903	30088	99	143	391	97	128	381	99	100	225	98	132	343
4904	30071	99	120	384	99	110	366	101	100	207	105	106	318
4905	30101	85	117	378	96	107	425	101	100	310	86	110	305
4906	30106	109	122	386	116	113	416	100	99	215	131	127	330
4907	30108	93	117	371	95	110	376	101	88	229	97	96	254
4908	30084	98	119	376	95	109	366	103	89	227	94	112	265
4909	WGL-14 (NC-Medium Duration)	108	136	399	106	117	406	104	99	312	107	110	343
4910	30093	113	147	383	109	136	428	100	100	400	111	145	317
4911	30097	99	114	372	97	109	339	102	84	240	99	107	339
4912	BPT 5204 (NC-Late Duration)	115	112	362	112	103	429	105	92	318	112	105	411
4913	30066	90	112	362	99	103	415	110	84	239	88	109	312
4914	30075	96	111	383	96	102	389	103	84	225	99	103	276
4915	Zonal Check (ZC)	113	126	386	110	118	420	100	100	328	112	107	307
4916	30116	107	128	376	101	111	434	101	100	313	105	103	308
4917	30078	101	123	381	111	117	352	102	96	298	119	123	309
4918	30085	124	123	380	110	117	338	100	98	302	106	111	293
4919	27P 63 (HC)	102	128	362	100	118	370	94	101	318	101	110	282
4920	29763	105	114	365	104	107	373	99	100	322	105	100	295
4921	30109	101	112	369	98	105	440	100	89	263	102	100	317
4922	30107	104	115	368	104	108	346	100	88	265	105	108	293
4923	Local Check (LC)	102	121	383	102	113	403	101	98	316	111	121	295
Exp. Mean		**104**	**122**	**376**	**104**	**113**	**391**	**101**	**95**	**279**	**105**	**111**	**313**

Table No. 3.7 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – MS, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN											
		Tamilnadu			Tamilnadu (3)			Karnataka					
		Tirur			Mean			Sirsi			Gangavathi		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4901	30072	94	103	362	102	104	314	127	79	324	119	90	400
4902	30083	101	100	394	102	103	347	117	93	314	108	107	394
4903	30088	91	115	301	96	116	290	111	104	310	104	113	382
4904	30071	89	94	287	98	100	271	112	90	278	104	99	366
4905	30101	101	83	323	96	98	313	104	89	287	102	119	417
4906	30106	113	106	361	115	111	302	137	89	307	129	97	403
4907	30108	95	85	259	97	90	247	113	85	307	103	92	392
4908	30084	86	108	408	94	103	300	108	87	261	105	103	378
4909	WGL-14 (NC-Medium Duration)	85	116	318	99	108	324	117	95	304	109	109	397
4910	30093	91	116	376	100	120	364	120	116	268	113	112	399
4911	30097	80	90	262	94	94	280	111	91	297	103	94	321
4912	BPT 5204 (NC-Late Duration)	95	91	385	104	96	371	121	78	324	119	86	386
4913	30066	101	90	294	99	94	282	113	97	287	96	103	397
4914	30075	86	94	222	96	94	241	116	85	287	104	104	387
4915	Zonal Check (ZC)	86	93	387	99	100	340	117	94	307	114	91	390
4916	30116	92	86	380	99	96	334	115	87	324	107	100	383
4917	30078	96	108	308	105	109	305	123	85	337	119	100	424
4918	30085	98	102	346	101	104	314	116	95	327	106	111	372
4919	27P 63 (HC)	89	110	364	94	107	321	115	95	300	104	110	326
4920	29763	96	99	349	100	100	322	119	90	383	107	96	423
4921	30109	88	95	345	97	95	308	113	87	354	102	95	358
4922	30107	84	83	316	96	93	291	125	85	340	110	98	442
4923	Local Check (LC)	103	104	357	105	108	323	128	81	353	107	102	383
Exp. Mean		**93**	**99**	**335**	**100**	**102**	**309**	**117**	**90**	**312**	**108**	**101**	**388**

Table No. 3.7 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1 – MS, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN						Overall Mean(25)		
		Karnataka (2)			Zone VII (10)					
		Mean			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4901	30072	123	84	362	114	106	354	118	98	297
4902	30083	112	100	354	106	112	352	111	107	299
4903	30088	108	109	346	99	123	322	102	118	283
4904	30071	108	94	322	101	107	320	104	103	275
4905	30101	103	104	352	95	106	340	97	102	280
4906	30106	133	93	355	121	111	374	124	104	295
4907	30108	108	88	349	97	100	312	101	96	279
4908	30084	106	95	319	97	107	323	100	101	267
4909	WGL-14 (NC-Medium Duration)	113	102	351	105	115	352	108	110	298
4910	30093	116	114	333	108	132	376	112	124	300
4911	30097	107	92	309	97	103	300	100	104	265
4912	BPT 5204 (NC-Late Duration)	120	82	355	111	98	368	113	92	306
4913	30066	104	100	342	98	100	326	99	97	280
4914	30075	110	94	337	99	100	317	100	97	267
4915	Zonal Check (ZC)	115	92	348	107	109	356	112	96	299
4916	30116	111	93	353	102	104	360	104	100	299
4917	30078	121	92	380	112	113	331	117	103	283
4918	30085	111	103	349	106	113	325	108	109	264
4919	27P 63 (HC)	109	102	313	99	113	325	103	105	290
4920	29763	113	93	403	104	104	351	108	97	295
4921	30109	107	91	356	99	100	348	102	97	296
4922	30107	117	91	391	103	101	325	107	98	282
4923	Local Check (LC)	117	91	368	108	106	354	108	101	291
Exp. Mean		**113**	**96**	**350**	**104**	**108**	**340**	**107**	**103**	**287**

Table No. 3.7: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1-MS, (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	ZONE IV- NORTH EASTERN											
		Bihar			Assam			Tripura					
		@Pusa			@Titabar			@Arundhatinagar			@Lembucherra		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4901	30072	82	105	147	128	116	246	98	127	340	84	101	308
4902	30083	81	105	200	112	130	225	95	131	312	89	97	317
4903	30088	91	114	217	113	124	218	84	109	270	91	92	300
4904	30071	95	107	213	115	118	290	100	112	346	86	98	325
4905	30101	75	102	162	76	108	273	86	87	280	77	90	358
4906	30106	82	105	147	144	107	244	93	77	424	85	93	142
4907	30108	91	108	189	98	109	223	76	79	265	84	91	158
4908	30084	88	101	255	95	108	232	100	98	339	87	97	283
4909	WGL-14 (NC-Medium Duration)	104	108	180	114	122	268	93	87	339	86	119	300
4910	30093	108	129	228	125	136	236	93	89	305	88	110	283
4911	30097	94	105	216	105	112	248	90	95	296	93	92	317
4912	BPT 5204 (NC-Late Duration)	111	84	211	122	107	259	90	93	323	89	98	383
4913	30066	85	96	199	86	106	274	90	92	321	92	117	275
4914	30075	86	97	173	90	111	271	96	93	306	86	101	333
4915	Zonal Check (ZC)	110	96	229	112	130	223	96	92	308	94	111	292
4916	30116	90	104	219	98	113	280	87	95	208	92	93	283
4917	30078	123	95	204	129	118	282	97	91	364	88	113	225
4918	30085	100	109	147	117	124	216	85	90	320	92	110	300
4919	27P 63 (HC)	97	109	186	115	123	276	80	84	259	92	101	333
4920	29763	104	99	249	114	113	248	92	99	307	84	98	342
4921	30109	94	96	244	110	109	261	96	89	280	84	92	375
4922	30107	104	102	189	113	115	286	97	98	233	82	99	258
4923	Local Check (LC)	104	100	215	127	138	256	82	100	312	95	90	283
Exp. Mean		**96**	**103**	**201**	**111**	**117**	**254**	**91**	**96**	**307**	**88**	**100**	**295**

Table No. 3.7 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in AVT 1-MS, (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	ZONE IV- NORTH EASTERN											
		Gujarat						Kerala			Karnataka		
		@Navasari			@Vyara			@Pattambi			@Mandya		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4901	30072	128	129	215	114	118	178	109	99	423	116	115	327
4902	30083	108	136	225	104	128	217	104	98	479	105	104	407
4903	30088	90	130	190	92	140	217	99	97	522	99	98	273
4904	30071	97	134	212	96	124	189	103	98	474	101	100	260
4905	30101	79	103	197	78	125	187	100	101	526	92	91	293
4906	30106	136	125	263	127	115	193	100	95	568	126	125	287
4907	30108	90	120	241	90	119	172	97	100	453	104	103	300
4908	30084	102	114	255	91	115	180	101	98	437	94	93	253
4909	WGL-14 (NC-Medium Duration)	98	142	199	100	131	164	99	88	479	109	108	280
4910	30093	105	149	273	107	133	169	95	91	484	104	103	267
4911	30097	86	130	232	96	116	215	94	92	505	98	97	280
4912	BPT 5204 (NC-Late Duration)	104	106	253	105	107	192	98	92	422	113	112	327
4913	30066	80	110	235	80	125	192	98	97	441	91	90	253
4914	30075	102	95	188	90	118	181	100	97	492	99	98	267
4915	Zonal Check (ZC)	113	125	191	114	108	196	95	95	437	106	105	300
4916	30116	94	112	201	91	122	194	97	89	453	105	104	367
4917	30078	97	156	274	114	114	192	97	90	431	110	109	253
4918	30085	96	133	193	100	131	150	99	105	454	105	104	273
4919	27P 63 (HC)	84	135	252	94	138	186	110	92	455	102	101	260
4920	29763	98	111	297	102	115	155	111	95	480	105	104	287
4921	30109	86	114	235	91	109	213	99	95	488	101	100	333
4922	30107	98	128	262	101	117	145	100	91	508	109	108	233
4923	Local Check (LC)	94	130	250	99	115	184	99	95	431	101	100	280
Exp. Mean		**98**	**125**	**232**	**99**	**121**	**185**	**100**	**95**	**471**	**104**	**103**	**290**

Table No. 3.8: Grain quality characteristics of entries in AVT 1-MS, kharif 2022

Entry No.	IET No.	Hull %	Mill %	HRR %	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
4901	30072	81.4	73.0	71.1	5.31	2.03	2.61	MS	VOC	4.0	23.87	40
4902	30083	82.6	71.4	64.2	5.21	1.91	2.72	MS	VOC	7.0	25.28	52
4903	30088	81.2	71.6	66.0	5.36	1.82	2.94	MS	VOC	4.0	23.81	22
4904	30071	82.1	70.6	55.5	5.39	1.90	2.83	MS	VOC	4.0	25.28	22
4905	30101	81.6	66.2	46.1	5.05	1.63	3.09	SS	A	4.0	23.08	55
4906	30106	82.0	71.6	66.5	5.27	1.94	2.71	MS	VOC	4.0	27.22	46
4907	30108	82.1	72.9	60.9	5.27	1.91	2.75	MS	VOC	4.0	26.01	38
4908	30084	82.3	70.6	53.9	5.46	1.96	2.78	MS	VOC	4.0	26.89	22
4909	WGL-14 (NC)	81.6	70.8	64.2	5.17	1.90	2.72	MS	A	4.0	23.49	22
4910	30093	83.0	72.3	65.3	5.12	1.81	2.82	MS	VOC	4.0	24.55	35
4911	30097	83.9	71.1	56.6	5.62	1.94	2.89	MS	A	4.0	25.46	24
4912	BPT 5204 (NC)	81.0	69.8	67.0	4.95	1.78	2.78	MS	A	4.0	24.64	22
4913	30066	80.3	69.6	47.0	4.86	1.83	2.65	MS	A	4.0	25.49	32
4914	30075	81.1	70.6	63.6	5.37	1.78	3.01	SS	A	7.0	17.24	83
4915	ADT-49 (ZC)	78.8	70.1	66.6	4.91	1.79	2.74	MS	VOC	4.0	23.23	26
4916	30116	80.2	69.0	51.6	5.91	2.03	2.91	MS	VOC	7.0	23.52	49
4917	30078	80.8	68.8	64.7	5.52	2.13	2.59	MS	A	7.0	26.54	33
4918	30085	81.7	71.9	69.5	5.30	1.73	3.06	MS	VOC	4.0	23.76	22
4919	27P63 (HC)	82.6	71.8	63.1	5.10	1.91	2.67	MS	VOC	4.0	23.29	24
4920	29763	81.9	72.7	65.1	5.46	1.83	2.98	MS	VOC	5.0	24.31	23
4921	30109	81.7	71.8	60.8	5.09	1.84	2.76	MS	A	4.0	26.48	22
4922	30107	83.0	72.0	61.7	4.82	1.76	2.73	MS	VOC	4.0	23.76	22
4923	RNR 11718 (LC)	79.3	70.8	67.7	5.34	2.00	2.67	MS	VOC	4.0	23.81	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. 3.9: Composition of entries in Initial Variety Trial -Medium Slender Grain (IVT - MS), Kharif 2022

Entry No.	IET No.	Designation	Cross Combination	GT
1st year of testing				
5001	30945	MTU 1402 (MTU 2317-127-1-1-2)	BPT2270 / MTU1010	MS
5002	30946	R 2356-219-1-99-1	Swarna Sub-1 / Badshahbhog Sel.1	MS
5003	30947	NVSR 3492	GAR 13 / IET 24994	MS
5004	30948	CB 17627	CB 06550 / CB 11609	MS
5005	30949	NWGR 17123	GAR-13 / IET-2006 / 1-1-1-1-1-4-1	MS
5006	30950	RNR 31503	KMP 199 / RNR 15048	MS
5007	30951	TTB 1033-129-1	Ikora Sali / Ranjit	MS
5008	30952	Annapurna (Samba Mahsuri qGN4.1)	Samba Mahsuri // RiL H 628*	MS
5009	30953	AD 18035	ADT 37 / JGL 17004	MS
5010	29816	Daftari-621	Daftari 2317 / Daftari Khushboo 9	SS
5011	30954	NLR 3418 (5809-38-1-4-1-1)	NLR 34417 / NLR 34449	MS
5012	30955	GNV 2074	RNR 15048 / GNV 1905	SS
5013	30956	VDN 1832	VDN 1206 / CB 06-555	SS
5014	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
5015	**Telangana Sona--(NC-Early)**			
5016	30958	Pusa 2070-22-1	BPT 5204 / Swarna	MS
5017	30959	JGL 38105	CN 1757-5-3-7 / MTU 1075	MS
5018	30960	RP 6703-SP-M-SS-KS-64-3-9-5-7-4-1	Samba Mahsuri Mutant-93 / BPT 5204	MS
5019	30961	CR 4425-1-1-3-1-1	CR 3969-24-1-2-1-1-1 / CB 09 123	MS
5020	30962	WGL 1370	NLR 34449 / NR 6226	MS
5021	30963	RP 6492-JB-177-81-24-3-1-1	Krishna Hamsa / IRBB60 // Krishna Hamsa / Tetep /// Krishna Hamsa / DSB2 // Krishna Hamsa / IR 81896-96-B-B-195 /// Krishna Hamsa / IR 74371-46-1-1-13	MS
5022	30964	RP 6528-RMS-4-19-14-93	Improved Samba Mahsuri * // Habataki / ST 12	MS
5023	30965	CR 3993-514-2-15-1-7	CR 1009 / *O.brachyantha* // CR 1009	MS
5024	30966	RP 6686-CGR 22	Samba Mahsuri / Oryza rifipogon 38-5	MS
5025	30967	RP 5084-58-56-3-2-3-B	Sona / Malaysia	MS
5026	**WGL-14 (NC-Medium Duration)**			
5027	30968	BRR 2108	IR 825865-IR 82861-B (ORJ 1161-sel.)	MS
5028	30969	CR 3741-1-1-2-1-1-2	Pooja / Surendra	MS
5029	30970	CR 4357-1-1-1-1-2-1	CR3580-7-3-1-2-1/CR3504-7-2-2-1-1-1	MS
5030	30971	RP 6694-F5-60-5	Gangavati Sona / Improved Samba Mahsuri	MS
5031	30972	KPS 10628	JGL 11727 / HMT Sona	MS
5032	30973	RP 6706-SP-M-KS-61-3-22-7-6-4-2	BPT 5204 / Samba Mahsuri Mutant TI-38	MS

Entry No.	IET No.	Designation	Cross Combination	GT
5033	30974	Jhilli Dhan Mutant 12-1	Jhilli Dhan local landrace	MS
5034	30975	MTU 1403 (MTU 2387-36-2-2)	MTU 1075 / WGL 32100	MS
5035	30976	TRC PSM 531-B-B-11-3	Pyzum / BPT 5204	SB
5036	30977	P.3347	BPT 5204 / I.W. PONNI	MS
5037	30978	BPT 3284	BPT 2270 / BPT 2605	MS
5038	30979	AD 19243	ADT 37 / JGL 17004	MS
5039	30980	RDR 2742	KNM 110 / MTU 1164	MS
5040	**BPT 5204 (NC-Late Duration)**			
5041	30981	NWGR 17111	GAR-13 / Yamini / 2-1-1-1-1-1-1	MS
5042	30982	CB 18527	CO 51 / IET 23750	MS
5043	30983	RP 6167-R58	Swarna / O.rufipogon //Swarna	MS
5044	30984	RP 6694-F5-65-20	Gangavati Sona / Improved Samba Mahsuri	MS
5045	30985	Pusa 5376-5-1-1-1-1-3	P 5000-142-1-3 / CN 1406-10-2-2	MS
5046	30986	JGL 38071	PUSA 44 / JGL 23714	MS
5047	30987	KNM 12444	KNM 1638 / IET 23993 // MTU 1156	SS
5048	30988	RP 6707-SP-M-SS-NL-5445-6-22-11-7-3-1	Samba Mahsuri Mutant TI-125 / BPT 5204	MS
5049	**Improved Samba Mahsuri (Eastern and Central), Ketekijoha (North Eastern), Karjat-6 (Western), ADT 49 (Southen)-- ZC**			
5050	30989	WGL 1367	WGL 32100 / NR 6226	MS
5051	30990	RP 6708-SP-M-MS-68-2-3-9-4-6-4	BPT 5204 / Samba Mahsuri Mutant -93	MS
5052	30991	RP 6366-JBC-154-1-11-3-3-1	WGL 14 / RP 5925-24	SB
5053	30992	RP 6694-F5-10-2	Gangavati Sona / Improved Samba Mahsuri	MS
5054	30993	RP 6528-RMS-8-49-64-63	Improved Samba Mahsuri *2 // Habataki / ST 12	MS
5055	30994	RP 6502-GSY-7-4-5-1	IET 27134 / IET 27296	MS
5056	30995	CR 3884-244-8-5-11-1-1	Khandagiri / FL378	SB
5057	30996	TTB 1063-891-2-1	IRGC 4020 / Luit	MS
5058	30997	RP 6681-RMS-10-99-4-3	Improved Samba Mahsuri *2 / ST 12	MS
5059	30998	CR 3549-3-1-1-2-1	ADT 43 /Annapurna	MS
5060	30999	RNR 35197	KMP 199 / RNR 15048	MS
5061	31000	RP 5084-58-56-3-2-1-B	Sona / Malaysia	MS
5062	31001	NVSR 934	NAUR-1 / Danteshwari	MS
5063	31002	RP Bio 4918-NPS 58-1-2	Swarna / O.nivara	MS
5064	**Local Check (LC)**			

Table No. 3.10: Grain Yield (kg/ha) in IVT – MS, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN									
		Odisha (1)		Bihar (1)		Jharkhand (1)		Uttar Pradesh (1)		Zone III (4)	
		Bhubaneswar		Bikramganj		Ranchi		Masodha		Mean	
5001	30945	8343	3					6449	1 *	7396	8
5002	30946	6601		7308	1 *			5519		6476	
5003	30947	6637		5354		9000		4388		6345	
5004	30948	7650	9	4152		10000	8%	4189		6498	
5005	30949	8739	1	6005				4056		6267	
5006	30950	6830		4727				5253		5603	
5007	30951	4039		3591				3657		3762	
5008	30952	6464		4131		9000		2759		5589	
5009	30953	3863		6631	6	10750	16%	5253		6624	
5010	29816	4794		5343		10000	8%	6383	3 *	6630	
5011	30954	3294		5505				3324		4041	
5012	30955	5944		5919		10000	8%	4654		6629	
5013	30956	3304		5859		10000	8%	3125		5572	
5014	30957	5859		6338		8750		3524		6118	
5015	Telangana Sona--(NC-Early Check)	8333	4			9250		5319		7634	3
5016	30958	7190		6904	3	8500		6250	9 *	7211	
5017	30959	6621		6525				4388		5845	
5018	30960	7222		6510		11500	7.5 24%	6250	9 *	7871	1
5019	30961	7542		6773	5			4654		6323	
5020	30962	8000	6	5616		12750	2 38%	3258		7406	7
5021	30963	5667		6222				6383	3 *	6091	
5022	30964	6732		5985				4654		5790	
5023	30965	6379		4621				6184	*	5728	
5024	30966	6536		6591	8			3191		5439	
5025	30967	7222		5515		11500	7.5 24%	4721		7240	
5026	WGL-14 (NC-Medium Duration Check)	7497		6051				3464		5671	
5027	30968	7418		6293		6250		5319		6320	
5028	30969	6873		5854				5186		5971	
5029	30970	5016		3955				4654		4542	
5030	30971	6905		6015				5386		6102	
5031	30972	7075		5449		12250	4.5 32%	4422		7299	9
5032	30973	7549		4475				6316	6 *	6113	
5033	30974	5866		5318		7000		5718		5976	
5034	30975	6843		3505				5718		5355	
5035	30976	8186	5	5343		13000	1 41%	4402		7733	2
5036	30977	4141		7035	2 *			2660		4612	
5037	30978	7592	10	6828	4			3165		5862	
5038	30979	6781		6258		9750	5%	6117	*	7227	
5039	30980	6324		5116		11750	6 27%	2992		6546	
5040	BPT 5204 (NC-Late Duration Check)	6601		5404				4402		5469	
5041	30981	6748		6571	10	7500		6316	6 *	6784	
5042	30982	6199		5333		7250		4668		5863	
5043	30983	4837		5475				3165		4492	
5044	30984	4500		4581		6250		5319		5163	
5045	30985	5114		5030		6750		4654		5387	
5046	30986	5245		5424		5500		4654		5206	
5047	30987	6601		6101				4468		5723	
5048	30988	5667		6010		12250	4.5 32%	3989		6979	
5049	Zonal Check (ZC)	3954						4634		4294	
5050	30989	6585		6232		11250	9.5 22%	6250	9 *	7579	4
5051	30990	5458		3899				4455		4604	
5052	30991	7098		5687		9000		2660		6111	
5053	30992	7356		5157		11250	9.5 22%	5253		7254	10
5054	30993	8382	2	4556		11000	19%	6316	6 *	7564	5
5055	30994	6647		5687				5519		5951	
5056	30995	7722	7	5803		8250		5785		6890	
5057	30996	3307		2596				3657		3187	
5058	30997	6585		4571		10750	16%	5319		6806	
5059	30998	7660	8	6571	10	8250		3291		6443	
5060	30999	5402		5343		12500	3 35%	6383	3 *	7407	6
5061	31000	5467		6576	9			2427		4823	
5062	31001	5644		6606	7	11000	19%	3311		6640	
5063	31002	7206		6500				5685		6464	
5064	Local Check (LC)	7042		5202				4987		5744	
Exp. Mean		**6358**		**5583**		**9699**		**4701**		**6098**	
F Value		**4.14(p<.0001)S**		**8.17(p<.0001)S**		**2.28(p=0.0099)S**		**26.52(p<.0001)S**		**8.63(p<.0001)S**	
CD		1833		958		3928		629		986	
CV%		**14.43**		**8.58**		**19.91**		**6.69**		**8.09**	
D/S		09-08-2022		01-07-2022		22-06-2022		24-06-2022			
D/P		10-09-2022		05-08-2022		17-08-2022		25-07-2022			
Local Check Name		Manaswini		R. Sweta		SWARNA		Sambha Mahsuri-Sub 1			

For Promotion of entries:

***For Varietal entries: Yield of entry should be superior over yield of BVC+CD (at 5%level of significance).**

#For hybrid entries: Yield of entry should be superior over yield of BVC+CD and over yield of BHC+CD (at 5% level of significance)

In locations where the F variance ratio between treatments is non-significant, data from such locations was not considered in analysis.

Table No. 3.10 (Contd): Grain Yield (kg/ha) in IVT – MS, Kharif 2022

ENTRY NO	IET NO	ZONE IV-NORTH EASTERN				ZONE V-CENTRAL					
		Tripura (1)		Zone IV (1)		Chhattisgarh (1)		Maharashtra 1			
		Lembucherra		Mean		Raipur		Sakoli		Sindewahi	
5001	30945	5398		5398		1842		3540		3523	
5002	30946	4706		4706		7662	1 *	3160		3381	
5003	30947	4707		4707		3754		3190		2379	
5004	30948	6339		6339		3296		3380		2102	
5005	30949	3557		3557		4787		4770		4858	
5006	30950	6230		6230		3315		4100		3622	
5007	30951	7188		7188		4387		4940	8	3494	
5008	30952	5342		5342		2931		3200		3516	
5009	30953	5446		5446		5569	10	4570		5064	8
5010	29816	6259		6259		2296		3930		2990	
5011	30954	8944	4	8944	4	1590		2082		2429	
5012	30955	8267	9	8267	9	3161		4390		3913	
5013	30956	7257		7257		3496		4480		4332	
5014	30957	9221	2 *	9221	2 *	3480		4826		5568	4
5015	Telangana Sona--(NC-Early Check)	8271	8	8271	8			2580		4347	
5016	30958	5074		5074		4346		3630		4908	10
5017	30959	7022		7022		6252	5	4805		5859	2
5018	30960	6257		6257		3912		4955	6	4176	
5019	30961	4290		4290		6485	3	3820		5227	7
5020	30962	5706		5706		3788		4350		4808	
5021	30963	7423		7423		4935		3420		4893	
5022	30964	4998		4998		3706		3340		4560	
5023	30965	4425		4425		2381		2870		2301	
5024	30966	9166	3 *	9166	3 *	3815		2790		2337	
5025	30967	6603		6603		4550		5272	1	3565	
5026	WGL-14 (NC-Medium Duration Check)	6998		6998		4771		4250		5291	5
5027	30968	5123		5123		4451		3500		4276	
5028	30969	5558		5558		4639		2750		4553	
5029	30970	6085		6085		4909		5019	2	4517	
5030	30971	6658		6658		4781		4415		3984	
5031	30972	7047		7047		5293		4760		3395	
5032	30973	6763		6763		3322		4929	9	3913	
5033	30974	2191		2191		3440		3330		2287	
5034	30975	3004		3004		4302		4963	5	5703	3
5035	30976					5794	7	4085		3842	
5036	30977	4491		4491		3164		4770		3551	
5037	30978	6230		6230		5976	6	4974	3	5021	9
5038	30979	6628		6628		6791	2 *	4860		4439	
5039	30980	6257		6257		4668		4190		2173	
5040	BPT 5204 (NC-Late Duration Check)	7426		7426		5774	8	4210		4453	
5041	30981	4611		4611		5596	9	4964	4	4581	
5042	30982	7580		7580		4413		4190		2571	
5043	30983	7600		7600		4398		4060		4680	
5044	30984	8246	10	8246	10	3149		3810		6001	1
5045	30985	4261		4261		4421		4762		2976	
5046	30986	2999		2999		4109		4280		3828	
5047	30987	3250		3250				4833		4283	
5048	30988	5672		5672		3738		4817		4652	
5049	Zonal Check (ZC)	6081		6081		4629		3150		5249	6
5050	30989	7288		7288		6469	4	3890		4077	
5051	30990	8912	6	8912	6	3037		2902		3544	
5052	30991	4611		4611		4556		4030		4865	
5053	30992	8922	5	8922	5	4289		3530		4041	
5054	30993	6174		6174		3782		4891	10	3672	
5055	30994	7120		7120		4141		3840		2138	
5056	30995	6138		6138		5163		3340		4091	
5057	30996	5927		5927		3354		4406		4361	
5058	30997	8746	7	8746	7	4799		3400		3977	
5059	30998	2691		2691		5317		4500		4197	
5060	30999	6257		6257		3046		3280		3849	
5061	31000	4656		4656		3698		3810		3771	
5062	31001	9585	1 *	9585	1 *	5516		4150		3814	
5063	31002	7413		7413		5532		4943	7	3821	
5064	Local Check (LC)	5018		5018		4145		4826		4723	
Exp. Mean		**6163**		**6163**		**4340**		**4062**		**4021**	
F Value		**49.73(p<.0001)S**		**49.73(p<.0001)S**		**49.73(p<.0001)S**		**3.87(p<.0001)S**		**7.73(p<.0001)S**	
CD		686		686		1004		1075		966	
CV%		**5.57**		**5.57**		**11.56**		**13.25**		**12.03**	
D/S		13-07-2022				29-06-2022		01-07-2022		28-06-2022	
D/P		03-08-2022				27-07-2022		05-08-2022		23-07-2022	
Local Check Name		tripura chikan				Chhattisgarh Devbho		PDKV Kisan		PKV Ganesh	

Table No. 3.10 (Contd): Grain Yield (kg/ha) in IVT – MS, Kharif 2022

ENTRY NO	IET NO	ZONE V-CENTRAL				ZONE-VI – WESTERN					
		Maharashtra 1 (2)		Zone V (3)		Maharashtra 2					
		Mean		Mean		Karjat		Shirgaon		Vadagaon	
5001	30945	3532		2968		7298	4	4668		3604	
5002	30946	3271		4734		4613		4143		5491	8
5003	30947	2785		3108		4537		3314		3808	
5004	30948	2741		2926		2618		4789		3576	
5005	30949	4814	7	4805		5295		6595	4	4957	
5006	30950	3861		3679		6944	7	3494		5136	
5007	30951	4217		4274		7054	6	3496		3907	
5008	30952	3358		3216		3636		2596		4639	
5009	30953	4817	6	5068	5	4470				5274	10
5010	29816	3460		3072		4806		4017		5071	
5011	30954	2256		2034		5774		5598	9	3396	
5012	30955	4152		3821		5776		4519		5117	
5013	30956	4406		4103		4625		3214		5716	3
5014	30957	5197	3	4625		9017	1	6181	6	5564	6
5015	Telangana Sona--(NC-Early Check)	3464		3464		6380		3477		4901	
5016	30958	4269		4295		6444		3662		5288	9
5017	30959	5332	2	5639	1 *	4672		5701	7	4363	
5018	30960	4566		4348		3517		4336		4346	
5019	30961	4524		5177	4	5135		6638	3	5576	5
5020	30962	4579		4315		6146		2965		4446	
5021	30963	4157		4416		4874		4140		4670	
5022	30964	3950		3869		5126		4820		3779	
5023	30965	2586		2517		2540		3756		3728	
5024	30966	2564		2981		5455		3439		4556	
5025	30967	4419		4462		7125	5	3011		4860	
5026	WGL-14 (NC-Medium Duration Check)	4771	10	4771		4604		3387		4358	
5027	30968	3888		4076		5067		5649	8	4544	
5028	30969	3652		3981		7736	2	6768	2	4888	
5029	30970	4768		4815	8	5913		4392		3506	
5030	30971	4200		4393		5850		5524	10	4383	
5031	30972	4078		4483		3804		4392		4516	
5032	30973	4421		4055		5328		4017		3990	
5033	30974	2809		3019		4006		4595		3686	
5034	30975	5333	1	4989	7	6204		4143		4225	
5035	30976	3964		4574		2887		3574		5209	
5036	30977	4161		3828		5354		2783		3866	
5037	30978	4998	4	5324	3	6843	8	4875		5503	7
5038	30979	4650		5363	2	4916		3919		4744	
5039	30980	3182		3677		3914		4046		4259	
5040	BPT 5204 (NC-Late Duration Check)	4332		4812	9	4899		2992		4490	
5041	30981	4773	9	5047	6	5497		5358		4821	
5042	30982	3381		3725		4090		3939		5012	
5043	30983	4370		4379		5337		3292		4306	
5044	30984	4906	5	4320		5614		3071		4725	
5045	30985	3869		4053		5943		3436		4183	
5046	30986	4054		4072		4938		4596		4572	
5047	30987	4558		4558		4070		3718		4828	
5048	30988	4735		4402		5505		5455		4504	
5049	Zonal Check (ZC)	4200		4343		3927		2889		4556	
5050	30989	3984		4812	9	7694	3	4969		5951	1
5051	30990	3223		3161		5713		3140		4252	
5052	30991	4448		4484		4251		4273		4984	
5053	30992	3786		3953		6254		4027		4931	
5054	30993	4282		4115		4773		6286	5	3769	
5055	30994	2989		3373		6591	10	2806		3728	
5056	30995	3716		4198		5084		4115		4128	
5057	30996	4384		4040		5253		3308		3949	
5058	30997	3689		4059		5210		2965		4736	
5059	30998	4349		4671		6271		6900	1	5619	4
5060	30999	3565		3392		6156		4618		4570	
5061	31000	3791		3760		6709	9	3369		5799	2
5062	31001	3982		4493		5460		4683		4610	
5063	31002	4382		4765		5471		3812		4888	
5064	Local Check (LC)	4775	8	4565		6176		3773		4404	
Exp. Mean		**4041**		**4138**		**5362**		**4229**		**4590**	
F Value		**7.10(p<.0001)S**		**9.42(p<.0001)S**		**10.39(p<.0001)S**		**8.76(p<.0001)S**		**2.78(p<.0001)S**	
CD		739		660		1077		1031		1043	
CV%		**9.15**		**7.98**		**10.05**		**12.2**		**11.37**	
D/S						21-06-2022		22-06-2022		29-06-2022	
D/P						15-07-2022		27/07/2022		02-08-2022	
Local Check Name						Karjat 9		Ratnagiri 8		Kundalika	

Table No. 3.10 (Contd): Grain Yield (kg/ha) in IVT – MS, Kharif 2022

ENTRY NO	IET NO	ZONE-VI – WESTERN									
		Maharashtra 2 (3)		Maharashtra (5)		Gujarat					
		Mean		Mean		Navasari		Nawagam		Vyara	
5001	30945	5190		4527		1401		2851			
5002	30946	4749		4158		3282		5110		6180	1
5003	30947	3886		3446		1446		2551		1833	
5004	30948	3661		3293		1952		3991		3901	
5005	30949	5616	7 *	5295	6 *	5116		5680	1	5957	2
5006	30950	5191	*	4659		3797		4762		3778	
5007	30951	4819		4578		1742		4502		1977	
5008	30952	3624		3517		2840		5085		3509	
5009	30953	4872		4845				5159		5086	
5010	29816	4631		4163		3892		3781		3978	
5011	30954	4923		3856		2056		3156			
5012	30955	5137		4743		3671		4683		3737	
5013	30956	4518		4473		5285		5142		3233	
5014	30957	6921	1 *	6231	1 *	4530		5556	5	5176	9
5015	Telangana Sona--(NC-Early Check)	4919		4337		4516		4065		3630	
5016	30958	5131		4786		6812	7	5476	7	4353	
5017	30959	4912		5080	8	7081	4	4546		5123	10
5018	30960	4066		4266		7447	2	4023		5421	8
5019	30961	5783	5 *	5279	7 *	7753	1	4824		5097	
5020	30962	4519		4543		7005	5	4009		4768	
5021	30963	4561		4399		5812		4939		4705	
5022	30964	4575		4325		6435	9	2120		4754	
5023	30965	3341		3039		1758		3022			
5024	30966	4483		3715		4203		5234	10	3502	
5025	30967	4999		4767		5366		3900		4263	
5026	WGL-14 (NC-Medium Duration Check)	4116		4378		4957		5340	8	4607	
5027	30968	5087		4607		4890		4416		5818	4
5028	30969	6464	2 *	5339	4 *	2965		4620		4559	
5029	30970	4604		4669		4194		4881		4380	
5030	30971	5252	9	4831		3346		5556	5	4100	
5031	30972	4237		4173		4669		4354		4451	
5032	30973	4445		4435		1950		4144		2586	
5033	30974	4096		3581		3629		3367		3766	
5034	30975	4857		5048	9	3511		5584	3	1967	
5035	30976	3890		3919		4835		4303		4678	
5036	30977	4001		4065		2196		4376		1348	
5037	30978	5740	6 *	5443	3 *	7082	3	4388		5057	
5038	30979	4526		4576		5543		5181		5723	5
5039	30980	4073		3716		3199		5113		4185	
5040	BPT 5204 (NC-Late Duration Check)	4127		4209		1952		4359		4263	
5041	30981	5225	10	5044	10	5875		4666		5950	3
5042	30982	4347		3960		2694		3605		4143	
5043	30983	4312		4335		3194		4252		3431	
5044	30984	4470		4644		4742		4416		4027	
5045	30985	4521		4260		3398		4943		3918	
5046	30986	4702		4443		5241		4955		5074	
5047	30987	4205		4346		5885		5601	2	4631	
5048	30988	5155		4987		6578	8	4325		3870	
5049	Zonal Check (ZC)	3791		3954		4618		2063		3849	
5050	30989	6205	4 *	5316	5 *	6989	6	4926		5476	7
5051	30990	4368		3910		1210		5249	9	1104	
5052	30991	4503		4481		6178	10	4246		4012	
5053	30992	5071		4557		4613		5078		4358	
5054	30993	4943		4678		2957		3180		3708	
5055	30994	4375		3821		2000		2982		2996	
5056	30995	4442		4152		1887		4966		4842	
5057	30996	4170		4255		1478		4320		2089	
5058	30997	4304		4058		2161		3138		3544	
5059	30998	6263	3 *	5497	2 *	1780		4994		4664	
5060	30999	5115		4495		4368		2948		4446	
5061	31000	5292	8	4692		5113		4444		4970	
5062	31001	4918		4543		6048		4518		5531	6
5063	31002	4724		4587		5428		4848		4059	
5064	Local Check (LC)	4784		4780		4758		5562	4	4086	
Exp. Mean		**4730**		**4455**		**4180**		**4412**		**4168**	
F Value		**9.60(p<.0001)S**		**12.58(p<.0001)S**		**28.09(p<.0001)S**		**3.94(p<.0001)S**		**10.60(p<.0001)S**	
CD		614		450		951		1278		958	
CV%		**6.5**		**5.05**		**11.39**		**14.49**		**11.49**	
D/S						21-06-2022		24-06-2022		22-06-2022	
D/P						17-07-2022		12-08-2022		19-07-2022	
Local Check Name						GNR-7		GAR 13		GNR-7	

Table No. 3.10 (Contd): Grain Yield (kg/ha) in IVT – MS, Kharif 2022

ENTRY NO	IET NO	ZONE-VI – WESTERN				ZONE VII – SOUTHERN					
		Gujarat (3)		Zone VI (6)		Andhra Pradesh				Andhra Pradesh (2)	
		Mean		Mean		Maruteru		Bapatla		Mean	
5001	30945	2126		3964		6711		5758	6	6235	4
5002	30946	4857		4803		4920		4690		4805	
5003	30947	1943		2915		4736		2715		3726	
5004	30948	3281		3471		4751		2323		3537	
5005	30949	5584	4	5600	5 *	6931	8	2262		4597	
5006	30950	4112		4652		6872	9	4238		5555	
5007	30951	2740		3780		6584		6164	1	6374	2
5008	30952	3811		3718		5103		3864		4484	
5009	30953	5123		4997		5437		3390		4414	
5010	29816	3884		4258		4495		4131		4313	
5011	30954	2606		3996		6473		5356	9	5915	7
5012	30955	4030		4584		5897		4636		5267	
5013	30956	4553		4536		4951		5292		5122	
5014	30957	5087		6004	1 *	6164		4446		5305	
5015	Telangana Sona--(NC-Early Check)	4070		4495		5411		3251		4331	
5016	30958	5547	6	5339	7 *	5974		4247		5111	
5017	30959	5583	5	5248	9 *	6407		4526		5467	
5018	30960	5630	3	4848		6995	4	4604		5800	10
5019	30961	5891	1 *	5837	3 *	7174	2	5888	4	6531	1
5020	30962	5261		4890		5626		3426		4526	
5021	30963	5152		4857		6354		4303		5329	
5022	30964	4436		4506		6413		3295		4854	
5023	30965	2390		2961		5247		6005	2	5626	
5024	30966	4313		4398		5741		4203		4972	
5025	30967	4510		4754		5115		5304		5210	
5026	WGL-14 (NC-Medium Duration Check)	4968		4542		5938		4347		5143	
5027	30968	5041		5064		6541		3443		4992	
5028	30969	4048		5256	8 *	6146		3345		4746	
5029	30970	4485		4544		7098	3	5010		6054	6
5030	30971	4334		4793		5439		4103		4771	
5031	30972	4491		4364		5287		4182		4735	
5032	30973	2893		3669		5382		4768		5075	
5033	30974	3587		3842		5840		3981		4911	
5034	30975	3687		4272		6392		4889		5641	
5035	30976	4605		4248		5714		3735		4725	
5036	30977	2640		3321		6936	6	5623	7	6280	3
5037	30978	5509	7	5625	4 *	6149		4598		5374	
5038	30979	5482	9	5004		4421		3075		3748	
5039	30980	4166		4119		4423		3708		4066	
5040	BPT 5204 (NC-Late Duration Check)	3525		3826		5786		5949	3	5868	8
5041	30981	5497	8	5361	6 *	6357		2728		4543	
5042	30982	3481		3914		4193		4494		4344	
5043	30983	3626		3969		5401		4057		4729	
5044	30984	4395		4433		6228		4987		5608	
5045	30985	4086		4304		4875		5007		4941	
5046	30986	5090		4896		4638		2508		3573	
5047	30987	5372	10	4789		5933		3910		4922	
5048	30988	4924		5040		6610		3468		5039	
5049	Zonal Check (ZC)	3510		3650		6004		3964		4984	
5050	30989	5797	2 *	6001	2 *	6615		4057		5336	
5051	30990	2521		3445		4671		5842	5	5257	
5052	30991	4812		4657		4583		4661		4622	
5053	30992	4683		4877		6095		2573		4334	
5054	30993	3282		4112		4304		2979		3642	
5055	30994	2659		3517		4061		4533		4297	
5056	30995	3898		4170		6629		3691		5160	
5057	30996	2629		3400		6935	7	5279		6107	5
5058	30997	2948		3626		4795		4293		4544	
5059	30998	3813		5038		5715		4317		5016	
5060	30999	3921		4518		6798	10	3607		5203	
5061	31000	4842		5067		6086		5305	10	5696	
5062	31001	5366		5142	10	7194	1	3422		5308	
5063	31002	4778		4751		6949	5	4252		5601	
5064	Local Check (LC)	4802		4793		6320		5390	8	5855	9
Exp. Mean		**4230**		**4490**		**5812**		**4256**		**5034**	
F Value		**15.86(p<.0001)S**		**19.71(p<.0001)S**		**7.81(p<.0001)S**		**3.71(p<.0001)S**		**7.21(p<.0001)S**	
CD		719		446		866		1401		725	
CV%		**8.51**		**4.97**		**7.45**		**16.47**		**7.21**	
D/S						25-06-2022		27-07-2022			
D/P						23-07-2022		25-08-2022			
Local Check Name						MTU 1224		BPT 2782			

Table No. 3.10 (Contd): Grain Yield (kg/ha) in IVT – MS, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN									
		Telangana				Telangana (2)		Tamil Nadu			
		Rajendranagar		Warangal		Mean		Adhuturai		Coimbatore	
5001	30945	5476		3755		4616		5208		4368	
5002	30946	6763		4321		5542		4417		5591	
5003	30947	4281		4581		4431		4667		4563	
5004	30948	2663		3487		3075		5000		4183	
5005	30949	7518		4029		5774		4292		4200	
5006	30950	5170		4679		4925		4917		5903	
5007	30951	6904		5613		6259		5417		7818	1
5008	30952	4348		4140		4244		6625	9	4151	
5009	30953			5172		5172		4583			
5010	29816	5798		3427		4613		4750		3693	
5011	30954	4560		3547		4054		4917		4579	
5012	30955	6377		3779		5078		4333		3578	
5013	30956	6779		4114		5447		4292		6630	8
5014	30957	8888	3	6436	4	7662	2	4792		6733	7
5015	Telangana Sona--(NC-Early Check)	7539		4121		5830		4750		3527	
5016	30958	8005		4532		6269		4042		4408	
5017	30959	7851		6190	6	7021	7	4750		4976	
5018	30960	8115		4167		6141		4750		5003	
5019	30961	9380	2	5770	9	7575	3	5417		5904	
5020	30962	8340	8	4962		6651		4342		4236	
5021	30963	8444	6	5680		7062	6	4458		5123	
5022	30964	8132		4117		6125		4458		5126	
5023	30965	4639		3745		4192		4375		5964	
5024	30966	7599		4627		6113		4375		6204	
5025	30967	8380	7	4566		6473		4250		4979	
5026	WGL-14 (NC-Medium Duration Check)	9520	1	7138	1	8329	1	4083		5662	
5027	30968	7859		4517		6188		4833		5867	
5028	30969	8055		4554		6305		4958		3553	
5029	30970	8303	9	5223		6763	9	4583		4610	
5030	30971	7749		4890		6320		5833		5098	
5031	30972	4930		3728		4329		4917		3853	
5032	30973	6943		4657		5800		6000		7206	4
5033	30974	4256		4275		4266		4250		3773	
5034	30975	6959		6935	2	6947	8	5958		5494	
5035	30976	8173		5191		6682	10	4275		5242	
5036	30977	7203		3909		5556		7667	4	3486	
5037	30978	8222	10	4252		6237		4125		5035	
5038	30979			5376		5376		5667		6979	6
5039	30980	5994		3602		4798		5375		4038	
5040	BPT 5204 (NC-Late Duration Check)	7120		3796		5458		6125		7288	3
5041	30981	4388		6391	5	5390		4375		4875	
5042	30982	4063		5673		4868		6458		3829	
5043	30983	7161		4194		5678		4958		4878	
5044	30984	7302		5840	8	6571		7750	3	5226	
5045	30985	6724		3745		5235		6042		6535	10
5046	30986	4156		3876		4016		4292		4377	
5047	30987	6093		4857		5475		4500		5639	
5048	30988	6803		5726	10	6265		7650	5	3588	
5049	Zonal Check (ZC)	6579		3947		5263		4333		6583	9
5050	30989	8085		6592	3	7339	4	6625	9	5515	
5051	30990	6516		4172		5344		7625	6	6443	
5052	30991	7758		4272		6015		8708	2	4329	
5053	30992	5756		5441		5599		7375	7	6080	
5054	30993	7236		4280		5758		4750		5218	
5055	30994	6229		3903		5066		4583		5980	
5056	30995	7571		5644		6608		4375		7103	5
5057	30996	7040		3824		5432		5167		5537	
5058	30997	5999		4056		5028		5375		4673	
5059	30998	6895		4662		5779		4333		3563	
5060	30999	5845		4796		5321		5417		4104	
5061	31000	8467	5	4796		6632		6583		5503	
5062	31001	7637		3765		5701		4583		4125	
5063	31002	6996		5498		6247		9083	1	7638	2
5064	Local Check (LC)	8649	4	5876	7	7263	5	6625	9	5701	
Exp. Mean		**6826**		**4710**		**5743**		**5287**		**5169**	
F Value		**8.71(p<.0001)S**		**5.79(p<.0001)S**		**8.80(p<.0001)S**		**12.63(p<.0001)S**		**7.82(p<.0001)S**	
CD		1411		1068		949		942		1138	
CV%		**10.34**		**11.35**		**8.27**		**8.92**		**11.02**	
D/S		22-06-2022		24-06-2022				11-09-2022		29-06-2022	
D/P		15-07-2022		25-07-2022				28-10-2022		21-07-2022	
Local Check Name		RNR 11718		WGL 32100				ADT54		CO 52	

Table No. 3.10 (Contd): Grain Yield (kg/ha) in IVT – MS, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN								Overall Mean(22)	
		Tamil Nadu		Tamil Nadu (3)		Karnataka (1)		Zone VII (8)			
		Tirur		Mean		Gangavathi		Mean			
5001	30945	4963		4846		4831		5134		4736	
5002	30946	5794		5267		3821		5040		5118	
5003	30947	4781		4670		4703		4378		4178	
5004	30948	5313		4832		4226		3993		4267	
5005	30949	6281	4	4924		4938		5056		5277	
5006	30950	6375	2	5732		4759		5364		4995	
5007	30951	5425		6220	5	2826		5844	9	4796	
5008	30952	5863		5546		3579		4709		4424	
5009	30953	5350		4967				4786		5357	
5010	29816	4547		4330		3264		4263		4620	
5011	30954	4719		4738		2482		4579		4189	
5012	30955	4975		4295		4077		4707		5064	
5013	30956	5281		5401		5047		5298		5066	
5014	30957	6044	6	5856		4621		6016	6	5987	2 *
5015	Telangana Sona--(NC-Early Check)	4731		4336		4631		4745		5152	
5016	30958	5031		4494		2882		4890		5362	
5017	30959	5025		4917		5477	8	5650		5627	6
5018	30960	5916	10	5223		4931		5560		5652	5
5019	30961	6350	3	5890		5405		6411	1	5957	3 *
5020	30962	5281		4620		5385		5200		5419	
5021	30963	5431		5004		3713		5438		5314	
5022	30964	4988		4857		5751	5	5285		4919	
5023	30965	4125		4821		2662		4595		4036	
5024	30966	4800		5126		4292		5230		4888	
5025	30967	4653		4627		5354		5325		5458	
5026	WGL-14 (NC-Medium Duration Check)	4769		4838		4585		5755		5315	
5027	30968	4569		5090		4708		5292		5243	
5028	30969	5166		4559		3995		4972		5082	
5029	30970	5094		4762		5303		5653		5078	
5030	30971	5663		5531		5149		5491		5277	
5031	30972	5950	7	4907		5195		4755		5178	
5032	30973	5719		6308	4	6651	1 *	5916	8	5077	
5033	30974	4988		4337		5462	9	4603		4319	
5034	30975	5388		5613		6215	2	6029	5	5138	
5035	30976	4675		4731		4226		5154		5303	
5036	30977	4525		5226		3677		5378		4417	
5037	30978	5344		4835		4656		5298		5520	10
5038	30979	5138		5928		4503		5023		5562	8
5039	30980	5744		5052		4253		4642		4787	
5040	BPT 5204 (NC-Late Duration Check)	5000		6138	6	3872		5617		5055	
5041	30981	5050		4767		4862		4878		5367	
5042	30982	5888		5392		5687	6	5036		4817	
5043	30983	4544		4793		3133		4791		4588	
5044	30984	4969		5982		4226		5816	10	5226	
5045	30985	6469	1	6349	3	5097		5562		4922	
5046	30986	4825		4498		4292		4121		4472	
5047	30987	5281		5140		6062	3	5284		5027	
5048	30988	5113		5450		4421		5422		5473	
5049	Zonal Check (ZC)	5819		5578		3703		5117		4527	
5050	30989	6094	5	6078	8	5415	10	6125	4	6229	1 *
5051	30990	5294		6454	2	3995		5570		4640	
5052	30991	5056		6031	10	4641		5501		5203	
5053	30992	4938		6131	7	5292		5444		5573	7
5054	30993	5031		5000		4892		4836		5097	
5055	30994	5919	9	5494		3631		4855		4525	
5056	30995	5044		5507		4149		5526		5251	
5057	30996	5488		5397		2779		5256		4288	
5058	30997	5131		5060		5503	7	4978		4988	
5059	30998	4719		4205		6021	4	5028		5133	
5060	30999	5375		4965		4533		5059		5166	
5061	31000	5888		5991		5046		5959	7	5166	
5062	31001	5550		4753		5154		5179		5541	9
5063	31002	5938	8	7553	1 *	4092		6306	2	5717	4 *
5064	Local Check (LC)	5781		6036	9	5368		6214	3	5448	
Exp. Mean		**5296**		**5250**		**4573**		**5233**		**5072**	
F Value		**6.81(p<.0001)S**		**12.02(p<.0001)S**		**6.34(p<.0001)S**		**16.01(p<.0001)S**		**27.87(p<.0001)S**	
CD		572		532		1014		365		247	
CV%		**5.4**		**5.07**		**11.09**		**3.49**		**2.43**	
D/S		25-06-2022				20-07-2022					
D/P		21-07-2022				23-08-2022					
Local Check Name		CO 52				GANGAVATHI SONA					

Table No. 3.10 (Contd): Grain Yield (kg/ha) in IVT – MS, Kharif 2022, (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED									
		Odisha				Bihar		West Bengal		Assam	
		@ICAR-NRRI (Cuttack)		@Jeypore		@Pusa		@Chinsurah		@Titabar	
5001	30945	5051		2856		3142		4208		3475	
5002	30946	3814		1590		3008		4875		5267	
5003	30947	1898		1239		4947		3125		4574	
5004	30948	3045		3189	5	4412		3375		4097	
5005	30949	6162	9	2543		6618	6	5125		5629	
5006	30950	4490		2889		6417	9	5208		6208	3
5007	30951	4865		954		3142		3667		6097	8
5008	30952	3834		1947		3877		5292	10	4673	
5009	30953	6522	5	723		3743		3708		5807	
5010	29816	3289		939		4278		3833		4817	
5011	30954	4110		718		3743		4083		3898	
5012	30955	4417		1317		6350		3917		3627	
5013	30956	4128		1165		6885	3	5542	8	6604	1
5014	30957	5115		1207		4345		4833		6470	2
5015	Telangana Sona--(NC-Early Check)	4062		1107		6618	6	4083		4764	
5016	30958	4871		3226	3	7019	1	5625	6	5175	
5017	30959	3766		2290		5682		3583		4980	
5018	30960	5109		3146	8	4412		4333		4917	
5019	30961	7739	1	2611		6952	2	4625		5616	
5020	30962	2787		2627		5147		3167		5002	
5021	30963	5852		2463		3743		5708	5	4829	
5022	30964	4762		3175	6	6016		3542		4768	
5023	30965	5876		1325		3743		4042		3662	
5024	30966	4155		3167	7	3810		4583		4555	
5025	30967	5686		1359		4746		3958		5634	
5026	WGL-14 (NC-Medium Duration Check)	5902		2928		3877		4250		5222	
5027	30968	4128		2696		5147		4167		5045	
5028	30969	5273		3314	2	2874		5833	2	5864	
5029	30970	5754		2995		3342		3250		6097	8
5030	30971	6192	8	2768		6417	9	5792	3	4472	
5031	30972	5097		2990		5147		3125		4268	
5032	30973	5930		3346	1	5013		4583		5360	
5033	30974	1890		1316		3476		3667		2915	
5034	30975	5659		2208		2273		4875		6145	6
5035	30976	3426		3021	10	4345		4917		6181	5
5036	30977	7586	2	1122		2507		5250		5184	
5037	30978	5208		2540		5615		4625		4917	
5038	30979	4828		2929		5481		3750		5238	
5039	30980	4777		1226		4345		3250		3582	
5040	BPT 5204 (NC-Late Duration Check)	5142		2532		3476		3958		5122	
5041	30981	6291	7	2484		6618	6	5125		6008	
5042	30982	5353		2780		5481		3167		4050	
5043	30983	6089	10	745		3676		3667		5237	
5044	30984	4697		2303		3743		3750		5064	
5045	30985	5110		3085	9	3810		5625	6	5002	
5046	30986	6480	6	1582		5615		3667		5514	
5047	30987	4698		2582		5548		5792	3	5556	
5048	30988	3879		1311		4746		4083		4112	
5049	Zonal Check (ZC)	4322		1814		3342		4625		4917	
5050	30989	5407		2702		5882				6030	10
5051	30990	4505		1271		2941		4458		4810	
5052	30991	5994		2255		5414		5083		6112	7
5053	30992	4198		3197	4	5214		4333		3582	
5054	30993	4437		2612		3342		3875		4094	
5055	30994	4555		2157		3342		5958	1	5585	
5056	30995	7020	4	2883		6818	4	4125		5643	
5057	30996	7056	3	1529		2473		3417		6016	
5058	30997	3094		2011		4880		3292		3204	
5059	30998	4988		2212		6551	8	5417	9	6186	4
5060	30999	4976		2147		6217		3500		4472	
5061	31000	4867		2662		3342		3333		4851	
5062	31001	4101		2474		4545		3875		5985	
5063	31002	5038		1877		4345		4292		5045	
5064	Local Check (LC)	3515		2564		3610		4450		5529	
Exp. Mean		**4888**		**2202**		**4650**		**4321**		**5052**	
F Value		**2.08(p=0.0021)S**		**12.13(p<.0001)S**		**95.46(p<.0001)S**		**33.05(p<.0001)S**		**67.00(p<.0001)S**	
CD		2348		629		374		397		294	
CV%		**24.04**		**14.29**		**4.02**		**4.59**		**2.91**	
D/S		27-06-2022		27-07-2022		06-07-2022		28-06-2022		26-06-2022	
D/P		27-08-2022		02-09-2022		28-07-2022		11-08-200		22-07-2022	
Local Check Name		CR DHAN 910		Kalinga Dhan 120		Rajendra Sweta(5064		Swarna Shreya		Ranjit Sub 1	

Table No. 3.10 (Contd): Grain Yield (kg/ha) in IVT – MS, Kharif 2022, (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED									
		Tripura		Telangana		Kerala		Karnataka			
		@Arundhutinagar		@Kampasagar		@Pattambi		@Mandya		@Sirsi	
5001	30945	3510		6981		4186		5717	3	2058	
5002	30946	2655		6520		4333		5282	4	1933	
5003	30947	3180		4145		4138		3750		1094	
5004	30948	4050		3012		4605		294		1380	
5005	30949	3475		5867		4200		4694		1328	
5006	30950	2645		5512		4729		4344		1675	
5007	30951	2770		7336	7	3652		1397		2439	8
5008	30952	2930		4795		4429		4044		1052	
5009	30953	3935		3099		4167		4338			
5010	29816	4000		2507		4195		4853	8	922	
5011	30954	3215		6192		4110		1428		2183	
5012	30955	3175		5373		4633		2953		1796	
5013	30956	3760		6243		4324		4473		1705	
5014	30957	3075		7205	9	4838	9	3499		2714	3
5015	Telangana Sona--(NC-Early Check)	3160		5241		4310		3033		1396	
5016	30958	3910		5874		4248		5864	2	1732	
5017	30959	2785		9664	2	4910	7	1176		1336	
5018	30960	3465		5304		4019		4375		1588	
5019	30961	2335		8757	3	4786	10	5270	5	1003	
5020	30962	2520		5651		4143		4363		1688	
5021	30963	2575		4569		5354	1	3554		1428	
5022	30964	3010		9861	1	4190		5086	7	1674	
5023	30965	5080	8	4415		4271		1336		2510	5
5024	30966	4440		4839		4310		2904		2488	6
5025	30967	5380	5	5753		5133	2	4675		2756	2
5026	WGL-14 (NC-Medium Duration Check)	5570	4	6740		4143		3658		1564	
5027	30968	4225		6155		4084		3713		2136	
5028	30969	3670		3852		4171		3290		1411	
5029	30970	4125		5080		4924	6	4822	9	2360	9
5030	30971	2805		5833		4229		4737	10	2100	
5031	30972	3010		6316		4205		1091		1619	
5032	30973	3015		7281	8	4419		5116	6	2178	
5033	30974	3040		5344		4947	5	3738		1289	
5034	30975	3255		8757	3	4405		3701		1971	
5035	30976	3130		5431		4960	4	2782		1314	
5036	30977	3060		7902	5	4686		1158		2245	
5037	30978	2765		6094		4354		4393		1709	
5038	30979	3165		4306		4870	8	2567		1247	
5039	30980	3020		4832		5065	3	1857		1295	
5040	BPT 5204 (NC-Late Duration Check)	3605		3787		4416		2647		1340	
5041	30981	5125	7	5958		4111		3143		1542	
5042	30982	3300		6335		4088		1176		1785	
5043	30983	3340		5797		4192		3076		2139	
5044	30984	3290		5892		4218		3805		1777	
5045	30985	4520	10	3918		4393		3186		1931	
5046	30986	3380		6272		4589		1115		1957	
5047	30987	3750		4744		4510		4069		1575	
5048	30988	3670		5743		4349		4007		1677	
5049	Zonal Check (ZC)	4470		5373		4227		3768		1558	
5050	30989	3530		6883		4457		3664		1789	
5051	30990	3590		3674		4406		2108		1842	
5052	30991	4165		5526		4145		2574		1583	
5053	30992	4010		4466		4063		3609		1919	
5054	30993	4230		7135	10	4454		3254		2620	4
5055	30994	5910	1	4306		3945		3125		1767	
5056	30995	3170		7683	6	4407		3192		2795	1
5057	30996	5670	2	6864		4007		1023		1092	
5058	30997	4645	9	6213		4475		1765		2251	10
5059	30998	3010		6261		4660		3713		1562	
5060	30999	5645	3	5925		4078		3732		2466	7
5061	31000	3155		5107		4170		3585		1928	
5062	31001	4165		5604		4034		4161		2039	
5063	31002	3625		6067		4117		2935		1367	
5064	Local Check (LC)	5275	6	5526		4552		5987	1	1308	
Exp. Mean		**3674**		**5776**		**4387**		**3402**		**1776**	
F Value		**46.84(p<.0001)S**		**62.13(p<.0001)S**		**0.95(p=0.5800)NS**		**56.80(p<.0001)S**		**14.78(p<.0001)S**	
CD		355		517		572		496		378	
CV%		**4.84**		**4.48**		**10.82**		**7.3**		**10.64**	
D/S		02-07-2022		01-07-2022		16-07-2022		09-07-2022		22-06-2022	
D/P		27-07-200		31-07-2022		10-08-2022		03-08-2022		01-08-2022	
Local Check Name		ripura Chikan Dhan (506		RNR-15048		RED MASHURI		Thanu		Prasanna	

Table No. 3.11: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT – MS, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN														
		Odisha (1)			Bihar (1)			Jharkhand (1)			Uttar Pradesh (1)			Zone III (4)		
		Bhubaneswar			Bikramganj			Ranchi			Masodha			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5001	30945	115	96	343							104	102	281	109	99	312
5002	30946	104	96	215	116	116	404				105	84	253	108	99	290
5003	30947	99	98	248	107	118	370	122	71	151	98	76	260	106	91	257
5004	30948	91	88	284	113	119	363	123	67	217	101	73	235	107	87	274
5005	30949	93	86	321	114	98	357				111	88	206	106	91	295
5006	30950	100	84	260	116	103	374				120	100	241	112	96	292
5007	30951	103	95	287	122	105	364				116	102	208	113	100	286
5008	30952	100	96	235	113	91	393	110	63	221	111	82	219	108	83	267
5009	30953	101	100	227	110	116	350	105	72	157	103	105	253	104	98	247
5010	29816	96	84	237	109	101	400	109	98	199	116	100	270	107	96	276
5011	30954	121	88	303	121	91	359				121	80	243	121	87	302
5012	30955	91	93	283	114	111	367	129	72	163	115	102	239	112	94	263
5013	30956	107	99	248	119	123	363	112	79	168	114	94	225	113	99	251
5014	30957	106	87	301	117	111	358	117	84	139	116	96	228	114	94	256
5015	Telangana Sona--(NC-Early Check)	93	87	321				121	69	180	122	75	275	112	77	259
5016	30958	104	80	256	116	106	345	117	87	157	111	98	295	112	93	263
5017	30959	98	86	220	96	114	402				116	82	229	103	94	283
5018	30960	103	80	320	113	97	397	130	90	192	101	93	291	111	90	300
5019	30961	100	90	307	121	113	338				120	110	221	113	105	288
5020	30962	98	86	293	113	105	372	130	69	193	122	86	210	115	86	267
5021	30963	100	87	232	110	111	362				100	85	269	103	94	287
5022	30964	96	90	240	113	112	397				115	86	230	108	96	289
5023	30965	99	120	229	120	116	396				100	90	260	106	109	295
5024	30966	98	98	267	117	110	350				120	102	231	111	103	283
5025	30967	107	87	306	131	103	350	123	74	241	117	100	239	119	91	284
5026	WGL-14 (NC-Medium Duration Check)	108	97	242	120	120	352				116	75	207	114	97	267
5027	30968	101	90	339	114	113	416	131	85	119	111	95	261	114	96	284
5028	30969	95	88	268	112	116	372				99	102	254	102	102	298
5029	30970	99	98	275	133	109	399				111	84	242	114	97	305
5030	30971	104	95	275	112	113	376				107	102	253	107	103	301
5031	30972	96	89	357	103	104	369	121	80	228	115	86	231	108	90	296
5032	30973	102	98	247	122	115	379				111	90	283	111	101	303
5033	30974	93	80	331	103	105	377	126	78	136	101	90	253	105	88	274
5034	30975	108	85	273	102	114	364				107	76	254	105	92	297
5035	30976	106	95	262	111	120	402	122	64	223	123	90	224	115	92	278
5036	30977	116	100	317	106	108	394				120	105	230	114	104	314
5037	30978	108	98	323	113	107	385				115	70	222	112	92	310
5038	30979	100	100	275	108	117	395	120	74	231	102	94	289	107	96	297
5039	30980	94	82	331	108	95	339	116	82	266	121	86	158	110	86	273
5040	BPT 5204 (NC-Late Duration Check)	114	81	378	123	85	372				111	90	238	116	85	329
5041	30981	96	84	278	111	111	394	122	70	117	103	82	301	108	87	272
5042	30982	95	88	327	106	104	376	126	61	250	115	80	241	110	83	298
5043	30983	114	80	283	120	91	363				118	75	182	117	82	276
5044	30984	93	95	237	121	106	390	139	89	166	101	103	246	113	98	260
5045	30985	109	84	303	113	118	393	141	73	123	120	94	226	120	92	261
5046	30986	95	87	361	108	106	365	121	81	164	112	72	241	109	87	282
5047	30987	96	85	372	117	104	365				112	88	241	108	92	326
5048	30988	97	88	296	114	89	349	130	65	140	117	88	254	114	83	260
5049	Zonal Check (ZC)	110	85	370							115	85	239	112	85	304
5050	30989	97	93	284	112	104	374	121	56	171	105	112	291	109	91	280
5051	30990	111	90	297	134	106	397				120	94	228	122	97	307
5052	30991	112	85	308	118	113	389	131	68	239	120	86	209	120	88	286
5053	30992	97	84	276	113	109	403	129	78	215	114	84	243	113	89	284
5054	30993	94	87	236	112	108	381	121	61	228	102	76	307	107	83	288
5055	30994	112	96	267	122	113	372				114	105	242	116	105	294
5056	30995	103	86	282	112	125	380	129	75	210	118	96	250	115	96	281
5057	30996	115	79	249	134	102	377				120	75	224	123	85	283
5058	30997	97	80	267	108	100	379	130	68	230	116	75	252	112	81	282
5059	30998	96	91	251	117	110	403	129	78	143	121	96	223	115	94	255
5060	30999	93	78	303	108	103	378	125	63	188	112	84	282	109	82	287
5061	31000	108	76	275	117	103	381		.		121	90	204	115	90	287
5062	31001	95	85	280	112	109	359	122	59	196	122	92	219	112	86	263
5063	31002	96	80	307	105	103	382		.		111	118	253	104	100	314
5064	Local Check (LC)	95	82	233	112	100	399		.		115	78	261	107	87	297
Exp. Mean		**101**	**89**	**284**	**114**	**108**	**376**	**123**	**74**	**187**	**112**	**90**	**243**	**111**	**92**	**285**

Table No. 3.11 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT – MS, Kharif 2022

ENTRY NO	IET NO	ZONE IV - North EASTERN						ZONE-V – CENTRAL					
		Tripura (1)			Zone V (1)			Chhattisgarh (1)			Maharashtra 1		
		Lembucherra			Mean			Raipur			Sakoli		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5001	30945	79	105	325	79	105	325	138	112	186	132	97	247
5002	30946	74	95	338	74	95	338	102	119	183	101	100	176
5003	30947	82	102	363	82	102	363	89	116	171	87	82	173
5004	30948	85	93	275	85	93	275	122	99	124	90	73	238
5005	30949	70	98	358	70	98	358	98	103	172	101	96	280
5006	30950	69	98	367	69	98	367	104	114	173	104	102	274
5007	30951	67	104	321	67	104	321	125	115	182	118	102	292
5008	30952	65	86	392	65	86	392	107	107	144	106	84	219
5009	30953	74	104	292	74	104	292	94	121	168	91	111	293
5010	29816	67	91	267	67	91	267	101	112	94	100	96	246
5011	30954	77	95	275	77	95	275	139	111	121	136	84	117
5012	30955	55	102	363	55	102	363	105	132	129	105	115	257
5013	30956	77	122	325	77	122	325	105	129	135	101	112	234
5014	30957	68	99	329	68	99	329	101	108	120	107	97	279
5015	Telangana Sona--(NC-Early Check)	74	103	308	74	103	308				101	103	225
5016	30958	84	92	329	84	92	329	102	109	134	101	85	202
5017	30959	69	107	250	69	107	250	89	112	135	88	96	244
5018	30960	73	97	300	73	97	300	101	108	139	106	96	293
5019	30961	60	101	263	60	101	263	108	128	183	102	98	253
5020	30962	54	107	313	54	107	313	99	120	140	101	96	259
5021	30963	69	109	346	69	109	346	105	124	152	107	107	214
5022	30964	67	91	342	67	91	342	98	106	111	99	97	182
5023	30965	62	96	446	62	96	446	126	141	184	134	103	114
5024	30966	80	125	329	80	125	329	104	129	166	102	115	212
5025	30967	78	96	313	78	96	313	108	112	135	108	96	308
5026	WGL-14 (NC-Medium Duration Check)	73	101	388	73	101	388	107	121	177	105	115	230
5027	30968	70	118	304	70	118	304	100	126	76	101	114	176
5028	30969	76	102	375	76	102	375	100	129	164	99	103	172
5029	30970	73	104	392	73	104	392	109	132	163	109	107	311
5030	30971	62	105	321	62	105	321	106	121	128	106	107	288
5031	30972	71	102	313	71	102	313	87	112	153	92	96	295
5032	30973	73	109	296	73	109	296	113	126	127	114	107	299
5033	30974	66	90	367	66	90	367	95	95	97	97	86	247
5034	30975	83	100	358	83	100	358	113	120	181	115	97	288
5035	30976							95	128	182	97	109	267
5036	30977	71	103	296	71	103	296	124	116	120	121	84	279
5037	30978	82	79	358	82	79	358	101	112	175	109	86	287
5038	30979	83	95	204	83	95	204	91	114	119	92	103	287
5039	30980	79	84	292	79	84	292	92	101	116	88	74	283
5040	BPT 5204 (NC-Late Duration Check)	71	88	283	71	88	283	111	96	173	110	74	262
5041	30981	72	95	308	72	95	308	100	109	162	101	98	289
5042	30982	82	105	250	82	105	250	91	116	150	94	106	267
5043	30983	74	97	267	74	97	267	108	107	157	108	88	223
5044	30984	56	106	271	56	106	271	104	124	139	107	103	269
5045	30985	73	92	263	73	92	263	115	108	147	111	93	299
5046	30986	80	87	363	80	87	363	109	107	152	99	93	264
5047	30987	95	126	296	95	126	296				102	99	293
5048	30988	82	88	292	82	88	292	98	106	164	100	84	281
5049	Zonal Check (ZC)	78	127	275	78	127	275	106	101	143	106	84	262
5050	30989	84	111	279	84	111	279	99	131	125	99	108	268
5051	30990	80	106	371	80	106	371	121	114	195	117	84	228
5052	30991	81	105	317	81	105	317	107	130	176	110	95	255
5053	30992	67	109	446	67	109	446	102	128	165	107	93	248
5054	30993	63	97	275	63	97	275	96	109	155	97	95	286
5055	30994	77	122	392	77	122	392	110	131	186	110	116	248
5056	30995	75	106	325	75	106	325	103	149	112	99	118	236
5057	30996	64	100	308	64	100	308	125	120	192	126	91	297
5058	30997	68	90	300	68	90	300	93	101	187	96	100	229
5059	30998	74	108	308	74	108	308	102	130	160	102	103	301
5060	30999	78	91	325	78	91	325	95	110	137	98	96	246
5061	31000	76	90	233	76	90	233	103	112	141	110	84	258
5062	31001	66	97	354	66	97	354	98	116	175	102	97	267
5063	31002	79	82	283	79	82	283	105	99	151	107	93	293
5064	Local Check (LC)	78	88	225	78	88	225	97	106	170	109	106	294
Exp. Mean		**73**	**100**	**317**	**73**	**100**	**317**	**104**	**116**	**151**	**104**	**97**	**253**

Table No. 3.11 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT – MS, Kharif 2022

ENTRY NO	IET NO	ZONE-V – CENTRAL									ZONE VI – WESTERN					
		Maharashtra 1			Maharashtra 1 (2)			Zone V (3)			Maharashtra 2					
		Sindewahi			Mean			Mean			Karjat			Shirgaon		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5001	30945	125	117	314	128	107	281	131	108	249	125	134	186	122	133	125
5002	30946	108	97	250	104	98	213	103	105	203	98	120	193	101	117	125
5003	30947	98	125	236	92	104	205	91	108	193	93	109	232	91	102	117
5004	30948	93	85	233	91	79	235	101	86	198	92	97	166	96	92	114
5005	30949	107	119	310	104	107	295	102	106	254	98	108	216	103	105	149
5006	30950	110	100	273	107	101	273	106	106	240	99	120	197	108	120	147
5007	30951	95	117	226	106	109	259	112	111	233	113	147	203	116	115	109
5008	30952	112	96	223	109	90	221	108	95	195	100	117	190	108	105	153
5009	30953	96	108	317	93	110	305	93	113	259	96	118	205		.	
5010	29816	105	105	286	102	100	266	102	104	209	100	117	218	100	114	126
5011	30954	131	88	265	134	86	191	135	94	168	124	124	202	121	122	126
5012	30955	110	125	328	107	120	292	106	124	238	99	150	205	107	116	129
5013	30956	107	129	258	104	120	246	104	123	209	98	132	171	108	126	130
5014	30957	107	104	294	107	101	286	105	103	231	99	114	220	109	109	135
5015	Telangana Sona--(NC-Early Check)	110	132	241	105	117	233	105	117	233	99	133	204	108	126	168
5016	30958	106	98	265	103	91	233	103	97	200	100	109	203	108	107	119
5017	30959	92	117	359	90	106	301	89	108	246	90	111	197	92	125	117
5018	30960	108	117	354	107	107	323	105	107	262	100	119	220	108	110	143
5019	30961	111	124	262	106	111	257	107	117	232	98	123	235	107	119	139
5020	30962	107	107	330	104	101	294	102	108	243	98	126	211	101	114	129
5021	30963	109	117	289	108	112	251	107	116	218	100	119	199	108	117	113
5022	30964	105	112	283	102	104	232	100	105	192	96	103	188	101	110	118
5023	30965	131	137	281	132	120	197	130	127	193	89	144	195	124	141	161
5024	30966	105	115	240	103	115	226	103	119	206	99	138	210	108	119	129
5025	30967	112	105	303	110	100	305	109	104	249	99	118	207	108	110	120
5026	WGL-14 (NC-Medium Duration Check)	107	125	300	106	120	265	106	120	235	100	120	218	109	131	106
5027	30968	106	137	296	103	125	236	102	126	183	97	119	241	100	121	148
5028	30969	104	129	335	101	116	253	101	120	223	97	120	169	99	129	128
5029	30970	118	123	246	114	115	278	112	121	240	107	158	220	108	128	136
5030	30971	105	113	371	106	110	329	106	114	262	98	125	230	109	122	153
5031	30972	90	105	275	91	100	285	89	104	241	91	105	192	94	120	144
5032	30973	118	121	240	116	114	270	115	118	222	101	140	183	100	118	127
5033	30974	95	99	342	96	93	294	95	93	229	94	101	190	91	107	129
5034	30975	117	115	263	116	106	275	115	111	244	97	119	220	117	124	200
5035	30976	94	129	271	95	119	269	95	122	240	78	124	194	94	134	108
5036	30977	123	107	233	122	95	256	122	102	211	118	159	227	117	123	108
5037	30978	108	105	245	108	95	266	106	101	235	99	108	211	109	116	147
5038	30979	95	108	327	93	106	307	92	109	244	93	116	228	96	137	129
5039	30980	92	84	298	90	79	290	90	86	232	92	92	192	92	92	145
5040	BPT 5204 (NC-Late Duration Check)	114	82	260	112	78	261	111	84	231	99	106	210	110	105	126
5041	30981	104	110	311	103	104	300	102	106	254	97	117	210	100	106	126
5042	30982	93	121	309	93	113	288	92	114	242	91	116	167	91	116	155
5043	30983	113	98	296	110	93	260	109	98	225	99	116	185	111	112	124
5044	30984	108	127	351	107	115	310	106	118	253	100	128	194	112	123	160
5045	30985	119	90	241	115	92	270	115	97	229	99	129	205	109	107	114
5046	30986	101	114	275	100	103	269	103	104	230	97	104	208	96	105	153
5047	30987	106	106	291	104	103	292	104	103	292	98	114	221	102	109	141
5048	30988	103	103	333	101	94	307	100	98	259	96	100	220	96	97	116
5049	Zonal Check (ZC)	112	97	342	109	90	302	108	94	249	109	115	176	112	108	155
5050	30989	101	129	247	100	118	257	99	123	213	96	138	206	99	117	107
5051	30990	118	115	282	117	99	255	119	104	235	99	138	210	113	138	141
5052	30991	112	123	243	111	109	249	109	116	225	99	128	210	109	118	109
5053	30992	110	124	241	108	109	245	106	115	218	99	138	180	108	119	134
5054	30993	96	103	216	96	99	251	96	102	219	94	96	174	99	110	131
5055	30994	114	111	358	112	113	303	111	119	264	106	151	196	113	133	138
5056	30995	97	151	305	98	135	270	99	139	217	92	139	204	98	128	108
5057	30996	124	120	294	125	105	295	125	110	261	113	150	241	120	119	134
5058	30997	93	98	378	94	99	303	94	99	264	91	106	235	98	115	117
5059	30998	104	130	285	103	117	293	102	121	249	98	133	207	102	129	120
5060	30999	102	102	241	100	99	243	98	103	208	96	112	220	101	110	125
5061	31000	112	96	300	111	90	279	108	97	233	100	116	208	108	97	120
5062	31001	105	125	291	103	111	279	101	112	244	97	119	200	99	116	136
5063	31002	106	99	293	106	96	293	106	97	246	99	106	219	104	101	142
5064	Local Check (LC)	98	124	339	103	115	317	101	112	268	98	119	202	111	109	141
Exp. Mean		**107**	**112**	**287**	**105**	**105**	**270**	**105**	**109**	**231**	**99**	**121**	**205**	**105**	**116**	**132**

Table No. 3.11 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT – MS, Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN														
		Maharashtra 2			Maharashtra 2 (3)			Maharashtra (5)			Gujarat					
		Vadagaon			Mean			Mean			Navasari			Nawagam		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5001	30945	116	85	207	121	117	173	124	113	216	151	134	250	102	103	253
5002	30946	103	90	309	101	109	209	102	105	211	94	120	223	103	105	263
5003	30947	94	81	223	92	97	191	92	100	196	83	103	250	102	94	225
5004	30948	94	70	238	94	86	172	93	83	197	93	85	223	107	88	257
5005	30949	102	79	255	101	97	207	102	101	242	102	111	188	109	88	267
5006	30950	107	88	267	105	109	204	105	106	232	105	131	254	116	98	263
5007	30951	119	91	210	116	117	174	112	114	208	118	137	220	131	109	260
5008	30952	108	78	133	105	100	159	107	96	184	109	126	159	124	88	264
5009	30953	99	92	288	97	105	246	95	107	275				108	104	266
5010	29816	103	81	305	101	104	217	101	102	236	95	126	293	107	102	206
5011	30954	121	81	209	122	109	179	127	100	184	139	155	258	109	101	255
5012	30955	105	96	228	103	121	187	105	121	229	115	144	207	109	107	264
5013	30956	104	97	272	103	118	191	103	119	213	101	166	307	112	108	269
5014	30957	107	72	309	105	98	221	106	99	247	99	123	269	119	103	267
5015	Telangana Sona--(NC-Early Check)	106	94	259	104	118	210	105	117	219	111	146	304	110	110	258
5016	30958	106	79	279	105	98	200	104	95	213	103	119	204	116	92	265
5017	30959	92	76	267	91	104	194	91	105	237	88	121	264	97	101	260
5018	30960	106	81	231	105	103	198	105	105	248	101	128	271	119	93	258
5019	30961	110	96	313	105	112	229	105	112	240	108	135	281	122	104	261
5020	30962	109	88	235	102	109	192	103	106	233	93	126	323	111	96	263
5021	30963	108	91	261	105	109	191	106	110	215	101	131	368	121	109	265
5022	30964	109	88	197	102	100	167	102	102	193	97	131	293	117	96	192
5023	30965	116	103	218	109	130	192	119	126	194	118	176	228	109	144	253
5024	30966	111	87	238	106	115	192	105	115	205	103	155	209	116	107	260
5025	30967	112	79	259	106	102	195	108	101	239	103	124	277	124	96	259
5026	WGL-14 (NC-Medium Duration Check)	110	92	231	106	114	185	106	116	217	98	157	270	116	104	266
5027	30968	107	93	237	101	111	209	102	117	220	96	136	250	117	105	260
5028	30969	103	86	240	99	111	179	100	113	209	97	145	251	116	108	263
5029	30970	118	89	200	111	125	186	112	121	223	110	125	180	128	103	216
5030	30971	109	87	229	105	111	204	105	111	254	105	130	280	119	104	267
5031	30972	100	80	235	95	102	190	93	101	228	89	119	224	106	98	263
5032	30973	119	84	220	106	114	176	110	114	214	114	150	193	124	102	263
5033	30974	106	79	225	97	96	181	96	94	226	86	116	349	102	86	261
5034	30975	119	83	223	111	109	214	113	108	239	119	125	230	124	101	270
5035	30976	106	99	269	93	119	190	94	119	222	95	153	238	111	116	264
5036	30977	123	78	251	119	120	195	120	110	219	128	138	238	129	104	259
5037	30978	108	88	291	105	104	216	106	100	236	98	132	298	116	88	261
5038	30979	97	90	258	95	114	205	94	111	246	88	124	310	110	104	265
5039	30980	100	71	233	94	85	190	92	83	230	77	113	208	104	86	265
5040	BPT 5204 (NC-Late Duration Check)	113	72	264	107	94	200	109	87	224	104	107	267	126	86	259
5041	30981	105	80	260	101	101	199	101	102	239	95	140	230	108	94	261
5042	30982	102	96	278	95	109	200	94	111	235	87	139	235	100	113	256
5043	30983	106	74	233	105	101	181	107	98	212	105	123	269	124	84	264
5044	30984	110	81	256	107	111	203	107	112	246	102	126	189	119	101	261
5045	30985	116	77	242	108	104	187	110	99	220	89	116	246	124	98	263
5046	30986	103	80	224	98	96	195	99	99	225	95	126	281	112	93	263
5047	30987	108	87	246	103	103	203	103	103	238	100	117	206	107	97	267
5048	30988	104	80	237	98	92	191	99	93	237	88	116	277	110	86	259
5049	Zonal Check (ZC)	112	77	243	111	100	191	110	96	236	107	119	284	111	89	220
5050	30989	107	101	283	101	118	198	100	118	222	95	138	268	113	111	265
5051	30990	116	93	224	109	123	192	112	113	217	115	140	300	126	105	267
5052	30991	111	102	256	106	116	192	108	113	214	104	148	302	124	106	260
5053	30992	112	96	252	106	118	188	107	114	211	101	128	320	117	98	265
5054	30993	103	85	190	98	97	165	98	98	199	91	122	237	114	96	254
5055	30994	121	102	219	113	129	184	113	122	232	102	155	220	129	108	254
5056	30995	106	94	208	98	120	173	98	126	212	91	147	357	113	104	268
5057	30996	120	84	228	118	118	201	120	113	239	128	139	270	129	97	259
5058	30997	101	92	241	96	104	198	95	102	240	86	124	288	108	96	254
5059	30998	102	97	274	100	120	200	101	118	237	95	164	251	119	112	264
5060	30999	102	80	242	100	100	196	100	100	215	90	123	188	111	94	251
5061	31000	109	82	290	105	98	206	107	95	235	103	132	201	127	89	263
5062	31001	101	83	250	99	106	195	101	108	229	95	114	252	109	95	263
5063	31002	102	77	268	101	94	210	103	95	243	100	112	321	114	88	262
5064	Local Check (LC)	101	80	240	103	103	194	103	108	243	98	113	325	106	99	266
Exp. Mean		**107**	**86**	**245**	**104**	**108**	**195**	**104**	**107**	**225**	**101**	**131**	**257**	**114**	**100**	**258**

Table No. 3.11 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT – MS, Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN									ZONE VII – SOUTHERN					
		Gujarat			Gujarat (3)			Zone VI (6)			Andhra Pradesh					
		Vyara			Mean			Mean			Maruteru			Bapatla		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5001	30945		.		127	118	251	123	118	204	129	135	347	117	125	276
5002	30946	98	134	189	98	119	225	99	114	217	96	127	347	98	128	207
5003	30947	84	127	276	89	108	250	91	102	220	86	102	264	95	100	218
5004	30948	92	109	303	97	94	261	96	90	217	89	92	264	102	76	193
5005	30949	95	116	249	102	105	235	101	101	221	96	117	297	94	112	235
5006	30950	103	117	271	108	115	263	106	112	233	102	123	264	106	132	261
5007	30951	124	116	267	124	120	249	120	119	211	118	114	281	118	138	297
5008	30952	106	119	236	113	111	219	109	105	189	109	110	314	102	121	244
5009	30953	92	120	233	100	112	249	98	108	248	92	127	281	96	105	240
5010	29816	95	123	246	99	117	248	100	110	232	96	116	297	97	116	218
5011	30954				124	128	256	123	117	210	128	135	396	119	114	238
5012	30955	111	128	282	111	126	251	107	124	219	108	144	297	100	122	248
5013	30956	100	130	240	104	135	272	104	127	232	101	136	297	105	145	256
5014	30957	99	123	258	105	116	264	105	107	243	97	122	264	103	135	258
5015	Telangana Sona--(NC-Early Check)	112	132	293	111	129	285	108	123	247	106	143	281	95	99	152
5016	30958	98	111	255	106	107	241	105	103	221	101	115	281	103	126	266
5017	30959	84	125	239	89	115	254	90	110	224	94	100	281	102	129	270
5018	30960	98	116	213	106	113	247	105	108	222	97	129	330	101	94	237
5019	30961	101	131	239	110	123	260	107	118	244	102	138	314	105	137	267
5020	30962	96	128	284	100	117	290	101	113	241	97	117	314	93	124	257
5021	30963	101	126	254	107	122	296	106	115	243	104	130	413	106	137	253
5022	30964	94	117	227	103	115	237	102	107	202	96	118	281	98	134	239
5023	30965				114	160	241	111	142	211	110	113	347	119	144	247
5024	30966	104	129	264	107	130	244	107	123	218	102	137	363	101	129	242
5025	30967	102	117	254	109	112	263	108	107	229	106	113	330	108	121	258
5026	WGL-14 (NC-Medium Duration Check)	102	132	243	105	131	260	106	122	222	106	129	347	105	137	260
5027	30968	85	127	225	99	123	245	100	117	227	95	126	330	101	134	238
5028	30969	96	131	186	103	128	233	101	120	206	96	142	330	99	121	226
5029	30970	105	136	275	114	121	223	113	123	204	106	138	264	107	156	289
5030	30971	101	132	248	108	122	265	107	117	234	104	134	330	105	122	255
5031	30972	84	130	219	93	115	235	94	108	213	88	114	297	100	94	223
5032	30973	107	125	239	115	125	232	111	120	204	108	130	297	106	131	307
5033	30974	86	108	264	91	103	291	94	100	236	94	108	297	94	93	245
5034	30975	119	119	203	121	115	234	116	112	224	113	142	347	102	143	244
5035	30976	87	140	201	97	136	234	95	128	212	93	126	314	99	149	239
5036	30977	118	126	261	125	122	253	122	121	224	118	146	347	119	145	290
5037	30978	99	124	212	104	115	257	105	109	237	101	122	314	105	108	239
5038	30979	87	130	207	95	119	261	95	117	233	96	99	264	94	127	211
5039	30980	83	121	201	88	107	225	91	96	207	94	95	264	94	89	213
5040	BPT 5204 (NC-Late Duration Check)	106	106	326	112	100	284	109	97	242	108	109	314	108	122	289
5041	30981	95	118	230	99	117	240	100	109	219	96	109	281	94	88	145
5042	30982	84	126	240	90	126	244	92	118	222	92	114	314	102	95	165
5043	30983	103	108	279	110	105	271	108	103	226	106	116	314	106	125	255
5044	30984	101	124	248	107	117	232	107	114	218	104	124	314	105	128	232
5045	30985	105	120	242	106	111	250	107	108	218	106	116	330	105	128	237
5046	30986	90	118	206	99	112	250	99	104	222	93	112	314	97	100	133
5047	30987	100	121	290	102	112	254	102	107	228	100	120	297	98	124	230
5048	30988	90	111	261	96	105	265	97	98	228	95	108	330	95	99	211
5049	Zonal Check (ZC)	109	107	227	109	105	243	110	102	217	102	128	281	105	122	272
5050	30989	93	127	216	100	125	250	100	122	224	96	128	264	102	112	237
5051	30990	122	123	278	121	122	281	115	123	237	116	144	314	113	135	277
5052	30991	104	130	252	110	128	271	108	122	231	106	119	281	109	153	260
5053	30992	102	124	272	106	117	285	106	117	237	102	130	281	101	133	238
5054	30993	92	118	200	99	112	230	99	105	197	96	112	264	97	136	238
5055	30994	106	113	243	112	125	239	113	127	212	107	117	314	106	144	247
5056	30995	89	138	236	97	129	287	98	125	230	99	148	264	99	140	267
5057	30996	119	123	246	125	120	258	122	119	230	118	147	347	122	134	296
5058	30997	87	120	228	94	113	257	95	109	227	91	103	248	100	89	214
5059	30998	92	130	251	102	135	255	101	127	228	97	135	330	104	135	246
5060	30999	93	121	225	98	113	221	99	107	208	96	113	281	93	104	146
5061	31000	100	118	248	110	113	237	108	105	222	106	117	347	109	123	228
5062	31001	93	119	258	99	109	258	99	108	227	96	122	297	97	99	177
5063	31002	95	107	344	103	102	309	102	98	259	103	109	330	105	117	285
5064	Local Check (LC)	99	117	252	101	110	281	102	106	238	110	112	314	112	101	253
Exp. Mean		**98**	**122**	**247**	**105**	**118**	**254**	**104**	**113**	**224**	**102**	**122**	**307**	**103**	**122**	**239**

Table No.3.11 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT – MS, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN														
		Andhra Pradesh (2)			Telangana						Telangana (2)			Tamil Nadu		
		Mean			Rajendranagar			Warangal			Mean			Adhuturai		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5001	30945	123	130	311	112	106	357	113	123	366	113	114	361	93	92	235
5002	30946	97	128	277	102	109	420	104	122	366	103	116	393	100	83	250
5003	30947	90	101	241	84	100	363	91	110	368	88	105	366	101	85	228
5004	30948	95	84	228	89	83	450	97	95	370	93	89	410	100	105	308
5005	30949	95	114	266	100	102	340	104	117	370	102	109	355	100	75	258
5006	30950	104	128	262	104	103	330	108	118	376	106	111	353	100	90	240
5007	30951	118	126	289	119	112	313	125	126	355	122	119	334	98	85	238
5008	30952	106	115	279	103	96	350	108	107	360	105	102	355	100	75	355
5009	30953	94	116	260				96	123	353	96	123	353	96	75	250
5010	29816	97	116	258	101	102	417	105	104	360	103	103	388	92	70	215
5011	30954	124	125	317	123	111	407	111	119	363	117	115	385	100	95	228
5012	30955	104	133	273	103	116	377	108	133	363	105	124	370	100	75	221
5013	30956	103	140	276	100	110	377	107	144	365	103	127	371	102	88	217
5014	30957	100	129	261	103	103	380	106	127	373	104	115	376	100	75	230
5015	Telangana Sona--(NC-Early Check)	101	121	216	104	112	403	108	136	380	106	124	391	102	84	215
5016	30958	102	121	273	104	94	323	107	119	361	106	106	342	100	80	208
5017	30959	98	115	275	88	100	333	98	112	355	93	106	344	96	85	210
5018	30960	99	111	283	108	101	353	105	110	356	106	105	355	100	80	233
5019	30961	104	138	290	106	104	353	109	126	384	107	115	369	100	85	233
5020	30962	95	120	285	97	104	343	105	118	373	101	111	358	96	125	238
5021	30963	105	133	333	104	104	383	109	112	386	107	108	385	101	85	248
5022	30964	97	126	260	101	103	357	106	115	342	103	109	349	101	83	230
5023	30965	115	128	297	108	142	380	117	147	381	113	145	381	100	93	255
5024	30966	102	133	302	104	106	313	108	127	383	106	116	348	100	70	262
5025	30967	107	117	294	104	106	387	111	118	365	108	112	376	99	75	265
5026	WGL-14 (NC-Medium Duration Check)	105	133	303	101	109	373	109	126	361	105	118	367	101	80	228
5027	30968	98	130	284	99	105	387	104	127	363	102	116	375	95	75	211
5028	30969	98	131	278	95	104	363	109	103	375	102	103	369	101	85	228
5029	30970	106	147	276	112	117	333	119	124	361	116	121	347	100	79	258
5030	30971	104	128	293	103	105	460	107	142	399	105	124	430	95	85	268
5031	30972	94	104	260	88	105	330	94	118	371	91	111	351	99	95	225
5032	30973	107	131	302	107	123	400	117	138	373	112	130	386	99	85	310
5033	30974	94	100	271	89	101	383	93	99	348	91	100	366	95	70	210
5034	30975	108	143	295	93	114	413	108	120	386	100	117	400	96	80	243
5035	30976	96	137	276	107	110	347	106	137	368	106	123	357	94	74	211
5036	30977	119	145	318	118	109	383	126	133	370	122	121	376	93	86	320
5037	30978	103	115	276	101	104	320	103	111	366	102	108	343	98	79	250
5038	30979	95	113	238				94	119	381	94	119	381	100	85	260
5039	30980	94	92	238	81	90	383	92	103	365	87	96	374	92	85	220
5040	BPT 5204 (NC-Late Duration Check)	108	116	301	107	95	367	116	109	358	112	102	362	100	90	270
5041	30981	95	99	213	97	103	373	101	107	373	99	105	373	99	70	243
5042	30982	97	105	239	87	105	390	93	123	368	90	114	379	97	80	285
5043	30983	106	120	284	116	103	387	109	101	370	112	102	378	100	75	248
5044	30984	104	126	273	104	105	400	109	118	399	106	112	400	94	92	255
5045	30985	106	122	284	108	103	420	122	104	380	115	103	400	95	95	245
5046	30986	95	106	223	92	100	380	104	108	381	98	104	381	92	70	210
5047	30987	99	122	264	100	104	470	105	120	381	102	112	426	101	83	215
5048	30988	95	103	271	93	92	400	92	109	358	93	100	379	96	90	313
5049	Zonal Check (ZC)	103	125	276	98	101	363	105	113	350	101	107	357	101	80	288
5050	30989	99	120	250	97	111	397	104	133	361	101	122	379	99	73	265
5051	30990	114	139	295	112	109	383	116	134	370	114	122	376	99	90	305
5052	30991	107	136	270	104	110	453	111	126	363	108	118	408	103	70	308
5053	30992	101	131	259	104	111	433	106	128	363	105	120	398	103	75	268
5054	30993	96	124	251	93	104	400	97	119	378	95	111	389	100	80	238
5055	30994	106	130	280	107	120	457	117	138	381	112	129	419	101	84	270
5056	30995	99	144	266	97	113	383	102	138	375	99	125	379	100	80	308
5057	30996	120	140	321	120	107	363	107	123	386	114	115	375	101	90	278
5058	30997	95	96	231	81	96	373	92	108	360	86	102	367	102	89	228
5059	30998	101	135	288	97	118	403	105	137	360	101	127	382	99	85	240
5060	30999	94	108	213	95	98	423	98	105	368	97	101	396	96	93	230
5061	31000	107	120	287	104	101	470	109	103	356	107	102	413	100	92	273
5062	31001	96	110	237	102	102	287	100	114	371	101	108	329	100	92	213
5063	31002	104	113	308	104	93	433	103	108	355	104	100	394	100	85	308
5064	Local Check (LC)	111	106	283	104	103	383	103	119	381	104	111	382	100	82	288
Exp. Mean		**102**	**122**	**273**	**101**	**105**	**382**	**106**	**120**	**369**	**103**	**113**	**375**	**99**	**83**	**251**

Table No. 3.11 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT – MS, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN															Overall Mean(22)		
		Tamil Nadu						Tamil Nadu (3)			Karnataka (1)			Zone VII (8)					
		Coimbatore			Tirur			Mean			Gangavathi			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5001	30945	120	128	378	122	99	331	111	107	315	127	103	331	116	114	328	118	112	281
5002	30946	100	103	330	89	103	350	96	96	310	109	103	351	99	110	327	100	108	273
5003	30947	89	110	304	96	93	251	95	96	261	94	100	337	92	100	291	94	100	256
5004	30948	95	85	312	87	72	273	94	87	298	99	83	343	95	86	314	97	88	263
5005	30949	96	105	337	86	92	392	94	91	329	105	79	369	97	100	324	99	100	282
5006	30950	102	104	301	91	108	409	97	101	317	106	85	385	102	108	321	104	107	282
5007	30951	118	123	290	104	116	328	106	108	285	119	93	305	115	113	301	113	112	264
5008	30952	109	86	268	95	94	325	101	85	316	110	81	384	104	96	325	105	96	263
5009	30953				81	90	260	88	83	255				92	104	277	96	105	260
5010	29816	97	102	364	81	93	337	90	88	306	103	82	385	96	98	324	99	102	272
5011	30954	124	133	334	127	125	314	117	118	292	128	88	417	120	115	337	121	107	271
5012	30955	91	109	297	88	100	308	93	95	275	99	90	330	99	111	305	103	113	267
5013	30956	104	115	317	91	102	312	99	102	282	109	97	393	102	117	316	104	117	267
5014	30957	113	103	297	90	104	372	101	94	300	114	86	409	103	107	323	104	104	277
5015	Telangana Sona--(NC-Early Check)	93	107	328	85	88	297	93	93	280	98	88	396	99	107	306	103	108	274
5016	30958	103	92	293	88	98	310	97	90	270	109	78	330	102	100	296	104	99	258
5017	30959	92	92	277	85	84	264	91	87	250	94	93	364	93	100	294	92	103	263
5018	30960	103	106	301	89	83	232	97	90	255	106	88	340	101	99	298	103	101	273
5019	30961	104	105	378	88	109	328	97	100	313	108	90	395	103	112	331	104	113	283
5020	30962	102	103	334	92	101	311	96	110	294	105	97	341	98	111	314	101	106	276
5021	30963	106	109	297	97	116	341	101	103	295	111	90	325	105	110	331	103	110	284
5022	30964	98	103	243	88	90	283	95	92	252	105	83	385	99	104	295	100	103	255
5023	30965	119	163	332	117	127	327	112	128	305	128	114	373	115	130	330	112	128	280
5024	30966	103	107	293	92	116	352	98	97	302	110	93	347	102	110	319	104	115	269
5025	30967	106	101	292	97	73	309	100	83	289	113	86	393	105	99	325	108	100	280
5026	WGL-14 (NC-Medium Duration Check)	107	116	326	111	111	286	106	102	280	111	89	340	106	112	315	105	114	274
5027	30968	101	114	310	85	96	297	94	95	273	105	90	360	98	108	312	101	111	266
5028	30969	96	108	378	83	96	321	93	96	309	100	99	293	97	107	314	98	112	271
5029	30970	112	125	321	108	106	300	106	103	293	112	114	414	109	120	317	110	117	276
5030	30971	101	118	306	101	105	378	99	103	317	105	100	355	102	114	344	103	113	294
5031	30972	92	105	288	85	95	307	92	99	273	94	94	341	92	102	298	94	102	267
5032	30973	106	103	344	87	113	335	97	100	330	112	113	403	105	117	346	107	115	279
5033	30974	92	88	321	83	76	299	90	78	277	100	85	315	92	90	302	94	93	272
5034	30975	104	110	286	105	114	358	101	101	296	110	89	310	104	114	323	108	109	281
5035	30976	92	127	301	90	99	238	92	100	250	102	104	369	98	116	298	100	115	261
5036	30977	119	122	271	119	101	280	110	103	290	127	96	352	117	117	326	117	114	277
5037	30978	109	95	319	103	94	371	103	89	313	107	89	396	103	100	322	104	101	285
5038	30979	101	107	341	83	101	314	94	98	305	99	100	314	95	105	298	96	107	267
5039	30980	88	83	304	90	95	369	90	88	298	93	90	451	90	91	321	93	91	268
5040	BPT 5204 (NC-Late Duration Check)	107	93	363	106	83	273	104	89	302	118	74	402	109	97	329	108	93	288
5041	30981	97	92	301	85	97	358	93	86	301	102	83	389	96	94	308	99	98	270
5042	30982	92	100	282	81	90	265	90	90	277	100	104	332	93	101	300	95	104	268
5043	30983	104	93	356	93	94	309	99	87	304	108	74	351	105	97	324	107	97	272
5044	30984	102	113	321	101	107	378	99	104	318	109	89	371	103	110	334	104	110	275
5045	30985	104	98	301	102	92	391	100	95	312	116	89	321	107	103	328	109	101	269
5046	30986	97	87	295	81	95	350	90	84	285	99	99	363	94	96	303	98	97	270
5047	30987	98	100	350	86	102	343	95	95	303	106	95	456	99	106	343	102	105	298
5048	30988	95	93	312	82	92	270	91	92	298	103	82	366	94	96	320	99	94	274
5049	Zonal Check (ZC)	101	110	319	97	101	235	100	97	281	109	92	378	102	106	311	105	102	271
5050	30989	99	108	282	88	110	358	95	97	302	101	106	352	98	110	314	100	112	268
5051	30990	112	127	354	111	102	287	107	106	315	118	97	340	112	117	329	114	113	288
5052	30991	108	117	321	96	101	369	102	96	333	116	100	347	106	112	338	109	111	283
5053	30992	102	115	301	90	103	350	98	98	306	109	104	320	102	112	319	104	110	282
5054	30993	94	96	306	86	98	376	93	91	306	103	97	336	95	105	317	97	100	264
5055	30994	105	132	322	104	107	277	103	108	290	116	111	380	108	119	331	109	119	285
5056	30995	98	102	290	90	113	357	96	98	318	109	103	369	99	117	327	101	118	277
5057	30996	118	130	299	121	120	353	113	114	310	125	80	296	116	116	327	117	111	283
5058	30997	90	94	315	83	83	265	92	89	269	101	86	342	92	93	293	96	96	269
5059	30998	101	110	293	95	110	363	98	102	299	105	105	352	100	117	323	102	116	274
5060	30999	97	87	378	86	92	298	93	91	302	102	92	346	95	98	309	98	98	264
5061	31000	105	99	286	98	104	379	101	98	312	111	84	397	105	103	342	106	100	279
5062	31001	96	102	309	82	102	329	93	99	284	110	94	385	98	103	296	100	102	267
5063	31002	106	95	308	87	90	403	98	90	340	111	75	418	102	96	355	102	97	303
5064	Local Check (LC)	103	117	345	104	94	346	102	97	326	110	90	332	106	102	330	103	102	285
Exp. Mean		**102**	**107**	**315**	**94**	**99**	**323**	**98**	**96**	**296**	**108**	**92**	**361**	**102**	**106**	**318**	**103**	**106**	**274**

Table No.3.11 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT-MS, (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED														
		Odisha						Bihar			West Bengal			Assam		
		@ICAR-NRRI (Cuttack)			@Jeypore			@Pusa			@Chinsurah			@Titabar		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5001	30945	145	142	327	117	90	391	87	105	215	102	113	274	147	127	233
5002	30946	118	117	300	104	82	224	98	109	202	68	108	266	117	112	252
5003	30947	110	108	287	98	75	244	86	108	215	58	103	234	106	106	190
5004	30948	112	112	297	108	74	331	88	96	211	58	85	211	113	95	174
5005	30949	118	118	332	99	78	348	97	107	207	68	95	321	119	99	226
5006	30950	123	123	312	108	69	318	102	89	186	71	106	334	120	107	240
5007	30951	119	111	317	115	73	240	88	105	215	85	113	234	121	120	250
5008	30952	127	126	325	109	94	237	96	93	190	70	95	328	124	96	231
5009	30953	113	114	310	102	75	344	91	99	139	61	93	243	121	109	253
5010	29816	116	117	332	100	85	468	97	104	198	62	95	233	115	98	306
5011	30954	135	124	310	110	78	398	96	94	200	99	99	256	149	102	230
5012	30955	114	114	333	97	81	418	106	115	186	68	106	226	117	114	268
5013	30956	123	124	323	111	79	324	99	110	181	69	108	356	125	118	223
5014	30957	114	113	332	103	69	272	99	104	223	68	105	260	116	108	278
5015	Telangana Sona--(NC-Early Check)	113	113	287	101	69	414	106	109	236	69	99	258	115	112	325
5016	30958	123	123	297	112	99	298	102	89	227	69	92	374	121	107	200
5017	30959	117	118	292	103	79	249	84	111	159	61	100	234	107	108	301
5018	30960	126	127	309	101	90	227	100	95	194	68	99	226	119	99	221
5019	30961	126	124	315	104	79	541	103	104	213	73	110	258	125	114	210
5020	30962	116	116	300	106	96	281	99	103	181	66	108	241	121	108	218
5021	30963	126	126	284	111	70	400	106	99	221	73	113	370	121	111	221
5022	30964	126	126	290	105	82	374	94	103	185	71	111	228	117	104	175
5023	30965	135	135	318	102	99	278	96	94	200	89	127	238	136	151	210
5024	30966	124	124	318	102	77	358	102	111	239	71	107	263	120	116	261
5025	30967	131	129	305	114	101	308	109	89	196	75	108	226	120	107	260
5026	WGL-14 (NC-Medium Duration Check)	125	125	305	111	87	290	106	100	216	73	109	249	121	117	268
5027	30968	127	126	294	103	76	327	94	111	215	67	110	228	117	112	264
5028	30969	127	127	330	100	88	273	96	116	216	71	109	356	122	115	240
5029	30970	135	135	310	104	81	318	113	98	203	72	118	210	122	125	197
5030	30971	125	125	309	103	83	338	83	100	173	73	105	375	116	117	242
5031	30972	113	112	302	107	86	315	85	104	173	58	86	224	101	107	241
5032	30973	131	129	332	107	78	425	115	96	181	74	117	257	102	112	226
5033	30974	112	115	295	105	96	304	88	96	174	62	85	251	102	100	237
5034	30975	137	138	320	103	85	274	118	97	171	85	102	243	132	104	208
5035	30976	124	126	307	100	87	331	84	125	199	61	115	264	105	121	287
5036	30977	140	139	302	113	98	282	122	101	181	84	105	343	130	122	226
5037	30978	119	118	315	106	86	404	107	101	216	70	95	245	122	100	222
5038	30979	119	120	332	100	101	281	89	101	179	62	104	232	109	109	260
5039	30980	121	122	363	100	81	243	84	88	157	61	84	212	108	96	273
5040	BPT 5204 (NC-Late Duration Check)	136	135	322	105	68	281	112	72	183	76	106	215	129	91	231
5041	30981	121	119	281	104	103	481	97	101	197	68	103	341	117	101	244
5042	30982	120	120	325	99	94	378	86	112	212	59	106	205	111	112	272
5043	30983	131	130	307	107	101	238	107	84	198	68	112	207	122	95	225
5044	30984	126	126	305	102	87	328	102	95	211	72	108	230	118	108	216
5045	30985	132	131	314	107	83	291	116	88	162	75	105	370	127	104	239
5046	30986	124	123	300	100	99	318	95	109	214	67	102	228	118	103	207
5047	30987	117	117	312	97	77	393	99	93	179	69	96	374	122	106	330
5048	30988	113	113	322	101	82	328	94	99	185	60	99	239	110	100	234
5049	Zonal Check (ZC)	125	123	295	102	80	354	107	84	208	76	85	259	121	131	335
5050	30989	123	124	304	102	85	271	97	119	180				124	121	216
5051	30990	131	129	304	107	79	351	118	85	205	79	98	252	134	113	243
5052	30991	128	126	314	104	77	328	107	95	194	75	110	291	126	114	215
5053	30992	125	124	314	100	67	358	100	103	217	71	104	233	121	110	246
5054	30993	119	119	300	99	103	254	90	97	151	68	92	200	116	103	228
5055	30994	126	126	343	111	68	224	107	119	162	75	111	382	123	124	234
5056	30995	121	122	318	102	80	281	89	127	214	71	117	231	116	121	255
5057	30996	130	123	320	114	91	448	119	104	170	87	103	223	132	114	267
5058	30997	120	118	290	104	88	421	88	98	213	66	77	211	105	100	291
5059	30998	130	127	318	101	68	414	99	126	158	74	115	355	124	125	228
5060	30999	118	118	345	97	89	324	93	97	189	62	96	228	117	102	332
5061	31000	127	127	320	107	87	314	109	91	213	71	111	239	122	107	240
5062	31001	117	117	317	101	66	397	96	109	165	68	107	241	118	107	267
5063	31002	118	118	305	108	79	356	107	87	211	69	101	254	118	101	279
5064	Local Check (LC)	128	128	317	100	96	374	105	78	219	66	109	298	125	121	258
Exp. Mean		**123**	**123**	**312**	**104**	**84**	**331**	**99**	**101**	**195**	**71**	**103**	**265**	**119**	**110**	**245**

Table No. 3.11 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT-MS, (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED														
		Tripura			Telangana			Kerala (0)			Karnataka					
		@Arundhutinagar			@Kampasagar			@Pattambi			@Mandya			@Sirsi		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5001	30945	85	103	395	138	106	380	107	104	353	114	102	298	128	91	269
5002	30946	86	118	461	103	121	363	96	108	428	106	107	257	114	92	241
5003	30947	95	109	428	96	126	413	100	98	372	100	101	257	104	81	169
5004	30948	78	107	296	92	99	396	99	102	370	95	75	372	101	65	208
5005	30949	76	99	529	103	117	314	103	93	374	101	90	237	109	74	272
5006	30950	77	98	362	103	106	380	96	99	377	108	92	264	114	86	195
5007	30951	86	73	428	122	107	429	116	92	448	123	105	277	123	91	231
5008	30952	75	98	329	102	84	479	113	85	386	103	86	217	114	77	207
5009	30953	74	103	296	95	111	396	100	85	386	99	98	372			
5010	29816	75	105	494	96	112	380	115	93	335	100	88	298	108	80	320
5011	30954	95	97	560	142	105	363	100	94	332	129	97	250	141	73	314
5012	30955	65	87	595	104	115	413	107	100	427	96	97	264	107	86	281
5013	30956	84	73	626	106	124	462	99	95	348	106	103	257	114	92	312
5014	30957	75	99	428	104	110	429	116	94	417	116	92	277	117	90	291
5015	Telangana Sona--(NC-Early Check)	86	112	429	98	128	495	99	105	456	96	100	318	107	91	231
5016	30958	98	103	461	107	102	413	98	99	337	107	88	257	114	82	228
5017	30959	80	107	529	91	101	462	105	98	496	92	92	325	102	85	259
5018	30960	81	107	494	105	104	446	101	93	440	111	87	230	114	83	289
5019	30961	80	97	428	102	116	380	117	96	393	106	103	271	113	89	302
5020	30962	74	74	427	101	111	462	97	100	393	104	96	264	111	87	299
5021	30963	78	97	364	107	106	479	97	98	344	111	97	271	117	92	269
5022	30964	78	109	426	101	103	380	102	107	440	101	102	217	109	104	236
5023	30965	77	104	511	137	149	462	99	87	376	131	132	284	139	126	342
5024	30966	76	103	404	108	109	330	101	89	456	107	100	406	114	99	289
5025	30967	73	98	510	112	108	363	99	86	409	111	84	352	117	94	348
5026	WGL-14 (NC-Medium Duration Check)	72	116	632	112	112	462	101	88	550	111	98	244	117	94	330
5027	30968	71	96	395	100	122	380	101	101	396	101	88	271	111	92	271
5028	30969	71	105	362	98	126	462	99	94	356	98	92	237	107	84	320
5029	30970	70	126	396	92	101	380	101	92	361	112	107	217	122	102	246
5030	30971	76	119	296	107	116	347	105	90	399	104	98	284	114	95	309
5031	30972	85	93	263	90	101	380	101	98	321	91	84	304	102	84	261
5032	30973	80	71	229	115	129	396	96	99	364	111	103	257	126	97	309
5033	30974	76	112	298	95	100	413	96	98	371	98	85	250	108	84	273
5034	30975	75	99	233	101	106	446	99	107	432	106	95	257	122	91	327
5035	30976	77	117	263	96	129	314	103	95	387	94	106	257	107	105	375
5036	30977	76	113	267	123	126	380	112	94	448	122	101	277	130	91	626
5037	30978	77	119	296	106	102	363	103	99	408	111	90	271	117	89	330
5038	30979	84	115	233	100	99	380	102	98	393	92	91	284	107	78	329
5039	30980	75	109	263	93	94	413	105	92	326	90	72	318	123	79	306
5040	BPT 5204 (NC-Late Duration Check)	73	115	230	110	94	396	97	112	336	111	81	291	111	82	249
5041	30981	74	117	494	98	106	479	104	91	338	100	86	217	107	95	269
5042	30982	76	112	297	97	101	446	122	89	388	96	91	284	117	92	317
5043	30983	76	118	230	106	101	347	97	101	428	104	83	250	112	97	276
5044	30984	71	104	296	120	111	495	104	100	377	107	89	291	112	82	292
5045	30985	70	121	432	111	95	363	99	98	499	109	82	284	109	85	305
5046	30986	84	113	494	100	108	297	105	100	400	96	84	277	111	94	307
5047	30987	87	113	530	100	105	380	103	100	329	102	90	277	111	84	327
5048	30988	75	142	626	101	98	479	102	94	370	102	85	244	115	96	315
5049	Zonal Check (ZC)	70	113	396	105	111	363	99	99	386	107	99	277	109	97	287
5050	30989	86	117	427	99	114	363	103	105	390	100	92	257	114	92	383
5051	30990	72	106	296	116	107	396	101	99	437	116	104	284	122	95	304
5052	30991	74	91	297	110	116	462	103	95	356	113	100	298	114	99	302
5053	30992	74	103	362	104	116	248	103	99	356	107	97	298	109	90	327
5054	30993	72	114	395	96	106	396	103	112	331	96	84	217	128	101	345
5055	30994	78	126	507	112	129	363	105	96	359	116	111	244	111	105	310
5056	30995	72	94	264	102	110	429	102	103	427	100	102	271	132	95	296
5057	30996	75	116	525	126	120	413	103	103	352	123	101	298	108	86	302
5058	30997	73	113	528	92	116	495	103	102	419	96	83	271	109	103	309
5059	30998	83	131	296	103	124	429	100	108	464	97	98	332	109	85	297
5060	30999	78	113	296	98	105	446	102	104	345	102	90	318	115	92	282
5061	31000	73	113	264	110	102	380	103	91	469	111	85	311	113	97	261
5062	31001	74	112	363	103	116	330	103	107	482	103	94	271	114	81	363
5063	31002	74	103	447	107	99	314	103	95	438	111	85	277	115	81	254
5064	Local Check (LC)	79	132	494	102	104	512	101	96	399	104	102	250	91	109	345
Exp. Mean		**77**	**107**	**397**	**105**	**110**	**403**	**102**	**98**	**395**	**105**	**94**	**277**	**114**	**90**	**296**

Table No. 3.12: Grain quality characteristics of entries in IVT-MS, kharif 2022

Entry No.	IET No.	KL	KB	L/B	Grain Type
5001	30945	5.39	1.82	2..96	MS
5002	30946	5.69	2.06	2.76	MS
5003	30947	4.94	1.77	2.79	MS
5004	30948	4.75	1.61	2.95	MS
5005	30949	5.16	1.99	2.59	MS
5006	30950	5.14	1.87	2.74	MS
5007	30951	5.29	2.07	2.55	MS
5008	30952	5.04	1.81	2.78	MS
5009	29816	5.05	1.85	2.72	MS
5010	30953	4.86	1.55	3.13	SS
5011	30954	4.99	1.81	2.75	MS
5012	30955	5.14	1.66	3.09	SS
5013	30956	5.28	1.66	3.18	SS
5014	30957	5.45	2.05	2.65	MS
5015	Telangana Sona (NC-Early)	4.81	1.67	2.88	MS
5016	30958	5.56	2.20	2.52	MS
5017	30959	5.17	1.81	2.85	MS
5018	30960	4.89	1.85	2.64	MS
5019	30961	5.96	2.10	2.83	MS
5020	30962	5.12	1.86	2.75	MS
5021	30963	5.30	1.86	2.84	MS
5022	30964	5.05	1.84	2.74	MS
5023	30965	5.24	1.95	2.68	MS
5024	30966	5.30	1.85	2.86	MS
5025	30967	5.01	1.90	2.63	MS
5026	WGL- 14 (NC- Medium)	5.25	1.88	2.79	MS
5027	30968	5.51	1.93	2.85	MS
5028	30969	5.54	2.06	2.68	MS
5029	30970	5.59	1.96	2.92	MS
5030	30971	5.10	1.79	2.84	MS
5031	30972	5.43	1.93	2.81	MS
5032	30973	4.98	1.79	2.78	MS
5033	30974	5.20	1.86	2.79	MS
5034	30975	5.11	1.97	2.59	MS
5035	30976	5.25	2.20	2.38	SB
5036	30977	5.25	2.08	2.52	MS
5037	30978	4.85	1.84	2.63	MS
5038	30979	5.10	1.88	2.71	MS
5039	30980	5.07	1.81	2.80	MS
5040	BPT- 5204 (NC- Late)	5.13	1.84	2.78	MS
5041	30981	5.04	2.00	2.52	MS
5042	30982	4.92	1.65	2.98	MS
5043	30983	5.09	2.26	2.25	MS
5044	30984	5.19	1.86	2.79	MS
5045	30985	4.76	1.81	2.62	MS
5046	30986	5.40	1.91	2.82	MS
5047	30987	5.24	1.58	3.31	SS
5048	30988	4.98	1.71	2.91	MS
5049	ADT -49 (ZC)	4.90	1.90	2.57	MS
5050	30989	5.56	1.92	2.89	MS
5051	30990	4.62	1.79	2.58	MS
5052	30991	5.05	2.09	2.41	SB
5053	30992	5.19	1.81	2.86	MS
5054	30993	5.43	1.97	2.75	MS
5055	30994	5.14	1.80	2.85	MS
5056	30995	5.32	2.55	2.08	SB
5057	30996	5.31	2.08	2.55	MS
5058	30997	5.60	2.03	2.75	MS
5059	30998	5.33	2.04	2.61	MS
5060	30999	5.15	1.85	2.78	MS
5061	31000	4.99	1.93	2.58	MS
5062	31001	5.20	1.98	2.62	MS
5063	31002	5.10	1.95	2.61	MS
5064	RNR- 11718 (LC)	5.27	2.03	2.59	MS

ADVANCE VARIETY TRIAL 2-BIOFORTIFICATION (AVT 2 - BIOFORT) AND INITIAL VARIETY TRIAL – BIOFORTIFICATION (IVT-BIOFORT)

Locations: **39** **Test Entries: 46**

Checks: **BPT 5204 (Yield), IR 64 (Yield), DRR Dhan 45 (Yield & Micronutrient), Chittimuthyalu (Micronutrient), DRR Dhan 48 (Yield & Micronutrient) and DRR Dhan 49 (Yield & Micronutrient).** **Table: 4.1**

ATV 2-Biofort and IVT-Biofort trial was conducted with 40 test entries along with two yield checks (BPT 5204 and IR 64), Chittimuthyalu as micronutrient check and DRR Dhan 45, DRR Dhan 48 and DRR Dhan 49 as yield and micronutrient checks. The biofortification trial was sent to 39 locations and data was received from 34 locations. Data from five locations (Hathwara, Jabalpur, Nellore, Jagtial and Mugad) was not received. Data from Jeypore and Masodha was not considered due to low experimental yield (<3000 kg/ha) while data from Chinsurah, Titabar, and Mandya was not considered owing to low CV (<5.0%). The experimental yield ranged from 2536.0 kg/ha (Jeypore) to 6293.0kg/ha (Chinsurah). The overall mean yield of entries had a range of 2731 kg/ha (IET 29482, R) to 5444 kg/ha (IET 31004) whereas, plant height had a wide range of 81.0 cm (31013) to 144.0 cm (IET 31017). Highest number of panicles were observed in IET 29484 (R; 320) while, IET 31012 had only 266. IET 31003 flowered in 88 days while IET 31030 and Chittimuthyalu flowered in 116 days. The data pertaining to yield, days to 50% flowering, plant height, panicles/m^2 and quality are presented in tables 4.2, 4.3 and 4.4 respectively

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.

A virtual meeting was held on 18th April, 2023 with team of scientists from IIRR, Hyderabad; NRRI, Cuttack; IARI, New Delhi; IGKV, Raipur; and other AICRPR cooperators a decision was taken and approved by the members to consider centers only with ≥22.0 ppm zinc (Zn) i.e., for trait verification. Based on this criteria centers would be selected and within the individual location, entries with ≥24.0 ppm would be selected. The entries selected (≥24.0 ppm) 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 and yield advantage over the BVC. Using the criteria, three centers: Ludhiana, Brahmavar and Sirsi with Zn content ≥22.0 ppm were selected during Kharif 2022.

Performance of entries during Kharif 2022 (IVT – Biofort)

Overall

IET 31004 (5899 kg/ha), exhibited significantly superior yields over best varietal check IR 64 (5400Kgs/ha; CD of 274.19). IET 31004 had a zinc content of 24.53 ppm***, hence it is promoted based on its overall performance.***

Zone II

None of the entries either with≤ 100 or with ≥100 days to 50% flowering exhibited a yield advantage over IR 64 or best varietal check (BVC) respectively or had the requisite micronutrient content.

Zone III

None of the entries are promoted based on micronutrient content and yield advantage over the BVC.

Zone V

None of the entries are promoted based on micronutrient content and yield advantage over the BVC.

Zone VI

None of the entries are promoted based on micronutrient content and yield advantage over the BVC.

Zone VII

IET 31004 (6420 kg/ha), IET 31027 (6202 kg/ha), and IET 31031(6113 kg/ha)out-yielded over the BVC i.e., IR 64 (5525 kg/ha; CD of 533.42). All the three entries had zinc content ≥ 24.0 ppm i.e., 24.53 ppm (IET 31004), 24.0 ppm (IET 31027) and 25.78 ppm (IET 31031).***Therefore, IET 31004, IET 31027 and IET 31031 were promoted.***

Performance of IET 28694 in AVT 2 –Biofort, Kharif 2022

IET 28694 has not out-yielded the respective checks in any zone during kharif 2022 evaluation as shown below:

	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6	Zone 7	Overall
DFF	106	94	@	98	98	100	99
% Yield Advantage	-6.92	-6.90		-11.16	-10.14	-7.41	-7.92

Performance of IET 28694 in 2019 (IVT), 2020 (AVT 1), 2021 (AVT 1 R), 2022 (AVT 2)

IET 28694 was first tested during 2019, it was promoted in Zone III. In 2020, IET 28694 was proposed to be repeated in Zone VI though it did not exhibit yield superiority but, based on high Zn content (>24.0 ppm). In 2021, the entry was promoted based on its performance in Zone IV. During 2022, IET 28694 has not out-yielded the check in any zone. ***Hence owing to its inconsistent performance, it is discontinued.***

The following entries have been promoted to AVT 1 Biofort based on yield advantage and zinc content:

Overall: IET 31004

Zone VII: IET 31004, IET 31027, and IET 3103.

Table No. 4.1: Composition of entries in Advance Varietal Trial and Initial Variety Trial -Biofortification (AVT & IVT - BIOFORT), Kharif 2022

Entry No.	IET No.	Designation	Cross Combination	GT
3rd year of testing				
5101	28694	GNV 1906	Selection from IR 99290-11-2-2	LB
1st year of testing				
5102	31003	R-RHZ-IR-140	IR 98418-B-B-15 / IR 09A224	MS
5103	31004	RNR 31668	TME 80518 / BPT 5204	SB
5104	29484 (R)	RP 6204-MB/RIL-J159	MTU 1010 / BR 2655	SS
5105	31005	CR 4103-B-1	CR 2829-PLN-100 / Kalinga-III // Satabdi	SB
5106	31006	KJT 012-9-16-10-10	RP Bio 286 / KJT 184	SB
5107	31007	GNV 1922-16	Selection from traditional Jasmine Black	LS
5108	31008	BPT 3157	MTU 7029 / IRGC 18195 / MTU 1081	SS
5109	31009	RP 6709-MS-SS-R-41-7-3-2-5-1-7	Samba Mahsuri Mutant- 92 / BPT 5204	MS
5110	31010	RP 6195-MC/RIL-A113	MTU1010 / Chittimuthyalu	MS
5111	**BPT 5204 (Yield Check)**			
5112	31011	CSR HZR 5	IR 05A199 / Joryeongbyeo // Ciherang / IR 75862-206-2-8-3-B /// IR05A193 / IR 68144-2B-2-2-3-1-66 // IR07F290 / IR 75862-206-2-8-3-B-B-B / 4 IR 77289-5-6-18 / 5 IR 68144-2B-2-2-3-1-166 / Joryeongbye // PSBRC 82 /// Ansanbyeo /	LB

Entry No.	IET No.	Designation	Cross Combination	GT
			IR04N114 / 4 / IR05A199 / IR 68144-2B-2-2-3-1-16	
5113	31012	OR 20-1	IR 85850-AC-157-1	LS
5114	31013	Chapti Gurmatiya Mutant-4	Chapti Gurmatiya (Local landrace)	SB
5115	29482 (R)	RP 6211-PR/RIL-Q181	PR 116 / Ranbir Basmati	MB
5116	31014	CR 4225-1-2-B-1	CR Dhan 310 / Bindli	MS
5117	31015	UPR 3488-6-2-1	UPR 1840-31-1-1 / Pusa Sugandh 2	LS
5118	**IR 64 (Yield Check)**			
5119	31016	NVSR 659	NVSR 303-14 / GAR-13	MS
5120	31017	GNV 2016-81	Selection from local land race Bilichiga	LB
5121	31018	RP 6615-MK/RIL-FBMI 28-25	MTU1010 / Karuppanel	LB
5122	31019	RP 6710-SP-M-SS-35-4-6-2-8-3-5	Samba Mahsuri Mutant-35 / BPT 5204	MS
5123	31020	CR 4229-1-1-2-B-1	CR Dhan 310 / Pandari Gurmatiya	SB
5124	31021	R-RHP-IC-149	IR03A550	LB
5125	31022	HURS 22-3	BPT5204 / HUR 917	MS
5126	31023	PAU 2520-3-2-3-2	PAU 1196-14-2-5-1-3 / SR 817-255	LS
5127	**DRR Dhan 45 (Yield & Micro Nutrient Check)**			
5128	31024	CRAC 3998-129-1	Doubled haploid of 27P63	MS
5129	31025	NVSR 674	NVSR 308-20 / GAR-13	LS
5130	31026	RP 6207-IJ / RIL-M301	IR64 / Jalapriya	MS
5131	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	LB
5132	31028	UPR 2825-30-1-2	Tilak Chandan / Basmati 376	LS
5133	**DRR Dhan 48 (Yield & Micro Nutrient Check)**			
5134	31029	RP 6700-SP-3-SS-140-8-22-6-9-7-3	Samba Mahsuri MutantTI-140 / BPT 5204	LS
5135	31030	CR 4199-2-B-1-2-B	Maudamani / CR Dhan 310	LB
5136	31031	R-RHP-IC-148	IR13N134	LB
5137	31032	NDR 8399-2	Kalanamak / BKP 236	MS
5138	31033	RP 6615-MK / RIL-FBMI 45-1-5-1	MTU1010 / Karuppanel	LB
5139	31034	BPT 3152	BPT 5204*2 / O. longistaminata // B-95-1 / Swarna sub-1	MS
5140	31035	CR 3969-24-1-2-1-1	IR 73930-31-3-2-2 / Pratiksya	LB
5141	31036	RP 6615-MK / RIL-FBMI 45-31-6-1	MTU1010 / Karuppanel	LB
5142	**Chittimuthyalu (Micro Nutrient Check)**			
5143	31037	CRAC 3994-2-5-2	Doubled haploid of CRHR32	LS
5144	31038	RP 6207-IJ / RIL-M41	IR64 / Jalapriya	SB
5145	31039	NVSR 662	NVSR 303-14 / GNR-2	LB
5146	**DRR Dhan 49 (Yield & Micro Nutrient Check)**			

Table No. 4.2: Grain Yield (kg/ha) in AVT & IVT – BIOFORT, Kharif 2022

ENTRY NO	IET NO	ZONE II-NORTHERN								ZONE III-EASTERN			
		Punjab (1)		Haryana (1)			Rajasthan (1)		Zone 2(3)		Odisha	Odisha (1)	
		Ludhiana		Karnal (ICAR-CSSRI)			Kota		Mean		ICAR-NRRI (Cuttack)	Mean	
5101	28694	3972	10	6670	4	13%	4455		5032	8	3981	3981	
5102	31003	2306		4920			4056		3761		1938	1938	
5103	31004	4722	2	7030	2	19%	4555		5436	1	4740	1 *	4740	1 *
5104	29484 (R)	1458		3070			4056		2861		2994	2994	
5105	31005			3680			4023		3852		2942	2942	
5106	31006	3931		5610			4116		4552		2837	2837	
5107	31007	2826		3440			4920		3729		2165	2165	
5108	31008	2347		4880			4189		3805		3326	3326	
5109	31009	2653		6270	7	6%	4169		4364		4278	5	4278	5
5110	31010	2944					4023		3484		2383	2383	
5111	BPT 5204 (Yield Check)	3417		5880	10		5053		4783		4173	8	4173	8
5112	31011	3056		5480			5851	2	4796		4522	3	4522	3
5113	31012	3382		5090			5352	10	4608		1894	1894	
5114	31013	1667		5460			4920		4016		2252	2252	
5115	29482 (R)										1261	1261	
5116	31014	3160		5050			4089		4100		3038	3038	
5117	31015	2604		3750			4342		3565		2270	2270	
5118	IR 64 (Yield Check)	4681	3	5920	9		5618	6	5406	2	3998	10	3998	10
5119	31016	4035	9	7250	1	22%	4043		5109	7	3152	3152	
5120	31017			3550			4289		3920		2628	2628	
5121	31018	2299		4040			4189		3509		2575	2575	
5122	31019	3417		3750			4156		3774		1479	1479	
5123	31020	2826		4600			4488		3971		3640	3640	
5124	31021	4493	5	6700	3	13%	4754		5316	4	2767	2767	
5125	31022	2958		6540	5	10%	5319		4939	10	3274	3274	
5126	31023	4076	8	5740			5652	4	5156	5	4225	6	4225	6
5127	DRR Dhan 45 (Yield & Micro Nutrient Check)	4590	4	4760			5319		4890		4086	9	4086	9
5128	31024	2410		4460			4455		3775		2960	2960	
5129	31025	2549		2780			4688		3339		3562	3562	
5130	31026						5319		5319	3			
5131	31027	1778		3740			4056		3191		4513	4	4513	4
5132	31028	2972		6050	8		4302		4441		2872	2872	
5133	DRR Dhan 48 (Yield & Micro Nutrient Check)	4778	1	4950			5652	4	5127	6	3824	3824	
5134	31029	1535		5150			5851	2	4179		3038	3038	
5135	31030			3280			5452	7	4366		4208	7	4208	7
5136	31031	3910		4400			5452	7	4587		3867	3867	
5137	31032			3210			5352	10	4281		3405	3405	
5138	31033	1528		2200			4455		2728		3806	3806	
5139	31034	1500		3050			4255		2935		2567	2567	
5140	31035	3931		3500			5352	10	4261		4723	2 *	4723	2 *
5141	31036	2528		6460	6	9%	4388		4459		2261	2261	
5142	Chittimuthyalu (Micro Nutrient Check)			3620			4056		3838		2951	2951	
5143	31037	3514		3810			4422		3915		1956	1956	
5144	31038	2201		3220			5186		3536		2331	2331	
5145	31039	4278	7	3600			4156		4011		3536	3536	
5146	DRR Dhan 49 (Yield & Micro Nutrient Check)	4458	6	3820			6782	1	5020	9	3806	3806	
Exp. Mean		**3120**		**4661**			**4747**		**4223**		**3178**	**3178**	
F Value		**14.55(p<0.0001)S**		**5.10(p<0.0001)S**			**2.06(p=0.0089)S**		**6.91(p<0.0001)S**		**46.16(p<0.0001)S**	**46.16(p<0.0001)S**	
CD		756		1634			1329		773		370	370	
CV%		**11.97**		**17.37**			**13.89**		**9.08**		**5.77**	**5.77**	
D/S		21-06-2022		24-06-2022			03-07-2022				11-07-2022		
D/P		20-07-2022		02-08-2022			04-08-2022				17-08-2022		

Table No. 4.2 (Contd): Grain Yield (kg/ha) in AVT & IVT – BIOFORT, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN									
		Bihar				Bihar (2)		Uttar Pradesh		Uttar Pradesh (1)	
		Bikaramganj		Sabour		Mean		Varanasi		Mean	
5101	28694	5644		4566		5105		5156		5156	
5102	31003	3586		2830		3208		4128		4128	
5103	31004	9264	1	5368	2	7316	1 * 16%	4771		4771	
5104	29484 (R)	5690		4418		5054		4082		4082	
5105	31005	4655		3265		3960		4271		4271	
5106	31006	4707		3121		3914		4313		4313	
5107	31007	5707		3848		4778		4133		4133	
5108	31008	5902		4000		4951		4128		4128	
5109	31009	6971		4371		5671		4844		4844	
5110	31010	5902		3485		4694		6000	4	6000	4 5%
5111	BPT 5204 (Yield Check)	7448	7	5165	3	6307	4	5167	10	5167	10
5112	31011	7362	9	3850		5606		4573		4573	
5113	31012	5333		3124		4229		4107		4107	
5114	31013	4994		3391		4193		4117		4117	
5115	29482 (R)										
5116	31014	2822		3608		3215		4521		4521	
5117	31015	6276		3642		4959		4802		4802	
5118	IR 64 (Yield Check)	7529	4	4442		5986	8	4813		4813	
5119	31016	6569		5853	1	6211	5	5688	8	5688	8
5120	31017	2977		2819		2898		4082		4082	
5121	31018	5345		2857		4101		4082		4082	
5122	31019	4879		4070		4475		4802		4802	
5123	31020	2764		3410		3087		4115		4115	
5124	31021	6718		3714		5216		4128		4128	
5125	31022	6385		3778		5082		5354	9	5354	9
5126	31023	8213	2	5035	5	6624	2 5%	5792	5	5792	5
5127	DRR Dhan 45 (Yield & Micro Nutrient Check)	6810		4511		5661		5708	7	5708	7
5128	31024	5494		4170		4832		4938		4938	
5129	31025	7374	8	4653	9	6014	7	4854		4854	
5130	31026										
5131	31027	6925		3779		5352		4938		4938	
5132	31028	6460		3644		5052		6115	3	6115	3 7%
5133	DRR Dhan 48 (Yield & Micro Nutrient Check)	7506	6	4905	7	6206	6	4906		4906	
5134	31029	6057		4701	8	5379		6448	2	6448	2 13%
5135	31030	3678		3673		3676		1604		1604	
5136	31031	7356	10	4488		5922	10	5115		5115	
5137	31032	4718		3414		4066		4375		4375	
5138	31033	5351		3436		4394		4133		4133	
5139	31034	4431		3325		3878		4844		4844	
5140	31035	8190	3	4990	6	6590	3	5771	6	5771	6
5141	31036	3351		2281		2816		4122		4122	
5142	Chittimuthyalu (Micro Nutrient Check)	3029		1236		2133		250		250	
5143	31037	5960		3850		4905		5042		5042	
5144	31038	4713		4650	10	4682		4082		4082	
5145	31039	6494		5132	4	5813		6854	1	6854	1 * 20%
5146	DRR Dhan 49 (Yield & Micro Nutrient Check)	7517	5	4444		5981	9	4885		4885	
Exp. Mean		**5797**		**3939**		**4868**		**4658**		**4658**	
F Value		**9.18(p<0.0001)S**		**9.43(p<0.0001)S**		**13.97(p<0.0001)S**		**10.02(p<0.0001)S**		**10.02(p<0.0001)S**	
CD		1470		807		869		980		980	
CV%		**12.57**		**10.16**		**8.85**		**10.43**		**10.43**	
D/S		01-07-2022		29-06-2022				25-06-2022			
D/P		01-08-2022		31-07-2022				19-07-2022			

Table No. 4.2 (Contd): Grain Yield (kg/ha) in AVT & IVT – BIOFORT, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN		ZONE-V – CENTRAL							
		Zone 3(4)		Madhya Pradesh (1)		Chhattisgarh (1)		Maharashtra 1			
		Mean		Waraseoni		Raipur		Sakoli		Sindewahi	
5101	28694	4837		4330		4782		4041		3553	
5102	31003	3121		3891		4935		4376		3282	
5103	31004	6036	1 * 10%	6084	3	5322	10	3977		4073	
5104	29484 (R)	4296		4449		4258		3308		3497	
5105	31005	3783		4242		4315		3700		5376	2
5106	31006	3745		4048		5350	7	4768	6	4353	
5107	31007	3963		3766		4871		2999		3239	
5108	31008	4339		3947		4053		3893		3824	
5109	31009	5116		4455		5346	8	4112		3584	
5110	31010	4443		5044	7	4106				3230	
5111	BPT 5204 (Yield Check)	5488	5	6529	1	5503	1	3996		4301	
5112	31011	5077		4618		5475	2	3372		5122	5
5113	31012	3615		4079		4617				3615	
5114	31013	3689		3860		3387		2941		3038	
5115	29482 (R)	1261									
5116	31014	3497		4424		5245		3533		4012	
5117	31015	4248		3603		4839		2851			
5118	IR 64 (Yield Check)	5196	10	6441	2	5352	6	3282		3733	
5119	31016	5316	6	3741		4971		4228		4795	9
5120	31017	3127		3609		4080		4633	7	3733	
5121	31018	3715		4637		4423		4569	9	4436	
5122	31019	3808		4962	8	5121		4228		3531	
5123	31020	3482		4843	9	4879		3629		4012	
5124	31021	4332		6053	4	5072		4633	7	4034	
5125	31022	4698		3797		4436		4093		4130	
5126	31023	5816	3 6%	4355		5358	5	3848		4563	
5127	DRR Dhan 45 (Yield & Micro Nutrient Check)	5279	8	4317		4777		4569	9	3505	
5128	31024	4391		3954		5267		3713		4104	
5129	31025	5111		4123		5445	3	4279		3846	
5130	31026					4569				4563	
5131	31027	5039		4799		5384	4	4183		4904	7
5132	31028	4773		5075	6	5326	9	3764		3750	
5133	DRR Dhan 48 (Yield & Micro Nutrient Check)	5285	7	4574		5257		4247		4930	6
5134	31029	5061		4229		5044				4323	
5135	31030	3291		4079		5102		5051	2	5358	3
5136	31031	5207	9	5332	5	4754		3597		3824	
5137	31032	3978		3490		4512		4910	3	5249	4
5138	31033	4182		4818	10	4964		4485		3479	
5139	31034	3792		4123		4726		4131		4786	10
5140	31035	5919	2 8%	3734		5084		5373	1	5503	1
5141	31036	3004		3828		4000		4112		3566	
5142	Chittimuthyalu (Micro Nutrient Check)	1867		3822		2895		4794	5	4043	
5143	31037	4202		4204		4501		4266		3588	
5144	31038	3944		4104		4547				3497	
5145	31039	5504	4	3841		5082		4884	4	4882	8
5146	DRR Dhan 49 (Yield & Micro Nutrient Check)	5163		4530		4594		3520		3322	
Exp. Mean		**4334**		**4427**		**4798**		**4072**		**4093**	
F Value		**34.51(p<0.0001)S**		**4.20(p<0.0001)S**		**2.29(p=0.0034)S**		**2.69(p=0.0012)S**		**5.84(p<0.0001)S**	
CD		482		1014		1040		1020		772	
CV%		**5.52**		**11.35**		**10.75**		**12.38**		**9.35**	
D/S				20-06-2022		24-06-2022		30-06-2022		22-06-2022	
D/P				30-07-2022		19-07-2022		01-08-2022		21-07-2022	

Table No. 4.2(Contd): Grain Yield (kg/ha) in AVT & IVT – BIOFORT, Kharif 2022

ENTRY NO	IET NO	ZONE-V – CENTRAL				ZONE VI – WESTERN					
		Maharashtra 1(2)		Zone 5(4)		Maharashtra 2					
		Mean		Mean		Karjat		Shirgaon		Vadagaon	
5101	28694	3797		4177		4236		3479		5654	
5102	31003	3829		4121		4080		4321		4774	
5103	31004	4025		4864	5	5985	5	4780		5044	
5104	29484 (R)	3403		3878		3464		2472		5654	
5105	31005	4538	9	4408		4392		1989		5331	
5106	31006	4561	7	4630		4774		5365	7	6989	5
5107	31007	3119		3719		3872		4109		4617	
5108	31008	3859		3929		4783		2810		5421	
5109	31009	3848		4374		4731		4910		4972	
5110	31010	3230		4127		3086				7251	2
5111	BPT 5204 (Yield Check)	4149		5082	1	4844		3402		5133	
5112	31011	4247		4647	10	3507		6220	1	7108	3
5113	31012	3615		4104		4115		5793	3	4975	
5114	31013	2990		3307		2925		2109		5567	
5115	29482 (R)					4019					
5116	31014	3773		4304		4253		4968		7054	4
5117	31015	2851		3764		4479		4907		5023	
5118	IR 64 (Yield Check)	3508		4702	8	5243	8	5537	5	5263	
5119	31016	4512	10	4434		5165		4707		5995	
5120	31017	4183		4014		3767		2641		4831	
5121	31018	4503		4516		3880		2886		5654	
5122	31019	3880		4461		4149		4747		6501	8
5123	31020	3821		4341		3950		3183		6722	6
5124	31021	4334		4948	2	4444		4183		5708	
5125	31022	4112		4114		5243	8	2830		5995	
5126	31023	4206		4531		6319	2	4089		5313	
5127	DRR Dhan 45 (Yield & Micro Nutrient Check)	4037		4292		4939		5189	9	5322	
5128	31024	3909		4260		4249		2225		5403	
5129	31025	4063		4423		3763		5347	8	7395	1
5130	31026	4563	6	4566		5000					
5131	31027	4544	8	4818	6	4080		5930	2	4631	
5132	31028	3757		4479		4735		5518	6	6219	
5133	DRR Dhan 48 (Yield & Micro Nutrient Check)	4589	5	4752	7	4232		4330		4882	
5134	31029	4323		4532		5182	10	4755		5801	
5135	31030	5205	2 13%	4898	4	5260	7	2801		6605	7
5136	31031	3711		4377		5373	6	5725	4	6228	10
5137	31032	5080	3 11%	4540		2990		2314		5795	
5138	31033	3982		4437		3342		3700		4846	
5139	31034	4459		4442		4453		2748		5079	
5140	31035	5438	1 * 19%	4924	3	6701	1	5017	10	6402	9
5141	31036	3839		3877		3550		2797		4667	
5142	Chittimuthyalu (Micro Nutrient Check)	4419		3889		3672		3547		5342	
5143	31037	3927		4140		3281		4105		5421	
5144	31038	3497		4049		6165	3	3021		5385	
5145	31039	4883	4 6%	4672	9	6102	4	3132		4738	
5146	DRR Dhan 49 (Yield & Micro Nutrient Check)	3421		3992		4722		2198		5826	
Exp. Mean		**4056**		**4352**		**4467**		**3973**		**5649**	
F Value		**5.70(p<0.0001)S**		**4.33(p<0.0001)S**		**7.16(p<0.0001)S**		**9.97(p<0.0001)S**		**2.03(p=0.0108)S**	
CD		657		505		968		1100		1527	
CV%		**8.04**		**5.76**		**10.76**		**13.71**		**13.40**	
D/S						21-06-2022		22-06-2022		29-06-2022	
D/P						15-07-2022		27-07-2022		02-08-2022	

Table No. 4.2(Contd): Grain Yield (kg/ha) in AVT & IVT – BIOFORT, Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN									
		Maharashtra 2 (3)		Maharashtra (5)		Gujarat				Gujarat (2)	
		Mean		Mean		Navasari		Nawagam		Mean	
5101	28694	4456		4193		5321		5833	1	5577	4
5102	31003	4392		4167		4086		2111		3099	
5103	31004	5270	10	4772		6338	2	5229	5	5784	2 7%
5104	29484 (R)	3863		3679		4722		3262		3992	
5105	31005	3904		4158		3303		5016	7	4160	
5106	31006	5709	3 7%	5250	2 * 12%	2525		4944	9	3735	
5107	31007	4199		3767		4889		2452		3671	
5108	31008	4338		4146		4319		4333		4326	
5109	31009	4871		4462		5935	5	5587	3	5761	3 6%
5110	31010	5169		4522				4098		4098	
5111	BPT 5204 (Yield Check)	4460		4335		5210		4619		4915	8
5112	31011	5612	4 4.93%	5066	3 8%	6551	1	3381		4966	7
5113	31012	4961		4625		5463	10	3310		4387	
5114	31013	3534		3316		2641		5016	7	3829	
5115	29482 (R)	4019		4019							
5116	31014	5425	7	4764		4015		5151	6	4583	
5117	31015	4803		4315		2999		3762		3381	
5118	IR 64 (Yield Check)	5348	8	4612		5569	8	5286	4	5428	5
5119	31016	5289	9	4978	6 6%	4443		4667		4555	
5120	31017	3746		3921		3345		3302		3324	
5121	31018	4140		4285		4250		4611		4431	
5122	31019	5132		4631		4652		2786		3719	
5123	31020	4618		4299		4192		4690	10	4441	
5124	31021	4778		4600		5575	7	3683		4629	
5125	31022	4689		4458		5398		3463		4431	
5126	31023	5240		4826	9	6011	4	5595	2	5803	1 7%
5127	DRR Dhan 45 (Yield & Micro Nutrient Check)	5150		4705		3438		3810		3624	
5128	31024	3959		3939		4125		3790		3958	
5129	31025	5502	5	4926	8 4.70%	3195		4373		3784	
5130	31026	5000		4782				3048		3048	
5131	31027	4880		4746				3563		3563	
5132	31028	5491	6	4797	10	5758	6	3667		4713	
5133	DRR Dhan 48 (Yield & Micro Nutrient Check)	4481		4524		6074	3	3444		4759	10
5134	31029	5246		5015	4 7%			4476		4476	
5135	31030	4889		5015	4 7%	3467		4540		4004	
5136	31031	5775	2 8%	4949	7 5.19%	5557	9	3863		4710	
5137	31032	3700		4252		3233		4135		3684	
5138	31033	3963		3970				2111		2111	
5139	31034	4093		4239		3532		4595		4064	
5140	31035	6040	1 13%	5799	1 * 23%	5082		4460		4771	9
5141	31036	3671		3738				2714		2714	
5142	Chittimuthyalu (Micro Nutrient Check)	4187		4280		1193		2246		1720	
5143	31037	4269		4132		4261		3651		3956	
5144	31038	4857		4517		2563		3944		3254	
5145	31039	4657		4748		5347		4587		4967	6
5146	DRR Dhan 49 (Yield & Micro Nutrient Check)	4249		3918		5378		3421		4400	
Exp. Mean		**4696**		**4460**		**4460**		**4014**		**4162**	
F Value		**5.25(p<0.0001)S**		**6.95(p<0.0001)S**		**9.80(p<0.0001)S**		**3.89(p<0.0001)S**		**6.05(p<0.0001)S**	
CD		794		504		1125		1353		1014	
CV%		**8.40**		**5.61**		**12.45**		**16.73**		**12.09**	
D/S						21-06-2022		24-06-2022			
D/P						14-07-2022		12-08-2022			

Table No.4.2 (Contd): Grain Yield (kg/ha) in AVT & IVT – BIOFORT, Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN		ZONE VII – SOUTHERN							
		Zone 6(5)		Andhra Pradesh				Andhra Pradesh (2)		Telangana	
		Mean		Maruteru		Bapatla		Mean		Rudrur	
5101	28694	4905		4253				4253		3314	
5102	31003	3874		4861		2533		3697		1982	
5103	31004	5475	2	5379	8	3913	7	4646		3333	
5104	29484 (R)	3915		4788		3661	10	4225		3419	
5105	31005	4006		5107		5407	1 *	5257	5 18%	3189	
5106	31006	4919		3964				3964		3005	
5107	31007	3988		3845		2169		3007		3320	
5108	31008	4333		4810				4810	0.08	2769	
5109	31009	5227	7	5242		2769		4006		3117	
5110	31010	4812		4143		3532		3838		2356	
5111	BPT 5204 (Yield Check)	4642		5517	3	3374		4446		2710	
5112	31011	5353	5	5123				5123	8 15%	3937	
5113	31012	4731		4979		2229		3604		6699	3
5114	31013	3652		5165				5165	6 16%	2428	
5115	29482 (R)	4019								2113	
5116	31014	5088	9	4873		3772	9	4323		5066	8
5117	31015	4234		4164		2946		3555		2618	
5118	IR 64 (Yield Check)	5380	4	5187		3615		4401		5899	5
5119	31016	4995		4213		2990		3602		3018	
5120	31017	3577		4148		5099	2	4624		2572	
5121	31018	4256		4032				4032		3963	
5122	31019	4567		3694		2976		3335		6824	2
5123	31020	4547		4647		3574		4111		2769	
5124	31021	4719		6045	1			6045	1 * 36%	2795	
5125	31022	4586		5490	5	1961		3726		3104	
5126	31023	5465	3	5311		4776	4	5044	9 13%	2139	
5127	DRR Dhan 45 (Yield & Micro Nutrient Check)	4540		5014		3790	8	4402		4678	10
5128	31024	3958		5441	6			5441	3 * 22%	2605	
5129	31025	4815		4993		2608		3801		2657	
5130	31026	4024								2802	
5131	31027	4551		5514	4	2856		4185		4318	
5132	31028	5179	8	5580	2			5580	2 * 26%	5190	7
5133	DRR Dhan 48 (Yield & Micro Nutrient Check)	4592		5295		1751		3523		2310	
5134	31029	5054	10	4619		4190	6	4405		5256	6
5135	31030	4535		5092		4272	5	4682	0.05	2054	
5136	31031	5349	6	5293		3338		4316		1352	
5137	31032	3693		5037				5037	10 13%	4974	9
5138	31033	3500		4701		2171		3436		4554	
5139	31034	4081		4616				4616		1660	
5140	31035	5532	1	5359	9	4956	3	5158	7 16%	7448	1 *
5141	31036	3432		4731				4731	0.06	2598	
5142	Chittimuthyalu (Micro Nutrient Check)	3200		4159				4159		2454	
5143	31037	4144		4258		2085		3172		2415	
5144	31038	4216		5381	7	1811		3596		3209	
5145	31039	4781		5332	10			5332	4 * 20%	6378	4
5146	DRR Dhan 49 (Yield & Micro Nutrient Check)	4309		5179		2747		3963		2631	
Exp. Mean		**4495**		**4877**		**3262**		**4326**		**3478**	
F Value		**7.94(p<0.0001)S**		**2.22(p=0.0050)S**		**6.94(p<0.0001)S**		**5.31(p<0.0001)S**		**9.02(p<0.0001)S**	
CD		605		1047		1092		863		1370	
CV%		**6.69**		**10.65**		**16.36**		**9.89**		**19.55**	
D/S				25-06-2022		27-07-2022				10/07/2022	
D/P				22-07-2022		25-08-2022				12-08-2022	

Table No. 4.2 (Contd): Grain Yield (kg/ha) in AVT & IVT – BIOFORT, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN									
		Telangana				Telangana (3)		Tamil Nadu			
		Rajendranagar		Warangal		Mean		Adhuturai		Coimbatore	
5101	28694	6373		3356		4348		4145		6458	5
5102	31003	4403		2017		2801		4539		4261	
5103	31004	7411	4	7210	1	5985	4	6776	2	5459	
5104	29484 (R)	4377		3467		3754		5132		3931	
5105	31005	6093		3774		4352		4342		6356	8
5106	31006	5229		1713		3316		5592		6884	3
5107	31007	4522		2046		3296		5592		4489	
5108	31008	6509		4142		4473		4934		5494	
5109	31009	7931	1	5579	9	5542	7	4671		4266	
5110	31010					2356				4486	
5111	BPT 5204 (Yield Check)	7281	8	6578	3	5523	8	5855		5331	
5112	31011	6857	10	6563	4	5786	6	6250	9	5925	10
5113	31012	5382		3866		5316	10	6316	8	3970	
5114	31013	4014		1872		2771		5461		3875	
5115	29482 (R)					2113					
5116	31014	7347	6	2183		4865		5066		5150	
5117	31015	4674		2591		3294		5592		3841	
5118	IR 64 (Yield Check)	6454		5627	7	5993	3	5099		5478	
5119	31016	5245		4093		4119		4408		7314	2
5120	31017	3779		1817		2723		4803		4384	
5121	31018	5466		4653		4694		4803		3933	
5122	31019	6386		2089		5100		5066		4972	
5123	31020	5876		1771		3472		4079		5577	
5124	31021	6769		3899		4488		6053		4830	
5125	31022	6717		3622		4481		4934		5658	
5126	31023	7577	2	6852	2	5523	8	6579	5	5133	
5127	DRR Dhan 45 (Yield & Micro Nutrient Check)	5693		4123		4831		5197		4675	
5128	31024	4397		4041		3681		4474		5556	
5129	31025	6843		3900		4467		4276		5852	
5130	31026					2802					
5131	31027	6436		3776		4843		6184		5903	
5132	31028	6204		4368		5254		4276		5842	
5133	DRR Dhan 48 (Yield & Micro Nutrient Check)	6369		5818	5	4832		5855		6261	9
5134	31029	7398	5	5583	8	6079	2	4079		5783	
5135	31030	7312	7	3319		4228		6118		7516	1
5136	31031	7211	9	4554		4372		6447	6	6594	4
5137	31032	4756		3096		4275		5461		4950	
5138	31033	4402		3147		4034		5066		5089	
5139	31034	4746		3032		3146		6908	1	4442	
5140	31035	7412	3	5671	6	6844	1 * 14%	6382	7	6378	7
5141	31036	4554		3781		3644		4408		3850	
5142	Chittimuthyalu (Micro Nutrient Check)	4280		1645		2793		6250	9	4053	
5143	31037	4397		4329		3714		4408		5314	
5144	31038	5949		2681		3946		6776	2	5053	
5145	31039	6510		4942	10	5943	5	6711	4	6431	6
5146	DRR Dhan 49 (Yield & Micro Nutrient Check)	5028		4022		3894		4934		4242	
Exp. Mean		**5874**		**3889**		**4307**		**5356**		**5255**	
F Value		**6.88(p<0.0001)S**		**23.30(p<0.0001)S**		**14.16(p<0.0001)S**		**4.90(p<0.0001)S**		**2.62(p<0.0001)S**	
CD		1288		875		834		1100		1741	
CV%		**10.87**		**11.15**		**9.62**		**10.18**		**16.43**	
D/S		21-06-2022		21-06-2022				13-08-2022		07-07-2022	
D/P		23-07-2022		22-07-2022				17-09-2022		04-08-2022	

Table No. 4.2 (Contd): Grain Yield (kg/ha) in AVT & IVT – BIOFORT, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN									
		Tamil Nadu (2)		Kerala				Kerala (2)		Karnataka	
		Mean		Moncompu		Pattambi		Mean		Sirsi	
5101	28694	5302		3467		3413		3440		3940	10
5102	31003	4400		3017		3147		3082		2940	
5103	31004	6118	6	5223	7	4203	1	4713	4	5480	1
5104	29484 (R)	4532		4375		2930		3653		2500	
5105	31005	5349		5281	6	3080		4181		3860	
5106	31006	6238	5	4367		2877		3622		4630	4
5107	31007	5041		3382		3613		3498		1780	
5108	31008	5214		4042		3213		3628		3620	
5109	31009	4469		3848		3993	9	3921		2200	
5110	31010	4486		4207		4193	2	4200		2540	
5111	BPT 5204 (Yield Check)	5593		4086		3243		3665		3760	
5112	31011	6088	7	5481	4	3653		4567	6	3610	
5113	31012	5143		3316		3090		3203		1840	
5114	31013	4668		3485		2987		3236		390	
5115	29482 (R)					3453		3453			
5116	31014	5108		3730		4087	7	3909		3770	
5117	31015	4717		3414		3360		3387		2360	
5118	IR 64 (Yield Check)	5289		4964		2993		3979		3720	
5119	31016	5861		3209		3077		3143		3700	
5120	31017	4594		2963		3070		3017		2430	
5121	31018	4368		3061		3803		3432		1300	
5122	31019	5019		3333		3247		3290		3000	
5123	31020	4828		5036	9	3480		4258		2440	
5124	31021	5442		5361	5	4107	4	4734	3	4180	7
5125	31022	5296		4376		3107		3742		3160	
5126	31023	5856		4857		3567		4212		5360	2
5127	DRR Dhan 45 (Yield & Micro Nutrient Check)	4936		2861		3523		3192		3480	
5128	31024	5015		4229		4107	4	4168		3880	
5129	31025	5064		4452		3590		4021		3560	
5130	31026					3313		3313			
5131	31027	6044	9	6373	2	3553		4963	2 8%	3370	
5132	31028	5059		4100		3183		3642		2920	
5133	DRR Dhan 48 (Yield & Micro Nutrient Check)	6058	8	5733	3	3457		4595	5	3280	
5134	31029	4931		4568		3837		4203		3910	
5135	31030	6817	1 13%	5138	8	3777		4458	8	3570	
5136	31031	6521	3 8%	4902		4103	6	4503	7	4230	6
5137	31032	5206		3382		3177		3280		2540	
5138	31033	5078		3859		3517		3688		2100	
5139	31034	5675		4991	10	3847	10	4419	9	4080	8
5140	31035	6380	4 5%	7224	1 *	3147		5186	1 13%	3300	
5141	31036	4129		3145		3487		3316		1380	
5142	Chittimuthyalu (Micro Nutrient Check)	5152		3552		4153	3	3853		1180	
5143	31037	4861		3285		3790		3538		4960	3
5144	31038	5915	10	4216		4080	8	4148		3480	
5145	31039	6571	2 8%	3685		3207		3446		4240	5
5146	DRR Dhan 49 (Yield & Micro Nutrient Check)	4588		4791		3777		4284	10	4070	9
Exp. Mean		**5296**		**4236**		**3513**		**3856**		**3228**	
F Value		**2.99(p=0.0002)S**		**6.41(p<0.0001)S**		**6.96(p<0.0001)S**		**6.56(p<0.0001)S**		**7.63(p<0.0001)S**	
CD		1104		1088		420		604		1136	
CV%		**10.34**		**12.73**		**5.93**		**7.78**		**17.44**	
D/S				08-07-2022		20-06-2022				22-06-2022	
D/P				04-08-2022		14-07-2022				01-08-2022	

Table No. 4.2 (Contd): Grain Yield (kg/ha) in AVT & IVT – BIOFORT, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN								Overall Mean (28)	
		Karnataka				Karnataka (3)		Zone 7(12)			
		Brahmawar		Gangavathi		Mean		Mean			
5101	28694	4419	6	5205		4521		4395		4593	
5102	31003	3902		5795		4212		3616		3679	
5103	31004	2494		8269	1	5414	1 7%	5429	2 * 14%	5444	1 * 9%
5104	29484 (R)	4356	8	4423		3760		3947		3865	
5105	31005	5019	1	5705		4861	5	4768		4360	
5106	31006	4356	8	5763		4916	4	4398		4449	
5107	31007	4167		5859		3935		3732		3808	
5108	31008	4550	4	3462		3877		4322		4211	
5109	31009	4968	2	5327		4165		4493		4682	
5110	31010	3472				3006		3616		4024	
5111	BPT 5204 (Yield Check)	4278	10	4147		4062		4680		4857	8
5112	31011	4179		5272		4354		5168	4 * 9%	5070	4
5113	31012	1686		7038	4	3521		4201		4247	
5114	31013	3750		3878		2673		3391		3540	
5115	29482 (R)	2809				2809		2792		2731	
5116	31014	4261		6199		4743	10	4625		4445	
5117	31015	2468		3474		2767		3459		3765	
5118	IR 64 (Yield Check)	1957		5968		3882		4747		4988	6
5119	31016	2115		7298	3	4371		4223		4642	
5120	31017	2557		5269		3419		3574		3599	
5121	31018	2083		4853		2745		3814		3951	
5122	31019	3852		6471	9	4441		4326		4255	
5123	31020	4073		6699	6	4404		4168		4142	
5124	31021	4900	3	5410		4830	6	4941	7	4852	9
5125	31022	3693		4776		3876		4217		4414	
5126	31023	4356	8	4596		4771	7	5092	5 * 7%	5189	3
5127	DRR Dhan 45 (Yield & Micro Nutrient Check)	4009		7728	2	5072	2	4564		4658	
5128	31024	4135		3769		3928		4239		4161	
5129	31025	3813		5994		4456		4378		4456	
5130	31026	4231				4231		3449		4106	
5131	31027	3717		6801	5	4629		4900	8	4667	
5132	31028	2708		5433		3687		4528		4668	
5133	DRR Dhan 48 (Yield & Micro Nutrient Check)	3755		3583		3539		4456		4713	
5134	31029	3614		6564	8	4696		4950	6	4846	10
5135	31030	4232		5093		4298		4791	10	4506	
5136	31031	3813		6231	10	4758	8	4839	9	4890	7
5137	31032	2437		3462		2813		3934		4014	
5138	31033	3251		5106		3486		3914		3838	
5139	31034	2140		4090		3437		4050		3952	
5140	31035	3510		5609		4140		5533	1 * 17%	5365	2 * 8%
5141	31036	4230		4577		3396		3704		3668	
5142	Chittimuthyalu (Micro Nutrient Check)	4451	5	3205		2945		3580		3311	
5143	31037	4009		5288		4752	9	4045		4085	
5144	31038	3504		5535		4173		4306		4122	
5145	31039	4028		6692	7	4987	3	5287	3 * 11%	4993	5
5146	DRR Dhan 49 (Yield & Micro Nutrient Check)	4231		3349		3883		4083		4365	
Exp. Mean		**3664**		**5332**		**4036**		**4297**		**4330**	
F Value		**8.71(p<0.0001)S**		**10.82(p<0.0001)S**		**10.09(p<0.0001)S**		**26.10(p<0.0001)S**		**55.29(p<0.0001)S**	
CD		824		1069		629		327		210	
CV%		**11.16**		**9.94**		**7.74**		**3.78**		**2.41**	
D/S		23-06-2022		11-07-2022							
D/P		28-07-2022		08-08-2022							

Table No. 4.2(Contd): Grain Yield (kg/ha) in AVT & IVT - BIOFORT, (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIAL NOT CONSIDERED									
		Odisha		West Bengal (0)		Uttar Pradesh		Assam (0)		Karnataka	
		@Jeypore		@Chinsurah		@Masodha		@Titabar		@Mandya	
5101	28694	2453		4688		2166		4909		3843	
5102	31003	2698		6424		2617		4800		2593	
5103	31004	1964		7378		2818		5738	2	5203	1
5104	29484 (R)	5565	1	6337		1952		3394		2089	
5105	31005	5104	2	6163		2214		4200		3941	
5106	31006	1380		7465		3422		4819		3113	
5107	31007	1276		6510		2456		3113		2558	
5108	31008	1688		6337		3482	7	3450		2465	
5109	31009	2479		5035		3140		4181		3310	
5110	31010	1372		3802		3583	2	4125			
5111	BPT 5204 (Yield Check)	1581		8854	4	1675		4961		2963	
5112	31011	3138	10	6510		2939		3825		4225	7
5113	31012	2753		5816		3555	4	4163		3426	
5114	31013	3029		4688		2206		2531		1030	
5115	29482 (R)	1365				2017					
5116	31014	3711	6	7465		1542		5663	3	4115	8
5117	31015	1539		7465		1610		4669		3600	
5118	IR 64 (Yield Check)	1492		4063		2379		4875		3744	
5119	31016	1359		7813		2097		4238		2564	
5120	31017	3581	8	5122		2697		5569	6	3084	
5121	31018	2495		8733	6	3462	9	4440		2564	
5122	31019	1768		3767		2150		4838		4375	5
5123	31020	2195		3472		3462	9	4313		3513	
5124	31021	1372		5642		2939		4313		3015	
5125	31022	1385		8507	9	3583	2	3750		3420	
5126	31023	2659		8594	7	2657		4433		4051	9
5127	DRR Dhan 45 (Yield & Micro Nutrient Check)	1333		7726		2657		5306	8	4514	4
5128	31024	2013		8767	5	2254		3881		2847	
5129	31025	3688	7	5035		2818		4819		4884	2
5130	31026	1456		3906		3422		5250	9		
5131	31027	2458		8073		2154		4069		4034	10
5132	31028	2362		9115	2	3543	5	4898		3542	
5133	DRR Dhan 48 (Yield & Micro Nutrient Check)	2734		9184	1	3462	9	4564		3374	
5134	31029	2896		7378		3060		5550	7	2778	
5135	31030	2549		5122		1848		5580	5	3929	
5136	31031	4758	3	6163		3623	1	4500		4641	3
5137	31032	4565	5	4948		1771		5944	1	2824	
5138	31033	3138	10	4253		2681		3319		2662	
5139	31034	1719		4253		2154		4050		2946	
5140	31035	2544		7292		2190		4969	10	4323	6
5141	31036	2630		1910		1542		4088		2922	
5142	Chittimuthyalu (Micro Nutrient Check)	2229		3646		2858		3713		2795	
5143	31037	1302		8507	9	2858		4463		3501	
5144	31038	2935		3646		1812		4800			
5145	31039	3237	9	8594	7	2657		5625	4	3704	
5146	DRR Dhan 49 (Yield & Micro Nutrient Check)	4685	4	9028	3	3543	5	4556		3414	
Exp. Mean		**2536**		**6293**		**2646**		**4516**		**3391**	
F Value		**10.83(p<0.0001)S**		**239.91(p<0.0001)S**		**24.27(p<0.0001)S**		**59.21(p<0.0001)S**		**157.87(p<0.0001)S**	
CD		945		352		375		276		182	
CV%		**18.50**		**2.77**		**7.03**		**3.03**		**2.66**	
D/S		18-07-2022		24-06-2022		24-06-2022		06-07-2022		27-07-2022	
D/P		18-08-2022		23-08-2022		25-07-2022		04-08-2022		20-08-2022	

Table No. 4.3: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT & IVT - BIOFORT, Kharif 2022

ENTRY NO	IET NO	ZONE II-NORTHERN												ZONE III-EASTERN		
		Punjab (1)			Haryana (1)			Rajasthan (1)			Zone 2(3)			Odisha		
		Ludhiana			Karnal (ICAR-CSSRI)			Kota			Mean			ICAR-NRRI (Cuttack)		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5101	28694	99	116	320	96	114	447	124	113	208	106	114	325	97	104	220
5102	31003	84	95	350	81	109	358	121	100	211	95	101	306	93	87	198
5103	31004	95	97	340	118	101	478	127	109	242	113	102	353	102	97	231
5104	29484 (R)	123	97	347	119	100	406	131	101	213	124	99	322	104	112	185
5105	31005				118	120	466	134	132	234	126	126	350	106	123	190
5106	31006	104	137	353	106	114	379	136	134	188	115	128	307	104	122	206
5107	31007	88	98	343	82	92	403	127	105	240	99	98	329	92	92	187
5108	31008	120	95	350	116	86	406	139	98	173	125	93	309	105	105	205
5109	31009	105	98	406	96	91	368	123	88	229	108	92	334	107	94	238
5110	31010	103	112	419				125	124	212	114	118	316	109	99	214
5111	BPT 5204 (Yield Check)	126	76	409	120	74	360	134	85	263	127	78	344	114	95	216
5112	31011	98	97	353	99	98	383	119	110	284	105	101	340	104	92	245
5113	31012	89	95	261	93	96	522	120	101	248	101	97	343	92	88	201
5114	31013	109	75	396	110	78	397	126	78	214	115	77	336	97	79	167
5115	29482 (R)													94	102	145
5116	31014	97	123	399	97	117	454	123	133	199	105	124	351	94	98	201
5117	31015	97	98	350	100	92	391	125	103	223	107	98	321	94	95	159
5118	IR 64 (Yield Check)	102	97	366	107	110	507	127	112	256	112	106	376	98	90	248
5119	31016	110	103	360	102	95	458	121	123	179	111	107	332	98	104	220
5120	31017				117	138	434	142	148	205	129	143	319	105	134	182
5121	31018	109	91	416	105	96	386	121	110	220	111	99	340	102	86	177
5122	31019	103	122	353	101	126	400	123	150	206	109	132	320	103	111	121
5123	31020	97	117	366	98	110	411	125	130	233	107	119	337	97	93	210
5124	31021	109	99	343	103	97	398	125	94	257	112	97	333	99	84	200
5125	31022	116	89	363	115	91	406	123	93	255	118	91	341	100	93	211
5126	31023	106	98	396	97	95	397	126	111	267	109	101	353	102	98	242
5127	DRR Dhan 45 (Yield & Micro Nutrient Check)	101	116	376	99	111	434	123	113	260	108	113	356	98	99	235
5128	31024	108	92	381	106	100	405	131	111	224	115	101	336	97	84	218
5129	31025	98	106	366	97	109	534	126	116	254	107	110	384	105	105	208
5130	31026							123	117	272	123	117	272			
5131	31027	97	93	343	97	109	350	125	118	209	106	106	300	95	102	248
5132	31028	111	135	333	103	129	510	126	138	224	113	134	356	92	105	183
5133	DRR Dhan 48 (Yield & Micro Nutrient Check)	116	91	393	113	91	423	132	100	259	120	94	358	107	96	228
5134	31029	108	88	373	114	89	449	131	105	272	117	94	364	111	93	198
5135	31030				119	91	342	126	113	277	122	102	310	110	104	231
5136	31031	102	103	277	100	95	386	124	111	277	109	103	313	97	96	225
5137	31032				117	101	361	140	153	264	129	127	312	105	120	197
5138	31033	94	84	327	101	98	400	120	103	229	105	95	319	96	90	216
5139	31034	113	103	373	106	88	363	133	125	232	117	105	322	99	116	161
5140	31035	124	94	351	115	93	432	131	106	248	123	97	343	110	106	249
5141	31036	108	96	418	117	81	343	123	111	232	116	96	331	103	93	174
5142	Chittimuthyalu (Micro Nutrient Check)				125	116	506	142	152	207	133	134	356	101	134	198
5143	31037	99	122	366	101	112	422	135	133	222	111	122	337	95	101	151
5144	31038	103	99	337	118	87	424	146	98	257	122	94	339	116	100	175
5145	31039	114	107	428	117	99	396	137	118	198	122	108	341	102	104	217
5146	DRR Dhan 49 (Yield & Micro Nutrient Check)	113	90	449	102	92	405	139	95	300	118	92	384	105	99	223
Exp. Mean		**105**	**101**	**365**	**106**	**100**	**416**	**128**	**114**	**235**	**114**	**105**	**339**	**101**	**101**	**203**

Table No.4.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT & IVT - BIOFORT, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN																	
		Odisha (1)			Bihar						Bihar (2)			Uttar Pradesh			Uttar Pradesh (1)		
		Mean			Bikaramganj			Sabour			Mean			Varanasi			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5101	28694	97	104	220	95	134	358	94	116	287	94	125	322	91	127	185	91	127	185
5102	31003	93	87	198	83	114	353	82	100	352	83	107	352	70	105	289	70	105	289
5103	31004	102	97	231	109	114	349	107	110	298	108	112	323	94	110	173	94	110	173
5104	29484 (R)	104	112	185	109	123	350	105	19	323	107	71	337	105	113	225	105	113	225
5105	31005	106	123	190	101	121	345	124	123	240	112	122	292	92	119	162	92	119	162
5106	31006	104	122	206	96	139	411	99	121	285	97	130	348	98	151	228	98	151	228
5107	31007	92	92	187	86	109	376	91	102	443	89	106	409	82	107	191	82	107	191
5108	31008	105	105	205	99	113	337	110	118	288	104	116	313	102	105	207	102	105	207
5109	31009	107	94	238	90	110	322	101	98	350	95	104	336	91	104	209	91	104	209
5110	31010	109	99	214	90	113	305	96	113	250	93	113	277	105	111	205	105	111	205
5111	BPT 5204 (Yield Check)	114	95	216	111	94	404	120	128	293	115	111	348	107	89	263	107	89	263
5112	31011	104	92	245	86	117	377	93	102	438	89	109	407	87	106	209	87	106	209
5113	31012	92	88	201	81	101	344	85	103	233	83	102	288	82	89	163	82	89	163
5114	31013	97	79	167	96	77	375	105	82	283	100	79	329	110	80	266	110	80	266
5115	29482 (R)	94	102	145															
5116	31014	94	98	201	87	140	315	91	125	212	89	132	263	89	144	195	89	144	195
5117	31015	94	95	159	88	110	377	93	103	236	90	106	306	92	108	215	92	108	215
5118	IR 64 (Yield Check)	98	90	248	95	115	376	94	107	284	94	111	330	89	101	210	89	101	210
5119	31016	98	104	220	97	112	298	102	119	244	99	116	271	91	124	219	91	124	219
5120	31017	105	134	182	119	135	342	125	162	158	122	149	250	112	159	149	112	159	149
5121	31018	102	86	177	97	112	395	99	81	447	98	97	421	92	99	218	92	99	218
5122	31019	103	111	121	95	151	316	95	126	289	95	139	302	89	138	221	89	138	221
5123	31020	97	93	210	81	162	379	90	120	256	85	141	317	83	126	228	83	126	228
5124	31021	99	84	200	95	107	346	97	100	222	96	104	284	91	102	184	91	102	184
5125	31022	100	93	211	102	95	338	102	110	345	102	102	341	113	102	249	113	102	249
5126	31023	102	98	242	91	116	377	95	106	326	93	111	351	90	109	249	90	109	249
5127	DRR Dhan 45 (Yield & Micro Nutrient Check)	98	99	235	90	122	397	91	108	282	90	115	339	86	120	215	86	120	215
5128	31024	97	84	218	99	115	377	101	98	314	100	106	345	99	101	223	99	101	223
5129	31025	105	105	208	102	115	305	95	128	274	98	122	289	89	125	255	89	125	255
5130	31026																		
5131	31027	95	102	248	86	116	345	93	122	294	89	119	319	87	108	192	87	108	192
5132	31028	92	105	183	90	140	353	95	139	244	92	140	298	100	144	207	100	144	207
5133	DRR Dhan 48 (Yield & Micro Nutrient Check)	107	96	228	100	101	384	101	97	318	100	99	351	100	99	220	100	99	220
5134	31029	111	93	198	94	117	328	93	108	340	93	112	334	89	108	243	89	108	243
5135	31030	110	104	231	118	121	403	123	108	243	120	114	323	127	104	251	127	104	251
5136	31031	97	96	225	86	114	395	95	107	272	90	110	333	91	112	230	91	112	230
5137	31032	105	120	197	111	137	367	117	149	298	114	143	332	103	142	220	103	142	220
5138	31033	96	90	216	86	115	388	89	100	277	88	108	332	83	99	216	83	99	216
5139	31034	99	116	161	96	131	387	110	129	256	103	130	321	102	128	253	102	128	253
5140	31035	110	106	249	101	122	274	116	114	359	108	118	316	107	108	219	107	108	219
5141	31036	103	93	174	97	112	375	99	83	342	98	97	358	99	95	266	99	95	266
5142	Chittimuthyalu (Micro Nutrient Check)	101	134	198	118	143	402	123	171	187	121	157	295	126	135	189	126	135	189
5143	31037	95	101	151	95	130	305	96	138	246	95	134	275	91	126	188	91	126	188
5144	31038	116	100	175	118	98	358	125	99	268	121	99	313	117	90	197	117	90	197
5145	31039	102	104	217	101	132	393	113	126	293	107	129	343	102	121	200	102	121	200
5146	DRR Dhan 49 (Yield & Micro Nutrient Check)	105	99	223	98	112	386	106	102	377	102	107	381	124	105	222	124	105	222
Exp. Mean		**101**	**101**	**203**	**97**	**119**	**359**	**101**	**112**	**292**	**99**	**115**	**325**	**97**	**113**	**216**	**97**	**113**	**216**

Table No. 4.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT & IVT - BIOFORT, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN			ZONE-V – CENTRAL											
		Zone 3(4)			Madhya Pradesh (1)			Chhattisgarh (1)			Maharashtra 1					
		Mean			Waraseoni			Raipur			Sakoli			Sindewahi		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5101	28694	94	120	262	104	129	270	91	117	226	99	118	268	100	97	198
5102	31003	82	102	298	78	117	304	83	106	235	83	94	275	90	113	227
5103	31004	103	108	262	108	132	258	101	106	171	103	108	267	112	114	271
5104	29484 (R)	106	92	271	116	120	305	107	112	250	106	108	257	112	96	240
5105	31005	105	122	234	104	138	295	114	132	197	113	125	269	116	126	319
5106	31006	99	133	282	105	145	272	101	123	136	100	146	296	102	138	255
5107	31007	88	103	299	100	107	293	86	103	246	89	103	157	94	100	248
5108	31008	104	110	259	109	122	284	102	103	173	112	99	249	114	96	276
5109	31009	97	102	280	109	106	307	93	95	167	98	109	270	100	95	233
5110	31010	100	109	243	102	123	296	95	106	144				100	104	202
5111	BPT 5204 (Yield Check)	113	101	294	115	104	190	110	94	223	111	94	250	117	77	229
5112	31011	92	104	317	99	126	314	91	104	182	97	128	178	94	121	305
5113	31012	85	95	235	121	128	243	84	93	170				94	85	174
5114	31013	102	79	273	102	75	327	102	77	169	103	67	184	105	71	179
5115	29482 (R)	94	102	145												
5116	31014	90	127	231	98	133	248	87	144	188	94	145	214	98	127	247
5117	31015	91	104	247	100	102	240	91	100	203	100	95	294			
5118	IR 64 (Yield Check)	94	103	279	101	123	274	95	100	172	97	114	184	99	102	209
5119	31016	97	115	245	109	107	282	95	115	244	106	107	288	111	96	303
5120	31017	115	147	208	125	162	229	99	161	222	117	147	302	119	152	229
5121	31018	97	94	309	104	124	360	91	97	203	98	96	302	99	113	308
5122	31019	95	132	237	98	162	278	95	120	173	100	119	286	99	136	218
5123	31020	88	125	268	97	139	281	91	115	182	95	128	236	99	116	267
5124	31021	95	98	238	105	105	361	91	103	168	99	106	302	99	114	253
5125	31022	104	100	285	110	106	336	103	103	243	110	95	282	111	93	239
5126	31023	94	107	298	105	117	306	95	106	211	101	94	278	101	108	281
5127	DRR Dhan 45 (Yield & Micro Nutrient Check)	91	112	282	99	112	305	89	110	202	96	118	307	105	114	211
5128	31024	99	99	283	107	104	356	101	103	240	104	93	263	113	97	264
5129	31025	97	118	260	97	129	302	89	112	185	97	117	279	99	97	214
5130	31026							87	106	212				89	125	227
5131	31027	90	112	270	104	132	284	89	104	191	104	135	281	93	123	291
5132	31028	94	132	247	103	142	287	98	139	198	99	95	188	102	148	236
5133	DRR Dhan 48 (Yield & Micro Nutrient Check)	102	98	287	114	108	383	102	95	218	102	129	287	108	98	256
5134	31029	97	106	277	108	120	282	91	109	218				100	95	232
5135	31030	119	109	282	126	126	364	118	111	224	119	123	311	119	116	315
5136	31031	92	107	280	99	119	301	89	107	218	93	108	270	100	109	212
5137	31032	109	137	270	115	168	397	113	151	259	108	173	305	111	169	327
5138	31033	89	101	274	103	114	296	87	95	251	91	98	292	92	83	273
5139	31034	102	126	264	109	153	283	101	110	168	100	131	287	113	124	274
5140	31035	108	113	275	98	119	328	104	113	167	107	121	315	112	127	316
5141	31036	99	96	289	101	142	288	89	103	291	98	123	284	100	85	272
5142	Chittimuthyalu (Micro Nutrient Check)	117	145	244	130	159	326	119	156	179	116	184	301	120	148	257
5143	31037	94	124	222	100	143	296	91	133	212	96	144	287	100	122	200
5144	31038	119	97	249	124	122	286	113	102	209				118	96	200
5145	31039	104	121	276	109	118	294	107	116	220	110	114	298	108	114	252
5146	DRR Dhan 49 (Yield & Micro Nutrient Check)	108	105	302	106	110	284	102	95	266	106	98	259	114	91	325
Exp. Mean		**99**	**111**	**267**	**106**	**125**	**297**	**97**	**111**	**205**	**101**	**116**	**267**	**104**	**111**	**251**

Table No.4.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT & IVT - BIOFORT, Kharif 2022

ENTRY NO	IET NO	ZONE-V – CENTRAL						ZONE VI – WESTERN								
		Maharashtra 1(2)			Zone 5(4)			Maharashtra 2								
		Mean			Mean			Karjat			Shirgaon			Vadagaon		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5101	28694	99	107	233	98	115	240	95	128	220	97	137	155	103	94	223
5102	31003	86	104	251	83	108	260	86	108	181	85	114	137	79	88	248
5103	31004	107	111	269	106	115	242	102	134	221	101	120	144	104	91	219
5104	29484 (R)	109	102	249	110	109	263	102	131	190	109	118	130	102	86	246
5105	31005	114	125	294	111	130	270	100	164	204	123	125	104	105	122	272
5106	31006	101	142	275	102	138	239	101	153	215	101	154	152	107	131	288
5107	31007	91	101	202	92	103	236	86	110	209	91	104	149	78	74	272
5108	31008	113	97	262	109	105	245	109	123	216	121	105	115	109	99	239
5109	31009	99	102	251	100	101	244	96	123	209	98	119	153	94	72	262
5110	31010	100	104	202	99	111	214	96	128	217		.		92	102	277
5111	BPT 5204 (Yield Check)	114	85	239	113	92	223	108	105	204	109	99	149	109	75	314
5112	31011	95	124	241	95	120	245	94	118	224	95	122	154	100	90	268
5113	31012	94	85	174	99	102	196	86	114	219	88	104	128	89	77	266
5114	31013	104	69	181	103	72	214	101	94	223	102	88	102	101	70	303
5115	29482 (R)							105	116	207						
5116	31014	96	136	230	94	137	224	92	138	206	97	146	143	97	112	302
5117	31015	100	95	294	97	99	246	96	112	200	97	120	139	99	84	280
5118	IR 64 (Yield Check)	98	108	196	98	110	210	92	119	214	97	118	154	98	85	274
5119	31016	108	101	295	105	106	279	101	125	210	103	122	140	107	92	322
5120	31017	118	150	265	115	156	245	119	194	201	122	157	157	111	128	240
5121	31018	98	104	305	98	107	293	96	113	216	99	108	121	94	78	247
5122	31019	99	128	252	98	134	239	96	140	195	97	150	157	98	120	303
5123	31020	97	122	252	95	125	241	92	138	222	93	111	126	100	100	325
5124	31021	99	110	278	98	107	271	100	116	191	100	97	114	97	87	300
5125	31022	110	94	260	108	99	275	107	107	224	109	113	131	105	76	327
5126	31023	101	101	279	100	106	269	99	117	208	102	120	144	102	89	234
5127	DRR Dhan 45 (Yield & Micro Nutrient Check)	100	116	259	97	114	256	95	128	195	99	124	158	96	88	250
5128	31024	108	95	264	106	99	281	101	119	209	109	101	130	102	78	237
5129	31025	98	107	246	95	114	245	96	126	207	95	132	111	104	88	288
5130	31026	89	125	227	88	116	219	93	124	215						
5131	31027	98	129	286	97	124	261	87	129	195	95	120	134	94	93	234
5132	31028	101	122	212	100	131	227	100	163	220	100	154	137	102	112	266
5133	DRR Dhan 48 (Yield & Micro Nutrient Check)	105	113	271	106	107	286	102	109	215	103	104	102	106	78	246
5134	31029	100	95	232	99	108	244	95	133	203	106	141	137	95	85	253
5135	31030	119	120	313	120	119	303	120	137	224	124	93	109	111	94	329
5136	31031	96	108	241	95	111	250	96	124	235	98	127	170	99	90	315
5137	31032	109	171	316	111	165	322	113	164	172	111	156	125	102	118	259
5138	31033	91	90	282	93	97	278	88	116	200	89	114	145	107	80	252
5139	31034	106	128	280	105	129	253	98	137	221	107	128	178	105	83	277
5140	31035	109	124	315	105	120	281	103	128	207	109	117	125	107	98	255
5141	31036	99	104	278	97	113	284	97	116	220	99	120	110	95	71	268
5142	Chittimuthyalu (Micro Nutrient Check)	118	166	279	121	161	266	119	195	222	120	156	132	107	124	270
5143	31037	98	133	243	97	136	249	94	150	210	97	126	122	101	105	299
5144	31038	118	96	200	118	107	232	109	145	240	111	120	136	111	74	238
5145	31039	109	114	275	108	115	266	102	135	195	110	125	114	110	83	276
5146	DRR Dhan 49 (Yield & Micro Nutrient Check)	110	94	292	107	98	283	101	110	210	107	102	119	110	74	270
Exp. Mean		**103**	**112**	**256**	**102**	**115**	**253**	**99**	**129**	**210**	**103**	**122**	**135**	**101**	**92**	**271**

Table No. 4.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT & IVT - BIOFORT, Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN														
		Maharashtra 2 (3)			Maharshtra (5)			Gujarat						Gujarat (2)		
		Mean			Mean			Navasari			Nawagam			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5101	28694	98	119	199	98	115	213	87	137	219	109	111	253	98	124	236
5102	31003	83	103	189	84	103	214	74	111	199	103	96	186	88	103	192
5103	31004	102	115	195	104	113	225	93	117	218	122	93	281	107	105	249
5104	29484 (R)	104	112	188	106	108	212	105	111	229	117	93	236	111	102	233
5105	31005	109	137	193	111	132	233	88	162	193	118	116	276	103	139	234
5106	31006	103	146	218	102	144	241	90	141	248	109	118	261	99	129	255
5107	31007	85	96	210	87	98	207	78	128	214	96	91	221	87	110	218
5108	31008	113	109	190	113	104	219	98	119	201	119	97	275	108	108	238
5109	31009	96	105	208	97	103	225	89	109	265	106	91	278	97	100	271
5110	31010	94	115	247	96	111	232		.		100	102	277	100	102	277
5111	BPT 5204 (Yield Check)	109	93	222	111	90	229	109	110	275	131	84	244	120	97	260
5112	31011	96	110	215	96	116	226	87	124	258	107	97	274	97	111	266
5113	31012	88	98	204	89	95	196	77	114	196	102	85	249	89	99	222
5114	31013	101	84	209	102	78	198	105	73	230	106	77	184	105	75	207
5115	29482 (R)	105	116	207	105	116	207		.			.				
5116	31014	95	132	217	95	133	222	92	147	208	107	119	278	99	133	243
5117	31015	97	105	206	98	103	228	104	108	277	106	101	274	105	105	275
5118	IR 64 (Yield Check)	96	107	214	96	107	207	103	111	253	108	92	247	105	101	250
5119	31016	104	113	224	105	108	252	103	131	280	105	107	277	104	119	278
5120	31017	117	159	199	117	155	226	95	166	203	128	135	245	111	151	224
5121	31018	96	100	195	97	102	239	89	123	325	106	93	212	97	108	268
5122	31019	97	136	218	98	133	232	90	150	295	109	112	214	99	131	255
5123	31020	95	116	225	95	119	235	87	170	344	110	114	243	98	142	293
5124	31021	99	100	202	99	104	232	91	127	239	109	89	273	100	108	256
5125	31022	107	99	227	108	97	240	104	112	283	108	90	240	106	101	261
5126	31023	101	109	195	101	105	229	86	131	229	113	97	279	99	114	254
5127	DRR Dhan 45 (Yield & Micro Nutrient Check)	96	113	201	98	114	224	84	125	239	107	106	216	95	115	227
5128	31024	104	100	192	106	98	221	96	147	215	118	89	243	107	118	229
5129	31025	98	115	202	98	112	220	86	115	286	104	103	278	95	109	282
5130	31026	93	124	215	91	124	221				102	98	242	102	98	242
5131	31027	92	114	188	94	120	227				107	105	244	107	105	244
5132	31028	101	143	208	101	134	209	103	156	194	105	124	242	104	140	218
5133	DRR Dhan 48 (Yield & Micro Nutrient Check)	104	97	188	104	103	221	98	105	257	118	90	243	108	98	250
5134	31029	99	120	198	99	113	206				114	97	277	114	97	277
5135	31030	118	108	221	118	113	258	130	124	270	126	108	260	128	116	265
5136	31031	97	114	240	97	111	240	95	110	225	104	103	244	99	106	234
5137	31032	109	146	185	109	156	237	132	178	177	120	142	261	126	160	219
5138	31033	95	103	199	93	98	232				105	87	206	105	87	206
5139	31034	103	116	225	104	121	247	97	167	198	129	117	258	113	142	228
5140	31035	106	114	196	107	118	244	112	116	230	119	100	245	115	108	238
5141	31036	97	102	199	98	103	230				109	91	172	109	91	172
5142	Chittimuthyalu (Micro Nutrient Check)	115	158	208	116	161	236	112	138	283	124	126	155	118	132	219
5143	31037	97	127	210	97	129	224	86	163	307	107	106	244	96	135	275
5144	31038	110	113	205	112	109	203	131	122	188	122	89	263	126	106	225
5145	31039	107	114	195	108	114	227	99	129	244	109	99	266	104	114	255
5146	DRR Dhan 49 (Yield & Micro Nutrient Check)	106	95	200	107	95	236	105	107	321	120	87	244	112	97	282
Exp. Mean		**101**	**114**	**205**	**102**	**114**	**227**	**97**	**129**	**244**	**111**	**102**	**246**	**105**	**113**	**244**

Table No. 4.3 Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT & IVT - BIOFORT, Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN			ZONE VII – SOUTHERN											
		Zone 6(5)			Andhra Pradesh						Andhra Pradesh (2)			Telangana		
		Mean			Maruteru			Bapatla			Mean			Rudrur		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5101	28694	98	121	214	89	134	340	90	112	255	90	123	297	104	101	276
5102	31003	85	103	190	67	119	294	84	107	200	76	113	247	90	91	220
5103	31004	104	111	217	112	139	333	98	123	330	105	131	331	112	101	259
5104	29484 (R)	107	108	206	106	125	320	92	113	240	99	119	280	108	91	911
5105	31005	107	138	210	87	142	343	94	163	233	90	152	288	108	121	184
5106	31006	101	139	233	97	149	366	97	147	304	97	148	335	103	124	182
5107	31007	86	102	213	77	113	310	91	97	246	84	105	278	95	89	181
5108	31008	111	109	209	107	116	340	99	120	292	103	118	316	94	86	160
5109	31009	96	103	233	87	112	317	94	114	263	90	113	290	102	88	183
5110	31010	96	111	257	87	119	333	88	127	335	88	123	334	98	79	161
5111	BPT 5204 (Yield Check)	113	94	237	111	104	327	105	111	205	108	107	266	115	81	159
5112	31011	96	110	235	83	117	317	92	118	268	88	118	292	102	84	209
5113	31012	88	99	211	70	101	337	88	99	199	79	100	268	90	85	283
5114	31013	103	80	208	98	85	277	92		14	95	85	145	98	80	202
5115	29482 (R)	105	116	207										95	83	186
5116	31014	97	132	227	87	143	353	88	112	271	87	127	312	96	142	226
5117	31015	100	105	234	86	112	287	94	105	181	90	108	234	103	82	210
5118	IR 64 (Yield Check)	99	105	228	86	122	337	87	101	300	86	111	318	100	87	239
5119	31016	104	116	246	95	116	290	100	96	183	97	106	237	105	106	281
5120	31017	115	156	209	117	106	300	97	166	274	107	136	287	117	147	178
5121	31018	96	103	224	92	122	347	89	103	248	91	113	297	103	94	207
5122	31019	98	134	233	81	143	347	91	124	114	86	133	230	100	129	287
5123	31020	96	127	252	82	139	300	88	113	233	85	126	266	102	105	180
5124	31021	99	103	223	87	119	307	96	120	250	91	119	278	106	83	197
5125	31022	106	100	241	98	105	330	93	94	171	95	99	251	103	83	159
5126	31023	100	111	218	93	117	340	96	121	332	94	119	336	105	78	180
5127	DRR Dhan 45 (Yield & Micro Nutrient Check)	96	114	211	82	121	340	89	105	273	85	113	306	97	99	241
5128	31024	105	107	207	98	118	310	95	113	245	96	115	277	105	85	161
5129	31025	97	113	234	98	124	320	99	116	165	98	120	242	102	98	179
5130	31026	97	111	228				99	128	281	99	128	281	98	92	157
5131	31027	96	112	202	88	146	347	93	128	270	91	137	308	95	109	235
5132	31028	102	142	212	89	146	347	93	153	284	91	149	315	101	113	281
5133	DRR Dhan 48 (Yield & Micro Nutrient Check)	105	97	213	100	115	340	104	112	153	102	113	246	110	77	168
5134	31029	102	114	217	95	117	340	95	135	331	95	126	335	103	91	264
5135	31030	122	111	238	123	125	317	102	135	318	112	130	317	98	82	173
5136	31031	98	111	238	86	111	320	90	112	198	88	111	259	101	101	170
5137	31032	115	152	199	109	160	347	96	156	294	103	158	320	105	105	276
5138	31033	97	99	201	71	110	307	88	102	167	79	106	237	99	83	277
5139	31034	107	126	226	106	122	294	100	137	292	103	130	293	110	100	174
5140	31035	110	111	213	105	130	330	96	113	302	100	122	316	109	104	304
5141	31036	100	99	192	86	116	267	100	81	173	93	99	220	103	84	180
5142	Chittimuthyalu (Micro Nutrient Check)	116	148	212	118	117	300	105	161	280	111	139	290	111	130	172
5143	31037	97	130	236	86	124	314	96	114	109	91	119	211	96	98	173
5144	31038	117	110	213	112	122	307	90	105	186	101	114	246	98	82	154
5145	31039	106	114	219	97	132	310	101	134	210	99	133	260	100	102	278
5146	DRR Dhan 49 (Yield & Micro Nutrient Check)	108	96	233	101	107	323	98	115	263	99	111	293	97	73	178
Exp. Mean		**102**	**115**	**221**	**94**	**122**	**322**	**94**	**120**	**238**	**94**	**121**	**280**	**102**	**96**	**224**

Table No. 4.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT & IVT - BIOFORT, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN														
		Telangana						Telangana (3)			Tamil Nadu					
		Rajendranagar			Warangal			Mean			Adhuturai			Coimbatore		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5101	28694	99	104	367	94	138	394	99	114	346	105	105	273	97	117	344
5102	31003	83	94	433	80	118	404	84	101	353	99	100	255	88	101	291
5103	31004	111	103	487	104	133	422	109	112	389	102	103	325	104	96	284
5104	29484 (R)	109	103	453	112	138	417	110	111	594	105	104	340	102	102	351
5105	31005	106	121	360	123	154	391	112	132	312	95	96	245	96	132	337
5106	31006	103	116	473	94	157	427	100	132	361	96	107	370	106	150	330
5107	31007	84	90	373	80	103	351	86	94	302	101	99	300	90	94	292
5108	31008	110	104	410	112	133	454	105	108	341	100	103	305	106	103	317
5109	31009	98	94	377	91	124	426	97	102	328	102	101	258	96	88	273
5110	31010							98	79	161				99	60	277
5111	BPT 5204 (Yield Check)	116	89	440	111	115	439	114	95	346	107	106	280	110	83	332
5112	31011	99	100	370	86	120	500	96	101	359	103	102	255	99	102	314
5113	31012	92	100	303	82	109	396	88	98	327	107	108	215	88	92	295
5114	31013	106	71	433	104	93	409	103	81	348	106	106	210	93	88	333
5115	29482 (R)							95	83	186						
5116	31014	92	117	433	95	163	424	94	141	361	101	102	245	92	128	319
5117	31015	96	99	493	92	116	399	97	99	367	103	102	220	108	94	314
5118	IR 64 (Yield Check)	99	98	490	95	125	432	98	103	387	103	103	255	98	93	304
5119	31016	103	104	513	97	127	347	102	112	380	102	103	260	99	117	296
5120	31017	127	139	537	123	163	413	122	150	376	101	101	260	106	165	336
5121	31018	99	97	453	94	114	363	99	101	341	98	98	195	91	92	308
5122	31019	102	115	443	97	152	370	100	132	366	102	103	205	104	136	339
5123	31020	100	110	430	88	157	389	97	124	333	99	99	325	96	56	344
5124	31021	103	99	473	97	109	434	102	97	368	103	104	225	96	86	275
5125	31022	108	91	427	103	104	403	104	93	329	108	109	205	104	80	340
5126	31023	104	99	433	98	123	398	102	100	337	102	103	295	106	104	368
5127	DRR Dhan 45 (Yield & Micro Nutrient Check)	98	105	357	96	134	426	97	112	341	105	105	205	98	99	343
5128	31024	108	96	523	101	131	401	105	104	362	103	103	290	105	103	325
5129	31025	110	104	483	93	124	421	102	108	361	106	107	265	101	111	325
5130	31026							98	92	157						
5131	31027	97	101	453	92	134	375	95	115	354	104	105	225	90	109	291
5132	31028	114	117	343	100	167	416	105	133	347	100	100	258	106	145	331
5133	DRR Dhan 48 (Yield & Micro Nutrient Check)	114	91	473	105	117	358	109	95	333	104	103	273	107	92	277
5134	31029	101	103	373	99	126	429	101	107	355	106	107	295	95	100	319
5135	31030	112	104	357	126	138	388	112	108	306	96	97	305	102	121	301
5136	31031	99	100	420	92	126	383	97	109	324	99	100	285	97	105	295
5137	31032	114	131	400	113	189	462	111	142	379	96	96	255	95	138	344
5138	31033	85	80	500	106	110	444	97	91	407	98	99	255	89	92	305
5139	31034	114	106	510	106	158	360	110	121	348	103	103	273	106	114	293
5140	31035	111	102	353	111	143	376	110	117	344	101	100	243	102	100	278
5141	31036	97	98	463	95	124	391	98	102	345	103	103	225	88	92	310
5142	Chittimuthyalu (Micro Nutrient Check)	123	135	447	118	159	383	117	141	334	103	103	298	101	176	331
5143	31037	98	109	407	90	152	371	95	120	317	101	102	205	95	66	295
5144	31038	97	92	463	118	115	394	104	96	337	107	108	310	107	104	315
5145	31039	106	104	467	103	126	414	103	111	386	104	103	250	105	116	285
5146	DRR Dhan 49 (Yield & Micro Nutrient Check)	110	96	470	102	118	404	103	96	351	105	106	365	107	98	331
Exp. Mean		**103**	**103**	**434**	**100**	**132**	**405**	**102**	**110**	**354**	**102**	**103**	**265**	**99**	**105**	**314**

Table No.4.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT & IVT - BIOFORT, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN														
		Tamil Nadu (2)			Kerala						Kerala (2)			Karnataka		
		Mean			Moncompu			Pattambi			Mean			Sirsi		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5101	28694	101	111	308	111	99	350	94	97	428	102	98	389	114	96	314
5102	31003	94	100	273	109	94	233	95	88	406	102	91	320	108	97	357
5103	31004	103	99	305	114	106	308	96	91	371	105	98	340	124	95	363
5104	29484 (R)	103	103	345	125	104	275	95	79	475	110	91	375	116	93	333
5105	31005	96	114	291	122	128	258	96	95	411	109	111	335	121	111	330
5106	31006	101	128	350	114	126	367	95	94	500	104	110	433	121	118	347
5107	31007	95	97	296	114	94	358	95	86	476	105	90	417	100	83	377
5108	31008	103	103	311	121	101	208	95	97	366	108	99	287	127	86	370
5109	31009	99	95	265	112	89	275	95	87	405	103	88	340	113	79	376
5110	31010	99	60	277	114	52	292	96	88	543	105	70	417	109	94	340
5111	BPT 5204 (Yield Check)	109	94	306	114	88	217	95	91	428	104	90	322	136	70	324
5112	31011	101	102	284	111	101	375	95	102	436	103	102	405	115	91	340
5113	31012	98	100	255	112	89	158	96	98	441	104	94	300	107	82	304
5114	31013	99	97	271	114	67	258	95	97	491	105	82	374	109	73	344
5115	29482 (R)							98	98	477	98	98	477			
5116	31014	96		282	109	126	342	96	92	415	102	109	378	110	105	373
5117	31015	106	98	267	109	94	275	98	99	423	103	96	349	115	89	311
5118	IR 64 (Yield Check)	100	98	279	114	96	342	97	104	442	105	100	392	112	86	370
5119	31016	100	110	278	125	104	167	99	102	428	112	103	297	127	92	363
5120	31017	103	133	298	124	162	200	95	99	441	109	130	320	125	121	324
5121	31018	95	95	251	112	91	342	95	96	471	104	93	406	109	84	373
5122	31019	103	119	272	114	110	400	96	90	529	105	100	464	115	114	320
5123	31020	97	78	335	109	117	292	93	94	456	101	106	374	113	106	393
5124	31021	100	95	250	114	105	250	95	91	473	105	98	361	116	79	353
5125	31022	106	94	272	113	93	300	98	94	415	106	93	357	119	68	390
5126	31023	104	103	332	114	104	283	96	94	521	105	99	402	127	84	344
5127	DRR Dhan 45 (Yield & Micro Nutrient Check)	101	102	274	109	102	367	97	93	482	103	97	424	113	92	347
5128	31024	104	103	308	123	101	375	96	99	453	109	100	414	128	81	363
5129	31025	104	109	295	107	109	317	94	98	442	100	103	379	118	98	354
5130	31026							96	98	459	96	98	459			
5131	31027	97	107	258	109	110	283	95	102	443	102	106	363	110	98	333
5132	31028	103	122	294	109	121	275	94	98	428	101	109	351	116	119	330
5133	DRR Dhan 48 (Yield & Micro Nutrient Check)	106	97	275	115	97	333	94	98	413	104	98	373	122	78	363
5134	31029	100	104	307	122	102	308	97	104	497	109	103	403	115	87	347
5135	31030	99	109	303	122	105	275	96	98	443	109	101	359	122	88	377
5136	31031	98	103	290	110	101	292	96	102	423	103	101	357	114	96	363
5137	31032	95	117	300	114	122	333	96	98	442	105	110	387	107	119	307
5138	31033	93	95	280	111	96	233	95	102	428	103	99	330	112	83	356
5139	31034	104	108	283	130	119	225	96	97	441	113	108	333	128	101	340
5140	31035	101	100	260	129	110	375	95	98	471	112	104	423	121	96	386
5141	31036	96	98	268	112	98	425	96	97	529	104	97	477	109	87	396
5142	Chittimuthyalu (Micro Nutrient Check)	102	140	314	129	163	225	95	89	456	112	126	340	114	131	376
5143	31037	98	84	250	114	118	225	95	93	473	105	105	349	115	109	366
5144	31038	107	106	313	140	106	225	94	99	415	117	103	320	136	81	330
5145	31039	105	110	267	140	99	225	95	102	521	118	100	373	131	91	356
5146	DRR Dhan 49 (Yield & Micro Nutrient Check)	106	102	348	128	102	308	94	102	482	111	102	395	128	74	340
Exp. Mean		**101**	**103**	**289**	**117**	**105**	**290**	**95**	**96**	**452**	**106**	**100**	**371**	**117**	**93**	**351**

Table No. 4.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT & IVT - BIOFORT, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN												Overall Mean (28)		
		Karnataka						Karnataka (3)			Zone 7(12)					
		Brahmawar			Gangavathi			Mean			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5101	28694	105	85	344	101	107	336	107	96	331	100	108	335	99	114	288
5102	31003	97	82	320	91	109	354	98	96	344	91	100	314	88	102	281
5103	31004	99	83	298	103	103	342	108	93	334	106	106	343	106	108	296
5104	29484 (R)	111	92	368	102	111	359	110	98	353	107	104	404	109	103	320
5105	31005	114	105	397	101	121	335	112	112	354	105	124	319	108	127	281
5106	31006	104	104	386	107	131	405	111	117	379	103	127	371	103	132	308
5107	31007	91	82	325	92	102	371	94	89	357	92	94	330	91	98	291
5108	31008	106	84	386	112	100	384	115	90	380	107	103	333	109	104	285
5109	31009	104	67	311	95	90	329	104	78	339	99	94	316	99	98	288
5110	31010	102	70	312				106	82	326	99	86	324	100	101	280
5111	BPT 5204 (Yield Check)	102	89	318	121	78	360	119	79	334	112	92	319	114	92	290
5112	31011	104	70	310	101	98	367	106	86	339	99	100	338	98	106	304
5113	31012	104	59	288	92	100	339	101	80	310	94	93	296	93	96	266
5114	31013	104	102	363	96	75	324	103	83	344	101	85	305	103	81	273
5115	29482 (R)	99	100	378				99	100	378	97	93	347	98	100	279
5116	31014	104	75	356	98	119	349	104	99	359	97	118	342	96	125	290
5117	31015	106	77	337	99	102	373	107	89	340	101	97	318	99	100	284
5118	IR 64 (Yield Check)	106	92	355	97	101	394	105	93	373	99	100	355	100	104	303
5119	31016	113	117	380	109	95	380	116	101	374	106	107	324	105	109	293
5120	31017	106	81	391	105	152	389	112	118	368	112	133	337	114	144	279
5121	31018	107	100	390	96	98	420	104	94	394	99	99	343	99	100	309
5122	31019	98	99	320	98	142	395	104	118	345	100	121	339	99	128	289
5123	31020	102	75	397	99	119	349	104	100	379	97	107	341	96	117	300
5124	31021	104	71	410	101	94	342	107	81	368	101	96	332	101	99	291
5125	31022	104	76	372	99	86	353	107	76	372	104	90	322	107	95	297
5126	31023	99	87	393	111	90	377	112	87	371	104	100	355	102	104	310
5127	DRR Dhan 45 (Yield & Micro Nutrient Check)	112	88	404	98	102	356	108	94	369	99	104	345	98	109	301
5128	31024	107	82	399	109	92	320	115	85	361	106	100	347	106	101	302
5129	31025	107	105	331	101	105	359	108	102	348	103	108	330	100	111	296
5130	31026	112	77	393				112	77	393	101	99	322	100	107	273
5131	31027	114	99	400	104	115	337	109	104	357	99	113	333	98	113	290
5132	31028	105	87	338	105	131	330	109	112	333	102	125	330	102	131	285
5133	DRR Dhan 48 (Yield & Micro Nutrient Check)	102	124	366	112	85	393	112	95	374	107	99	326	107	99	298
5134	31029	104	80	317	101	98	306	106	88	323	103	104	344	103	105	305
5135	31030	113	100	379	107	103	328	114	97	361	110	108	330	116	110	300
5136	31031	112	84	356	101	107	335	109	96	351	100	104	320	99	106	289
5137	31032	112	75	377	98	150	413	105	114	366	104	128	354	110	139	305
5138	31033	97	130	393	95	107	383	101	106	377	95	99	337	95	99	297
5139	31034	112	102	350	113	113	319	118	105	336	110	114	322	108	119	287
5140	31035	113	90	366	105	106	402	113	97	385	108	108	349	110	110	304
5141	31036	109	69	387	94	105	314	104	87	365	99	96	338	101	99	300
5142	Chittimuthyalu (Micro Nutrient Check)	108	70	390	103	142	393	108	114	386	110	131	338	116	141	291
5143	31037	107	72	394	99	128	341	107	103	367	99	107	306	99	119	277
5144	31038	111	87	361	116	96	364	121	88	352	110	100	319	115	101	281
5145	31039	111	93	398	114	96	366	119	93	373	109	108	340	109	112	299
5146	DRR Dhan 49 (Yield & Micro Nutrient Check)	109	87	382	119	88	362	118	83	361	108	97	351	109	98	317
Exp. Mean		**106**	**87**	**363**	**103**	**106**	**359**	**109**	**96**	**358**	**103**	**106**	**335**	**103**	**109**	**294**

Table No. 4.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT & IVT - BIOFORT, Kharif 2022 (Trial Not Considered)

ENTRY NO	IET NO	TRIAL NOT CONSIDERED														
		Odisha			West Bengal (0)			Uttar Pradesh			Assam (0)			Karnataka		
		@Jeypore			@Chinsurah			@Masodha			@Titabar			@Mandya		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5101	28694	111	82	372	124	104	223	91	102	220	101	117	248	96	96	217
5102	31003	110	72	344	112	98	226	93	95	254	93	115	267	87	89	271
5103	31004	113	70	350	145	96	224	115	87	260	112	113	247	101	85	183
5104	29484 (R)	119	69	346	127	102	229	119	86	224	120	120	236	97	67	196
5105	31005	110	88	410	133	114	221	89	138	213	111	118	236	98	108	237
5106	31006	112	88	350	131	121	230	103	110	273	106	131	233	104	97	264
5107	31007	111	64	363	117	100	219	108	98	229	91	98	280	88	74	162
5108	31008	118	74	246	130	107	219	94	92	278	112	108	224	104	81	291
5109	31009	119	65	333	130	100	228	102	80	250	110	100	262	92	68	169
5110	31010	97	66	290	112	104	144	101	108	296	123	97	202		.	
5111	BPT 5204 (Yield Check)	121	59	403	131	90	278	95	74	213	127	95	272	110	67	264
5112	31011	111	76	443	120	105	238	103	97	252	106	102	258	96	87	271
5113	31012	91	61	313	112	103	232	89	99	296	90	100	249	88	83	237
5114	31013	88	75	323	118	87	228	109	82	214	104	81	205	86	64	210
5115	29482 (R)	118	72	343				84	80	232						
5116	31014	113	77	440	131	108	267	101	108	219	96	124	269	92	93	264
5117	31015	112	66	320	128	94	265	93	70	199	97	107	278	96	80	277
5118	IR 64 (Yield Check)	103	67	333	131	101	137	103	93	239	108	103	285	89	73	277
5119	31016	120	72	381	126	87	270	85	85	225	103	105	283	108	87	271
5120	31017	106	109	386	145	196	227	111	144	250	120	154	193	99	106	257
5121	31018	110	70	330	132	98	279	99	91	291	106	102	310	87	71	230
5122	31019	101	95	291	113	114	148	120	93	224	99	116	185	101	108	271
5123	31020	108	84	486	127	104	222	107	110	280	96	118	241	93	93	284
5124	31021	111	68	353	123	96	240	107	119	259	105	106	268	97	75	291
5125	31022	116	58	423	116	93	267	103	83	288	97	96	249	103	74	345
5126	31023	114	64	463	130	107	272	98	90	238	99	103	264	104	84	298
5127	DRR Dhan 45 (Yield & Micro Nutrient Check)	101	69	429	117	105	263	107	87	252	101	114	255	92	100	304
5128	31024	117	64	376	131	92	277	105	103	222	120	102	239	103	65	345
5129	31025	111	80	356	126	117	228	90	102	250	104	111	258	99	87	277
5130	31026	94	73	350	112	94	208	100	111	299	106	114	228			
5131	31027	101	89	327	112	106	265	98	105	244	102	120	236	88	97	271
5132	31028	109	100	348	129	110	277	103	123	291	117	137	251	101	112	298
5133	DRR Dhan 48 (Yield & Micro Nutrient Check)	116	69	404	124	96	286	108	82	267	112	97	254	108	76	271
5134	31029	113	76	421	117	94	232	89	92	250	129	108	259	93	82	332
5135	31030	114	78	396	145	102	223	90	98	216	113	114	267	103	82	237
5136	31031	111	85	364	117	109	236	98	90	280	100	105	249	92	86	244
5137	31032	97	101	389	129	119	217	117	136	272	114	135	262	89	111	250
5138	31033	103	67	397	106	85	214	100	80	231	94	94	222	81	76	210
5139	31034	119	89	363	145	111	219	107	105	247	110	120	261	108	88	277
5140	31035	114	90	406	134	105	248	89	102	230	110	106	275	99	84	277
5141	31036	101	81	352	127	95	130	86	107	207	107	101	259	83	72	311
5142	Chittimuthyalu (Micro Nutrient Check)	100	101	376	127	151	226	89	144	250	127	141	250	96	113	244
5143	31037	108	87	333	117	125	262	100	88	250	102	118	266	93	104	304
5144	31038	117	72	433	145	102	224	120	142	270	103	119	163			
5145	31039	93	82	386	132	104	280	98	85	239	103	116	268	110	96	298
5146	DRR Dhan 49 (Yield & Micro Nutrient Check)	120	66	467	126	110	277	113	106	296	109	100	251	108	84	311
Exp. Mean		**109**	**77**	**372**	**125**	**106**	**234**	**100**	**100**	**249**	**107**	**111**	**249**	**96**	**86**	**264**

Table No.4.4: Grain quality characteristics of entries in AVT & IVT-Biofortification, kharif 2022

Entry No.	IET No.	Hull	Mill	HRR	KL	KB	L/B	Grain Type	Grain Chalk	VER	WU	KLAC	ER	ASV	AC	GC	Aroma
5101	28694	79.4	68.3	56.1	6.15	2.32	2.65	LB	VOC	5.6	220	11.0	1.78	4.0	24.11	43	NS
5102	31003	80.8	64.2	28.2	5.76	1.95	2.95	MS	VOC	4.7	210	10.3	1.78	4.0	27.51	56	NS
5103	31004	81.9	66.0	26.1	5.57	2.36	2.36	SB	VOC	5.4	265	10.4	1.86	5.0	27.66	22	NS
5104	29484 (R)	82.1	61.9	60.2	5.69	1.81	3.14	SS	A	5.3	320	10.5	1.84	7.0	24.55	64	NS
5105	31005	82.2	72.1	62.2	5.34	2.46	2.17	SB	VOC	4.8	185	9.2	1.72	4.0	26.95	42	NS
5106	31006	83.9	73.7	51.4	5.10	2.09	2.44	SB	VOC	4.5	275	9.5	1.86	4.0	27.60	25	NS
5107	31007	78.2	61.4	55.9	6.11	2.00	3.05	LS	A	5.3	325	8.4	1.37	5.0	15.34	88	NS
5108	31008	83.1	71.8	56.7	5.56	1.69	3.28	SS	VOC	5.4	315	9.5	1.70	7.0	24.20	51	NS
5109	31009	82.5	71.9	45.1	5.21	1.95	2.67	MS	VOC	4.8	290	10.2	1.95	4.0	26.42	23	NS
5110	31010	82.0	73.0	55.7	5.29	1.98	2.67	MS	OC	5.6	240	10.6	2.00	4.0	22.58	48	NS
5111	BPT -5204 (YC)	80.3	70.2	58.7	5.28	1.84	2.88	MS	VOC	4.1	215	8.4	1.59	4.0	24.43	24	NS
5112	31011	80.5	63.1	23.0	6.20	2.25	2.75	LB	VOC	4.4	270	11.3	1.82	4.0	23.67	47	NS
5113	31012	80.0	68.1	48.9	6.59	2.07	3.18	LS	VOC	4.5	230	9.0	1.36	4.0	26.69	42	NS
5114	31013	80.4	57.0	10.0	4.99	2.66	1.87	SB	VOC	4.7	155	10.1	2.02	4.0	25.52	52	NS
5115	29482 (R)																
5116	31014	82.5	70.2	32.1	5.86	2.21	2.65	MS	VOC	4.7	245	9.3	1.58	4.0	29.15	26	NS
5117	31015	80.4	70.2	62.1	7.82	1.82	4.29	LS	VOC	5.6	340	14.3	1.82	7.0	26.10	42	ss
5118	IR 64 (Y.C)	79.9	63.6	55.9	6.32	1.95	3.24	LS	VOC	4.8	275	9.0	1.42	4.0	25.60	45	NS
5119	31016	81.4	65.2	38.0	5.88	2.14	2.74	MS	A	5.4	205	10.5	1.78	4.0	27.60	49	NS
5120	31017	81.4	70.6	64.7	6.11	2.69	2.27	LB	F	5.4	225	9.7	1.58	4.0	26.92	50	NS
5121	31018	81.3	65.7	22.1	6.15	2.46	2.50	LB	VOC	5.3	330	10.5	1.70	4.0	25.60	100	NS
5122	31019	80.9	70.1	55.8	5.12	1.93	2.65	MS	VOC	5.0	320	8.8	1.71	4.0	26.92	80	NS
5123	31020	82.1	71.6	51.3	5.56	2.28	2.43	SB	VOC	5.3	245	10.4	1.87	4.0	27.01	22	NS
5124	31021	81.6	68.0	43.5	6.42	2.25	2.85	LB	VOC	5.4	355	11.7	1.82	7.0	21.03	100	NS
5125	31022	82.8	70.2	40.2	5.06	1.72	2.94	MS	A	4.2	240	10.3	2.03	4.0	23.93	22	NS
5126	31023	79.0	69.3	55.4	6.62	2.03	3.26	LS	A	5.6	180	10.8	1.63	4.0	15.34	91	NS
5127	DRR Dhan - 45	80.3	67.2	55.6	6.55	2.01	3.25	LS	VOC	5.4	270	10.0	1.52	4.0	23.46	48	NS
5128	31024	79.7	70.4	55.7	5.06	1.91	2.64	MS	A	4.8	250	10.2	2.01	4.0	25.19	22	NS
5129	31025	81.1	64.2	35.8	6.16	2.04	3.01	LS	VOC	4.4	370	10.5	1.70	7.0	26.54	33	NS
5130	31026	80.3	68.7	27.5	5.72	2.12	2.69	MS	VOC	5.4	300	9.1	1.59	4.0	25.19	59	NS
5131	31027	79.9	68.4	38.9	6.36	2.17	2.93	LB	VOC	4.7	315	11.0	1.72	4.0	23.32	75	NS
5132	31028	79.5	68.2	44.1	6.21	2.03	3.05	LS	A	5.4	340	10.7	1.72	7.0	16.83	75	NS
5133	DRR Dhan -48	79.0	70.3	55.8	5.16	1.88	2.74	MS	VOC	4.8	310	9.9	1.91	7.0	25.93	25	NS
5134	31029	82.0	69.5	58.6	7.56	2.02	3.74	LS	VOC	5.4	320	11.6	1.53	7.0	26.78	42	NS
5135	31030	79.3	69.8	63.2	6.13	2.21	2.77	LB	A	4.6	240	9.6	1.56	4.0	22.73	22	NS
5136	31031	81.1	68.2	36.6	6.74	2.26	2.98	LB	VOC	4.8	295	12.0	1.78	4.0	25.28	24	NS
5137	31032	80.4	69.6	30.0	4.87	1.85	2.63	MS	VOC	4.2	305	8.6	1.76	4.0	22.88	51	SS
5138	31033	80.0	59.0	20.8	6.10	2.23	2.73	LB	VOC	5.4	260	9.5	1.55	4.0	22.29	59	NS
5139	31034	83.0	71.8	62.7	5.71	2.00	2.85	MS	VOC	4.4	240	9.2	1.61	4.0	23.81	22	NS
5140	31035	81.3	70.8	47.5	6.33	2.21	2.86	LB	VOC	5.0	275	9.8	1.54	4.0	22.05	55	NS
5141	31036	80.4	63.2	14.0	6.09	2.46	2.47	LB	VOC	5.3	295	11.2	1.83	4.0	27.57	44	NS
5142	Chittimutyalu	80.5	69.6	67.2	3.83	2.09	1.83	SB	VOC	4.7	245	7.6	1.98	4.0	21.58	27	SS
5143	31037	80.0	65.6	45.7	6.68	2.10	3.18	LS	VOC	5.4	230	10.4	1.55	4.0	27.66	40	NS
5144	31038	79.9	70.0	61.0	5.51	2.28	2.41	SB	VOC	5.4	230	9.7	1.76	4.0	24.49	42	NS
5145	31039	81.5	69.1	48.7	6.27	2.16	2.90	LB	VOC	4.1	285	9.8	1.56	4.0	27.98	24	NS
5146	DRR Dhan -49	80.1	68.7	56.1	5.31	1.82	2.91	MS	A	4.8	320	12.6	2.37	7.0	25.60	22	NS

HULL: Hulling(%) MILL:Milling(%) HRR:Head Rice Recovery KL:Kernel length (mm) KB:Kernel Breadth(mm) L/B : Length and Breadth(mm) Grain chalk: Grain Chalkiness VOC Very Occasionally Chalky OC: Occasionally Chalky P: Present A: Absent KLAC:Kernel length after cooking WU:Water uptake ER:Elongation ratio AC:Amylose content (%)ASV:Alkali Spreading Value AC: Amylose Content ELS: Extra Long Slender LS: Long Slender MS: Medium Slender SS: Strongly Scented MS:Mild Scented NS: Non Scented

Table No.4.5: Zinc content in ppm for polished rice samples of entries in AVT & IVT-Biofort analyzed at IIRR, Hyderabad Kharif 2022

Entry No.	IET No.	LDN	KTA	Zone -2 Mean	CTK	JYP	BKG	SBR	CHN	MSD	Zone-3 Mean	RPR	SKL	Zone-5 Mean
5101	28694	27.02	18.88	**22.95**	19.83	15.84	19.47	18.05	16.20	21.80	**18.53**	19.83	20.34	**20.09**
5102	31003	27.89	21.33	**24.61**	20.94	15.25	21.21	17.81	17.81	23.46	**19.41**	18.84	19.08	**18.96**
5103	31004	25.48	14.30	**19.89**	16.20	17.89	15.72	11.18	11.02	19.24	**15.21**	14.85	16.12	**15.48**
5104	29484 (R)	31.84	22.36	**27.10**	21.01	30.30	21.84	21.88	19.59	24.17	**23.13**	23.90	22.12	**23.01**
5105	31005	24.89	16.67	**20.78**	15.33	17.50	16.23	14.18	13.51	18.09	**15.81**	14.26	16.04	**15.15**
5106	31006	22.44	12.01	**17.22**	12.80	15.80	13.07	12.64	11.46	16.20	**13.66**	12.25	13.31	**12.78**
5107	31007	25.20	23.07	**24.13**	19.12	17.93	19.71	17.58	16.31	18.84	**18.25**	17.85	17.18	**17.52**
5108	31008	30.38	18.41	**24.39**	19.28	18.68	17.50	14.69	14.54	20.58	**17.54**	19.28	17.10	**18.19**
5109	31009	26.27	14.30	**20.28**	18.88	16.04	17.06	14.65	15.09	21.17	**17.15**	16.63	17.42	**17.02**
5110	31010	22.75	16.43	**19.59**	17.93	16.87	16.51	14.46	16.08	19.95	**16.97**	15.13		**15.13**
5111	**BPT 5204 (Yield Check)**	26.39	15.33	**20.86**	18.49	17.81	17.14	14.77	16.39	20.82	**17.57**	15.88	16.83	**16.35**
5112	31011	26.66	18.41	**22.53**	18.25	19.75	17.78	17.81	15.76	23.54	**18.82**	19.99	18.25	**19.12**
5113	31012	23.07	17.93	**20.50**	16.75	16.55	18.01	14.62	16.23	19.59	**16.96**	14.34		**14.34**
5114	31013	26.50	15.01	**20.76**	17.70	24.10	16.39	15.96	17.30	17.42	**18.14**	18.37	16.55	**17.46**
5115	29482 (R)				17.93	29.35				18.45	**21.91**			
5116	31014	25.56	13.98	**19.77**	18.17	14.73	18.49	14.62	13.79	18.68	**16.41**	17.14	16.31	**16.73**
5117	31015	24.65	19.04	**21.84**	16.67	16.04	18.37	16.51	14.30	21.61	**17.25**	16.16	17.26	**16.71**
5118	**IR 64 (Yield Check)**	25.99	16.35	**21.17**	16.20	17.34	15.92	14.26	13.55	24.21	**16.91**	17.97	16.16	**17.06**
5119	31016	20.38	12.96	**16.67**	14.85	19.63	12.68	11.81	11.02	24.69	**15.78**	13.86	13.79	**13.83**
5120	31017		13.90	**13.90**	18.96	16.55	17.66	15.84	15.21	22.12	**17.72**	15.64	16.99	**16.31**
5121	31018	27.06	17.85	**22.46**	16.91	19.51	19.08	19.16	16.20	18.33	**18.20**	17.54	17.02	**17.28**
5122	31019	23.86	16.51	**20.18**	17.62	13.15	15.41	13.90	15.88	20.94	**16.15**	14.58	15.21	**14.89**
5123	31020	23.82	15.48	**19.65**	17.06	13.75	17.54	15.37	13.27	18.09	**15.85**	16.55	14.69	**15.62**
5124	31021	24.49	16.27	**20.38**	14.30	16.20	14.10	14.54	14.62	20.18	**15.66**	15.84	15.56	**15.70**
5125	31022	34.13	18.57	**26.35**	23.46	18.37	20.58	19.75	20.86	19.24	**20.38**	23.19	19.32	**21.25**
5126	31023	27.02	14.06	**20.54**	16.83	17.62	15.41	14.62	15.76	21.69	**16.99**	17.06	17.85	**17.46**
5127	**DRR Dhan 45 (Yield & Micro Nutrient Check)**	25.64	15.72	**20.68**	17.78	17.38	18.37	17.81	15.56	26.90	**18.97**	17.70	18.76	**18.23**
5128	31024	26.90	14.30	**20.60**	16.43	20.46	16.08	13.39	14.89	21.45	**17.12**	15.56	16.59	**16.08**
5129	31025	29.03	15.09	**22.06**	16.51	16.43	15.05	16.23	14.62	20.30	**16.52**	17.02	15.76	**16.39**
5130	31026		16.91	**16.91**		20.34		15.37	20.15	20.50	**19.09**	16.39		**16.39**
5131	31027	25.68	15.88	**20.78**	19.43	16.12	15.64	16.08	15.80	18.76	**16.97**	17.14	16.39	**16.77**
5132	31028	25.56	14.69	**20.13**	17.54	16.67	18.17	16.51	15.17	20.07	**17.35**	16.31	19.43	**17.87**

Entry No.	IET No.	LDN	KTA	Zone -2 Mean	CTK	JYP	BKG	SBR	CHN	MSD	Zone-3 Mean	RPR	SKL	Zone-5 Mean
5133	**DRR Dhan 48 (Yield & Micro Nutrient Check)**	27.65	14.85	**21.25**	15.33	20.94	17.78	15.84	14.77	22.00	**17.78**	18.09	16.35	**17.22**
5134	31029	25.75	15.17	**20.46**	18.49	14.97	16.04	13.15	14.10	21.69	**16.41**	16.91		**16.91**
5135	31030		17.06	**17.06**	16.51	15.09	17.54	16.16	14.93	19.55	**16.63**	16.75	16.23	**16.49**
5136	31031	27.81	15.64	**21.73**	17.70	15.21	15.17	16.43	15.37	22.12	**17.00**	18.57	17.46	**18.01**
5137	31032	25.68	14.14	**19.91**	18.25	12.84	23.70	15.44	12.48	17.93	**16.77**	15.48	16.23	**15.86**
5138	31033	27.61	22.67	**25.14**	23.38	20.11	16.16	24.29	19.95	25.75	**21.61**	18.64	23.03	**20.84**
5139	31034	27.65	17.06	**22.36**	16.99	15.64	15.05	14.38	14.65	21.57	**16.38**	16.31	15.44	**15.88**
5140	31035	22.71	17.46	**20.09**	17.06	19.28	21.96	14.73	13.94	16.75	**17.29**	17.34	15.68	**16.51**
5141	31036	27.41	21.33	**24.37**	24.02	20.18	17.62	20.15	17.85	20.74	**20.09**	21.88	20.11	**20.99**
5142	**Chittimuthyalu (Micro Nutrient Check)**	23.78	16.27	**20.03**	15.48	14.81	16.16	15.44	14.58	22.28	**16.46**	16.47	15.09	**15.78**
5143	31037	23.70	16.04	**19.87**	19.59	15.48	15.68	15.37	16.75	21.61	**17.41**	18.45	19.63	**19.04**
5144	31038	25.00	17.70	**21.35**	15.64	17.93	12.92	11.73	15.09	19.00	**15.39**	18.33		**18.33**
5145	31039	21.73	11.53	**16.63**	16.04	16.39	16.43	9.88	11.73	17.42	**14.65**	13.67	12.96	**13.31**
5146	**DRR Dhan 49 (Yield & Micro Nutrient Check)**	22.36	16.51	**19.43**	18.17	16.23	15.72	13.63	13.67	19.36	**16.13**	16.00	16.75	**16.37**
Mean		**25.84**	**16.57**	**20.87**	**17.82**	**17.72**	**17.14**	**15.61**	**15.28**	**20.63**	**17.44**	**17.11**	**17.06**	**17.04**

Table No. 4.5 (Contd): Zinc content in ppm for polished rice samples of entries in AVT & IVT-Biofort analyzed at IIRR, Hyderabad Kharif 2022

Entry No.	IET No.	KJT	SHR	VDG	NVS	NWG	Zone-6 Mean	MTU	BPT	RNR	CBT	ADT	MND	BRM	GNV	SRS	MNC	PTB	Zone-7 Men	Over all Mean
5101	28694	22.87	26.31	18.49	16.83	20.11	**20.92**	20.70	17.38	13.98	15.21	17.85	16.91	26.90	15.33	24.17	23.46	19.91	**19.25**	**19.76**
5102	31003	21.29	23.38	19.59	17.34	17.14	**19.75**	19.55	15.80	11.82	12.64	16.67	16.00	27.29	14.62	23.66	26.31	14.69	**18.10**	**19.29**
5103	31004	16.16	21.01	14.50	14.73	16.12	**16.50**	19.91	13.31	8.87	11.53	10.90	12.84	24.57	11.57	23.54	20.90	20.07	**16.18**	**16.25**
5104	29484 (R)	25.28	28.28	22.04	23.11	24.81	**24.70**	25.04	22.28	18.85	17.34	22.75	22.95	30.06	17.85	24.29	26.50	23.78	**22.88**	**23.62**
5105	31005	16.59	20.30	17.46	16.59	16.23	**17.44**	18.41	14.10	15.69	15.25	16.91	15.56	26.54	13.59	25.83	20.54	18.64	**18.28**	**17.50**
5106	31006	15.41	16.59	13.75	14.81	13.35	**14.78**	14.46	11.06	10.45	9.20	12.72	12.32	18.01	9.91	16.16	17.14	18.09	**13.59**	**14.05**
5107	31007	21.84	18.64	22.20	21.01	20.66	**20.87**	19.51	17.06	15.17	19.51	17.93	17.22	23.74	12.44	22.32	21.25	18.25	**18.58**	**19.29**
5108	31008	20.34	22.83	18.05	18.05	17.78	**19.41**	20.03	16.39	12.32	13.98	18.25	15.48	23.23	14.62	25.91	21.09	16.27	**17.96**	**18.66**
5109	31009	17.26	21.65	19.32	18.17	17.97	**18.87**	17.81	15.64	12.01	12.40	15.33	15.68	20.97	13.07	21.57	20.62	21.57	**16.97**	**17.64**
5110	31010	18.09		16.91		15.17	**16.72**	19.28	15.33	12.25				25.83		20.97	20.42	20.30	**19.20**	**17.93**
5111	**BPT 5204 (Yield Check)**	19.75	22.04	18.29	17.50	19.00	**19.32**	16.87	15.01	12.11	13.98	16.91	17.14	22.87	15.33	23.42	22.08	21.65	**17.94**	**18.22**
5112	31011	16.08	23.15	17.70	18.68	20.30	**19.18**	20.11	17.26	14.93	14.69	17.93	17.34	23.66	14.81	22.16	23.19	24.02	**19.10**	**19.32**
5113	31012	19.16	17.30	21.01	16.04	15.44	**17.79**	18.80	14.18	10.30	10.74	15.17	13.98	20.18	11.46	24.25	20.86	19.83	**16.34**	**17.03**
5114	31013	19.04	21.01	16.51	13.75	19.47	**17.96**	17.70		13.64	10.03	14.22	17.62	20.03	12.17	20.22	21.41	14.69	**16.17**	**17.47**
5115	29482 (R)	19.47					**19.47**							19.59				23.78	**21.69**	**21.43**
5116	31014	18.37	20.46	15.09	13.07	14.89	**16.38**	17.62	14.54	11.51	9.24	16.20	13.98	22.12	12.60	19.08	20.26	18.64	**15.98**	**16.51**
5117	31015	18.68	17.85	16.23	13.43	16.31	**16.50**	18.05	13.98	13.25	11.81	16.27	15.80	20.42	11.81	18.88	19.12	19.91	**16.30**	**17.02**
5118	**IR 64 (Yield Check)**	16.99	21.65	18.17	14.77	15.56	**17.43**	14.93	15.44	12.64	11.46	13.04	15.21	23.78	12.96	23.19	20.30	18.09	**16.46**	**17.16**
5119	31016	16.20	16.99	12.32	12.17	14.89	**14.51**	17.66	13.94	10.85	11.85	12.64	12.17	18.17	11.69	18.17	19.75	15.25	**14.74**	**15.01**
5120	31017	20.62	26.31	17.06	17.38	19.28	**20.13**	21.25	19.16	17.09	18.01	19.59	17.66	26.35	17.02	20.18	22.59	20.86	**19.98**	**18.93**
5121	31018	18.53	22.44	19.83	16.75	16.71	**18.85**	21.88	16.16	14.88	15.37	16.12	17.81	25.08	14.22	24.57	25.16	19.59	**19.17**	**18.99**
5122	31019	17.10	16.27	15.09	15.44	15.92	**15.97**	20.07	14.81	12.85	12.68	17.38	13.00	19.87	11.22	22.12	18.05	18.96	**16.45**	**16.46**
5123	31020	13.86	18.33	14.54	14.89	14.89	**15.30**	16.43	13.63	11.32	10.47	13.11	12.68	21.96	10.82	21.92	20.97	20.78	**15.83**	**16.01**
5124	31021	14.62	20.78	16.04	15.72	15.84	**16.60**	16.43	14.06	11.35	10.90	13.51	13.98	20.70	12.28	19.47	17.89	20.62	**15.56**	**16.17**
5125	31022	24.69	27.02	18.72	22.36	20.74	**22.70**	23.98	20.62	15.06	14.50	20.86	18.29	25.68	16.39	25.40	25.32	17.93	**20.37**	**21.35**
5126	31023	17.97	20.78	14.89	17.66	15.84	**17.43**	16.95	13.75	11.51	14.10	13.83	14.81	23.03	13.11	21.01	20.82	16.20	**16.28**	**17.08**
5127	**DRR Dhan 45 (Yield & Micro Nutrient Check)**	18.84	21.49	16.55	17.78	16.75	**18.28**	18.29	14.42	12.51	10.11	18.96	14.54	23.94	12.01	23.70	22.20	19.91	**17.32**	**18.22**
5128	31024	17.81	18.88	16.51	17.78	17.85	**17.77**	14.62	12.96	12.48	11.73	15.72	14.77	23.54	11.97	21.80	20.78	18.09	**16.22**	**17.05**

Entry No.	IET No.	KJT	SHR	VDG	NVS	NWG	Zone-6 Mean	MTU	BPT	RNR	CBT	ADT	MND	BRM	GNV	SRS	MNC	PTB	Zone-7 Men	Over all Mean
5129	31025	19.08	19.43	14.89	17.62	16.35	**17.47**	19.28	16.55	14.01	15.17		13.55	28.60	13.47	23.86	21.57	17.06	**18.31**	**17.86**
5130	31026	15.21				15.96	**15.58**			12.40				22.83				17.62	**17.62**	**17.61**
5131	31027	15.80	21.57	17.02		17.78	**18.04**	18.68	17.34	12.01	11.93	16.27	15.48	24.81	12.72	21.61	20.78	19.28	**17.35**	**17.60**
5132	31028	18.17	21.49	15.84	16.27	18.13	**17.98**	17.10	17.26	12.38	15.01	21.96	15.84	25.16	13.31	20.66	20.11	20.46	**18.11**	**18.05**
5133	**DRR Dhan 48 (Yield & Micro Nutrient Check)**	17.18	23.23	17.81	17.34	20.15	**19.14**	16.00	16.51	12.56	14.73	16.59	17.38	23.70	14.62	25.60	21.69	18.09	**17.95**	**18.34**
5134	31029	16.20	27.10	15.60		15.72	**18.65**	17.22	13.59	12.32	15.33	14.06	15.52	23.82	11.85	22.16	18.64	18.64	**16.65**	**17.25**
5135	31030	18.68	22.52	13.04	19.55	20.97	**18.95**	17.85	17.81	15.85	14.58	15.64	15.25	28.99	15.13	22.63	21.45	17.38	**18.42**	**17.89**
5136	31031	20.18	19.04	16.08	19.55	17.10	**18.39**	18.92	14.85	11.69	15.33	17.54	14.93	29.07	13.67	20.46	21.88	15.72	**17.64**	**17.98**
5137	31032	16.00	21.09	13.51	15.68	16.16	**16.49**	19.00	14.93	12.67	15.37	11.46	13.04	23.31	12.64	20.74	21.21	17.62	**16.54**	**16.79**
5138	31033	26.82	24.89	21.80		23.23	**24.18**	25.16	22.48	17.43	21.17	17.93	23.46	27.02	17.93	31.17	25.64	17.06	**22.40**	**22.59**
5139	31034	14.50	20.07	15.88	17.22	17.54	**17.04**	16.91	13.83	13.72	16.16		15.25	23.98	12.92	23.46	19.55	19.12	**17.49**	**17.39**
5140	31035	15.64	22.91	14.34	15.68	18.76	**17.47**	19.71	16.27	12.75	11.97	16.59	15.52	21.65	14.73	21.25	19.16	15.88	**16.86**	**17.30**
5141	31036	24.65	25.60	23.82		25.44	**24.88**	25.75	22.00	18.85	20.26	19.04	21.01	25.64	17.38	26.78	29.90	17.78	**22.22**	**22.21**
5142	**Chittimuthyalu (Micro Nutrient Check)**	19.83	20.15	15.48	16.43	17.74	**17.93**	20.26	17.58	15.85	16.20	17.30	16.35	23.98	13.19	22.00	20.42	16.83	**18.18**	**17.69**
5143	31037	20.50	20.54	15.37	18.76	15.80	**18.19**	21.61	16.16	12.35	13.43	17.30	15.41	22.87	12.52	22.36	23.46	15.96	**17.58**	**17.95**
5144	31038	15.68	22.75	15.48	16.99	16.75	**17.53**	16.51	14.34	12.75	13.39	13.51		23.11	15.52	23.98	18.53	18.49	**17.01**	**17.13**
5145	31039	14.42	18.41	11.49	16.08	13.86	**14.85**	16.47	13.98	11.51	13.11	12.80	12.80	27.57	12.44	19.63	20.22	18.33	**16.26**	**15.42**
5146	**DRR Dhan 49 (Yield & Micro Nutrient Check)**	17.74		13.86	15.52	14.85	**15.49**	16.99	15.84	12.82	17.50	14.85	13.98	25.75	13.86	22.00	20.07		**17.37**	**16.83**
Mean		**18.46**	**21.49**	**16.78**	**16.88**	**17.58**	**18.26**	**18.86**	**15.90**	**13.19**	**13.94**	**16.19**	**15.73**	**23.91**	**13.55**	**22.46**	**21.44**	**18.70**	**17.76**	**17.98**

Table No.4.6: Iron content in ppm for polished rice samples of entries in AVT & IVT-Biofort analyzed at IIRR, Hyderabad Kharif 2022

Entry No.	IET No.	LDN	KTA	Zone -2 Mean	CTK	JYP	BKG	SBR	CHN	MSD	Zone-3 Mean	RPR	SKL	Zone-5 Mean	KJT	SHR	VDG	NVS	NWG	Zone-6 Mean
5101	28694	1.92	1.84	**1.88**	1.88	1.49	2.22	1.73	1.65	1.95	**1.82**	1.73	1.89	**1.81**	2.32	2.14	1.47	1.87	1.85	**1.93**
5102	31003	2.10	1.86	**1.98**	2.00	1.68	2.30	1.80	1.94	1.95	**1.95**	1.54	1.68	**1.61**	2.20	2.38	1.66	1.78	1.81	**1.97**
5103	31004	1.87	1.34	**1.61**	1.56	1.29	1.88	1.30	1.27	1.20	**1.42**	1.30	1.42	**1.36**	1.74	1.82	1.31	1.69	1.49	**1.61**
5104	29484 (R)	2.17	2.08	**2.13**	1.90	2.02	2.03	2.09	1.96	1.78	**1.96**	2.00	1.91	**1.96**	2.44	2.08	2.15	2.28	2.11	**2.21**
5105	31005	1.96	1.62	**1.79**	1.54	1.55	1.77	1.10	1.42	1.55	**1.49**	1.30	1.33	**1.32**	1.74	2.02	1.45	1.56	1.55	**1.66**
5106	31006	1.54	1.30	**1.42**	1.16	1.27	1.47	1.17	1.18	1.37	**1.27**	1.01	1.08	**1.05**	1.61	1.42	1.33	1.45	1.35	**1.43**
5107	31007	2.30	2.22	**2.26**	2.12	1.88	2.19	1.73	1.90	1.34	**1.86**	1.76	1.56	**1.66**	2.36	2.18	2.42	2.20	2.05	**2.24**
5108	31008	1.71	1.60	**1.66**	1.58	1.61	1.80	1.31	1.44	1.62	**1.56**	1.47	1.37	**1.42**	1.88	1.80	1.47	1.90	1.79	**1.77**
5109	31009	2.09	1.68	**1.89**	1.78	1.69	2.04	1.40	1.72	1.65	**1.71**	1.52	1.65	**1.59**	2.10	2.22	2.04	1.85	1.96	**2.03**
5110	31010	1.82	2.16	**1.99**	1.74	1.67	1.96	1.46	1.61	1.48	**1.65**	1.39		**1.39**	2.08		1.82		1.77	**1.89**
5111	**BPT 5204 (Yield Check)**	1.98	1.56	**1.77**	1.50	1.71	2.01	1.43	1.66	1.49	**1.63**	1.62	1.64	**1.63**	2.11	1.70	1.74	1.70	1.85	**1.82**
5112	31011	2.13	1.80	**1.97**	1.76	1.62	2.08	1.75	1.89	1.77	**1.81**	1.70	1.85	**1.78**	1.81	2.18	1.61	1.96	1.95	**1.90**
5113	31012	1.82	1.78	**1.80**	1.92	2.16	1.94	1.58	1.93	1.17	**1.78**	1.31		**1.31**	1.98	1.70	1.69	1.89	1.54	**1.76**
5114	31013	2.36	2.00	**2.18**	2.04	2.08	2.65	2.04	2.23	1.53	**2.10**	1.74	1.80	**1.77**	2.52	2.32	1.88	2.11	2.22	**2.21**
5115	29482 (R)				1.74	2.39				1.49	**1.87**				2.11					**2.11**
5116	31014	1.92	1.54	**1.73**	1.86	1.73	1.74	1.42	1.51	1.64	**1.65**	1.46	1.65	**1.56**	1.99	1.90	1.50	1.44	1.65	**1.70**
5117	31015	1.88	1.56	**1.72**	2.16	1.79	1.79	1.45	1.58	1.44	**1.70**	1.54	1.65	**1.60**	1.89	1.90	1.57	1.54	1.58	**1.70**
5118	**IR 64 (Yield Check)**	2.05	1.54	**1.80**	1.94	1.82	2.09	1.46	1.82	1.56	**1.78**	1.57	1.70	**1.64**	1.93	2.16	1.77	1.56	1.61	**1.81**
5119	31016	1.74	1.54	**1.64**	1.56	1.63	1.86	1.40	1.73	1.94	**1.69**	1.51	1.14	**1.33**	1.74	1.72	1.26	1.66	1.71	**1.62**
5120	31017		1.38	**1.38**	1.64	1.78	2.07	1.02	1.33	1.51	**1.56**	1.28	1.07	**1.18**	1.87	2.10	1.44	1.47	1.60	**1.70**
5121	31018	2.13	1.84	**1.99**	1.86	1.99	1.99	1.88	1.73	1.65	**1.85**	1.63	1.77	**1.70**	2.16	1.94	1.67	1.99	1.81	**1.91**
5122	31019	2.02	1.50	**1.76**	1.66	1.23	1.75	1.39	1.61	1.55	**1.53**	1.17	1.33	**1.25**	1.85	1.88	1.60	1.75	1.70	**1.76**
5123	31020	1.76	1.68	**1.72**	1.84	1.31	2.13	1.61	1.60	1.37	**1.64**	1.27	1.58	**1.43**	1.53	1.60	1.23	1.61	1.67	**1.53**
5124	31021	1.67	1.60	**1.64**	1.60	1.53	1.67	1.38	1.62	1.66	**1.58**	1.32	1.43	**1.38**	1.51	2.02	1.56	1.64	1.69	**1.68**
5125	31022	2.44	2.08	**2.26**	2.36	2.05	2.37	2.03	2.44	1.50	**2.13**	2.36	1.99	**2.18**	2.64	2.40	1.69	2.50	2.28	**2.30**
5126	31023	2.26	1.80	**2.03**	1.70	1.62	1.99	1.62	1.73	1.47	**1.69**	1.61	1.66	**1.64**	2.03	1.92	1.39	2.04	1.65	**1.81**
5127	**DRR Dhan 45 (Yield & Micro Nutrient Check)**	2.03	1.78	**1.91**	1.94	1.66	2.30	1.87	1.91	2.23	**1.99**	1.62	1.78	**1.70**	2.21	2.64	1.33	2.14	1.82	**2.03**
5128	31024	1.74	1.44	**1.59**	1.30	1.43	2.09	1.35	1.46	1.43	**1.51**	1.47	1.52	**1.50**	1.84	1.78	1.13	1.95	1.65	**1.67**
5129	31025	1.71	1.52	**1.62**	1.30	1.32	1.63	1.46	1.48	1.39	**1.43**	1.44	1.48	**1.46**	2.22	1.70	1.10	2.01	1.52	**1.71**

Entry No.	IET No.	LDN	KTA	Zone -2 Mean	CTK	JYP	BKG	SBR	CHN	MSD	Zone-3 Mean	RPR	SKL	Zone-5 Mean	KJT	SHR	VDG	NVS	NWG	Zone-6 Mean
5130	31026		1.76	**1.76**		2.07		1.71	2.00	1.55	**1.83**	1.49		**1.49**	2.12				1.59	**1.86**
5131	31027	1.84	1.56	**1.70**	1.86	1.57	1.75	1.48	1.73	1.64	**1.67**	1.45	1.31	**1.38**	1.59	2.00	1.38		1.64	**1.65**
5132	31028	1.88	1.54	**1.71**	1.48	1.34	1.95	1.48	1.57	1.63	**1.58**	1.45	1.71	**1.58**	1.80	1.60	1.10	1.51	1.67	**1.54**
5133	**DRR Dhan 48 (Yield & Micro Nutrient Check)**	1.94	1.60	**1.77**	1.48	1.64	2.00	1.37	1.67	1.55	**1.62**	1.53	1.50	**1.52**	1.97	1.96	1.27	1.98	1.95	**1.83**
5134	31029	1.72	1.16	**1.44**	1.68	1.26	1.88	1.26	1.45	1.70	**1.54**	1.51		**1.51**	1.79	2.32	1.06		1.81	**1.75**
5135	31030		1.68	**1.68**	1.58	1.86	1.91	1.31	1.83	1.49	**1.66**	1.62	1.45	**1.54**	1.93	1.86	1.25	1.74	1.89	**1.73**
5136	31031	1.86	1.34	**1.60**	1.46	1.44	2.16	1.60	1.67	1.53	**1.64**	1.41	1.56	**1.49**	2.08	1.62	1.06	1.85	1.57	**1.64**
5137	31032	2.44	1.72	**2.08**	1.92	1.88	2.51	1.43	2.03	1.58	**1.89**	1.84	1.82	**1.83**	2.05	2.08	1.69	2.09	2.01	**1.98**
5138	31033	2.27	2.04	**2.16**	2.22	2.01	1.95	2.23	2.16	1.81	**2.06**	1.59	2.05	**1.82**	2.95	2.30	1.71		2.12	**2.27**
5139	31034	2.10	1.60	**1.85**	1.64	1.37	2.07	1.44	1.68	1.83	**1.67**	1.32	1.43	**1.38**	1.57	1.76	1.01	1.75	1.64	**1.55**
5140	31035	1.71	1.58	**1.65**	1.70	1.86	1.98	1.47	1.69	1.43	**1.69**	1.63	1.52	**1.58**	1.68	2.38	1.24	1.89	1.83	**1.80**
5141	31036	2.12	1.58	**1.85**	1.54	1.89	1.87	1.58	1.64	1.43	**1.66**	1.65	1.83	**1.74**	2.44	1.90	1.98		2.27	**2.15**
5142	**Chittimuthyalu (Micro Nutrient Check)**	1.97	1.58	**1.78**	1.76	2.05	2.12	1.26	1.65	1.39	**1.71**	1.56	1.80	**1.68**	2.30	2.64	1.45	1.68	1.86	**1.99**
5143	31037	1.88	1.54	**1.71**	1.58	1.50	1.81	1.32	1.52	1.52	**1.54**	1.45	1.74	**1.60**	2.11	1.58	1.17	1.81	1.52	**1.64**
5144	31038	1.94	1.50	**1.72**	1.68	1.46	1.69	1.17	1.50	1.59	**1.52**	1.64		**1.64**	1.51	2.00	0.99	1.70	1.48	**1.54**
5145	31039	1.77	1.42	**1.60**	1.34	1.42	1.89	1.17	1.27	1.47	**1.43**	1.28	1.47	**1.38**	1.63	1.48	0.97	1.78	1.46	**1.46**
5146	**DRR Dhan 49 (Yield & Micro Nutrient Check)**	1.68	1.66	**1.67**	1.62	1.42	1.91	1.37	1.41	1.56	**1.55**	1.31	1.45	**1.38**	2.04		1.04	1.83	1.36	**1.57**
Mean		**1.96**	**1.66**	**1.80**	**1.72**	**1.67**	**1.98**	**1.51**	**1.68**	**1.57**	**1.69**	**1.52**	**1.59**	**1.55**	**2.00**	**1.98**	**1.47**	**1.82**	**1.75**	**1.81**

Table No. 4.6 (Contd): Iron content in ppm for polished rice samples of entries in AVT & IVT-Biofort analyzed at IIRR, Hyderabad Kharif 2022

Entry No.	IET No.	MTU	BPT	RNR	CBT	ADT	MND	BRM	GNV	SRS	MNC	PTB	Zone-7 Men	Over all Mean
5101	28694	1.86	1.68	1.62	1.77	1.78	1.52	2.11	1.44	2.17	1.85	1.96	**1.80**	**1.84**
5102	31003	1.93	2.00	1.72	1.72	1.50	1.34	2.17	1.69	1.99	1.94	1.50	**1.77**	**1.85**
5103	31004	1.91	1.57	1.21	1.70	1.26	1.13	1.87	1.30	2.09	1.89	1.80	**1.61**	**1.55**
5104	29484 (R)	2.18	2.14	2.03	2.19	2.02	1.81	2.30	1.78	2.50	2.07	2.38	**2.13**	**2.09**
5105	31005	1.79	1.78	1.58	1.82	1.50	1.44	1.91	1.25	2.38	1.85	1.90	**1.75**	**1.64**
5106	31006	1.36	1.19	1.25	1.10	1.14	0.97	1.38	1.06	1.79	1.47	2.08	**1.34**	**1.33**
5107	31007	1.99	1.99	2.09	2.04	1.44	1.64	1.78	1.47	2.51	1.89	2.10	**1.90**	**1.97**
5108	31008	1.71	1.58	1.57	1.65	1.48	1.09	1.73	1.27	2.43	1.72	2.10	**1.67**	**1.64**
5109	31009	1.75	1.60	1.76	1.61	1.40	1.43	1.68	1.40	2.19	1.90	2.52	**1.75**	**1.79**
5110	31010	2.10	1.60	1.76				1.79		2.38	1.54	2.08	**1.89**	**1.80**
5111	**BPT 5204 (Yield Check)**	1.85	1.50	1.57	1.61	1.66	1.36	1.91	1.47	2.06	1.81	2.28	**1.73**	**1.72**
5112	31011	1.98	1.97	1.91	1.96	1.52	1.23	1.56	1.27	2.25	2.15	2.18	**1.82**	**1.84**
5113	31012	1.80	1.60	1.69	1.60	1.60	1.15	1.53	1.48	2.46	1.85	2.14	**1.72**	**1.73**
5114	31013	2.06		2.09	2.35	1.52	1.87	2.01	1.85	2.59	1.78	2.16	**2.03**	**2.07**
5115	29482 (R)							1.65				2.74	**2.20**	**2.02**
5116	31014	1.56	1.63	1.53	1.42	1.32	1.14	1.82	1.42	2.31	1.99	1.76	**1.63**	**1.65**
5117	31015	1.77	1.49	1.67	1.47	1.22	1.28	1.75	1.32	2.07	1.65	2.24	**1.63**	**1.66**
5118	**IR 64 (Yield Check)**	1.78	1.82	1.78	1.58	1.52	1.46	2.19	1.47	2.32	2.34	2.34	**1.87**	**1.81**
5119	31016	1.86	1.76	1.49	1.49	1.40	1.13	1.70	1.31	2.15	1.98	2.16	**1.68**	**1.64**
5120	31017	1.67	1.81	1.31	1.65	1.58	1.09	1.65	1.35	2.00	2.00	2.38	**1.68**	**1.60**
5121	31018	1.62	1.68	1.97	1.87	1.58	1.37	1.88	1.71	2.67	2.18	2.04	**1.87**	**1.87**
5122	31019	1.87	1.59	1.56	1.38	1.38	0.95	1.43	1.28	1.96	1.59	1.84	**1.53**	**1.57**
5123	31020	1.70	1.34	1.41	1.47	1.80	1.06	1.55	1.12	2.07	1.93	2.46	**1.63**	**1.60**
5124	31021	1.54	1.71	1.53	1.65	1.30	1.12	1.63	1.48	1.75	1.73	2.28	**1.61**	**1.60**
5125	31022	2.21	2.37	2.11	2.25	2.20	1.62	2.20	1.75	2.75	2.90	1.78	**2.19**	**2.20**
5126	31023	1.73	1.86	1.65	1.80	1.52	1.33	1.89	1.60	1.88	1.94	2.22	**1.77**	**1.77**
5127	**DRR Dhan 45 (Yield & Micro Nutrient Check)**	1.92	1.94	1.77	1.59	1.78	1.20	2.03	1.40	2.40	2.21	2.00	**1.84**	**1.90**
5128	31024	1.32	1.34	1.45	1.43	1.46	1.24	1.75	1.06	1.81	1.89	2.02	**1.52**	**1.55**

Entry No.	IET No.	MTU	BPT	RNR	CBT	ADT	MND	BRM	GNV	SRS	MNC	PTB	Zone-7 Men	Over all Mean
5129	31025	1.96	1.75	1.59	1.72		0.94	1.67	1.30	1.91	1.80	1.80	**1.64**	**1.59**
5130	31026			1.90				1.83				2.02	**1.92**	**1.82**
5131	31027	1.57	1.73	1.53	1.55	1.50	1.16	1.71	1.37	2.10	1.77	2.22	**1.66**	**1.64**
5132	31028	1.67	1.76	1.31	1.39	1.46	1.16	1.93	1.44	1.96	1.78	2.06	**1.63**	**1.60**
5133	**DRR Dhan 48 (Yield & Micro Nutrient Check)**	1.61	1.95	1.61	1.71	1.64	1.40	1.92	1.44	2.36	1.83	2.28	**1.80**	**1.74**
5134	31029	1.92	1.66	1.48	1.58	1.56	1.18	1.77	1.47	2.03	1.73	2.06	**1.68**	**1.63**
5135	31030	2.05	1.87	1.81	2.18	1.74	1.42	1.65	1.57	2.37	1.94	1.76	**1.85**	**1.75**
5136	31031	1.71	1.88	1.52	1.64	1.58	1.02	2.01	1.54	2.02	1.99	1.62	**1.68**	**1.64**
5137	31032	2.20	2.06	1.93	2.47	1.98	1.34	2.12	1.54	2.74	2.35	2.30	**2.09**	**2.00**
5138	31033	2.24	2.74	1.95	2.10	2.18	1.81	2.07	1.74	2.62	2.50	2.40	**2.21**	**2.15**
5139	31034	1.94	1.60	1.52	1.65		1.22	1.52	1.38	2.21	1.93	2.50	**1.75**	**1.67**
5140	31035	2.01	1.80	1.57	1.83	1.50	1.30	1.40	1.46	2.26	2.22	1.84	**1.74**	**1.72**
5141	31036	1.85	2.04	2.03	1.79	1.68	1.60	1.86	1.63	2.80	2.14	2.00	**1.95**	**1.89**
5142	**Chittimuthyalu (Micro Nutrient Check)**	2.32	2.08	2.13	2.02	2.28	1.53	2.00	1.58	3.63	2.12	1.68	**2.12**	**1.94**
5143	31037	1.85	1.71	1.37	1.55	1.40	1.13	1.55	1.26	2.36	1.79	1.60	**1.60**	**1.60**
5144	31038	1.90	1.40	1.39	1.69	1.36		1.58	1.44	2.31	1.83	2.14	**1.70**	**1.62**
5145	31039	1.82	1.54	1.40	1.77	1.42	1.37	1.83	1.25	2.05	1.92	2.00	**1.67**	**1.55**
5146	**DRR Dhan 49 (Yield & Micro Nutrient Check)**	1.74	1.73	1.57	1.60	1.22	1.35	2.01	1.20	2.34	1.59		**1.63**	**1.58**
Mean		**1.85**	**1.76**	**1.66**	**1.73**	**1.57**	**1.31**	**1.81**	**1.43**	**2.27**	**1.94**	**2.08**	**1.78**	**1.75**

Table No.4.7: Grain Protein content (%) of milled rice in AVT & IVT-Biofort, kharif 2022 at ICAR-NRRI, Cuttack.

Entry No.	Zone	II	II	Zone II	III	III	III	Zone III	V	V	VI	VI	VI	VI	Zone VI
	State	PU	RA	Mean	OD	OD	UP	Mean	CH	MA	MA	MA	GU	GU	Mean
	IET No.	LDN	KTA		CTK	JYP	VRN@		RPR@	SKL@	KJT	VDG	NWG@	NVS	
5101	28694	7.42	9.07	**8.24**	7.98	6.57	4.41	**7.28**	4.04	5.33	7.05	6.27	5.50	6.53	**6.62**
5102	31003	9.08	9.56	**9.32**	7.30	6.95	6.39	**7.12**	3.99	3.83	8.36	7.47	6.17	5.86	**7.23**
5103	31004	9.44	11.85	**10.65**	7.34	6.29	3.99	**6.82**	8.69	6.65	8.03	8.33	8.75	8.01	**8.12**
5104	29484 (R)	9.75	9.63	**9.69**	6.60	6.37	3.75	**6.49**	5.22	4.64	7.23	7.75	4.92	6.42	**7.13**
5105	31005	7.58	11.23	**9.41**	7.37	5.10	3.92	**6.24**	8.15	4.42	7.60	9.25	9.88	6.42	**7.76**
5106	31006	7.99	9.54	**8.77**	6.20	4.91	4.32	**5.56**	2.84	3.68	7.28	6.52	5.72	5.86	**6.55**
5107	31007	12.19	14.32	**13.25**	11.93	7.84	9.15	**9.88**	8.51	8.33	11.48	13.59	8.58	11.14	**12.07**
5108	31008	9.59	8.74	**9.16**	7.34	4.78	4.89	**6.06**	4.08	5.27	6.28	8.55	5.45	4.75	**6.53**
5109	31009	8.89	6.89	**7.89**	6.80	7.60	5.00	**7.20**	2.96	4.97	6.96	7.93	5.60	6.00	**6.96**
5110	31010	7.88	9.08	**8.48**	7.29	7.41	4.60	**7.35**	2.96		6.76	6.79	3.21		**6.77**
5111	**BPT 5204**	9.49	8.96	**9.22**	7.18	8.06	4.75	**7.62**	3.62	4.62	6.41	8.36	5.72	5.80	**6.86**
5112	31011	7.79	8.02	**7.90**	6.65	2.07	5.37	**4.36**	2.78	4.58	1.84	6.22	5.14	5.18	**4.41**
5113	31012	8.19	9.57	**8.88**	7.66	9.15	5.23	**8.41**	3.29		7.69	8.30	5.11	7.56	**7.85**
5114	31013	13.01	12.62	**12.82**	12.06	10.45	9.00	**11.26**	7.47	6.64	10.07		9.90	6.18	**8.13**
5115	29482 (R)				7.02	6.93		**6.98**			5.84	8.09			**6.97**
5116	31014	8.89	8.45	**8.67**	7.90	6.47	4.93	**7.19**	3.38	4.76	8.26	5.39	4.69	4.92	**6.19**
5117	31015	7.66	8.37	**8.02**	6.56	8.48	4.90	**7.52**	3.07	4.36	4.10	6.55	4.31	4.54	**5.06**
5118	**IR 64**	8.60	7.39	**8.00**	7.06	7.84	4.40	**7.45**	3.68	4.42	3.48	6.79	5.42	6.47	**5.58**
5119	31016	10.48	10.25	**10.36**	8.52	8.47	5.98	**8.50**	8.36	6.34	10.85	8.60	9.12	8.34	**9.26**
5120	31017		7.43	**7.43**	7.35	8.00	5.35	**7.68**	3.91	5.54	6.19	8.11	5.01	6.31	**6.87**
5121	31018	6.87	6.65	**6.76**	6.84	5.04	4.99	**5.94**		3.48	4.39	5.79	6.08	5.57	**5.25**
5122	31019	8.62	8.91	**8.77**	7.33	5.33	4.58	**6.33**	3.78	7.14	7.78	6.14	5.47	6.36	**6.76**
5123	31020	8.92	8.87	**8.90**	7.11		7.46	**7.11**	4.90	7.58	5.25	4.82	4.39	6.81	**5.63**
5124	31021	7.37	8.10	**7.74**	7.81	5.61	5.48	**6.71**	3.74	6.73	4.48	6.79		6.18	**5.82**
5125	31022	9.29	10.25	**9.77**	8.59	9.14	4.74	**8.86**	4.39	7.47	7.36	5.90	6.12	7.79	**7.02**
5126	31023	7.97	7.20	**7.58**	8.22	7.67	5.25	**7.94**	4.38	5.84	5.66	5.76	5.33	6.80	**6.07**
5127	**DRR Dhan 45**	8.11	7.94	**8.02**	6.69	5.69	6.59	**6.19**	3.54	6.11	7.06	5.18	6.33	7.87	**6.70**
5128	31024	9.76	8.63	**9.19**	7.19	8.33	4.98	**7.76**	6.05	6.07	7.54	6.11	6.14	7.38	**7.01**
5129	31025	8.59	8.41	**8.50**	7.59	3.65	5.53	**5.62**	7.90	4.56	10.60	5.20	8.86	8.85	**8.22**
5130	31026		7.95	**7.95**		5.27		**5.27**	5.59		9.43		5.68		**9.43**
5131	31027	7.57	6.14	**6.85**	7.29	7.73		**7.51**	3.72	4.28	2.91	4.61	4.30		**3.76**
5132	31028	6.93	6.47	**6.70**	6.57	5.49	4.23	**6.03**	3.58	5.10	5.45	3.89	4.51	5.95	**5.09**
5133	**DRR Dhan 48**	7.73	7.18	**7.46**	6.28	7.11	5.30	**6.70**	4.04	3.82	3.73	5.35	6.30	5.92	**5.00**
5134	31029	10.20	8.34	**9.27**	6.73	5.13	5.45	**5.93**	3.16		6.45	4.92			**5.69**
5135	31030		10.95	**10.95**	5.46	5.04	8.03	**5.25**	4.24	4.87	2.66	8.64	4.80	5.70	**5.66**
5136	31031	7.44	7.41	**7.43**	6.40	6.38	4.43	**6.39**	2.94	5.18	3.15	4.47	4.41	6.15	**4.59**
5137	31032	12.65	6.69	**9.67**	6.84	6.18	6.55	**6.51**	3.20	5.48	6.18	6.06	5.62	7.32	**6.52**
5138	31033	8.83	8.33	**8.58**	7.79	5.82	4.91	**6.81**	3.47	5.01	7.39	5.12	6.33		**6.26**
5139	31034	10.50	9.27	**9.89**	8.31	4.51	4.82	**6.41**	4.32	3.23	3.36	4.32	4.95	6.29	**4.66**
5140	31035	11.85	9.93	**10.89**	7.43	7.84	5.42	**7.63**	4.01	4.82	3.65	4.45	5.85	8.21	**5.43**
5141	31036	6.72	6.61	**6.67**	6.87	9.16	4.75	**8.02**	3.02	5.42		5.60			**5.60**
5142	**Chittimuthyalu**	7.04	10.30	**8.67**	6.82	4.62	7.54	**5.72**	6.08	5.91	8.07	5.08	5.36	6.84	**6.66**
5143	31037	7.72	9.71	**8.72**	7.91	5.55	5.76	**6.73**	5.79	5.09	7.86	5.20	3.52	6.42	**6.49**
5144	31038	8.06	11.74	**9.90**	5.81	4.35	4.55	**5.08**	2.75			6.80	3.78	7.05	**6.93**
5145	31039	8.20	9.25	**8.73**	8.02	6.79	4.44	**7.40**	7.57	5.72	6.25	5.27	7.14	6.18	**5.90**
5146	**DRR Dhan 49**	8.59	6.96	**7.77**	7.26	7.23	5.94	**7.25**	5.20	6.80	6.06	4.84	4.25	5.87	**5.59**
Mean		**8.80**	**8.87**	**8.83**	**7.41**	**6.54**	**5.40**	**6.97**	**4.60**	**5.35**	**6.46**	**6.48**	**5.80**	**6.61**	**6.52**

@: Data not included in the mean due to low GPC (<6%)

Table No. 4.7 (Contd): Grain Protein content (%) of milled rice in AVT & IVT-Biofort, kharif 2022 at ICAR-NRRI, Cuttack.

Entry No.	Zone	VII	VII	VII	VII	VII	VII	VII	VII	Zone VII Mean	Overall Mean
	State	TE	AP	AP	TN	TN	KA	KA	KA		
	IET No.	RNR	MTU	BPT	CBT	ADT	MND@	GNV@	BRM		
5101	28694	6.75	9.34	7.79	7.56	6.03	4.38	4.69	5.63	**7.19**	**7.23**
5102	31003	6.80	7.74	10.99	8.56	7.52	5.28	4.35	6.85	**8.08**	**7.93**
5103	31004	9.95	9.81	9.56	10.27	7.53	6.26	5.30	6.84	**8.99**	**8.71**
5104	29484 (R)	7.24	7.21	8.87	7.84	7.30	7.52	5.02	6.58	**7.51**	**7.60**
5105	31005	11.50	8.75	8.12	7.62	9.00	4.55	6.27	8.49	**8.91**	**8.31**
5106	31006	5.25	6.53	6.63	7.96	5.73	2.68	3.24	4.44	**6.09**	**6.53**
5107	31007	11.41	11.40	17.25	12.02	10.05		7.44	11.11	**12.21**	**11.98**
5108	31008	6.42		9.25	9.70	7.36	4.09	3.13	5.10	**7.57**	**7.32**
5109	31009	7.79	6.44	10.53	7.32	8.54	4.78	5.31	6.11	**7.79**	**7.52**
5110	31010			8.25					5.70	**6.98**	**7.39**
5111	**BPT 5204**	5.54	5.72	8.54	9.03	7.54		4.10	5.63	**7.00**	**7.40**
5112	31011	7.02	5.89	9.19	6.67	7.36	4.61	3.85	4.82	**6.82**	**6.05**
5113	31012	7.66	8.14	9.18	7.43	7.41	4.83	3.71	6.48	**7.72**	**8.03**
5114	31013	8.08	10.05		10.22	6.07	6.42	6.87	8.27	**8.54**	**9.74**
5115	29482 (R)								4.48	**4.48**	**6.47**
5116	31014	6.89	7.72	8.79	9.17	6.74	3.52		5.21	**7.42**	**7.29**
5117	31015	6.61	5.36	6.28	7.66	6.59	3.62	2.82	3.49	**6.00**	**6.33**
5118	**IR 64**	5.83	6.42	10.10	6.40	7.60		2.20	4.77	**6.85**	**6.83**
5119	31016	10.87		8.56	10.41	5.37	6.10	5.73	7.08	**8.46**	**8.98**
5120	31017	6.96	7.43	8.20	9.05	7.84		5.00	7.01	**7.75**	**7.49**
5121	31018	4.72		6.85	7.23	6.80	3.87	3.02	6.08	**6.34**	**6.07**
5122	31019	6.17	5.02	8.94	7.57	7.36	4.36	4.16	5.34	**6.73**	**6.99**
5123	31020	7.47		8.99	8.28	7.36	3.43	3.10	6.80	**7.78**	**7.33**
5124	31021	5.30	5.85	9.97	8.20	6.43	3.71	5.27	5.81	**6.93**	**6.76**
5125	31022	5.76	9.57	12.81	6.93	8.88	5.22	2.82	6.02	**8.33**	**8.33**
5126	31023	5.95	6.08	6.51	8.69	6.15	4.99	4.67	6.09	**6.58**	**6.83**
5127	**DRR Dhan 45**	6.69	5.96	7.80	7.54	6.65	4.41	4.92	5.84	**6.75**	**6.85**
5128	31024	7.22	7.60	10.31	7.92	7.12	5.66	3.11	6.11	**7.71**	**7.79**
5129	31025	10.12	7.61	10.41	9.45	8.13	4.03	5.83	6.72	**8.74**	**8.10**
5130	31026								4.62	**4.62**	**6.82**
5131	31027	5.44	6.54	10.28	6.80	8.17	4.17	3.27	6.17	**7.23**	**6.64**
5132	31028	4.62	6.51	7.69	5.63	6.79	3.27	3.70	6.44	**6.28**	**6.03**
5133	**DRR Dhan 48**	5.87	6.26	9.59	7.04	4.81		5.25	6.30	**6.64**	**6.40**
5134	31029	5.80		6.30	8.56	7.61	4.77	4.73	5.45	**6.74**	**6.86**
5135	31030	6.95	6.75	7.50	8.98	7.73	4.33	3.45	6.75	**7.44**	**6.93**
5136	31031	5.75	6.35	8.34	6.97	4.96	5.66	6.08	5.08	**6.24**	**6.07**
5137	31032	7.20	7.36	8.20	8.72	8.99	3.76	2.06	4.35	**7.47**	**7.44**
5138	31033	5.88	6.39	11.75	9.40			5.24	5.67	**7.82**	**7.49**
5139	31034	6.53	4.85	6.01	8.82	6.09	5.38	3.33	6.16	**6.41**	**6.54**
5140	31035	6.89	7.35	9.34	8.87	6.53	5.07	3.01	5.94	**7.49**	**7.56**
5141	31036	4.79	6.80	8.37	7.23	6.64	4.84	2.70	6.81	**6.77**	**6.87**
5142	**Chittimuthyalu**	7.26	8.11	6.26	9.41	8.65	6.12	5.09	6.45	**7.69**	**7.30**
5143	31037	6.61	8.96	10.33	8.62	1.03	6.81	4.45	7.79	**7.22**	**7.21**
5144	31038	5.89	8.01	4.40	6.35	4.46		5.45	7.14	**6.04**	**6.67**
5145	31039	8.13	8.06	6.30	10.04	6.02	7.38	6.60	6.54	**7.51**	**7.31**
5146	**DRR Dhan 49**	6.41	8.26	10.88	10.97	8.67	5.07	3.78	6.61	**8.63**	**7.58**
Mean		**6.93**	**7.32**	**8.84**	**8.35**	**6.99**	**4.86**	**4.38**	**6.16**	**7.43**	**7.35**

@: Data not included in the mean due to low GPC (<6%)

Table No. 4.8: The soil characteristics details of AICRIP centres that conducted AVT 1 and IVT-Biofortification trials during kharif 2022

S.NO	Name of the centre	Sample details	pH	E.C	Iron (ppm)	Zinc (ppm)
		No.51 AVT & IVT Biofort				
1	Shiragaon	After transplant	4.44	0.11	71.4	1.6
2	Shiragaon	Before transplant	4.69	0.60	50.6	1.1
3	Raipur	Before transplant	6.93	0.28	29.3	0.9
4	Raipur	After transplant	6.86	0.16	39.8	0.5
5	Vadagaon	one sample	7.07	0.27	31.3	10.0
6	Bikram ganj	R 1	6.06	0.06	25.7	3.9
7	Bikram ganj	R II	7.53	0.47	26.0	2.1
8	Karjat	Before Soil	7.13	0.28	6.4	0.4
9	Karjat	After Soil	7.18	0.16	6.7	0.4
10	Sakoli	Before transplant	7.34	0.25	2.4	0.3
11	Sakoli	After transplant	7.08	0.33	5.9	0.3
12	Moncompu	one sample	4.78	0.28	62.3	5.1
13	Maruteru	Before transplant	6.46	0.25	12.8	3.3
14	Maruteru	After transplant	6.27	0.56	15.6	5.4
15	Pattambi	Before crop	7.31	0.30	22.9	3.0
16	Pattambi	After transplant	7.56	0.10	46.6	1.1
17	Mandya	Before transplant	7.26	0.39	15.8	15.0
18	Mandya	After harvest	7.37	0.43	8.8	5.5
19	Nawagam	Before transplant	8.58	0.01	2.5	2.0
20	Nawagam	After transplant	8.30	0.72	9.5	4.1
21	Masodha	Before transplant	7.72	0.44	15.8	1.6
22	Masodha	After sowing	7.78	0.40	27.6	4.1
23	Rajendranagar	Before sowing	4.98	0.56	6.4	34.0
24	Rajendranagar	After harvest	4.95	1.64	8.8	28.0
25	Brahmavar	Before transplant	6.78	0.06	24.6	0.7
26	Brahmavar	After harvest	8.11	0.04	28.5	1.0
27	Sabour	one	4.84	0.46	2.9	25.7
28	Chinsurah	Before transplant	6.33	0.48	29.2	5.3
29	Chinsurah	After harvest	7.67	0.24	19.6	10.2
30	Gangavathi	Before transplant	7.81	0.12	2.7	2.8
31	Gangavathi	After harvest	8.12	0.29	1.80	2.1
32	Bapatla	Before transplant	7.24	0.11	11.2	8.0
33	Bapatla	After harvest	7.43	1.21	6.3	7.0
34	Ludhiana	Before transplant	6.10	0.12	23.2	9.4
35	Ludhiana	After transplant	6.38	0.24	27.0	6.6
36	Sirsi	R1	4.51	0.06	29.9	1.2
37	Sirsi	RII	5.17	0.19	18.7	1.2
38	Cuttack	During flower	5.87	0.35	21.7	2.8
39	Cuttack	After Harvest	5.97	0.01	21.7	2.9
40	Coimbatore	Before planting	7.91	0.72	1.3	8.7
41	Coimbatore	After Harvest	7.75	0.04	3.2	10.6
42	Jeypore	Before transplant	6.77	0.48	37.6	28.2
43	Jeypore	After harvest	6.78	0.10	41.6	26.7
44	Kota	Before transplant	7.64	0.46	5.0	0.7
45	Kota	After harvest	7.70	0.45	4.6	0.4

SPECIAL TRIAL BIOFORTIFICATION FOR BENCH MARKING (SPL CRP-BIOFORT)

Locations: **7** **Test Entries: 09**

Checks: **BPT 5204, DRR Dhan 49 and Kalanamak Kiran** **Table:4.9**

Rice biofortification is a sustainable approach to alleviate micronutrient malnutrition, especially zinc (Zn). Biofortification trial was initiated through All India Coordinated Rice Improvement Programme (AICRIP) during 2013 to evaluate promising breeding lines with high grain nutrients and the optimum levels of iron (Fe) (> 10 mg kg^{-1}), Zn (> 24 mg kg^{-1}) and protein (> 10%) in polished rice were decided based on the international standards.

To fix the benchmark levels suitable to the nutrient needs of the nation, the existing variability of released varieties for grain Zn, Fe and protein should be characterized. Therefore, a special trial under was constituted during Kharif 2022 under AICRIP for characterizing the nutrient content of released rice varieties.

The trial was executed across 7 locations with 50 test entries. Grain yield data was received from 5 locations except Cuttack and Raipur. Paddy samples for grain Zn estimation were received from BKG, RPR and NVS in two replications, and from ADT only in one replication

Details of special trial under CRP Biofortification, Kharif-2022

Zone	State	Location	Trial Sent	Grain Yield Data Received	Grain Zn content estimated
Z-II	Punjab	Ludhiana	✓	✓	
Z-III	Odisha	Cuttack	✓		
Z-III	Bihar	Bikramganj	✓	✓	✓
Z-IV	Assam	Titabar	✓	✓	
Z-V	Chhattisgarh	Raipur	✓		✓
Z-VI	Gujarat	Navsari*	✓	✓	✓
Z-VII	Tamil Nadu	Aduthurai	✓	✓	

The grain yield data among the tested entries was ranged from 1958 kg ha^{-1} (Kalanamak) to 6300 kg ha^{-1} (PR121). Days to fifty percent flowering (DFF) ranged from 75 days for PR126 to 102 days for BPT 5204, plant height from 73 cm (BPT 5204 and Swarna) to 130 cm (Basmati 370) and panicles/m^2 from 229 (Ratnagiri-7) to 372 (PR121). The data pertaining to yield, days to 50% flowering, plant height and panicles/m^2 are presented in tables 4.10 and 4.11 respectively Grain Zn content in polished rice in 2 replications for 3 locations was analyzed through energy-dispersive X-ray florescence spectrophotometer (ED-XRF) and the grain Zn content ranged from 14.2 ppm (Swarna) to 23.71 ppm (Kasturi). Since at least three common locations with data of grain yield and Zn content are required for the analyses, the trial will be repeated.

Table No.4.9: Composition of entries in Special trial under CRP Biofortification, kharif 2022

Entry No.	Designation
6501	DRR Dhan 45
6502	Basmati 386
6503	HUR 917
6504	Ranjit Sub-1
6505	Kalanamak Kiran (Check)
6506	Lalat
6507	Ketekijoha
6508	CO 52
6509	MTU 1010
6510	Muktashree
6511	Narendra Dhan 97
6512	PR 121
6513	Bahadur Sub-1
6514	DRR Dhan 48
6515	IR 64
6516	Punjab Basmati 4
6517	Khitish
6518	CR Dhan 202
6519	Ratnagiri-7
6520	HUR 105
6521	PR 126
6522	RP 2421
6523	Numali
6524	CSR 36
6525	Shahbagidhan
6526	VL 221
6527	GAR-14
6528	WGL-14
6529	Kasturi
6530	Swarna
6531	HKR 127
6532	Basmati 370
6533	HPR 1156
6534	BPT 5204 (Check)
6535	Kanaklata
6536	Luit
6537	CR Dhan 201
6538	Gitesh
6539	HPR 2656
6540	CO 51
6541	Ratnagiri-5
6542	Shatabdi
6543	Narendra Dhan 359
6544	Kala Namak-3
6545	DRR Dhan 60
6546	DRR Dhan 44
6547	DRR Dhan 42
6548	DRR Dhan 49 (Check)
6549	DRR Dhan 50
6550	DRR Dhan 51

Table No.4.10: Grain Yield (kg/ha) of entries in SPl. CRP-Biofort, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN Bihar (1) Bikramganj		Overall Mean (1)	
6501	DRR Dhan 45	5233		5233	
6502	Basmati 386	3467		3467	
6503	HUR 917	3558		3558	
6504	Ranjit Sub-1				
6505	Kalanamak Kiran (Check)	1958		1958	
6506	Lalat	5425	8	5425	8
6507	Ketekijoha	3975		3975	
6508	CO 52	4442		4442	
6509	MTU 1010	5017		5017	
6510	Muktashree	5533	7 *	5533	7 *
6511	Narendra Dhan 97	3992		3992	
6512	PR 121	6300	1 *	6300	1 *
6513	Bahadur Sub-1				
6514	DRR Dhan 48	4925		4925	
6515	IR 64	5133		5133	
6516	Punjab Basmati 4	4033		4033	
6517	Khitish	5758	4 *	5758	4 *
6518	CR Dhan 202	3625		3625	
6519	Ratnagiri-7	4575		4575	
6520	HUR 105	4358		4358	
6521	PR 126	4358		4358	
6522	RP 2421	3092		3092	
6523	Numali				
6524	CSR 36	3983		3983	
6525	Shahbagidhan	4967		4967	
6526	VL 221				
6527	GAR-14	4967		4967	
6528	WGL-14	4633		4633	
6529	Kasturi	6133	2 *	6133	2 *
6530	Swarna	3708		3708	
6531	HKR 127	5592	6 *	5592	6 *
6532	Basmati 370	3758		3758	
6533	HPR 1156	3925		3925	
6534	BPT 5204 (Check)	3975		3975	
6535	Kanaklata	5633	5 *	5633	5 *
6536	Luit	5042		5042	
6537	CR Dhan 201	5208		5208	
6538	Gitesh				
6539	HPR 2656				
6540	CO 51	4475		4475	
6541	Ratnagiri-5	4192		4192	
6542	Shatabdi	3803		3803	
6543	Narendra Dhan 359	5325	9	5325	9
6544	Kala Namak-3	3008		3008	
6545	DRR Dhan 60	5300	10	5300	10
6546	DRR Dhan 44	5833	3 *	5833	3 *
6547	DRR Dhan 42	4083		4083	
6548	DRR Dhan 49 (Check)	4275		4275	
6549	DRR Dhan 50	4100		4100	
6550	DRR Dhan 51	4683		4683	
Exp. Mean		**4531**		**4531**	
F Value		**4.44(p<.0001)S**		**4.44(p<.0001)S**	
CD		1208		1208	
CV%		**13.22**		**13.22**	
D/S					
D/P		02-08-2022			

Table No.4.10 (Comtd): Grain Yield (kg/ha) of entries in SPl. CRP-Biofort, Kharif 2022 (Trial Not considered)

ENTRY NO	IET NO	TRIALS NOT CONSIDERED							
		Punjab		Assam		Gujarat		Tmil Nadu	
		@Ludhiana		@Titabar		@Navasari		@Adhuturai	
6501	DRR Dhan 45	1944	6	3936		3245		4236	
6502	Basmati 386	1323		3900		3330		4653	
6503	HUR 917			3007		3335		4792	
6504	Ranjit Sub-1								
6505	Kalanamak Kiran (Check)	1812	8	3547		3318		4514	
6506	Lalat	2262	4	3955		4910	5	4653	
6507	Ketekijoha								
6508	CO 52			3583		4112		5903	1
6509	MTU 1010	2368	3	3339		4923	4	4375	
6510	Muktashree	1402		3692		3970			
6511	Narendra Dhan 97	741		3914		3430		4514	
6512	PR 121			3773		3096		4306	
6513	Bahadur Sub-1								
6514	DRR Dhan 48			3302		3943		4375	
6515	IR 64	1720	10	4108	6	4051			
6516	Punjab Basmati 4			2993		3056		4583	
6517	Khitish	1720		4818	2	4563	9	5694	2
6518	CR Dhan 202	1124		3980	9	3149		4375	
6519	Ratnagiri-7	860		4075	7	2819		4306	
6520	HUR 105			3207		3373		4306	
6521	PR 126	886				3867		4375	
6522	RP 2421	1601		5449	1	3942		5000	7
6523	Numali			3761		5379	1		
6524	CSR 36			3033		3985		4653	
6525	Shahbagidhan	1667		3780		4158			
6526	VL 221								
6527	GAR-14			3007		4894	6	4583	
6528	WGL-14			1768		5012	2	4375	
6529	Kasturi	212				4780	7		
6530	Swarna			3944		3233		4722	
6531	HKR 127	899		3736		3150		4306	
6532	Basmati 370	1389		3309		2882		4896	9
6533	HPR 1156	1111		3229		3640		4722	
6534	BPT 5204 (Check)			2278		3329		5694	2
6535	Kanaklata	212		3335		2901		4757	
6536	Luit	1759	9	4684	3	4543	10	4514	
6537	CR Dhan 201	2460	2	3991	8	3364		5417	4
6538	Gitesh			1625					
6539	HPR 2656			2253					
6540	CO 51	1852	7	4502	5	3352		4722	
6541	Ratnagiri-5	1243		3226		3852		4514	
6542	Shatabdi	860		3853		4657	8	4444	
6543	Narendra Dhan 359	159		4567	4	3012			
6544	Kala Namak-3	1481		3911		2990		4722	
6545	DRR Dhan 60			3018		4430		4861	10
6546	DRR Dhan 44	2077	5	3969		2993		4514	
6547	DRR Dhan 42	2738	1	3244		3912		5139	5
6548	DRR Dhan 49 (Check)			2395		4923	3	4653	
6549	DRR Dhan 50			3135		3600		5000	7
6550	DRR Dhan 51	529		3864		3251		5069	6
Exp. Mean		**1393**		**3545**		**3788**		**4717**	
F Value		**8.83(p<.0001)S**		**77.82(p<.0001)S**		**7.88(p<.0001)S**		**0.68(p=0.8774)NS**	
CD		659		242		714		1403	
CV%		**23.08**		**3.38**		**9.35**		**14.68**	
D/S		25-07-2022		12-08-2022		22-07-2022		13-08-2022	
D/P		22-08-2022		02-09-2022		19-08-2022		24-09-2022	

Table No. 4.11: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in SPl. CRP-Biofort, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN			Overall Mean (1)		
		Bihar (1)					
		Bikramganj					
		DFF	PH	PAN	DFF	PH	PAN
6501	DRR Dhan 45	83	96	335	83	96	335
6502	Basmati 386	87	108	310	87	108	310
6503	HUR 917	88	74	281	88	74	281
6504	Ranjit Sub-1						
6505	Kalanamak Kiran (Check)	81	74	317	81	74	317
6506	Lalat	83	103	291	83	103	291
6507	Ketekijoha	97	114	320	97	114	320
6508	CO 52	95	88	305	95	88	305
6509	MTU 1010	81	104	299	81	104	299
6510	Muktashree	81	110	317	81	110	317
6511	Narendra Dhan 97	79	106	361	79	106	361
6512	PR 121	94	91	372	94	91	372
6513	Bahadur Sub-1						
6514	DRR Dhan 48	95	82	303	95	82	303
6515	IR 64	78	86	349	78	86	349
6516	Punjab Basmati 4	95	75	288	95	75	288
6517	Khitish	78	113	305	78	113	305
6518	CR Dhan 202	83	109	300	83	109	300
6519	Ratnagiri-7	78	98	229	78	98	229
6520	HUR 105	85	99	302	85	99	302
6521	PR 126	75	91	307	75	91	307
6522	RP 2421	78	107	355	78	107	355
6523	Numali						
6524	CSR 36	80	92	346	80	92	346
6525	Shahbagidhan	78	108	333	78	108	333
6526	VL 221						
6527	GAR-14	94	95	333	94	95	333
6528	WGL-14	96	90	316	96	90	316
6529	Kasturi	81	97	324	81	97	324
6530	Swarna	98	73	341	98	73	341
6531	HKR 127	87	94	361	87	94	361
6532	Basmati 370	86	130	294	86	130	294
6533	HPR 1156	92	116	339	92	116	339
6534	BPT 5204 (Check)	102	73	361	102	73	361
6535	Kanaklata	87	105	311	87	105	311
6536	Luit	78	111	341	78	111	341
6537	CR Dhan 201	80	100	295	80	100	295
6538	Gitesh						
6539	HPR 2656						
6540	CO 51	78	100	317	78	100	317
6541	Ratnagiri-5	78	79	324	78	79	324
6542	Shatabdi	88	99	307	88	99	307
6543	Narendra Dhan 359	85	94	319	85	94	319
6544	Kala Namak-3	85	120	355	85	120	355
6545	DRR Dhan 60	95	83	363	95	83	363
6546	DRR Dhan 44	79	90	322	79	90	322
6547	DRR Dhan 42	79	97	309	79	97	309
6548	DRR Dhan 49 (Check)	90	86	295	90	86	295
6549	DRR Dhan 50	96	89	305	96	89	305
6550	DRR Dhan 51	88	93	359	88	93	359
Exp. Mean		**85**	**96**	**321**	**85**	**96**	**321**

Table No.4.11 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in SPl. CRP-Biofort, Kharif 2022 (Trial Not Considered)

ENTRY NO	IET NO	TRIALS NOT CONSIDERED											
		Punjab			Assam			Gujarat			Tmil Nadu		
		@Ludhiana			@Titabar			@Navasari			@Adhuturai		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
6501	DRR Dhan 45	90	94	185	79	107	239	84	106	279	101	74	206
6502	Basmati 386	88	109	248	84	124	251	82	123	309	105	95	235
6503	HUR 917				85	75	192	85	77	300	103	85	210
6504	Ranjit Sub-1												
6505	Kalanamak Kiran (Check)	89	81	215	72	99	223	81	85	212	100	65	223
6506	Lalat	95	81	238	79	101	232	84	81	235	102	72	233
6507	Ketekijoha							0					
6508	CO 52				108	87	236	79	92	308	107	109	246
6509	MTU 1010	85	80	191	71	101	231	80	92	274	91	62	230
6510	Muktashree	91	92	205	74	113	236	84	110	347			0
6511	Narendra Dhan 97	83	70	182	72	92	233	74	82	275	109	64	195
6512	PR 121				88	84	258	84	71	238	110	74	243
6513	Bahadur Sub-1												
6514	DRR Dhan 48				103	89	248	81	81	278	106	82	240
6515	IR 64	95	73	224	82	100	256	101	92	306			0
6516	Punjab Basmati 4				108	88	238	105	96	229	102	82	205
6517	Khitish	83	87	185	71	98	264	101	103	244	103	71	238
6518	CR Dhan 202	93	95	201	82	120	227	96	116	296	102	97	275
6519	Ratnagiri-7	87	74	201	74	108	247	81	83	178	97	98	225
6520	HUR 105				81	97	249	99	81	231	102	82	245
6521	PR 126	91	70	218				83	81	246	104	66	210
6522	RP 2421	78	96	195	60	112	251	72	97	336	105	72	198
6523	Numali				104	76	241	97	101	205			
6524	CSR 36				103	92	198	101	98	247	105	85	255
6525	Shahbagidhan	85	85	195	71	107	256	80	98	224			
6526	VL 221												
6527	GAR-14				97	102	234	98	96	250	107	93	240
6528	WGL-14				104	94	191	94	96	250	108	95	242
6529	Kasturi	83	86	198				75	117	153		.	
6530	Swarna				110	68	242	101	75	225	101	94	248
6531	HKR 127	96	77	195	79	99	258	95	98	196	97	75	205
6532	Basmati 370	91	112	175	82	119	277	99	127	292	107	102	239
6533	HPR 1156	80	103	201	66	129	279	93	119	169	102	83	205
6534	BPT 5204 (Check)				111	105	210	108	74	246	103	72	275
6535	Kanaklata	97	94	188	87	117	271	97	121	188	103	75	280
6536	Luit	82	80	208	64	103	260	95	93	272	105	78	230
6537	CR Dhan 201	94	87	218	76	108	235	94	110	219	109	93	240
6538	Gitesh				76	61	258						
6539	HPR 2656				73	66	219						
6540	CO 51	84	79	191	68	103	150	78	101	300	100	73	255
6541	Ratnagiri-5	85	57	198	64	79	328	101	84	272	106	92	245
6542	Shatabdi	85	79	188	53	94	213	96	93	219	106	73	213
6543	Narendra Dhan 359	96	76	181	83	100	209	96	88	159		.	
6544	Kala Namak-3	95	106	182	83	128	232	102	121	248	108	86	213
6545	DRR Dhan 60				102	80	265	98	82	230	107	172	245
6546	DRR Dhan 44	89	90	175	66	115	234	80	108	270	105	92	260
6547	DRR Dhan 42	89	81	248	72	105	254	79	90	206	103	93	248
6548	DRR Dhan 49 (Check)				108	90	172	100	87	219	101	78	248
6549	DRR Dhan 50				95	84	245	96	87	301	108	83	285
6550	DRR Dhan 51	101	68	205	81	91	187	99	88	276	102	93	245
Exp. Mean		**89**	**85**	**201**	**83**	**98**	**237**	**88**	**95**	**249**	**103**	**85**	**224**

ADVANCE VARIETY TRIAL 2 - ALKALINE AND INLAND SALINE TOLERANT VARIETY TRIAL (AVT 2 - AL & ISTVT)

Locations: 22 **Test Entries: 13**

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) and local check **Table: 5.1**

AVT2 - AL & ISTVT was constituted with seven entries and six checks namely CSR 36 (Alkaline check), CSR 10 (Early Saline check), FL 478 (Saline Tolerant check), CSR 23 (Inland Saline check), Pusa 44 (Sensitive check) and local check. The trial was sent to 22 locations and data was received from 19 locations except Ludhiana, Rhotak and Gautam Budha Nagar. The data pertaining to yield, days to 50% flowering, plant height, panicles/m^2 and quality are presented in tables 5.2, 5.3 and 5.4. The details of EC and pH of different locations is given in the following table.

General information about soil stress parameters and yield performance of entries under alkalinity and inland salinity in AVT 2-AL & ISTVT, Kharif, 2022

Location/State	Soil pH	Soil EC (dSm-1)	Exptl mean (kg/ha)	Grain Yield Range (Kg/ha)	CV %	Remarks
Alkalinity						
Karnal (Haryana) (Sodic microplots)	9.6	0.6	3246	1556-4222	21.9	Data considered for identification of tolerant genotypes
Anjanteli	9.7	0.8	3323	1460-4247	19.3	Data considered for analysis
Kurukshetra (Haryana)	9.8	0.8	3379	1880-4080	18.2	Data considered for analysis
Kanpur (Uttar Pradesh)	9.9	0.7	3189	2630-3948	20.1	Data considered for analysis
Masodha (Uttar Pradesh)	9.4	4.01	3540	2558-4696	5.24	Data considered for analysis
Lucknow – ICAR	9.5	0.96	2578	1868-3333	21.8	Data considered for analysis
Kampasagar (Telangana)	9.0	4.0	2135	1034-3248	19.4	Data considered for analysis
Trichy	8.8	2.6	3406	1900-5129	12.5	Data considered for analysis
Annamalainagar (Tamil Nadu)	8.53	2.03	3359	1363-4326	3.6	Data not considered due to low CV
Karaikal (Puducherry)	8.6	2.5	3012	1283-3904	5.7	Data considered for analysis
Puducherry (Puducherry)	8.8	3.94	2741	1280-3869	13.0	Data considered for analysis
Inland Saline						
Karnal (Haryana) (Inland Saline microplot)	8.5	9.0	3426	1259-4222	25.7	Data considered for identification of tolerant genotypes
Panipat (Haryana)	7.8	9.0	3402	1647-4173	16.6	Data considered for analysis

Location/State	Soil pH	Soil EC (dSm-1)	Exptl mean (kg/ha)	Grain Yield Range (Kg/ha)	CV %	Remarks
Gangavati (Karnataka)	8.0	5.5	3471	1841-4655	13.9	Data considered for analysis
Normal						
Danti	8.2	7.3	2434	1851-2952	18.7	Sensitive check recorded higher yield among the checks due to heavy rainfall.
Nawagam	7.8	0.30	5643	1770-8820	14.7	Required stress levels not present hence trial not considered for analysis
Vytilla (Kerala)	3.6	4.2	1552	942-2127	6.7	Required stress levels not present hence trial not considered for analysis
Mandya (Karnataka)	7.1	3.8	2919	1896-3820	7.4	Required stress levels not present hence trial not considered for analysis
Brahmavar (Karnataka)	5.8	4.1	2238	1390-3070	13.9	Low stress level due to heavy rains and floods.

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, 2022. 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, 2022

Entries	Sodic Micro Plot		Saline Micro Plot	
	Vigor/SES (Sodic)	Yield (kg/ha)	Vigor/SES (Saline)	Yield (kg/ha)
IET 29358	4	4148	4	4000
IET 29360	6	3481	4	4074
IET 29353	6	3333	4	3630
IET 29365	6	3630	4	4000
IET 27807 (R)	5	3259	6	3630
IET 29361	4	4222	5	4222
IET 29354	4	3852	4	4148
CSR 36 (Alkaline Check)	-	-	-	-
CSR 10 (Early duration saline check)	6	2370	6	2667
Pusa 44 (Sensitive Check)	8	1556	8	1259
CSR 23 (Inland Saline Check)	4	3481	4	3704
FL 478 (Saline tolerant check)	5	2444	6	2741
Local Check	4	3185	6	3037
Local Check Name	CSR 36		CSR 27	

Under Alkaline conditions in sodic microplot evaluation, the IETs. 29358, 29361, 29354 recorded a tolerance score of 4.0 as compared to tolerant and sensitive checks which scored an SES scores of 4-8. Under saline conditions in microplot evaluation, most of the genotypes recorded an SES score of 4 i.e., IETs 29358, 29360, 29353, 29365 and 29354 as compared to tolerant and sensitive checks, which scored an SES scores of 4-8. The IETs 29358, 29360, 29353, 29365 and 29354 recorded a tolerance score of 4.0 under sodicity and saline conditions and hence possess dual tolerance.

1. **Alkaline Stress: Overall mean performance**

Under alkalinity, the trial data was received from Karnal (sodic microplot), Anjanteli, Kurukshetra, Kanpur, Masodha, Lucknow, Nawagam, Mandya, Brahmavar, Kampasagar, Trichy, Annamalainagar, Karaikal, Puducherry, and Gangavathi. However, data from Nawagam, Mandya and Brahmawar was not included in the analysis due low stress levels, sensitive check recording higher yields, and heavy rains and floods during the crop growth stage. The data from sodic microplot evaluation was used for the identification of tolerant genotypes.

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 2010 kg/ha (Pusa 44) to 3572 kg/ha (IET 27807 (R)), days to 50% flowering varied from 83 days (CSR 23) - 98 days (Pusa 44). Plant height of the entries ranged from 74 cm (CSR 10) to 105 cm (CSR 23 and IET 29360) and the panicles/m2 varied from 304 (Pusa 44) to 397 (IET 29358). Among the checks, local check (3308 kg/ha) recorded highest yield followed by CSR 23 (3067 kg/ha), CSR 10 (2890 kg/ha), FL 478 (2851 kg/ha) and Pusa 44 (2010 kg/ha). Hence, local check is the best check on overall basis.

Among the test entries, IET 27807 (R) (KR 15066 (224-4-3-1-1), a cross between ADT 45/FL 478 with a mean grain yield of 3572 kg/ha and 95 days to 50% flowering ranked first on overall basis with 8% yield superiority over the best check. Quality wise, it exhibited long slender grain type, 58.1% head rice recovery, amylose content (26.67%), GC of 43 mm and intermediate ASV of 4. Hence IET 27807 (R) is found to be promising in its performance.

IET 29361 (CSR CPB 69), a cross between CSR 89 IR15/PB1 with a mean grain yield of 3531 kg/ha and 93 days to 50% flowering ranked second on overall basis with 7% yield superiority over the best check. Quality wise, it exhibited medium slender grain type, 60.6% head rice recovery, amylose content (25.9%), GC of 22 mm and intermediate ASV of 4. Hence IET 29361 found promotion.

On overall basis, IETs 27807 and 29361 identified to be promising under alkaline conditions.

Zone II (Alkalinity)

For Alkalinity stress, test locations in Zone-II consisted of Anjanteli, Kurukshetra and Kanpur. The mean grain yield ranged from 2145 kg/ha (Pusa 44) to 3828 kg/ha (IET 29354), days to 50% flowering varied from 79 days (IET 29354 & 29365) – 93 days (IET 27807). Plant height of the entries ranged from 87 cm (Pusa 44) to 122 cm (CSR 23) and the panicles/m^2 varied from 183 (FL 478) to 250 (IET 29358). Among the checks, CSR 23 (3252

kg/ha) recorded highest yield followed by CSR 10 (3251 kg/ha), local check (2970 kg/ha), FL 478 (2698 kg/ha) and Pusa 44 (2145 kg/ha).

Among the test entries, IET 29354 with a mean grain yield of 3828 kg/ha and 79 days to 50% flowering ranked first in Zone II with 18% yield superiority over the best check. Quality wise, it exhibited long slender grain type, 56.0% head rice recovery, amylose content (23.37%), GC of 32 mm and intermediate ASV of 4. ***IET 29354 is promising in the third year of testing.*** IET 29360 with a mean grain yield of 3656 kg/ha and 90 days to 50% flowering ranked second in Zone II with 12% yield superiority over the best check. Quality wise, it exhibited long bold grain type, 59.7% head rice recovery, amylose content (20.91%), GC of 28 mm and intermediate ASV of 4. ***IET 29360 is identified to be promising in the final year of testing.***

IET 29361 with a mean grain yield of 3604 kg/ha and 88 days to 50% flowering ranked third in Zone II with 11% yield superiority over the best check. Quality wise, it exhibited medium slender grain type, 60.6% head rice recovery, amylose content (25.9%), GC of 22 mm and intermediate ASV of 4. ***IET 29361 is considered to be promising.*** IET 29358 with a mean grain yield of 3600 kg/ha and 92 days to 50% flowering ranked fourth in Zone II with 11% yield superiority over the best check. Quality wise, it exhibited medium slender grain type, 60.1% head rice recovery, amylose content (23.73%), GC of 22 mm and intermediate ASV of 4. ***IET 29358 is considered to be promising in the final year of testing.***

IET 27807 (R) with a mean grain yield of 3543 kg/ha and 93 days to 50% flowering ranked fifth in Zone II with 9% yield superiority over the best check. Quality wise, it exhibited long slender grain type, 58.1% head rice recovery, amylose content (26.69%), GC of 43 mm and intermediate ASV of 4. ***IET 27807 found to be promising.*** IET 29365 with a mean grain yield of 3537 kg/ha and 79 days to 50% flowering ranked sixth in Zone II with 9% yield superiority over the best check. Quality wise, it exhibited long slender grain type, 54.3% head rice recovery, amylose content (24.66%), GC of 22 mm and intermediate ASV of 7. ***IET 29365 is considered to be promising in the final year of testing.***

IET 29353 with a mean grain yield of 3480 kg/ha and 81 days to 50% flowering ranked seventh in Zone II with 7% yield superiority over the best check. Quality wise, it exhibited long slender grain type, 62.5% head rice recovery, amylose content (22.11%), GC of 50 mm and intermediate ASV of 4. ***IET 29353 is considered to be promising.***

IET Nos. 29354, 29360, 29361, 29358, 27807 (R), 29365 and 29353 are identified to be promising in the final year of testing under alkaline conditions in zone-II based yield superiority and desirable quality characteristics.

Zone III (Alkalinity)

`For Alkalinity stress, test locations in Zone-III consists of two locations i.e, Masodha and Lucknow. In zone-III, the mean grain yield ranged from 2213 kg/ha (Pusa 44) to 3898 kg/ha (IET 29361), days to 50% flowering varied from 86 days (CSR 10) – 108 days (Pusa 44). Plant height of the entries ranged from 73 cm (FL 478) to 97 cm (CSR 23) and the panicles/m^2 varied from 248 (IET 29365) to 298 (IET 29360). Among the checks, CSR 23 (2878 kg/ha) recorded highest yield followed by local control (2872 kg/ha), CSR 10 (2684 kg/ha), FL 478 (2675 kg/ha) and Pusa 44 (2213 kg/ha).

Among the test entries, IET 29361 with a mean grain yield of 3898 kg/ha and 95 days to 50% flowering ranked first in Zone III with 36% yield superiority over the best check. Quality wise, it exhibited medium slender grain type, 60.6% head rice recovery, amylose content (25.9%), GC of 22 mm and intermediate ASV of 4. ***IET 29361 is promising.*** IET 29360 with a mean grain yield of 3650 kg/ha and 94 days to 50% flowering ranked second in Zone III with 27% yield superiority over the best check. Quality wise, it exhibited long bold grain type, 59.7% head rice recovery, amylose content (20.91%), GC of 28 mm and intermediate ASV of 4. ***IET 29360 is considered to be promising in the 3rd year of testing.***

IET 29353 with a mean grain yield of 3590 kg/ha and 96 days to 50% flowering ranked third in Zone III with 25% yield superiority over the best check. Quality wise, it exhibited long slender grain type, 62.5% head rice recovery, amylose content (22.11%), GC of 50 mm and intermediate ASV of 4. ***IET 29353 is considered to be promising.*** IET 29365 with a mean grain yield of 3297 kg/ha and 90 days to 50% flowering ranked fourth in Zone III with 15% yield superiority over the best check. Quality wise, it exhibited long slender grain type, 54.3% head rice recovery, amylose content (24.66%), GC of 22 mm and intermediate ASV of 7. ***IET 29365 is considered to promising in the 3rd year of testing.***

IET 27807 (R) with a mean grain yield of 3212 kg/ha and 93 days to 50% flowering ranked fifth in Zone III with 12% yield superiority over the best check. Quality wise, it exhibited long slender grain type, 58.1% head rice recovery, amylose content (26.67%), GC of 43 mm and intermediate ASV of 4. ***IET 27807 (R) is considered to be promising.*** IET 29358 with a mean grain yield of 3149 kg/ha and 93 days to 50% flowering ranked sixth in Zone III with 10% yield superiority over the best check. Quality wise, it exhibited medium slender grain type, 60.1% head rice recovery, amylose content (23.73%), GC of 22 mm and intermediate ASV of 4. ***IET 29358 is identified to be promising in the 3rd of testing.***

IETs. 29361, 29360, 29353, 29365, 27807 (R) and 29358 found to be promising in the final year of testing under alkaline conditions in zone-III based yield superiority and desirable quality characteristics.

Zone VII (Alkalinity)

For Alkalinity stress, the data from Kampasagar, Trichy, Karaikal and Puducherry were found suitable for analysis. In zone-VII, the mean grain yield ranged from 1808 kg/ha (Pusa 44) to 3779 kg/ha (Local control), days to 50% flowering varied from 76 days (CSR 23) – 100 days (Pusa 44). Plant height of the entries ranged from 66 cm (CSR 10) to 103 cm (local check) and the panicles/m^2 varied from 403 (Pusa 44) to 569 (IET 29358). Among the checks, local check (3779 kg/ha) recorded highest yield followed by FL 478 (3054 kg/ha), CSR 23 (3009 kg/ha), CSR 10 (2723 kg/ha) and Pusa 44 (1808 kg/ha). None of the test entries recorded significant yield improvement over the best check (local check) in Zone VII, and hence no entry found to be promising under alkaline conditions.

None of the entries are promoted

2. <u>Inland Saline Stress</u>

<u>Overall performance</u>

The inland saline stress trial data was received from Karnal, Panipat, Danti, Brahmavar and Gangavati. At Danti and Brahmavar, the test entries experienced low stress

level due to heavy rains and floods. The data from saline microplot evaluation, Karnal was used for the identification of tolerant genotypes. Hence the data from Panipat and Gangavati were considered for inclusion in the final analysis.

The mean grain yield on overall basis ranged from 2367 kg/ha (CSR 10)) to 4210 kg/ha (IET 29360), days to 50% flowering varied from 83 days (IET 29365) to 112 days (IET 29360). Plant height of the entries ranged from 61 cm (CSR 10) to 101 cm (CSR 23) and the panicles/m2 varied from 139 (IET 29365) to 259 (IET 29361). Among the checks, local (best check- 3577 kg/ha) recorded highest yield followed by CSR 23 (3402 kg/ha), Pusa 44 (2980 kg/ha), FL 478 (2788 kg/ha) and CSR 10 (2367 kg/ha). Among the test entries, IET 29360 with mean grain yield of 4210 kg/ha and 112 days to 50% flowering recorded 18% yield superiority over best check. This culture is also found promising in Z-VII with 4606 kg/ha mean grain yield and 7% yield superiority over the best check. Quality wise, it exhibited long bold grain type, 59.7% head rice recovery, amylose content (20.91%), GC of 28 mm and intermediate ASV of 4. ***IET 29360 is considered to be promising in the final year of testing.***

IET 29365 with mean grain yield of 4173 kg/ha and 83 days to 50% flowering recorded 17% yield superiority over best check as it was evaluated in only Z-II. Quality wise, it exhibited long slender grain type, 54.3% head rice recovery, amylose content (24.66%), GC of 22 mm and intermediate ASV of 7. ***IET 29365 is considered to be promising.*** IET 27807 with mean grain yield of 3964 kg/ha and 102 days to 50% flowering recorded 11% yield superiority over best check. Quality wise, it exhibited long slender grain type, 58.1% head rice recovery, amylose content (26.67%), GC of 43 mm and intermediate ASV of 4. ***IET 27807 (R) is considered for promotion.*** IET 29353 with mean grain yield of 3760 kg/ha and 106 days to 50% flowering recorded 5% yield superiority over best check. Quality wise, it exhibited long slender grain type, 62.5% head rice recovery, amylose content (22.11%), GC of 50 mm and intermediate ASV of 4. ***IET 29353 is considered to be promising in the 3rd year of testing.***

IETs. 29360, 29365, 27807 (R) and 29353 identified to be superior in performance in the final year of testing under inland saline conditions on overall performance based yield superiority and desirable quality characteristics.

Performance in Zone II

In zone II, the trial data from one location Panipat was available for inclusion in the final analysis. The mean grain yield in Zone II ranged from 1647 kg/ha (Pusa 44) to 4173 kg/ha (IET 29365), days to 50% flowering varied from 83 days (IET 29365) to 114 days (IET 29354). Plant height of the entries ranged from 60 cm (CSR 10) to 100 cm (IET 29354) and the panicles/m2 varied from 121 (IET 29354) to 223 (IET 29358). Among the checks, CSR 23 (best check- 3813 kg/ha) recorded highest yield followed by local check (2973 kg/ha), CSR 10 (2893 kg/ha), FL 478 (2680 kg/ha) and Pusa 44 (1647 kg/ha).

Based on single location data, none of the entries recorded the required yield advantage of 10% over the best checks and hence none found promising in Zone-II.

Performance in Zone VII

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 1841 kg/ha (Pusa 44) to

4655 kg/ha (IET 27807 (R)), days to 50% flowering varied from 89 days (CSR 23) to 125 days (IET 29361). Plant height of the entries ranged from 63 cm (CSR 10) to 102 cm (CSR 23) and the panicles/m2 varied from 262 (CSR 10) to 345 (CSR 23). Among the checks, Pusa 44 (best check- 4313 kg/ha) recorded highest yield followed by local check (4181 kg/ha), CSR 23 (2991 kg/ha), FL 478 (2896 kg/ha) and CSR 10 (1841 kg/ha).

Based on single location data, none of the entries recorded the required yield advantage of 10% over the best checks and hence none found promising in Zone-VII.

The following entries were promoted based on their yield superiority and quality traits

IET No.	Alkaline Stress				Inland Saline		
	Zone II	**Zone III**	**Zone VII**	**Overall**	**Zone II**	**Zone VII**	**Overall**
29358	√	√	-	-	-	-	
29360	√	√	-	-	-	-	√
29353	√	√	-	-	-	-	√
29365	√	√	-	-	-	-	√
27807 (R)	√	√	-	√	-	-	√
29361	√	√	-	√	-	-	-
29354	√	-	-	-	-	-	-

Performance of entries under Alkalinity & Inland Salinity over the years of testing (2019-2022)

IET 29358 (CSR YET 55) derived from CSR 27/ CSR 36 entered the multi-location testing under inland saline and alkaline stress conditions in IVT AL&ISTVT, 2020. During 2020, under alkaline stress conditions, IET 29358 with mean grain yield of 4113 recorded 26% yield superiority over the best check on overall basis ranked 1 in Zone II with 4113 kg/ha mean grain yield and 26% yield advantage over best check and based on single location data found promising in Haryana. In 2021, IET 29358 performed in Zone VII with 3298 kg/ha and 7% superiority and found promising in Tamilnadu with 13% superiority. In 2022, IET 29358 did not exhibit any yield superiority on overall basis; but ranked 4 in Zone II with 3600 kg/ha mean grain yield and 11% yield advantage over best check and found promising in Haryana with 33% yield superiority. Whereas, during 2020 in inland salinity stress, IET 29358 did not exhibit any yield superiority on overall basis; but it showed superiority in Zone II and VI with 22 and 11 % yield superiority over best check. In 2021, IET 29358 did not exhibit any yield superiority on overall basis; but in Zone II based on single location with 3586 kg/ha mean grain yield and 5% yield advantage over best check. In 2022, IET 29358 did not exhibit any yield superiority on overall basis as well on zonal basis. Quality wise, it exhibited medium slender grain type, 60.1% head rice recovery, amylose content (23.73%), GC of 22 mm and intermediate ASV of 4. Over the three years of testing, this culture under alkaline conditions performed only in Haryana state, while it exhibited inconsistent performance across locations, zones and states for inland salinity. Hence this culture is not promising and **hence discontinued**.

IET 29360 (CSAR 12-10-2020) derived from selection of BC 12-12-10 entered the multi-location testing under inland saline and alkaline stress conditions in IVT AL&ISTVT, 2020. During 2020, under alkaline stress conditions, IET 29360 did not exhibit any yield superiority on overall basis as well on zonal basis. In 2021, IET 29360 performed in Zone II

with 3162 kg/ha and 13% superiority and found promising in Haryana with 17% superiority. In 2022, IET 29360 did not exhibit any yield superiority on overall basis; but ranked 2 in Zone II with 3656 kg/ha mean grain yield and 12% yield advantage over best check and found promising in Haryana with 24% yield superiority. Whereas, during 2020 in inland salinity stress, IET 29360 did not exhibit any yield superiority on overall basis; but it showed superiority in Zone II with 6 % yield superiority over best check. In 2021, IET 29360 did not exhibit any yield superiority on overall as well as zonal basis. In 2022, IET 29360 with mean grain yield of 4210 kg/ha with yield superiority of 18% on overall basis. Quality wise, it exhibited long bold grain type, 59.7% head rice recovery, amylose content (20.91%), GC of 28 mm and intermediate ASV of 4. Over the three years of testing, this culture under alkaline conditions performed only in Haryana state, while it exhibited inconsistent performance across locations, zones and states for inland salinity. Hence this culture is not promising and **hence discontinued**.

IET 29353 (GNV 18-64) derived from cross between GNV 1109/CSR 22 entered the multi-location testing under inland saline and alkaline stress conditions in IVT AL&ISTVT, 2020. During 2020, under alkaline stress conditions, IET 29353 did not exhibit any yield superiority on overall basis as well on zonal basis. In 2021, IET 29353 performed in Zone II with 3081 kg/ha and 10% superiority and found promising in Haryana with 12% superiority. In 2022, IET 29353 did not exhibit any yield superiority on overall basis; but ranked 7 in Zone II with 3480 kg/ha mean grain yield and 7% yield advantage over best check and found promising in Haryana with 22% yield superiority. IET 29353 performed in Zone III with 3590 kg/ha mean grain yield and 25% yield advantage and found promising in Uttar Pradesh with 13% yield superiority. Whereas, during 2020 in inland salinity stress, IET 29353 did not exhibit any yield superiority on overall basis; but it showed superiority in Zone II with 3805 kg/ha mean grain yield and 20% yield advantage and found promising in Haryana. In 2021, IET 29353 did not exhibit any yield superiority on overall basis; but it showed superiority in Zone II and VII with 3662 kg/ha and 4359 kg/ha mean grain yield and 7% and 7% yield advantage. In 2022, IET 29353 did not exhibit any yield superiority on overall basis as well on zonal basis. Quality wise, it exhibited long slender grain type, 62.5% head rice recovery, amylose content (22.11%), GC of 50 mm and intermediate ASV of 4. Over the three years of testing, this culture under alkaline conditions performed only in Haryana state, while it exhibited inconsistent performance across locations, zones and states for inland salinity. Hence this culture is not promising and **hence discontinued**.

IET 29365 (CSR TPB 159) derived from cross between Trichy 1/PB1 entered the multi-location testing under inland saline and alkaline stress conditions in IVT AL&ISTVT, 2020. During 2020, under alkaline stress conditions, IET 29365 with mean grain yield of 3963 recorded 21% yield superiority over the best check on overall basis ranked 3 in Zone II with 3963 kg/ha mean grain yield and 21% yield advantage over best check and found promising in Haryana. In 2021, IET 29365 performed in Zone II with 3291 kg/ha and 17% yield superiority and found promising in Haryana with 31% superiority. In 2022, IET 29365 did not exhibit any yield superiority on overall basis; but ranked 6 in Zone II with 3537 kg/ha mean grain yield and 9% yield advantage over best check and found promising in Haryana with 33% yield superiority. IET 29365 performed in Zone III with 3297 kg/ha mean grain yield and 15% yield advantage and found promising in Uttar Pradesh with 15% yield superiority. Whereas, during 2020 in inland salinity stress, IET 29365 with mean grain yield of 4427 recorded 29% yield superiority over the best check on overall basis, and ranked 1 in Zone II with 3954 kg/ha mean grain yield and 25% yield advantage over best check and found promising in Haryana; and ranked 2 in Zone VI with 5524 kg/ha mean grain yield and

31% yield advantage over best check and found promising in Gujarat. In 2021, IET 29365 ranked 5 in Zone II with 4065 kg/ha mean grain yield and 19% yield advantage over best check and found promising in Haryana. In 2022, IET 29365 with mean grain yield of 4173 recorded 17% yield superiority over the best check on overall basis ranked 1 in Zone II with 4173 kg/ha mean grain yield and 9% yield advantage over best check and found promising in Haryana. Quality wise, it exhibited long slender grain type, 54.3% head rice recovery, amylose content (24.66%), GC of 22 mm and intermediate ASV of 7. ***Based on three year of performance, IET 29365 is found promising in Haryana state only.***

IET 27807 (R) (KR 15066 (224-4-3-1-1) derived from cross between ADT45/FL 478 evaluated in the multi-location testing under inland saline and alkaline stress conditions in AVT AL&ISTVT, 2019. During 2020, under alkaline conditions, did not register any superioty, while under inland saline conditions, it recorded 3932 kg/ha grain yield with 15% yield advantage, found promising in Gujarat. In 2021, IET 27807 performed in Zone II with 3093 kg/ha and 10% yield superiority and found promising in Haryana with 19%; in zone VII with 3496 kg/ha and 13% yield superiority, found promising in Tamilnadu and Puducherry with 7 and 17% yield advantage over the checks under alkaline conditions, while under inland saline conditions, this culture found to be promising in Z-II with 3583 kg/ha and 5% yield advantage found to be promising in Haryana. In 2022, IET 27807 under alkaline conditions with 3572 kg/ha recorded 8% superiority over best check on overall basis; ranked 5 in Zone II with 3543 kg/ha mean grain yield and 9% yield advantage over best check and found promising in Haryana with 12% yield superiority. IET 27807 performed in Zone III with 3212 kg/ha mean grain yield and 12% yield advantage and found promising in Uttar Pradesh with 13% yield superiority; while in Zone VII, with 3774kg/ha mean grain yield did not exhibit superiority over the best check and with 3887 kg/ha and 15% yield advantage found to be promising in Puducherry. Under inland saline conditions during 2022, IET 27807 with mean grain yield of 3964 recorded 11% yield superiority over the best check on overall basis ranked 1 in Zone VII with 4655 kg/ha mean grain yield and 8% yield advantage over best check and found promising in Karnataka. Over the three years of testing, IET 27807 under alkaline conditions, exhibited superior performance in Haryana and Puducherry for two years, Uttar Pradesh and Tamilnadu for one year; while under inland saline conditions, it performed only one year in Gujarat, Haryana and Karnataka. ***Hence, this culture is found promising for Haryana and Puducherry under alkaline conditions.***

IET 29361 (CSR CPB 69) derived from cross between CSR 89 IR 15/PB 1 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 29361 with mean grain yield of 3763 recorded 15% yield superiority over the best check on overall basis ranked 6 in Zone II with 3764 kg/ha mean grain yield and 15% yield advantage over best check and found promising in Haryana. In 2021, IET 29361 with mean grain yield of 3321 recorded 14% yield superiority over the best check on overall basis ranked 3 in Zone II with 3406 kg/ha mean grain yield and 21% yield advantage over best check and found promising in Haryana with 26% yield advantage. In 2022, IET 29361 with mean grain yield of 3531 recorded 7% yield superiority over the best check on overall basis ranked 3 in Zone II with 3604 kg/ha mean grain yield and 11% yield advantage over best check and found promising in Haryana with 31% yield advantage. IET 29361 performed in Zone III with 3898 kg/ha mean grain yield and 36% yield advantage and found promising in Uttar Pradesh with 18% yield superiority. Whereas, during 2020 in inland salinity stress, IET 29361 did not exhibit any yield superiority on overall basis; but ranked 6 in Zone II with mean grain yield of 3604 kg/ha and recorded 14% yield superiority over the best check and found promising in

Haryana. In 2021, IET 29361 performed in Zone II with 3873 kg/ha mean grain yield and 14% yield advantage over best check and found promising in Haryana. In 2022, IET 29361 did not exhibit any yield superiority on overall basis; but ranked 2 in Zone II with mean grain yield of 4160 and recorded 9% yield superiority and found promising in Haryana. Quality wise, it exhibited long slender grain type, 58.1% head rice recovery, amylose content (26.67%), GC of 43 mm and intermediate ASV of 4. ***Based on three year of performance, IET 29361 performed consistently under alkaline stress and found promising in Haryana state only.***

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. Quality wise, it exhibited long slender grain type, 56.0% head rice recovery, amylose content (23.37%), GC of 32 mm and intermediate ASV of 4. ***Based on three year of performance, IET 29354 is found promising in Haryana state only.***

Summary: the following entries were found suitable in AL& ISTVT

Based on three year of performance, IETs 29365, 29361 and 29354 were found promising in Haryana state of Zone II only. IET 27807 is found promising for Haryana and Puducherry under alkaline conditions.

Alkalinity & Inland Salinity during three years of testing (2019-2022)

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 29358	2020	Alkalinity	4113	26	II-1	4113	26	HA-1	4113	26
		Inland Salinity	4148	20	II-2	3877	22	HA-2	3877	22
					VI-4	4690	11	GU-4	4690	11
	2021	Alkalinity	3001	-	II	3146	12	HA-	3370	12
					VII-3	3298	7	TN-1	3550	13
		Inland Salinity	2948	-	II-10	3586	5	HA-10	3586	5(1L)
	2022	Alkalinity	2877	--	II-4	3600	11	HA-3	3963	33
					III-6	3149	10	UP-6	3149	10
		Inland Salinity	3246	-	-	-	-	-	-	-
IET 29360	2020	Alkalinity	2854	-	-	-	-	-	-	-
		Inland Salinity	3265	-	II-8	3358	6	HA-8	3358	6
	2021	Alkalinity	3033	-	II-10	3162	13	HA-10	3527	17
		Inland Salinity	3291	-	-	-	-	-	-	-
	2022	Alkalinity	3237	-	II-2	3656	12	HA-5	3697	24
					III-2	3650	27	UP-1	3625	19
		Inland Salinity	4210	18	VII-2	4606	7 (1L)	Kar-2	4606	7 (1L)
IET 29353	2020	Alkalinity	3108	-	-	-	-	-	-	-
		Inland Salinity	3576	-	II-3	3389	7	HA-7	3389	7
	2021	Alkalinity	2911	-	II-	3081	10	HA-	3390	12
		Inland Salinity	3509	-	II-9	3662	7	HA-9	3662	7
					VII-1	4359	7	Kar-1	4359	7
	2022	Alkalinity	2992	-	II-7	3480	7	HA-6	3647	22
					III-3	3590	25	UP-4	3442	13
		Inland Salinity	3760	5	-	-	-	-	-	-
IET 29365	2020	Alkalinity	3963	21	II-3	3963	21	HA-3	3963	21
		Inland Salinity	4477	29	II-1	3954	25	HA-1	3954	25
					VI-2	5524	31	GUJ-2	5524	31
	2021	Alkalinity	2985	-	II-5	3291	17	HA-5	3970	31
		Inland Salinity	3045	-	II-5	4065	19	HA-5	4065	19
	2022	Alkalinity	3022	-	II-6	3537	9	HA-2	3990	33
					III-4	3297	15	UP-4	3297	15
		Inland Salinity	4173	17	II-1	4173	9 (1L)	HA-1	4173	9 (1L)
IET 27807 (R)	2020	Alkalinity	3659	-	-	-	-	-	-	
		Inland Salinity	3515	-	VII	3932	15	GU	3932	15
	2021	Alkalinity	2964	-	II-	3093	10	HA-9	3600	19
					VII-1	3496	13	TN-2	3373	7
								PU	3618	17
		Inland Salinity	2939		II	3583	5	HA-	3583	5
	2022	Alkalinity	3572	8	II-5	3543	9	HA-7	3340	12
					III-5	3212	12	UP-3	3457	13
					VII-	3774	-	PU-1	3887	15
		Inland Salinity	3964	11	VII-1	4655	8 (1L)	Kar-1	4655	8 (1L)
IET 29361	2020	Alkalinity	3763	15	II-6	3764	15	HA-6	3764	15
		Inland Salinity	3269	-	II-6	3604	14	HA-6	3604	14

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
	2021	Alkalinity	3321	14	II-3	3406	21	HA-7	3813	26
					VII-2	3370	9			
		Inland Salinity	3219	-	II-8	3873	14	HA-8	3873	14
	2022	Alkalinity	3531	7	II-3	3604	11	HA-4	3927	31
					III-1	3898	36	UP-2	3585	18
		Inland Salinity	3650	-	II-2	4160	9 (1L)	HA-2	4160	9 (1L)
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
		Inland Salinity	3473	-	II-3	4027	6 (1L)	HA-3	4027	6 (1L)

List of Entries Promoted:

<u>Alkaline Stress:</u>

- **On overall basis: IETs 27807 and 29361**
- **Zone II: IET Nos. 29354, 29360, 29361, 29358, 27807 (R), 29365 and 29353**
- **Zone III: IETs. 29361, 29360, 29353, 29365, 27807 (R) and 29358**
- **Zone VII: Nil**

<u>Inland Saline Stress:</u>

- **Overall Basis: IETs. 29360, 29365, 27807 (R) and 29353**

<u>Based on three year of performance (2019-2022) :</u>

- **IET 29365, IET 29361 and IET 29354 are found promising in Haryana state only.**
- **IET 27807 is found promising for Haryana and Puducherry under alkaline conditions.**

ADVANCE VARIETY TRIAL 1 - ALKALINE AND INLAND SALINE TOLERANT VARIETY TRIAL (AVT 1 - AL & ISTVT)

Locations: **22** **Test Entries: 15**

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) and local check** **Table: 5.5**

AVT1 - AL & ISTVT was constituted with 9 entries and six checks namely CSR 36 (Alkaline check), CSR 10 (Early Saline check), FL 478 (Saline Tolerant check), CSR 23 (Inland Saline check), Pusa 44 (Sensitive check), and local check. Among the 9 test entries, five entries (IET Nos. 30164, 30174, 30180, 30178, 30162) are varieties, two entries (IET Nos. 30176 and 30165) are hybrids and two entries (IET Nos. 30827 and 30830) are NILs; and are in the second year of testing.

The trial was sent to 22 locations and data was received from 19 locations except Ludhiana, Rhotak and Gautam Budha Nagar. The data pertaining to yield, days to 50% flowering, plant height, panicles/m^2 and quality are presented in tables 5.6, 5.7 and 5.8. The details of EC and pH of different locations is given in the following table.

General information about soil stress parameters and yield performance of entries under alkalinity and inland salinity in AVT 1-AL & ISTVT, Kharif, 2022

Location/State	Soil pH	Soil EC (dSm-1)	Exptl mean (kg/ha)	Grain Yield Range (Kg/ha)	CV %	Remarks
Alkalinity						
Karnal (Haryana) (Sodic Microplots)	9.6	0.6	2919	1852-3926	25.3	Data considered for identification of tolerant genotypes
Anjanteli	9.7	0.8	3213	1758-4228	18.3	Data considered for analysis
Kurukshetra (Haryana)	9.8	0.8	3128	1373-4053	18.2	Data considered for analysis
Kanpur (Uttar Pradesh)	9.9	0.7	3469	2852-4322	17.4	Data not considered due to NS
Masodha (Uttar Pradesh)	9.4	4.01	3563	1439-5355	5.89	Data considered for analysis
Lucknow – ICAR	9.5	0.96	3103	2688-3583	13.2	Data considered for analysis
Kampasagar (Telangana)	9.0	4.0	2072	370-4545	17.4	Data not considered due to low site mean
Trichy	8.8	2.6	3810	2000-5644	10.8	Data considered for analysis

Location/State	Soil pH	Soil EC (dSm-1)	Exptl mean (kg/ha)	Grain Yield Range (Kg/ha)	CV %	Remarks
Annamalainagar (Tamil Nadu)	8.53	2.03	5637	2413-6965	5.1	Data considered for analysis
Karaikal (Puducherry)	8.6	2.5	2796	1283-2977	8.9	Data considered for analysis
Puducherry (Puducherry)	8.8	3.94	2407	1250-3393	21.3	Data considered for analysis
Inland Saline						
Karnal (Haryana) (Inland Saline microplots)	8.5	9.0	3170	2222-4148	26.7	Data not considered due to NS
Panipat (Haryana)	7.8	9.0	3225	1407-4220	19.3	Data considered for analysis
Gangavati (Karnataka)	8.0	5.5	3134	1805-4638	14.6	Data considered for analysis
Normal						
Danti	8.2	7.3	2688	1451-4449	18.7	Sensitive check recorded higher yield among the checks due to heavy rainfall.
Nawagam	7.8	0.30	6620	4764-8262	12.5	Required stress levels not present hence trial not considered for analysis
Vytilla (Kerala)	3.6	4.2	1599	742-2440	13.0	Required stress levels not present hence trial not considered for analysis
Mandya (Karnataka)	7.1	3.8	2848	991-3798	11.5	Required stress levels not present hence trial not considered for analysis
Brahmavar (Karnataka)	5.8	4.1	2219	1130-3370	13.3	Low stress level due to heavy rains and floods.

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 microplot during kharif, 2022. 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, 2022

Entries	Sodic Micro Plot		Saline Micro Plot	
	Vigor/SES (Sodic)	Yield (kg/ha)	Vigor/SES (Saline)	Yield (kg/ha)
IET 30164	4	3926	4	4148
IET 30174	6	2667	6	3111
IET 30180	5	2370	6	3037
IET 30178	4	3407	4	4148
IET 30176	6	2148	4	2222
IET 30165	4	3556	5	3778
IET 30162	6	3481	4	3852
IET 30827	6	2000	7	2519
IET 30830	6	2741	6	2519
CSR 36 (Alkaline Check)	6	3037	4	3630
CSR 23 (Inland Saline Check)	4	3630	4	3259
CSR 10 (Early duration saline check)	5	3111	6	3111
FL 478 (Saline tolerant check)	6	2889	6	2963
Pusa 44 (Sensitive Check)	8	1852	8	2074
Local Check	6	2963	4	3185
Local Check Name	CSR 36		CSR 27	

Under Alkaline conditions in sodic microplot evaluation, the IETs 30164, 30178 and 30165 recorded a tolerance score of 4.0 as compared to tolerant checks CSR 36 (6), FL 478 (6), Local check (6) and PUSA 44 (8). Under saline microplot conditions, IETs 30164, 30178, 30176 and 30162 recorded a tolerance score of 4.0 recorded a tolerance score of 4.0 as compared to tolerant checks i.e., CSR 10 (6), FL 478 (6) and PUSA 44 (8). IETs 30164 and 30178 recorded a tolerance score of 4.0 under sodicity and saline conditions and hence possess dual tolerance.

1. **Alkaline Stress: Overa ll mean performance**

Under alkalinity, the trial data was received from Karnal (sodic Microplot), Anjanteli, Kurukshetra, Kanpur, Masodha, Lucknow-ICAR, Danti, Nawagam, Kampasagar, Trichy, Annamalainagar, Vytilla, Mandya, Brahmavar, Kakaikal and Puducherry. However, data from Danti, Nawagam, Vytilla, Mandya and Brahmavar were not included in the analysis due low stress levels, sensitive check recording higher yields, and heavy rains and floods during the crop growth stage. The data from sodic microplot evaluation was used for the identification of tolerant genotypes. Hence the data from eight locations namely Anjanteli, Kurukshetra, Masodha, Lucknow-ICAR, Trichy, Annamalainagar, Kakaikal and 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 2622 kg/ha (Pusa 44) to 4078 kg/ha (IET 30165), days to 50% flowering varied from 86 days (CSR 10) – 105 days (IET 30180). Plant height of the entries ranged from 94 cm (Pusa 44) to 124 cm (IET 30162) and the panicles/m2 varied from 294 (IET 30180) to 344 (CSR 23). Among the checks, CSR 36 (3845 kg/ha) recorded highest yield followed by Local check (3731 kg/ha), CSR 10 (3497 kg/ha), FL 478 (3391 kg/ha), CSR 23 (3280 kg/ha) and Pusa 44 (2622 kg/ha). Hence, CSR 36 is the best check on overall basis. None of the test entries recorded significant yield improvement over the best check (CSR 36) on overall basis, and hence no entry merit promotion to AVT2-AL ISTVT. **Whereas, NILs IETs 30827 (3022 kg/ha) and 30830 (3020 kg/ha) showed significant yield improvement over the recurrent parent Pusa 44 (2622 kg/ha), and hence promoted to next level of testing ie., AVT 2.**

Zone II (Alkalinity)

For Alkalinity stress, test locations in Zone-II consisted of Anjanteli, Kurukshetra and Kanpur. However, data from Kanpur was not considered after analysis, due to non-significance. In Zone-II, the mean grain yield ranged from 1566 kg/ha (Pusa 44) to 4111 kg/ha (IET 30164), days to 50% flowering varied from 92 days (IET 30164) to 119 days (IET 30180). Plant height ranged from 79 cm (CSR 10) to 129 cm (IET 30162) and the panicles/m^2 varied from 132 (IET 30165) to 222 (IET 30164). Among the checks, CSR 36 (3503 kg/ha) recorded highest yield followed by CSR 23 (3431 kg/ha), CSR 10 (3194 kg/ha), Local check (3155 kg/ha), FL 478 (2898 kg/ha) and Pusa 44 (1566 kg/ha). None of the test entries recorded significant yield improvement over the best check (CSR 36) in Zone II, and hence no entry merit promotion to AVT2-AL ISTVT. Whereas, NILs IETs 30827 (2555 kg/ha) and 30830 (2592 kg/ha) showed significant yield improvement over the recurrent parent Pusa 44 (1566 kg/ha), and 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 3194 kg/ha and 106 days to 50% flowering in Zone-II. 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 30164 (CSR 189-11-122) recorded a mean grain yield of 4111 kg/ha and 92 days and IET 30165 (IIRRH 156 (H)) – mean grain yield of 4060 kg/ha and 98 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 two locations i.e., Masoda and Lucknow. In zone-III, the mean grain yield ranged from 2324 kg/ha (IET 30830) to 4396 kg/ha (CSR 23), days to 50% flowering varied from 83 days (Local check) – 116 days (IET 30830). Plant height of the entries ranged from 72 cm (CSR 10) to 122 cm (IET 30162) and the panicles/m^2 varied from 276 (IET 30162) to 383 (CSR 23). Among the checks, CSR 23 (4396 kg/ha) recorded highest yield followed by CSR 36 (4153 kg/ha), FL 478 (3118 kg/ha), Local check (3085 kg/ha), Pusa 44 (2684 kg/ha) and CSR 10 (2591 kg/ha). Hence, CSR 23 is the best check in Zone III. None of the test entries recorded significant yield improvement over the best check in Zone III, and hence no entry merit promotion to AVT2-AL ISTVT. Whereas, NILs IET 30827 and 30830 showed no significant yield improvement over the recurrent parent Pusa 44, hence **not 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 2591 kg/ha and 87 days to 50% flowering in Zone-III. Hence, five entries with early or non-significance flowering compared to early check – CSR 10 were noticed, which showed significant yield superiority over the early check- CSR 10. **IET 30176 (IIRRH 156 (H)) recorded a mean grain yield of 4286 kg/ha and 87 days, IET 30165 (IIRRH 155 (H) -grain yield of 3996 kg/ha and 87 days, IET 30164 (CSR 189-11-122) -grain yield of 3448 kg/ha and 89 days, IET 30162 (NVSR 545) -grain yield of 3237 kg/ha and 85 days and 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 and are promoted.**

Zone VII (Alkalinity)

For Alkalinity stress, test locations in zone-VII consisted of Kampasagar, Trichy, Annamalainagar, Mandya, Brahmavar, Danti, Nawagam, Vytilla, Puducherry and Karaikal.

The data from Trichy, Annamalainagar, Karaikal and Puducherry were found suitable for analysis. In zone-VII, the mean grain yield ranged from 2648 kg/ha (CSR 23) to 4342 kg/ha (Local check), days to 50% flowering varied from 75 days (CSR 10) – 98 days (Local check). Plant height of the entries ranged from 78 cm (CSR 10) to 124 cm (IET 30162) and the panicles/m^2 varied from 359 (IET 30180) to 412 (IETs 30165 and 30827). Among the checks, Local check (4342 kg/ha), recorded highest yield followed by CSR 10 (4101 kg/ha), CSR 36 (3863 kg/ha), FL 478 (3774 kg/ha), Pusa 44 (3120 kg/ha) and CSR 23 (2648 kg/ha). Hence, Local check is the best check in Zone VII. None of the test entries recorded significant yield improvement over the best check in Zone VII, and hence no entry merit promotion to AVT2-AL ISTVT. **Whereas, NILs IET 30827 and 30830 showed no significant yield improvement over the recurrent parent Pusa 44, hence not promoted to next level of testing ie., AVT 2.**

Performance of entries/checks in AVT-1 - AL & ISTVT under alkalinity, Kharif 2022

IET No/ Check name	Alkalinity				Remarks
	Overall/ DFF	Z-II/ DFF	Z-III/ DFF	Z-VII/ DFF	
IET 30164	-	4111, 92	3448, 89	-	Promising in Z-II & III. Significant over early check (CSR 10).
IET 30174	-	-	-	-	
IET 30180	-	-	-	-	
IET 30178	-	-	3225, 89	-	Promising in Z-III. Significant over early check (CSR 10).
IET 30176	-	-	4286, 87	-	Promising in Z-III. Significant over early check (CSR 10).
IET 30165	-	4060, 98	3996, 87	-	Promising in Z-II & III. Significant over early check (CSR 10).
IET 30162	-	-	3237, 85	-	Promising in Z-III. Significant over early check (CSR 10).
IET 30827	3022, 103	2555, 115	-	-	Promising in overall & Z-II. Significant over recurrent parent (Pusa 44).
IET 30830	3020, 100	2592, 101	-	-	Promising in overall & Z-II. Significant over recurrent parent (Pusa 44).
CSR 36 (Alkaline check)	3845	3503	4153	3863	
CSR 23 (Inland saline check)	3280	3431	4396	2648	
CSR 10 (Early duration saline check)	3497	3194, 106	2591, 87	4101, 82	
FL 478 (Saline tolerant check)	3391	2898	3118	3774	
Pusa 44 (Sensitive check)	2622	1566	2684	3120	
Local check	3731	3155	3085	4342	
G. Mean	**3612**	**3170**	**3333**	**4162**	
F Value	**13.5 (p<0.0001)S**	**4.86 (p<0.0001)S**	**25.7 (p<0.0001) S**	**16.22 (p<0.0001)S**	
CD	**315**	**781**	**339**	**677**	
CV%	**6.11**	**14.74**	**7.14**	**11.4**	

2. Inland Saline Stress: Overall performance

For inland saline stress, the data from four locations namely Karnal, Panipat, Danti and Gangavati were received. The data from three locations except Danti were suitable for analysis. Salinity stress was not observed at Danti, due to high rainfall during experimentation. The mean grain yield on overall basis ranged from 2075 kg/ha (Pusa 44) to 3915 kg/ha (IET 30174), days to 50% flowering varied from 98 days (CSR 10) to 124 days (CSR 36). Plant height of the entries ranged from 67 cm (Pusa 44) to 104 cm (IET 30162) and the panicles/m2 varied from 216 (CSR 36) to 302 (CSR 23). Among the checks, Local check (3883 kg/ha) recorded highest yield followed by CSR 23 (3644 kg/ha), CSR 36 (2913 kg/ha), FL 478 (2607 kg/ha), CSR 10 (2513 kg/ha) and Pusa 44 (2075 kg/ha). Hence, local check is the best check on overall basis. None of the test entries recorded significant yield improvement over the best check on overall basis, and hence no entry merit promotion to AVT2-AL ISTVT. **Whereas, NILs IETs 30827 (3629 kg/ha) and 30830 (3449 kg/ha) showed significant yield improvement over the recurrent parent Pusa-44 (2075 kg/ha), hence promoted to next level of testing ie., AVT 2.**

Performance in Zone II

For Alkalinity stress, test location in Zone-II consists of Panipet, and the mean grain yield ranged from 1407 kg/ha (Pusa 44) to 4220 kg/ha (IET 30164), days to 50% flowering varied from 82 days (CSR 23) to 120 days (CSR 36 and IET 30827). Plant height ranged from 60 cm (Pusa 44) to 105 cm (IET 30162) and the panicles/m^2 varied from 177 (Pusa 44) to 271 (CSR 10). Among the checks, CSR 36 (3787 kg/ha) recorded highest yield followed by CSR 23 (3727 kg/ha), CSR 10 (3220 kg/ha), Local check (3220 kg/ha), FL 478 (2887 kg/ha) and Pusa 44 (1407 kg/ha). Hence, CSR 36 is the best check in Zone II. None of the test entries recorded significant yield improvement over the best check in Zone II, and hence no entry merit promotion to AVT2-AL ISTVT. **Whereas, NILs IETs 30827 (2747 kg/ha) and 30830 (2587 kg/ha) showed significant yield improvement over the recurrent parent Pusa 44 (1407 kg/ha), hence promoted to next level of testing ie., AVT 2.**

Performance in Zone VII

For Alkalinity stress, test location in Zone-VII consists of Gangavathi, and the mean grain yield ranged from 1805 kg/ha (CSR 10) to 4638 kg/ha (IET 30176), days to 50% flowering varied from 90 days (CSR 10) to 129 days (CSR 36). Plant height ranged from 66 cm (CSR 10) to 104 cm (IET 30162) and the panicles/m^2 varied from 235 (CSR 36) to 345 (IET 30180). Among the checks, Local check (4546 kg/ha) recorded highest yield followed by CSR 23 (3560 kg/ha), Pusa 44 (2742 kg/ha), FL 478 (2226 kg/ha), CSR 36 (2038 kg/ha) and CSR 10 (1805 kg/ha). Hence, Local check is the best check in Zone VII. None of the test entries recorded significant yield improvement over the best check in Zone VII, and hence no entry merit promotion to AVT2-AL ISTVT. **Whereas, NILs IETs 30827 (4510 kg/ha) and 30830 (4310 kg/ha) showed significant yield improvement over the recurrent parent Pusa 44 (2742 kg/ha), hence promoted to next level of testing ie., AVT 2.**

Performance of entries/checks in AVT-1 - AL & ISTVT under Inland Salinity, Kharif 2022

IET No/ Check name	Remarks			
	Overall/ DFF	Z-II/ DFF	Z-VII/ DFF	
IET 30827	3629	2747	4510	Promising in overall, Z-II & VII. Significant over recurrent parent (Pusa 44).
IET 30830	3449	2587	4310	Promising in overall, Z-II & VII. Significant over recurrent parent (Pusa 44).
CSR 36 (Alkaline check)	2913	3787	2038	
CSR 23 (Inland saline check)	3644	3727	3560	
CSR 10 (Early duration saline check)	2513	3220	1805	
FL 478 (Saline tolerant check)	2607	2987	2226	
Pusa 44 (Sensitive check)	2075	1407	2742	
Local check	3883	3220	4546	
G. Mean	**3179**	**3225**	**3134**	
F Value	**1.91 (p<0.0001) S**	**4.21 (p<0.0001) S**	**9.73 (p<0.0001) S**	
CD	**1058**	**1043**	**978**	
CV%	**19.9**	**19.34**	**14.55**	

Summary: Entries promoted

1. **<u>Alkalinity</u>**
   - **Overall: NILs IETs 30827 and 30830**
   - **Zone II: IETs 30164 and 30165, NILs IETs 30827 and 30830**
   - **Zone III: IETs 30176, 30165, 30164, 30162 and 30178**

2. **<u>Inland Salinity</u>**
   - **Overall: NILs IETs 30827 and 30830**
   - **Zone II: NILs IETs 30827 and 30830**
   - **Zone VII: NILs IETs 30827 and 30830**
   -

Therefore, the constitution for AVT2 (AL & ISTVT):

- **IET Nos. 30162, 30164, 30165, 30176, 30178, 30827 and 30830**

As the trait is verified for saltol, but IET 30827 (4.3) & 30830 (5.5) reaction of BLB in comparison to Pusa 44 (5.7), and detail discussion will be done in late duration trial.

INITIAL VARIETY TRIAL - ALKALINE AND INLAND SALINE TOLERANT VARIETY TRIAL (IVT - AL & ISTVT)

Locations: **22** **Test Entries: 24**

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) and local check** **Table: 5.9**

IVT-AL&ISTVT was constituted with 18 entries including one hybrid entry and six checks namely CSR 36 (Alkaline check), CSR 10 (Early Saline check), FL 478 (Saline Tolerant check), CSR 23 (Inland Saline check), Pusa 44 (Sensitive check), and local check. The trial was sent to 22 locations and data was received from 19 locations except Ludhiana, Rothak and Gautam Budha Nagar. The data pertaining to yield, days to 50% flowering, plant height and panicles/m^2 are presented in tables 5.10 and 5.11 respectively. The details of EC and 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, 20224

Location/State	Soil pH	Soil EC (dSm-1)	Exptl mean (kg/ha)	Grain Yield Range (Kg/ha)	CV %	Remarks
Alkalinity						
Karnal (Haryana) (Sodic Microplots)	9.6	0.6	3081	1704-4074	25.4	Data considered for identification of tolerant genotypes
Anjanteli	9.7	0.8	3220	1620-4140	18.2	Data considered for analysis
Kurukshetra (Haryana)	9.8	0.8	3362	1873-4253	21.4	Data considered for analysis
Kanpur (Uttar Pradesh)	9.9	0.7	3263	2511-4544	20.2	Data not considered due to non-significance
Masodha (Uttar Pradesh)	9.4	4.01	4164	1112-5745	7.0	Data considered for analysis
Lucknow – ICAR	9.4	0.62	2176	1292-2792	14.1	Data considered for analysis
Kampasagar (Telangana)	9.0	4.0	1721	524-3920	16.9	Data not considered due to low site mean
Trichy	8.8	2.6	3483	1700-5533	11.1	Data considered for analysis
Annamalainagar (Tamil Nadu)	8.53	2.03	3194	1296-3840	5.7	Data considered for analysis
Karaikal (Puducherry)	8.6	2.5	2809	1212-3458	11.3	Data considered for analysis
Puducherry (Puducherry)	8.8	3.94	2222`	1190-3304	29.3	Data 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)	8.5	9.0	3114	1185-3111	21.1	Data considered for identification of tolerant genotypes
Panipat (Haryana)	7.8	9.0	3011	1560-4080	21.0	Data considered for analysis
Gangavati (Karnataka)	8.0	5.5	2988	1631-4863	18.4	Data considered for analysis
Normal						
Danti	8.2	7.3	2662	1576-4038	17.8	Sensitive check recorded higher yield among the checks due to heavy rainfall.
Nawagam	7.8	0.30	6099	3944-8179	14.9	Stress conditions are not prevailing hence the trial is not considered for analysis
Vytilla (Kerala)	3.6	4.2	1400	622-2343	15.0	Stress conditions are not prevailing hence the trial is not considered for analysis
Mandya (Karnataka)	7.1	3.8	2852	2173-4777	8.8	Stress conditions are not prevailing hence the trial is not considered for analysis
Brahmavar (Karnataka)	5.8	4.1	2386	1240-3040	11.4	Low stress level due to heavy rains and floods.

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, 2022. 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, 2022

IET No	Sodic Micro Plot		Saline Micro Plot	
	Vigor/SES (Sodic)	Yield (kg/ha)	Vigor/SES (Saline)	Yield (kg/ha)
31040	7	2519	5	2444
31041	6	3037	6	2889
31042	6	3037	4	3259
31043	7	1778	4	1556
31044	4	3778	5	3481
31045	6	2963	6	3852
31046	4	4000	6	3556
31047	6	2963	6	2741
31048	4	3852	6	4222
31049	5	3259	4	3407
31050	5	3778	4	3556
31051	4	4074	4	4148
31052	8	1704	4	2000
31053	6	3037	6	3333
31054	4	3778	5	3852
31055	4	3704	7	3704
31056	8	1481	5	1185
31057	6	2667	6	3111
CSR 36 (Alkaline Check)	6	3111	5	2963
CSR 23 (Inland Saline Check)	4	3704	6	3630
CSR 10 (Early duration saline check)	6	2667	7	2593
FL 478 (Saline tolerant check)				
Pusa 44 (Sensitive Check)				
Local Check (LC)	5	2889	5	3037
Exp. Mean		**3081**		**3114**
F Value		**2.48 (p<0.0052)S**		**4.05 (p<0.0001)S**
CD		1287		1083
CV%		**25.4**		**21.1**
Local Check Name	**CSR 36**		**CSR 27**	

Under Alkaline conditions in sodic micro plot evaluation, the saline tolerant check (FL 478) and sensitive check (Pusa 44) have not germinated. The IET nos. 31044, 31046, 31048, 31051, 31054 and 3105 recorded a tolerance score of 4.0 as compared to tolerant checks CSR 36 (6). Under saline conditions in micro plot evaluation, the saline tolerant check (FL 478) and sensitive check (Pusa 44) have not germinated. The IET nos. 31042, 31043, 31049, 31050, 31051 and 31052 recorded a tolerance score of 4.0 as compared to tolerant checks i.e., CSR 23 (6) and CSR 10 (7). IET nos. 31051 recorded a tolerance score of 4.0 under sodicity and saline conditions and hence possess dual tolerance.

1. Alkaline Stress

Under alkalinity, the trial data was received from Karnal (Sodic Micro plot), Anjanteli, Kurukshetra, Kanpur, Masodha, Lucknow, Kampasagar, Trichy, Annamalainagar, Danti, Nawagam, Mandya, Brahmawar, Vytilla, Karaikal and Puducherry. However, data from Danti, Nawagam, Mandya, Brahmawar, Kanpur and Vytilla was not included in the analysis due low stress levels, non-significance and low experimental mean. The data from sodic microplot evaluation was used for the identification of tolerant genotypes. Hence the data from eight locations namely Anjanteli, Kurukshetra, Masodha, Lucknow, Kampasagar,

Trichy, Annamalainagar, Kakaikal and 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.

Performance Overall basis across locations

On overall basis, the mean grain yield ranged from 2502 kg/ha (IET 31052) to 3554 kg/ha (IET 31042), days to 50% flowering varied from 83 days (CSR 23)–99 days (CSR 36). Plant height ranged from 76 cm (CSR 10) to 122 cm (IET 31047) and the panicles/m2 varied from 309 (IET 31050) to 495 (PUSA 44). Among the checks, local check (3528 kg/ha), recorded highest yield followed by CSR 36 (3236 kg/ha), CSR 10 (3116 kg/ha), CSR 23 (3072 kg/ha), FL 478 (2835 kg/ha) and Pusa 44 (2579 kg/ha). The flowering duration of the test entries varied from 86 days (IET 31055) to 98 days (IET's 31040 and 31047), where most of the entries differed with early duration check CSR 10 with a range of 2 - 10 days. Hence, local check is the best check on overall basis. **None of the test entries recorded significant yield improvement over the best check on overall basis, and hence no entry merit promotion to AVT1-AL ISTVT.**

Performance in Zone II

For Alkalinity stress, test locations in Zone-II consisted of Anjanteli and Kurukshetra. In Zone II, the mean grain yield ranged from 1790 kg/ha (IET 31056) to 4120 kg/ha (IET 31055), days to 50% flowering varied from 89 days (IET 31048)–108 days (CSR 36). Plant height ranged from 89 cm (CSR 10) to 142 cm (IET 31047) and the panicles/m2 varied from 126 (IET 31054) to 244 (IET 31049). Among the checks, CSR 36 (3580 kg/ha), recorded highest yield followed by CSR 23 (3557 kg/ha), Local check (2897 kg/ha) and CSR 10 (2823 kg/ha). FL 478 and Pusa 44 has not germinated. The flowering duration of the test entries varied from 89 days (IET 31048) to 107 days (IET 31040), where most of the entries differed with early duration check CSR 10 with a range of 4 - 14 days. Hence, alkaline check CSR 36 is the best check on overall basis. **None of the test entries recorded significant yield improvement over the best check in Zone II, and hence no entry merit promotion to AVT1-AL ISTVT.**

The early duration cultures were compared with the early duration check- CSR 10 for their significance. CSR 10 recorded 2823 kg/ha and 103 days to 50% flowering in Zone-II. Hence, ten entries with early flowering compared to early check – CSR 10 were noticed of which 8 entries showed significant yield superiority over the early check- CSR 10. **IET 31055 (CSR 141-11-112) recorded a mean grain yield of 4120 kg/ha and 94 days, IET 31048 (CSR 116-10-2) -grain yield of 4070 kg/ha and 89 days, IET 31054 (CSAR 9-29-2021) -grain yield of 4004 kg/ha and 98 days, IET 31051 (NVSR 6494) -grain yield of 3997 kg/ha and 93 days, IET 31044 (CSR 103-10-2)-grain yield of 3914 kg/ha and 94 days, IET 31050 (CSR 104-10-2)-grain yield of 3890 kg/ha and 98 days, IET 31042 (NVSR 6526)-grain yield of 3857 kg/ha and 97 days and IET 31053 (RNR 29325)-grain yield of 3720 kg/ha and 94 days were recorded significant yield superiority over early check-CSR-10 in zone-II and are promoted.**

Performance in Zone III

For Alkalinity stress, test locations in Zone-III consisted of two locations viz., Masodha and Lucknow. In Zone III, the mean grain yield ranged from 1421 kg/ha (IET 31043) to 4147 kg/ha (IET 31042), days to 50% flowering varied from 82 days (IET 31055)–106 days (IET 31043). Plant height ranged from 79 cm (IET 31040) to 103 cm (IET 31045)

and the panicles/m2 varied from 209 (IET 31057) to 333 (FL 478). Among the checks, CSR 10 (3862 kg/ha), recorded highest yield followed by CSR 23 (3312 kg/ha), CSR 36 (3298 kg/ha), Local check (3157 kg/ha) and FL 478 (2604 kg/ha). Pusa 44 has not germinated. The flowering duration of the test entries varied from 82 days (IET 31055) to 106 days (IET 31043), where most of the entries differed with early duration check CSR 10 with a range of 6 - 18 days. Hence, early duration check CSR 10 is the best check in Zone III. **None of the test entries recorded significant yield improvement over the best check in Zone III, and hence no entry merit promotion to AVT1-AL ISTVT.**

Performance in Zone VII

For Alkalinity stress, test locations in Zone-VII consisted of four locations viz., Trichy, Annamalainagar, Karaikal and Puducherry. In Zone VII, the mean grain yield ranged from 2141 kg/ha (IET 31046) to 4030 kg/ha (Local check), days to 50% flowering varied from 80 days (IET 31050)–100 days (IET 31051). Plant height ranged from 69 cm (CSR 10) to 128 cm (IET 31047) and the panicles/m2 varied from 407 (CSR 23 and IET 31048) to 522 (IET 31041). Among the checks, local check (4030 kg/ha), recorded highest yield followed by CSR 36 (3033 kg/ha), FL 478 (2912 kg/ha), CSR 10 (2889 kg/ha), CSR 23 (2711 kg/ha) and Pusa 44 (2579 kg/ha). The flowering duration of the test entries varied from 80 days (IET 31050) to 100 days (IET's 31051), where most of the entries differed with early duration check CSR 10 with a range of 0 - 20 days. Hence, local check is the best check in Zone VII. **None of the test entries recorded significant yield improvement over the best check in Zone VII, and hence no entry merit promotion to AVT1-AL ISTVT.**

Performance of entries/checks in IVT - AL & ISTVT under alkalinity, Kharif 2022

IET No/ Check name	Alkalinity				Remarks
	Overall/ DFF	Z-II (3)/ DFF	Z-III (1)/ DFF	Z-VII (4)/ DFF	
31055 CSR 141-11-112	-	4120, 94	-	-	Promising in Z-II. Significant over early check (CSR 10).
31048 CSR 116-10-2	-	4070, 89	-	-	Promising in Z-II. Significant over early check (CSR 10).
31054 CSAR 9-29-2021	-	4004, 98	-	-	Promising in Z-II. Significant over early check (CSR 10).
31051 NVSR 6494	-	3997, 93	-	-	Promising in Z-II. Significant over early check (CSR 10).
31044 CSR 103-10-2	-	3914, 94	-	-	Promising in Z-II. Significant over early check (CSR 10).
31050 CSR 104-10-2	-	3890, 98	-	-	Promising in Z-II. Significant over early check (CSR 10).
31042 NVSR 6526	-	3857, 97	-	-	Promising in Z-II. Significant over early check (CSR 10).
31053 RNR 29325	-	3720, 94	-	-	Promising in Z-II. Significant over early check (CSR 10).
CSR 36 (Alkaline check)	3236	3580	3298	3033	
CSR 23 (Inland saline check)	3072	3557	3312	2711	
CSR 10 (Early duration saline check)	3116	2823	3862	2889	
FL 478 (Saline tolerant check)	2835	-	2604	2912	

IET No/ Check name	Alkalinity				Remarks
	Overall/ DFF	Z-II (3)/ DFF	Z-III (1)/ DFF	Z-VII (4)/ DFF	
Pusa 44 (Sensitive check)	2579	-	-	2579	
Local check	3528	2897	3157	4030	
G. Mean	**3077**	**3291**	**3163**	**2984**	
F Value	**7.31 (p<0.0001)S**	**8.59 (p<0.0001)S**	**3.73 (p<0.0001)S**	**7.88 (p<0.0001)S**	
CD	**335**	**690**	**309**	**383**	
CV%	**7.72**	**12.72**	**6.93**	**9.09**	

2. Inland Saline Stress

Overall Performance

For inland saline stress, the data from four locations namely Karnal, Panipat, Danti and Gangavati were received. The data from three locations except Danti were suitable for analysis. Salinity stress was not observed at Danti due to high rainfall during experimentation. The mean grain yield on overall basis ranged from 2012 kg/ha (CSR 10) to 3928 kg/ha (IET 31041), days to 50% flowering varied from 89 days (CSR 10) to 115 days (IET 31054). Plant height of the entries ranged from 76 cm (CSR 10) to 120 cm (IET 31047) and the panicles/m2 varied from 178 (IET 31055) to 257 (IET 31041). Among the checks, Local check (3313 kg/ha) recorded highest yield followed by CSR 36 (2769 kg/ha), CSR 23 (2577 kg/ha) and CSR 10 (2012 kg/ha). FL 478 and Pusa 44 are not germinated. Hence, local check is the best check on overall basis. **None of the test entries recorded significant yield improvement over the best check on overall basis, and hence no entry merit promotion to AVT1-AL ISTVT.**

The early duration cultures were compared with the early duration check- CSR 10 for their significance. CSR 10 recorded 2012 kg/ha and 89 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 i.e., with early flowering with ±2 days (SE) compared to early check – CSR 10 were noticed showed significant yield superiority over the early check- CSR 10. **IET 31050 (CSR 104-10-2) recorded a mean grain yield of 3361 kg/ha and 91 days was recorded significant yield superiority over early check-CSR-10 on overall basis and is promoted.**

Performance in Zone II

The inland saline stress trial in Zone II, the data from Panipat was found suitable in the final analysis. The mean grain yield on zone II ranged from 1560 kg/ha (IET 31052) to 4080 kg/ha (IET 31051), days to 50% flowering varied from 75 days (IET 31050) to 112 days (IET 31052 and 31057). Plant height of the entries ranged from 90 cm (CSR 10) to 132 cm (IET 31047) and the panicles/m2 varied from 113 (IET 31055) to 231 (IET 31044). Among the checks, CSR 23 (3213 kg/ha) recorded highest yield followed by CSR 36 (2987 kg/ha), Local check (2687 kg/ha) and CSR 10 (2393 kg/ha). FL 478 and Pusa 44 are not germinated. Hence, CSR 23 is the best check in Zone II. **None of the test entries recorded significant yield improvement over the best check in Zone II, and hence no entry merit promotion to AVT1-AL ISTVT.**

The early duration cultures were compared with the early duration check- CSR 10 for their significance. CSR 10 recorded 89 days to 50% flowering in Zone-II. **Hence, two**

entries with early flowering compared to early check – CSR 10 were noticed. IET 31055 (CSR 141-11-112) recorded a mean grain yield of 4047 kg/ha and 87 days and IET 31050 (CSR 104-10-2)-grain yield of 3760 kg/ha and 75 days were recorded significant yield superiority over early check-CSR-10 in zone-II and are promoted.

IET nos. 31055 and 31050 merit promotion in Zone II under inland salinity for second year of testing in AVT1-AL&ISTVT.

Performance in Zone VII

The inland saline stress trial in Zone VII, the data from Gangavati was found suitable in the final analysis. The mean grain yield on zone VII ranged from 1631 kg/ha (CSR 10) to 4863 kg/ha (IET 31041), days to 50% flowering varied from 89 days (CSR 10) to 127 days (CSR 36). Plant height of the entries ranged from 62 cm (CSR 10) to 109 cm (IET 31047) and the panicles/m2 varied from 236 (IET 31042) to 331 (IET 31052 and Local check). Among the checks, Local check (3928 kg/ha) recorded highest yield followed by CSR 36 (2551 kg/ha), CSR 23 (1940 kg/ha) and CSR 10 (1631 kg/ha). FL 478 and Pusa 44 are not germinated. Hence, Local check is the best check in Zone VII. **None of the test entries recorded significant yield improvement over the best check in Zone VII, and hence no entry merit promotion to AVT1-AL ISTVT.**

Performance of entries/checks in IVT - AL & ISTVT under inland salinity, Kharif 2022

IET No/ Check name	Inland Salinity			Remarks
	Overall/ DFF	Z-II (3)/ DFF	Z-VII (4)/ DFF	
31050 CSR 104-10-2	3361, 91	3760, 75	-	Promising in Overall and Zone-II. Significant over early check (CSR 10).
31055 CSR 141-11-112	-	4047, 87	-	Promising in Z-II. Significant over early check (CSR 10).
CSR 36 (Alkaline check)	2769	2987	2551	
CSR 23 (Inland saline check)	2577	3213	1940	
CSR 10 (Early duration saline check)	2012	2393	1631	
FL 478 (Saline tolerant check)	-	-	-	
Pusa 44 (Sensitive check)	-	-	-	
Local check	3313	2687	3938	
G. Mean	**3022**	**3011**	**2988**	
F Value	**1.44 (p<0.0518)S**	**3.91 (p<0.0001)S**	**4.80 (p<0.0003)S**	
CD	**1034**	**1044**	**1141**	
CV%	**20.7**	**21.0**	**18.4**	

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

<u>Alkalinity</u>:

- **Zone II: IET Nos. 31055, 31048, 31054, 31051, 31044, 31050, 31042, 31053**

<u>Inland Salinity:</u>

- **Overall Inland Salinity: IET 31050**
- **Zone II under Inland Salinity: IET nos. 31055, 31050**

Therefore, the constitution for AVT AL & ISTVT:

IET Nos. 31042, 31044, 31048, 31050, 31051, 31053, 31054 and 31055.

Table No.5.1: Composition of entries in Advance Variety Trial 2-Alkaline and Inland Saline Tolerant Variety Trial (AVT 2 -AL&ISTVT), Kharif 2022

Entry No.	IET No.	Designation	Cross Combination	GT
3rd year of testing				
5201	29358	CSR YET 55	CSR27 / CSR36	MS
5202	29360	CSAR 12-10-2020	Selection from BC-12-12-10	LB
5203	29353	GNV 18-64	GNV 1109 / CSR 22	LS
5204	**CSR 36 (Alkaline Check)**			
5205	29365	CSR TPB 159	Trichy 1 / PB1	LS
5206	**CSR 10 (Early duration Saline Check)**			
5207	**Pusa 44 (Sensitive Check)**			
5208	27807 (R)	KR 15066 (224-4-3-1-1)	ADT 45 / FL478	LS
5209	**CSR 23 (Inland Saline Check)**			
5210	29361	CSR CPB 69	CSR 89 IR15 / PB1	MS
5211	**FL 478 (Saline Tolerant Check)**			
5212	29354	CSR YET 59	CSR 27 / CSR36	LS
5213	**Local Check (LC)**			

Table No.5.2: Grain Yield (kg/ha) of entries in (AVT 2 -AL & ISTVT), (Alkalinity), Kharif 2022

ENTRY NO	IET NO	ZONE II-NORTHERN											
		Haryana				Haryana (2)			Uttar Pradesh1 (1)		Zone 2(3)		
		Anjantelli (Karnal)		Kurukshetra (Karnal)		Mean			Kanpur		Mean		
5201	29358	4033	2	3893	3	3963	3 *	33%	2874	10	3600	4	11%
5202	29360	3653	6	3740	5	3697	5 *	24%	3574	3	3656	2	12%
5203	29353	3753	5	3540	6	3647	6	22%	3148	6	3480	7	7%
5204	CSR 36 (Alkaline Check)												
5205	29365	3900	4	4080	1	3990	2 *	33%	2630		3537	6	9%
5206	CSR 10 (Early duration Saline Check)	2900	10	3080	9	2990	9		3774	2	3251	9	
5207	Pusa 44 (Sensitive Check)	1460		1880		1670			3096	7	2145		
5208	27807 (R)	3213	7	3467	7	3340	7	12%	3948	1	3543	5	9%
5209	CSR 23 (Inland Saline Check)	3047	8	3413	8	3230	8	8%	3296	4	3252	8	
5210	29361	3973	3	3880	4	3927	4 *	31%	2959	8	3604	3	11%
5211	FL 478 (Saline Tolerant Check)	2773		2547		2660			2774		2698		
5212	29354	4247	1	3973	2	4110	1 *	37%	3263	5	3828	1 *	18%
5213	Local Check (LC)	2927	9	3053	10	2990	9		2930	9	2970	10	
Exp. Mean		**3323**		**3379**		**3351**			**3189**		**3297**		
CD		1088		1044		694			1083		576		
CV%		**19.34**		**18.24**		**14.4**			**20.06**		**10.31**		
D/S		06-06-2022		06-06-2022					10-07-2022				
D/P		07-07-2022		07-07-2022					05-08-2022				
Local Check Name		CSR 36		CSR 36					CSR 43				

***Superior to best check; #Superior to hybrid check**

Table No.5.2 (Contd): Grain Yield (kg/ha) of entries in (AVT 2 -AL & ISTVT), (Alkalinity), Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN											
		UttaR Pradesh 2				UttaR Pradesh 2(2)			UttaR Pradesh (3)			Zone III (2)		
		Masodha		Lucknow-ICAR		Mean			Mean			Mean		
5201	29358	3804	4	2493	7	3149	6	10%	3057	6		3149	6	10%
5202	29360	4696	1	2604	5	3650	2 *	27%	3625	1 *	19%	3650	2 *	27%
5203	29353	4408	3	2771	4	3590	3 *	25%	3442	4 *	13%	3590	3 *	25%
5204	CSR 36 (Alkaline Check)													
5205	29365	3261	8	3333	1	3297	4 *	15%	3075	5		3297	4 *	15%
5206	CSR 10 (Early duration Saline Check)	2798		2569	6	2684	9		3047	7		2684	9	
5207	Pusa 44 (Sensitive Check)	2558		1868		2213			2507			2213		
5208	27807 (R)	3160	9	3264	2	3212	5	12%	3457	3 *	13%	3212	5	12%
5209	CSR 23 (Inland Saline Check)	3402	6	2354	9	2878	7		3017	8		2878	7	
5210	29361	4581	2	3215	3	3898	1 *	36%	3585	2 *	18%	3898	1 *	36%
5211	FL 478 (Saline Tolerant Check)	3412	5	1938		2675	10		2708			2675	10	
5212	29354	3019	10	2160	10	2590			2814	10		2590		
5213	Local Check (LC)	3382	7	2361	8	2872	8		2891	9		2872	8	
Exp. Mean		**3540**		**2578**		**3059**			**SAI**			**3059**		
CD		267		809		399			385			399		
CV%		**5.24**		**21.82**		**9.06**			**8.69**			**9.06**		
D/S		20-06-2022		13-06-2022										
D/P		28-07-2022		16-07-2022										
Local Check Name		NDRK 2008		CSR56										

Table No.5.2 (Contd): Grain Yield (kg/ha) of entries in (AVT 2 -AL & ISTVT), (Alkalinity), Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN														Overall Mean (9)		
		Telangana (1)		Tamil Nadu (1)		Puducherry				Puducherry (2)			Zone VII (4)					
		Kampasagar		Trichy		Karaikal		Puducherry		Mean			Mean					
5201	29358	1660	8	1900		2941	9	2292		2617			2198			2877	10	
5202	29360	1875	7	3422	4	2923	10	2649	7	2786	9		2717	8		3237	4	
5203	29353	1265	9	2350	10	2959	8	2738	5	2849	7		2328	9		2992	8	
5204	CSR 36 (Alkaline Check)																	
5205	29365	1034				3226	5	2708	6	2967	5		2323	10		3022	7	
5206	CSR 10 (Early duration Saline Check)	1073	10	3211	7	3333	3	3274	3	3304	3		2723	7		2890	9	
5207	Pusa 44 (Sensitive Check)	2284	6	2383	9	1283		1280		1282			1808			2010		
5208	27807 (R)	2762	3	4561	3	3904	1	3869	1	3887	1 *	15%	3774	2		3572	1	8%
5209	CSR 23 (Inland Saline Check)			2770	8	3280	4	2976	4	3128	4		3009	5		3067	6	
5210	29361	2492	5	4978	2	3084	6	2619	8	2852	6		3293	3		3531	2	7%
5211	FL 478 (Saline Tolerant Check)	3210	2	3367	6	3048	7	2589	9	2819	8		3054	4		2851		
5212	29354	2577	4	3396	5	2763		2560	10	2662	10		2824	6		3106	5	
5213	Local Check (LC)	3248	1	5129	1	3405	2	3333	2	3369	2		3779	1		3308	3	
Exp. Mean		**2135**		**3406**		**3012**		**2741**		**2877**			**2819**			**3012**		
CD		704		727		290		603		501			487			280		
CV%		**19.35**		**12.53**		**5.69**		**12.99**		**12.11**			**12.02**			**6.47**		
D/S		02-07-2022		26-08-2022		22-06-2022		26-06-2022										
D/P		06-08-2022				28-07-2022		15-07-2022										
Local Check Name		KPS-2874		TRY 3		TRY 2		TRY 2										

Table No.5.2: Grain Yield (kg/ha) of entries in (AVT 2 -AL & ISTVT), (Sodic Micro Plot), Kharif 2022

ENTRY NO	IET NO	ZONE II-NORTHERN (1)		
		Haryana (1)		
		Karnal (Sodic)		
5201	29358	4148	2	30%
5202	29360	3481	5	9%
5203	29353	3333	7	
5204	CSR 36 (Alkaline Check)			
5205	29365	3630	4	14%
5206	CSR 10 (Early duration Saline Check)	2370		
5207	Pusa 44 (Sensitive Check)	1556		
5208	27807 (R)	3259	8	
5209	CSR 23 (Inland Saline Check)	3481	5	9%
5210	29361	4222	1	33%
5211	FL 478 (Saline Tolerant Check)	2444	10	
5212	29354	3852	3	21%
5213	Local Check (LC)	3185	9	
Exp. Mean		**3247**		
CD		1202		
CV%		**21.87**		
D/S		06-06-2022		
D/P		07-07-2022		
Local Check Name		CSR 36		

Table No.5.2: Grain Yield (kg/ha) of entries in (AVT 2 -AL & ISTVT), (Saline Micro Plot), Kharif 2022

ENTRY NO	IET NO	ZONE II-NORTHERN (1)		
		Haryana (1)		
		Karnal (Saline)		
5201	29358	4000	4	8%
5202	29360	4074	3	10%
5203	29353	3630	7	
5204	CSR 36 (Alkaline Check)			
5205	29365	4000	4	8%
5206	CSR 10 (Early duration Saline Check)	2667		
5207	Pusa 44 (Sensitive Check)	1259		
5208	27807 (R)	3630	7	
5209	CSR 23 (Inland Saline Check)	3704	6	
5210	29361	4222	1	14%
5211	FL 478 (Saline Tolerant Check)	2741	10	
5212	29354	4148	2	12%
5213	Local Check (LC)	3037	9	
Exp. Mean		**3426**		
CD		1488		
CV%		**25.66**		
D/S		06-06-2022		
D/P		07-07-2022		
Local Check Name		CSR 27		

Table No.5.2: Grain Yield (kg/ha) of entries in (AVT 2 -AL & ISTVT), (Saline), Kharif 2022

ENTRY NO	IET NO	ZONE II-NORTHERN			ZONE VII – SOUTHERN			Overall Mean (2)		
		Haryana (1)			Karnataka (1)					
		Panipat (Karnal)			Gangavathi					
5201	29358	3887	4		2604	10		3246	9	
5202	29360	3813	5		4606	2	7%	4210	1	18%
5203	29353	3480	7		4040	5		3760	4	5%
5204	CSR 36 (Alkaline Check)									
5205	29365	4173	1	9%				4173	2	17%
5206	CSR 10 (Early duration Saline Check)	2893	10		1841			2367		
5207	Pusa 44 (Sensitive Check)	1647			4313	3		2980	10	
5208	27807 (R)	3273	8		4655	1	8%	3964	3	11%
5209	CSR 23 (Inland Saline Check)	3813	5		2991	7		3402	8	
5210	29361	4160	2	9%	3139	6		3650	5	
5211	FL 478 (Saline Tolerant Check)	2680			2896	9		2788		
5212	29354	4027	3	6%	2919	8		3473	7	
5213	Local Check (LC)	2973	9		4181	4		3577	6	
Exp. Mean		**3402**			**3471**			**3472**		
CD		954			1072			1082		
CV%		**16.56**			**13.86**			**18.41**		
D/S		06-06-2022			14-07-2022					
D/P		07-07-2022			25-08-2022					
Local Check Name		CSR 27			CSR-22					

Table No.5.2: Grain Yield (kg/ha) of entries in (AVT 2 -AL & ISTVT), (Normal), Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN							
		Gujarat				Gujarat (2)		Zone VI (2)	
		Danti		Nawagam		Mean		Mean	
5201	29358	2592	5	6390	6	4491	6	4491	6
5202	29360	1851		7841	2	4846	3	4846	3
5203	29353	2101	10	7291	3	4696	4	4696	4
5204	CSR 36 (Alkaline Check)			8820	1	8820	1	8820	1
5205	29365	2586	6	1770		2178		2178	
5206	CSR 10 (Early duration Saline Check)	2286	8	6867	5	4577	5	4577	5
5207	Pusa 44 (Sensitive Check)	2659	3	5003	8	3831	8	3831	8
5208	27807 (R)	2427	7	6061	7	4244	7	4244	7
5209	CSR 23 (Inland Saline Check)	1994		4521	9	3258		3258	
5210	29361	2264	9	4369	10	3317	10	3317	10
5211	FL 478 (Saline Tolerant Check)	2653	4	3344		2999		2999	
5212	29354	2952	1	4014		3483	9	3483	9
5213	Local Check (LC)	2840	2	7067	4	4954	2	4954	2
Exp. Mean		**2434**		**5643**		**3363**		**3363**	
CD		656		1809		1935		1935	
CV%		**18.72**		**14.71**		**40.14**		**40.14**	
D/S		14-06-2022		18-06-2022					
D/P		16-07-2022		27-07-2022					
Local Check Name		GNR-5		Dandi					

Table No.5.2 (Contd): Grain Yield (kg/ha) of entries in (AVT 2 -AL & ISTVT), (Normal), Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN								Overall Mean (4)	
		Karnataka				Karnataka (2)		Zone VII (2)			
		Mandya		Brahmawar		Mean		Mean			
5201	29358			1942	10	1942		1942		3641	5
5202	29360	3417	2	2860	2	3139	1	3139	1	3992	2
5203	29353	2698	8	1610		2154	9	2154	9	3425	7
5204	CSR 36 (Alkaline Check)			2560	5	2560	8	2560	8	5690	1
5205	29365	3111	5	2140	7	2626	7	2626	7	2402	
5206	CSR 10 (Early duration Saline Check)	2945	6	3070	1	3008	2	3008	2	3792	4
5207	Pusa 44 (Sensitive Check)	2551	9	1390		1971		1971		2901	10
5208	27807 (R)	2753	7	2730	3	2742	5	2742	5	3493	6
5209	CSR 23 (Inland Saline Check)	3315	3	2600	4	2958	3	2958	3	3108	9
5210	29361	1896		2410	6	2153	10	2153	10	2735	
5211	FL 478 (Saline Tolerant Check)	2330	10	1720		2025		2025		2512	
5212	29354	3820	1 *	2060	8	2940	4	2940	4	3212	8
5213	Local Check (LC)	3277	4	1996	9	2637	6	2637	6	3795	3
Exp. Mean		**2919**		**2238**		**2721**		**2721**		**3047**	
CD		314		680		939		939		1322	
CV%		**7.44**		**13.94**		**24.07**		**24.07**		**30.26**	
D/S		30-07-2022		23-06-2022							
D/P		26-08-2022		03-08-2022							
Local Check Name		IR-30864		Karikagga							

Table No.5.2: Grain Yield (kg/ha) of entries in (AVT 2 -AL & ISTVT), (Alkalinity), Kharif 2022 (Trial Not Considered)

ENTRY NO	IET NO	TRIAL NOT CONSIDERED	
		TAMILNADU	
		@Annamalainagar	
5201	29358	3017	
5202	29360	3297	9
5203	29353	3185	10
5204	CSR 36 (Alkaline Check)		
5205	29365	3615	5
5206	CSR 10 (Early duration Saline Check)	3744	3
5207	Pusa 44 (Sensitive Check)	1363	
5208	27807 (R)	4326	1
5209	CSR 23 (Inland Saline Check)	3631	4
5210	29361	3463	6
5211	FL 478 (Saline Tolerant Check)	3461	7
5212	29354	3390	8
5213	Local Check (LC)	3813	2
Exp. Mean		**3359**	
CD		177	
CV%		**3.65**	
D/S		27-06-2022	
D/P		22-07-2022	
Local Check Name		Trichy-2	

Table No.5.2: Grain Yield (kg/ha) of entries in (AVT 2 -AL & ISTVT), (Normal), Kharif 2022 (Trial Not Considered)

ENTRY NO	IET NO	TRIAL NOT CONSIDERED	
		Kerala (0)	
		@Vytilla	
5201	29358	1883	5
5202	29360	1975	2
5203	29353	1201	8
5204	CSR 36 (Alkaline Check)		
5205	29365	1883	5
5206	CSR 10 (Early duration Saline Check)	1910	4
5207	Pusa 44 (Sensitive Check)	1098	10
5208	27807 (R)	1970	3
5209	CSR 23 (Inland Saline Check)	1494	7
5210	29361	942	
5211	FL 478 (Saline Tolerant Check)	969	
5212	29354	1174	9
5213	Local Check (LC)	2127	1
Exp. Mean		**1552**	
CD		229	
CV%		**6.70**	
D/S		25-06-2022	
D/P		18-07-2022	
Local Check Name		Lavanya	

Table No. 5.3: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 – AL&ISTVT, (Alkalinity), Kharif 2022

ENTRY NO	IET NO	ZONE II-NORTHERN															ZONE III-EASTERN		
		Haryana						Haryana (2)			Uttar Pradesh 1(1)			Zone II (3)			Uttar Pradesh 2		
		Anjantelli (Karnal)			Kurukshetra (Karnal)			Mean			Kanpur			Mean			Masodha		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5201	29358	113	100	182	106	97	192	109	98	187	59	86	376	92	94	250	97	117	251
5202	29360	120	127	189	97	122	150	109	124	170	54	100	383	90	116	241	98	120	269
5203	29353	86	116	148	111	118	166	99	117	157	47	89	377	81	108	231	103	109	240
5204	CSR 36 (Alkaline Check)																		
5205	29365	97	99	142	95	97	142	96	98	142	46	88	396	79	94	227	96	121	236
5206	CSR 10 (Early duration Saline Check)	95	83	155	110	79	150	102	81	153	45	104	368	83	89	224	82	75	196
5207	Pusa 44 (Sensitive Check)	120	93	115	100	91	108	110	92	112	43	79	390	88	87	204	122	99	199
5208	27807 (R)	115	110	128	108	108	150	112	109	139	57	87	395	93	102	224	108	117	226
5209	CSR 23 (Inland Saline Check)	109	131	108	99	129	142	104	130	125	46	105	399	85	122	216	87	138	231
5210	29361	108	109	108	109	97	183	109	103	146	48	84	360	88	97	217	96	103	257
5211	FL 478 (Saline Tolerant Check)	85	92	88	108	94	141	97	93	115	61	105	320	85	97	183	91	84	222
5212	29354	82	105	115	105	110	133	94	108	124	49	103	394	79	106	214	87	93	232
5213	Local Check (LC)	104	111	108	112	105	175	108	108	142	51	107	358	89	108	214	89	104	244
Exp. Mean		**103**	**106**	**132**	**105**	**104**	**153**	**104**	**105**	**142**	**50**	**95**	**376**	**86**	**102**	**220**	**96**	**107**	**234**
SEM Value		**3.16**			**3.62**			**2.47**			**3.67**			**2.28**			**0.74**		

Table No.5.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 – AL&ISTVT, (Alkalinity), Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN												ZONE VII – SOUTHERN		
		Uttar Pradesh 2			UttaR Pradesh 2(2)			Uttar Pradesh (3)			Zone III (2)			Telangana (1)		
		Lucknow-ICAR			Mean			Mean			Mean			Kampasagar		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5201	29358	90	58	292	93	87	271	82	87	306	93	87	271	116	60	733
5202	29360	91	70	328	94	95	298	81	97	327	94	95	298	110	78	677
5203	29353	89	57	283	96	83	262	80	85	300	96	83	262	107	67	544
5204	CSR 36 (Alkaline Check)															
5205	29365	85	57	260	90	89	248	75	89	297	90	89	248	106	49	722
5206	CSR 10 (Early duration Saline Check)	91	61	302	86	68	249	73	80	288	86	68	249	105	49	566
5207	Pusa 44 (Sensitive Check)	95	60	317	108	79	258	87	79	302	108	79	258	114	57	577
5208	27807 (R)	91	70	305	100	93	266	85	91	309	100	93	266	117	66	644
5209	CSR 23 (Inland Saline Check)	91	57	280	89	97	256	74	100	303	89	97	256			
5210	29361	95	64	327	95	83	292	79	84	315	95	83	292	113	66	666
5211	FL 478 (Saline Tolerant Check)	91	61	290	91	73	256	81	84	277	91	73	256	113	53	544
5212	29354	90	56	258	88	74	245	75	84	295	88	74	245	114	70	477
5213	Local Check (LC)	92	52	263	90	78	254	77	88	288	90	78	254	110	74	566
Exp. Mean		**91**	**60**	**292**	**93**	**83**	**263**	**79**	**87**	**301**	**93**	**83**	**263**	**112**	**63**	**611**
SEM Value		**0.90**			**0.54**			**1.21**			**0.54**			**1.58**		

Table No. 5.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 – AL&ISTVT, (Alkalinity), Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN								
		Tamil Nadu (1)			Puducherry					
		Trichy			Karaikal			Puducherry		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5201	29358	84	80	318	86	96	583	80	92	643
5202	29360	97	105	299	90	124	628	86	103	627
5203	29353	87	96	241	81	141	530	80	91	611
5204	CSR 36 (Alkaline Check)									
5205	29365				72	106	475	75	94	434
5206	CSR 10 (Early duration Saline Check)	72	48	392	77	84	378	76	82	450
5207	Pusa 44 (Sensitive Check)	97	95	291	94	110	340	93	83	402
5208	27807 (R)	93	97	370	86	106	616	84	100	611
5209	CSR 23 (Inland Saline Check)	81	98	219	72	92	554	76	90	595
5210	29361	96	91	367	85	121	648	85	89	482
5211	FL 478 (Saline Tolerant Check)	90	96	314	89	122	583	80	85	498
5212	29354	90	96	309	81	124	617	77	91	450
5213	Local Check (LC)	105	119	431	95	122	600	90	99	643
Exp. Mean		**90**	**93**	**323**	**84**	**112**	**546**	**82**	**91**	**537**
SEM Value		**0.34**			**0.78**			**1.37**		

Table No.5.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 – AL&ISTVT, (Alkalinity), Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN						Overall Mean (9)		
		Puducherry (2)			Zone VII (4)					
		Mean			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5201	29358	83	94	613	91	82	569	92	87	397
5202	29360	88	113	627	96	102	558	94	105	394
5203	29353	81	116	571	89	99	482	88	98	349
5204	CSR 36 (Alkaline Check)									
5205	29365	74	100	454	84	83	543	84	89	351
5206	CSR 10 (Early duration Saline Check)	77	83	414	83	66	446	84	74	328
5207	Pusa 44 (Sensitive Check)	94	97	371	100	86	403	98	85	304
5208	27807 (R)	85	103	613	95	92	560	95	96	383
5209	CSR 23 (Inland Saline Check)	74	91	574	76	93	456	83	105	316
5210	29361	85	105	565	95	92	541	93	92	378
5211	FL 478 (Saline Tolerant Check)	85	103	540	93	89	485	90	88	333
5212	29354	79	108	533	91	95	463	86	94	332
5213	Local Check (LC)	93	110	621	100	103	560	94	99	377
Exp. Mean		**83**	**102**	**541**	**91**	**90**	**505**	**90**	**93**	**353**
SEM Value		**0.88**			**0.68**			**1.16**		

Table No. 5.3: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 – AL&ISTVT, (Sodic Micro Plot), Kharif 2022

ENTRY NO	IET NO	ZONE II-NORTHERN (1)		
		Haryana (1)		
		Karnal (Sodic)		
		DFF	PH	PAN
5201	29358	107	89	179
5202	29360	93	97	189
5203	29353	92	90	153
5204	CSR 36 (Alkaline Check)			
5205	29365	96	97	135
5206	CSR 10 (Early duration Saline Check)	101	64	161
5207	Pusa 44 (Sensitive Check)	99	84	135
5208	27807 (R)	115	94	154
5209	CSR 23 (Inland Saline Check)	108	103	156
5210	29361	108	88	175
5211	FL 478 (Saline Tolerant Check)	106	79	152
5212	29354	107	111	145
5213	Local Check (LC)	104	100	151
Exp. Mean		**103**	**91**	**157**
SEM Value		**2.28**		

Table No. 5.3: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 – AL&ISTVT, (Saline Micro Plot), Kharif 2022

ENTRY NO	IET NO	ZONE II-NORTHERN (1)		
		Haryana (1)		
		Karnal (Saline)		
		DFF	PH	PAN
5201	29358	100	78	178
5202	29360	109	93	125
5203	29353	107	81	136
5204	CSR 36 (Alkaline Check)			
5205	29365	92	87	141
5206	CSR 10 (Early duration Saline Check)	109	65	154
5207	Pusa 44 (Sensitive Check)	105	79	172
5208	27807 (R)	99	91	188
5209	CSR 23 (Inland Saline Check)	105	98	133
5210	29361	105	94	209
5211	FL 478 (Saline Tolerant Check)	86	78	181
5212	29354	106	101	112
5213	Local Check (LC)	105	90	133
Exp. Mean		**102**	**86**	**155**
SEM Value		**2.57**		

Table No. 5.3: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 – AL&ISTVT, (Saline), Kharif 2022

ENTRY NO	IET NO	ZONE II-NORTHERN			ZONE VII – SOUTHERN			Overall Mean (2)		
		Haryana (1)			Karnataka (1)					
		Panipat (Karnal)			Gangavathi					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5201	29358	95	60	223	102	76	281	98	68	252
5202	29360	104	87	121	120	98	264	112	92	192
5203	29353	104	63	158	107	89	276	106	76	217
5204	CSR 36 (Alkaline Check)									
5205	29365	83	70	139				83	70	139
5206	CSR 10 (Early duration Saline Check)	109	60	214	91	63	262	100	61	238
5207	Pusa 44 (Sensitive Check)	105	69	139	112	79	295	109	74	217
5208	27807 (R)	97	88	186	107	93	290	102	90	238
5209	CSR 23 (Inland Saline Check)	96	99	148	89	102	345	92	101	247
5210	29361	95	96	195	125	80	323	110	88	259
5211	FL 478 (Saline Tolerant Check)	106	80	139	105	76	291	106	78	215
5212	29354	114	100	121	101	91	284	107	95	202
5213	Local Check (LC)	108	84	148	112	98	338	110	91	243
Exp. Mean		**101**	**79**	**161**	**106**	**86**	**295**	**103**	**82**	**221**
SEM Value		**3.32**			**1.31**			**2.95**		

Table No. 5.3: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 – AL&ISTVT, (Normal), Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN												ZONE VII – SOUTHERN		
		Gujarat						Gujarat (2)			Zone 6(2)			Karnataka		
		Danti			Nawagam			Mean			Mean			Mandya		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5201	29358	95	109	324	95	113	279	95	111	302	95	111	302			
5202	29360	98	114	383	94	136	287	96	125	335	96	125	335	101	77	326
5203	29353	97	113	335	90	116	284	93	115	309	93	115	309	91	68	343
5204	CSR 36 (Alkaline Check)				91	128	291	91	128	291	91	128	291			
5205	29365	84	106	385	81	87	114	83	96	249	83	96	249	101	64	292
5206	CSR 10 (Early duration Saline Check)	99	86	338	91	83	281	95	85	309	95	85	309	113	66	334
5207	Pusa 44 (Sensitive Check)	106	113	398	104	86	275	105	99	337	105	99	337	99	84	351
5208	27807 (R)	96	100	367	91	108	279	94	104	323	94	104	323	101	78	301
5209	CSR 23 (Inland Saline Check)	96	120	288	85	134	275	91	127	281	91	127	281	108	63	284
5210	29361	98	112	396	95	93	218	96	102	307	96	102	307	86	52	326
5211	FL 478 (Saline Tolerant Check)	87	104	331	87	95	163	87	100	247	87	100	247	86	68	292
5212	29354	88	117	401	90	112	220	89	115	310	89	115	310	99	74	343
5213	Local Check (LC)	101	125	299	98	108	284	100	116	291	100	116	291	105	95	292
Exp. Mean		**95**	**110**	**354**	**92**	**108**	**250**	**93**	**109**	**299**	**93**	**109**	**299**	**99**	**72**	**317**
SEM Value		**1.31**			**0.97**			**1.04**			**1.04**					

Table No.5.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 – AL&ISTVT, (Normal), Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN									Overall Mean (4)		
		Karnataka			Karnataka (2)			Zone 7(2)					
		Brahmawar			Mean			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5201	29358	102	81	176	102	81	176	102	81	176	97	101	260
5202	29360	104	81	210	102	79	268	102	79	268	99	102	301
5203	29353	102	84	123	96	76	233	96	76	233	95	96	271
5204	CSR 36 (Alkaline Check)	113	61	189	113	61	189	113	61	189	102	94	240
5205	29365	107	77	186	104	70	239	104	70	239	93	83	244
5206	CSR 10 (Early duration Saline Check)	112	91	212	113	79	273	113	79	273	104	82	291
5207	Pusa 44 (Sensitive Check)	114	100	132	106	92	241	106	92	241	106	95	289
5208	27807 (R)	104	93	213	103	86	257	103	86	257	98	95	290
5209	CSR 23 (Inland Saline Check)	97	83	196	102	73	240	102	73	240	96	100	261
5210	29361	106	84	196	96	68	261	96	68	261	96	85	284
5211	FL 478 (Saline Tolerant Check)	106	77	171	96	72	232	96	72	232	91	86	239
5212	29354	104	75	200	101	75	271	101	75	271	95	95	291
5213	Local Check (LC)	105	71	175	105	83	234	105	83	234	102	100	262
Exp. Mean		**106**	**81**	**183**	**103**	**76**	**239**	**103**	**76**	**239**	**98**	**93**	**271**
SEM Value		**2.34**			**1.40**			**1.40**			**0.97**		

Table No. 5.3: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 – AL&ISTVT, (Alkalinity), Kharif 2022

ENTRY NO	IET NO	TRIAL NOT CONSIDERED		
		Tamil Nadu		
		@Annamalainagar		
		DFF	PH	PAN
5201	29358	87	97	364
5202	29360	88	129	383
5203	29353	81	100	387
5204	CSR 36 (Alkaline Check)			
5205	29365	72	86	427
5206	CSR 10 (Early duration Saline Check)	77	87	408
5207	Pusa 44 (Sensitive Check)	95	109	418
5208	27807 (R)	85	102	429
5209	CSR 23 (Inland Saline Check)	80	111	395
5210	29361	93	98	389
5211	FL 478 (Saline Tolerant Check)	85	102	388
5212	29354	88	123	369
5213	Local Check (LC)	95	124	318
Exp. Mean		**85**	**106**	**390**
SEM Value		**0.75**		

Table No.5.3: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 – AL&ISTVT, (Normal), Kharif 2022

ENTRY NO	IET NO	TRIAL NOT CONSIDERED		
		Kerala (0)		
		@Vytilla		
		DFF	PH	PAN
5201	29358	90	100	322
5202	29360	107	105	373
5203	29353	105	118	297
5204	CSR 36 (Alkaline Check)			
5205	29365	101	103	313
5206	CSR 10 (Early duration Saline Check)	92	110	307
5207	Pusa 44 (Sensitive Check)	90	106	207
5208	27807 (R)	89	97	351
5209	CSR 23 (Inland Saline Check)	90	88	252
5210	29361	100	121	168
5211	FL 478 (Saline Tolerant Check)	101	113	199
5212	29354	100	105	215
5213	Local Check (LC)	85	138	392
Exp. Mean		**96**	**108**	**283**
SEM Value		**0.26**		

Table No. 5.4: Grain quality characteristics of entries in AVT 2 -AL & ISTVT, Kharif 2022

Entry No.	Designation	Hull %	Mill %	HRR %	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
5201	29358	77.1	64.9	60.1	5.52	2.00	2.76	MS	A	4	23.73	22
5202	29360	80.0	69.3	59.7	6.31	2.25	2.80	LB	VOC	4	20.91	28
5203	29353	79.5	67.8	62.5	6.44	1.94	3.32	LS	A	4	22.11	50
5204	CSR 36	80.1	69.9	59.8	6.71	2.00	3.36	LS	VOC	4	22.52	42
5205	29365	77.6	65.2	54.3	6.53	2.08	3.14	LS	A	7	24.66	22
5206	CSR 10	78.0	62.7	56.6	5.04	2.39	2.10	SB	OC	4	23.73	45
5207	Pusa 44	77.4	65.8	61.4	5.66	2.02	2.80	MS	VOC	7	23.37	37
5208	27807(R)	79.3	69.4	58.1	6.42	2.08	3.08	LS	VOC	4	26.69	43
5209	CSR 23	78.9	68.3	57.1	5.27	2.26	2.33	SB	VOC	4	22.85	54
5210	29361	79.8	70.2	60.6	5.82	2.14	2.72	MS	VOC	4	25.90	22
5211	FL 478	78.3	66.7	57.4	6.53	2.18	2.99	LB	A	4	24.40	31
5212	29354	80.0	67.4	56.0	6.79	1.93	3.52	LS	A	4	23.37	32
5213	Local Check	81.0	69.3	54.0	5.12	1.89	2.71	MS	A	4	24.87	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. 5.5: Composition of entries in Advance Variety Trial 1-Alkaline and Inland Saline Tolerant Variety Trial (AVT 1 -AL&ISTVT), Kharif 2022

Entry No.	IET No.	Designation	Cross Combination	GT
2nd year of testing				
5301	30164	CSR 189-11-122	Sajoo 52 / FL478 // Sajoo 52 *3	SB
5302	30174	NVSR 6403	Gurjari / Jaya	LB
5303	30180	RP Bio 4918-B2-24K	Swarna / O. nivara	SB
5304	30178	NVSR 6361	NVSR 178 / IR 71907-3R-2-1-1	SB
5305	30176	***IIRRH 156 (Hybrid)***	-	SB
5306	**CSR 36 (Alkaline Check)**			
5307	**Pusa 44 (Sensitive Check and Recurrent Parent)**			
5308	**CSR 23 (Inland Saline Check)**			
5309	30165	***IIRRH 155 (Hybrid)***	-	LS
5310	**CSR 10 (Early duration Saline Check)**			
5311	**FL 478 (Saline Tolerant Check & Donor Parent)**			
5312	30162	NVSR 545	(RP Bio-226 / IRGC 71598) / Nidhi	LS
5313	**Local Check (LC)**			
5314	30827	CSR 389-16-22 (NIL)	Pusa 44 / FL 478 *3 // Pusa 44 / IRBB 60 *3	LB
5315	30830	CSR 389-16-6 (NIL)	Pusa 44 / FL 478 *3 // Pusa 44 / IRBB 60 *3	LB

Table No.5.6: Grain Yield (kg/ha) of entries in (AVT 1 -AL & ISTVT), (Alkalinity), Kharif 2022

ENTRY NO	IET NO	ZONE II-NORTHERN								ZONE III-EASTERN	
		Haryana						Zone II (2)		Uttar Pradesh 2	
		Anjantelli (Karnal)		Kurukshetra (Karnal)		Haryana (2)		Mean		Masodha	
5301	30164	4228	1	3993	2	Mean		4111	1	4167	6
5302	30174	3699	5	3693	3	4111	1	3696	4	4388	5
5303	30180	2854		3553	4	3696	4	3204	8	2398	
5304	30178	3870	4	3540	5	3204	8	3705	3	3470	8
5305	30176	2265		2153		3705	3	2209		5216	2
5306	CSR 36 (Alkaline Check)	3498	7	3507	6	2209		3503	6	4931	3
5307	Pusa 44 (Sensitive Check and Recurrent Parent)	1758		1373		3503	6	1566		2397	
5308	CSR 23 (Inland Saline Check)	3514	6	3347	8	1566		3431	7	5355	1
5309	30165	4067	2	4053	1	3431	7	4060	2	4408	4
5310	CSR 10 (Early duration Saline Check)	3295	8	3093	10	4060	2	3194	9	2556	
5311	FL 478 (Saline Tolerant Check & Donor Parent)	2943	10	2853		3194	9	2898		3090	10
5312	30162	3993	3	3360	7	2898		3677	5	3464	9
5313	Local Check (LC)	3202	9	3107	9	3677	5	3155	10	3481	7
5314	30827	2602		2507		3155	10	2555		2687	
5315	30830	2403		2780		2555		2592		1439	
Exp. Mean		**3213**		**3128**		2592		**3170**		**3563**	
F Value		**4.21(p<0.0001)S**		**2.42(p<0.0001)S**		**3170**		**4.86(p<0.0001)S**		**100.51(p<0.0001)S**	
CD		986		1343		**6.38(p<0.0001)S**		781		300	
CV%		**18.34**		**25.67**		781		**14.74**		**5.89**	
D/S		14-06-2022		14-06-2022		**14.74**				10-07-2022	
D/P		13-07-2022		13-07-2022						05-08-2022	
Local Check Name		CSR 36		CSR 36						CSR 43	

For Promotion of entries:
***For Varietal entries: Yield of entry should be superior over yield of BVC+CD (at 5%level of significance).**
#For hybrid entries: Yield of entry should be superior over yield of BVC+CD and over yield of BHC+CD (at 5% level of significance)
In locations where the F variance ratio between treatments is non-significant, data from such locations was not considered in analysis.

Table No.5.6 (Contd): Grain Yield (kg/ha) of entries in (AVT 1 -AL & ISTVT), (Alkalinity), Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN						ZONE VII-SOUTHERN			
		Uttar Pradesh 2		Uttar Pradesh 2 (2)		Zone III (2)		Tamil Nadu			
		Lucknow-ICAR		Mean		Mean		Trichy		Annamalainagar	
5301	30164	2729		3448	6	3448	6	4789	5	4910	
5302	30174	3312	5	3850	5	3850	5	2844		6035	6
5303	30180	3208	6	2803		2803		3089		5685	10
5304	30178	2979	10	3225	8	3225	8	3400	9	5985	8
5305	30176	3355	4	4286	2	4286	2	5033	3	6013	7
5306	CSR 36 (Alkaline Check)	3375	3	4153	3	4153	3	4044	6	6090	4
5307	Pusa 44 (Sensitive Check and Recurrent Parent)	2971		2684		2684		2000		5465	
5308	CSR 23 (Inland Saline Check)	3437	2	4396	1	4396	1	5644	1	2413	
5309	30165	3583	1	3996	4	3996	4	4989	4	6080	5
5310	CSR 10 (Early duration Saline Check)	2625		2591		2591		2889		6835	2
5311	FL 478 (Saline Tolerant Check & Donor Parent)	3146	8	3118	9	3118	9	3633	7	6133	3
5312	30162	3009	9	3237	7	3237	7	3500	8	5243	
5313	Local Check (LC)	2688		3085	10	3085	10	5556	2	4943	
5314	30827	2917		2802		2802		2600		5755	9
5315	30830	3208	6	2324		2324		3133	10	6965	1
Exp. Mean		**3103**		**3333**		**3333**		**3810**		**5637**	
F Value		**1.97(p=0.0376)S**		**25.72(p<0.0001)S**		**25.72(p<0.0001)S**		**20.23(p<0.0001)S**		**46.32(p<0.0001)S**	
CD		582		339		339		686		407	
CV%		**13.15**		**7.14**		**7.14**		**10.77**		**5.06**	
D/S		25-06-2022						02-07-2022		26-08-2022	
D/P		29-07-2022						07-08-2022			
Local Check Name		NDRK 2008						KPS-2874		TRY 3	

Table No.5.6 (Contd): Grain Yield (kg/ha) of entries in (AVT 1 -AL & ISTVT), (Alkalinity), Kharif 2022

ENTRY NO	IET NO	ZONE VII-SOUTHERN										Overall Mean (8)	
		Tamil Nadu (2)		Puducherry				Puducherry (2)		Zone VII (4)			
		Mean		Karaikal		Puducherry		Mean		Mean			
5301	30164	4850	8	2727		2241	10	2484		3667	8	3723	4
5302	30174	4440	10	3066	3	2679	4	2873	3	3656	9	3715	5
5303	30180	4387		2870	9	2083		2477		3432		3218	
5304	30178	4693	9	2923	7	2470	6	2697	6	3695	7	3580	7
5305	30176	5523	2	2977	4	2708	3	2843	4	4183	2	3715	5
5306	CSR 36 (Alkaline Check)	5067	4	2816		2500	5	2658	8	3863	5	3845	2
5307	Pusa 44 (Sensitive Check and Recurrent Parent)	3733		2870	9	2143		2507	10	3120		2622	
5308	CSR 23 (Inland Saline Check)	4029		1283		1250		1267		2648		3280	
5309	30165	5535	1	2977	4	2470	6	2724	5	4129	3	4078	1
5310	CSR 10 (Early duration Saline Check)	4862	7	3316	2	3363	2	3340	2	4101	4	3497	8
5311	FL 478 (Saline Tolerant Check & Donor Parent)	4883	6	2950	6	2381	8	2666	7	3774	6	3391	10
5312	30162	4372		2481		2292	9	2387		3379		3418	9
5313	Local Check (LC)	5250	3	3476	1	3393	1	3435	1	4342	1	3731	3
5314	30827	4178		2906	8	2202		2554	9	3366		3022	
5315	30830	5049	5	2299		1935		2117		3583	10	3020	
Exp. Mean		**4956**		**2796**		**2407**		**2602**		**4162**		**3612**	
F Value		**5.88(p<0.0001)S**		**10.85(p<0.0001)S**		**2.79(p=0.0085)S**		**8.84(p<0.0001)S**		**16.22(p<0.0001)S**		**13.52(p<0.0001)S**	
CD		762		416		857		456		677		315	
CV%		**10.77**		**8.89**		**21.29**		**10.48**		**11.4**		**6.11**	
D/S				27-06-2022		26-06-2022							
D/P				22-07-2022		15-07-2022							
Local Check Name				Trichy 2		TRY 2							

Table No. 5.6 (Contd): Grain Yield (kg/ha) of entries in (AVT 1-AL & ISTVT), (Sodic Micro Plot), Kharif 2022

ENTRY NO	IET NO	ZONE II-NORTHERN	
		Haryana (1)	
		Karnal (Sodic)	
5301	30164	3926	1
5302	30174	2667	
5303	30180	2370	
5304	30178	3407	5
5305	30176	2148	
5306	CSR 36 (Alkaline Check)	3037	7
5307	Pusa 44 (Sensitive Check and Recurrent Parent)	1852	
5308	CSR 23 (Inland Saline Check)	3630	2
5309	30165	3556	3
5310	CSR 10 (Early duration Saline Check)	3111	6
5311	FL 478 (Saline Tolerant Check & Donor Parent)	2889	9
5312	30162	3481	4
5313	Local Check (LC)	2963	8
5314	30827	2000	
5315	30830	2741	10
Exp. Mean		**2919**	
F Value		**2.03(p=0.0485)S**	
CD		1236	
CV%		**25.31**	
D/S		14-06-2022	
D/P		13-07-2022	
Local Check Name		CSR 36	

Table No.5.6 (Contd): Grain Yield (kg/ha) of entries in (AVT 1-AL & ISTVT) (Saline), Kharif 2022

ENTRY NO	IET NO	ZONE II-NORTHERN Haryana (1) Panipat (Karnal)		ZONE VII – SOUTHERN Karnataka (1) Gangavathi		Overall Mean (2)	
5301	30164	4220	1	2814	8	3517	5
5302	30174	3793	4	4037	5	3915	1
5303	30180	3080	10	2942	7	3011	9
5304	30178	4080	2	2788	9	3434	7
5305	30176	2033		4638	1	3336	8
5306	CSR 36 (Alkaline Check)	3787	5	2038		2913	
5307	Pusa 44 (Sensitive Check and Recurrent Parent)	1407		2742	10	2075	
5308	CSR 23 (Inland Saline Check)	3727	6	3560	6	3644	3
5309	30165	3800	3	2061		2931	10
5310	CSR 10 (Early duration Saline Check)	3220	8	1805		2513	
5311	FL 478 (Saline Tolerant Check & Donor Parent)	2987		2226		2607	
5312	30162	3687	7	1999		2843	
5313	Local Check (LC)	3220	8	4546	2	3883	2
5314	30827	2747		4510	3	3629	4
5315	30830	2587		4310	4	3449	6
Exp. Mean		**3225**		**3134**		**3179**	
F Value		**4.21(p=0.0004)S**		**9.73(p<0.0001)S**		**1.911(p=0.0651)S**	
CD		1043		978		1058	
CV%		**19.34**		**14.55**		**19.9**	
D/S		14-06-2022		14-07-2022			
D/P		13-07-2022		25-08-2022			
Local Check Name		CSR 27		CSR-22			

Table No.5.6 (Contd): Grain Yield (kg/ha) of entries in (AVT 1-AL & ISTVT) (Normal), Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN Gujarat Danti		Gujarat Nawagam		Gujarat (2) Mean		Zone VI (2) Mean		ZONE VII – SOUTHERN Karnataka Mandya	
5301	30164	1878		7421	4	4650	6	4650	6	3798	1
5302	30174	1451		7301	6	4376	9	4376	9	2851	9
5303	30180	4449	1	8262	1	6356	1 *	6356	1 *	3779	2
5304	30178	1974		8231	2	5103	4	5103	4	2742	10
5305	30176	3019	5	5265		4142		4142		2360	
5306	CSR 36 (Alkaline Check)	3301	4	7418	5	5360	3	5360	3	2074	
5307	Pusa 44 (Sensitive Check and Recurrent Parent)	3534	2	4764		4149		4149		3772	3
5308	CSR 23 (Inland Saline Check)	2370	9	5624		3997		3997		3290	4
5309	30165	2022		7215	7	4619	7	4619	7	2420	
5310	CSR 10 (Early duration Saline Check)	3013	6	6622	8	4818	5	4818	5	991	
5311	FL 478 (Saline Tolerant Check & Donor Parent)	2233	10	5814		4024		4024		2050	
5312	30162	3519	3	4858		4189	10	4189	10	3033	8
5313	Local Check (LC)	2965	7	8101	3	5533	2	5533	2	3264	5
5314	30827	2495	8	6512	9	4504	8	4504	8	3148	7
5315	30830	2094		5890	10	3992		3992		3153	6
Exp. Mean		**2688**		**6620**		**3706**		**3706**		**2848**	
F Value		**8.91(p<0.0001)S**		**4.05(p=0.0063)S**		**12.64(p<0.0001)S**		**12.64(p<0.0001)S**		**18.80(p<0.0001)S**	
CD		716		1777		811		811		468	
CV%		**18.68**		**12.51**		**15.34**		**15.34**		**11.52**	
D/S		17-06-2022		18-06-2022						30-07-2022	
D/P		18-07-2022		28-07-2022						26-08-2022	
Local Check Name		GNR-5		Dandi						IR-30864	

Table No. 5.6 (Contd): Grain Yield (kg/ha) of entries in (AVT 1-AL & ISTVT) (Normal), Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN						Overall Mean (4)	
		Karnataka		Karnataka (2)		Zone VII (2)			
		Brahmavar		Mean		Mean			
5301	30164	2250	8	3024	4	3024	4	3837	3
5302	30174	1640		2246	10	2246	10	3311	10
5303	30180	2520	3	3150	1	3150	1	4753	1
5304	30178	2280	7	2511	8	2511	8	3807	4
5305	30176	1760		2060		2060		3101	
5306	CSR 36 (Alkaline Check)	2160	10	2117		2117		3738	6
5307	Pusa 44 (Sensitive Check and Recurrent Parent)	2420	5	3096	2	3096	2	3623	7
5308	CSR 23 (Inland Saline Check)	1130		2210		2210		3104	
5309	30165	3370	1	2895	5	2895	5	3757	5
5310	CSR 10 (Early duration Saline Check)	2440	4	1716		1716		3267	
5311	FL 478 (Saline Tolerant Check & Donor Parent)	2350	6	2200		2200		3112	
5312	30162	2190	9	2612	7	2612	7	3400	9
5313	Local Check (LC)	2850	2	3057	3	3057	3	4295	2
5314	30827	1820		2484	9	2484	9	3494	8
5315	30830	2100		2627	6	2627	6	3309	
Exp. Mean		**2219**		**2700**		**2700**		**3203**	
F Value		**6.00(p=0.0009)S**		**8.97(p<0.0001)S**		**8.97(p<0.0001)S**		**9.76(p<0.0001)S**	
CD		631		520		520		488	
CV%		**13.25**		**13.5**		**13.5**		**10.68**	
D/S		23-06-2022							
D/P		03-08-2022							
Local Check Name		Karikagga							

Table No.5.6 (Contd): Grain Yield (kg/ha) of entries in (AVT 1 -AL & ISTVT), (Alkalinity), Kharif 2022 (Trials Not Considered)

ENTRY NO	IET NO	TRIALS NOT CONSIDERED			
		Uttar Pradesh 1 (0)		Telangana (0)	
		@Kanpur		@Kampasagar	
5301	30164	3926	2	2168	9
5302	30174	3570	6	710	
5303	30180	3648	3	1512	10
5304	30178	3400	10	2292	8
5305	30176	3489	7	3765	3
5306	CSR 36 (Alkaline Check)	4322	1	2400	6
5307	Pusa 44 (Sensitive Check and Recurrent Parent)	2852		2963	4
5308	CSR 23 (Inland Saline Check)	3633	4	2346	7
5309	30165	3348		4545	1
5310	CSR 10 (Early duration Saline Check)	3615	5	725	
5311	FL 478 (Saline Tolerant Check & Donor Parent)	3437	8	2462	5
5312	30162	3263		471	
5313	Local Check (LC)	3415	9	3789	2
5314	30827	3015		556	
5315	30830	3104		370	
Exp. Mean		**3469**		**2072**	
F Value		**0.98(p=0.5030)NS**		**36.26(p<0.0001)S**	
CD		602		602	
CV%		**17.38**		**17.38**	
D/S				16-06-2022	
D/P				20-07-2022	
Local Check Name				CSR56	

Table No.5.6 (Grain Yield (kg/ha) of entries in (AVT 1-AL & ISTVT), (Saline Micro Plot), Kharif 2022 (Trial Not Considered)

ENTRY NO	IET NO	ZONE II-NORTHERN Haryana(0) @Karnal (Saline)	
5301	30164	4148	1
5302	30174	3111	8
5303	30180	3037	10
5304	30178	4148	1
5305	30176	2222	
5306	CSR 36 (Alkaline Check)	3630	5
5307	Pusa 44 (Sensitive Check and Recurrent Parent)	2074	
5308	CSR 23 (Inland Saline Check)	3259	6
5309	30165	3778	4
5310	CSR 10 (Early duration Saline Check)	3111	8
5311	FL 478 (Saline Tolerant Check & Donor Parent)	2963	
5312	30162	3852	3
5313	Local Check (LC)	3185	7
5314	30827	2519	
5315	30830	2519	
Exp. Mean		**3170**	
F Value		**1.61(p=0.1298)NS**	
CD		1415.51	
CV%		**26.70**	
D/S		14-06-2022	
D/P		13-07-2022	
Local Check Name		CSR 27	

Table No.5.6 (Contd): Grain Yield (kg/ha) of entries in (AVT 1-AL & ISTVT) (Normal), Kharif 2022 (Trials Not Considered)

ENTRY NO	IET NO	TRIAL NOT CONSIDERED Kerala @Vytilla	
5301	30164	2002	3
5302	30174	1495	
5303	30180	742	
5304	30178	1553	10
5305	30176	1266	
5306	CSR 36 (Alkaline Check)	1564	8
5307	Pusa 44 (Sensitive Check and Recurrent Parent)	1710	4
5308	CSR 23 (Inland Saline Check)	2029	2
5309	30165	1554	9
5310	CSR 10 (Early duration Saline Check)	1667	6
5311	FL 478 (Saline Tolerant Check & Donor Parent)	1650	7
5312	30162	1677	5
5313	Local Check (LC)	2440	1
5314	30827	1190	
5315	30830	1439	
Exp. Mean		**1599**	
F Value		**6.67(p=0.0005)S**	
CD		445	
CV%		**12.97**	
D/S		44737	
D/P		44760	
Local Check Name		Lavanya	

Table No. 5.7: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 1 – AL&ISTVT, (Alkalinity), Kharif 2022

ENTRY NO	IET NO	ZONE II-NORTHERN												ZONE III-EASTERN		
		Haryana						Haryana (2)			Zone II (2)			Uttar Pradesh 2		
		Anjantelli (Karnal)			Kurukshetra (Karnal)			Mean			Mean			Masodha		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5301	30164	80	116	225	104	110	219	92	113	222	92	113	222	91	109	260
5302	30174	102	118	120	102	126	187	102	122	154	102	122	154	126	120	240
5303	30180	127	115	143	111	127	138	119	121	141	119	121	141	111	129	154
5304	30178	98	115	158	98	108	170	98	111	164	98	111	164	92	111	233
5305	30176	99	124	180	105	123	211	102	124	196	102	124	196	86	129	344
5306	CSR 36 (Alkaline Check)	114	122	173	110	106	146	112	114	160	112	114	160	98	115	271
5307	Pusa 44 (Sensitive Check and Recurrent Parent)	116	93	150	112	94	146	114	93	148	114	93	148	96	108	211
5308	CSR 23 (Inland Saline Check)	102	122	203	101	115	187	101	118	195	101	118	195	92	136	291
5309	30165	98	124	135	97	121	130	98	122	132	98	122	132	89	111	228
5310	CSR 10 (Early duration Saline Check)	105	77	158	107	80	244	106	79	201	106	79	201	87	85	210
5311	FL 478 (Saline Tolerant Check & Donor Parent)	105	116	128	114	116	146	109	116	137	109	116	137	91	121	218
5312	30162	119	141	195	102	116	170	111	129	183	111	129	183	87	146	226
5313	Local Check (LC)	106	120	233	110	109	171	108	115	202	108	115	202	86	120	228
5314	30827	116	93	135	113	90	187	115	91	161	115	91	161	93	118	179
5315	30830	99	90	203	102	92	146	101	91	175	101	91	175	114	118	131
Exp. Mean		**106**	**112**	**169**	**106**	**109**	**173**	**106**	**110**	**171**	**106**	**110**	**171**	**96**	**118**	**228**
SE(m)		**4.71**			**5.69**			**3.44**			**3.44**			**0.72**		

Table No. 5.7 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 1 – AL&ISTVT, (Alkalinity), Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN									ZONE VII-SOUTHERN					
		Uttar Pradesh 2			Uttar Pradesh 2 (2)			Zone III (2)			Tamil Nadu					
		Lucknow-ICAR			Mean			Mean			Trichy			Annamalainagar		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5301	30164	88	83	427	89	96	344	89	96	344	84	90	124	86	112	385
5302	30174	87	97	383	106	108	311	106	108	311	85	98	139	85	102	395
5303	30180	117	108	479	114	119	316	114	119	316	98	115	119	98	124	360
5304	30178	86	80	386	89	95	310	89	95	310	86	95	159	90	106	410
5305	30176	88	92	413	87	111	379	87	111	379	94	113	203	98	115	459
5306	CSR 36 (Alkaline Check)	89	94	372	93	104	321	93	104	321	98	102	163	101	115	409
5307	Pusa 44 (Sensitive Check and Recurrent Parent)	103	79	473	99	93	342	99	93	342	95	75	96	100	110	402
5308	CSR 23 (Inland Saline Check)	87	83	475	89	109	383	89	109	383	98	112	176	95	115	427
5309	30165	86	86	423	87	99	326	87	99	326	95	108	175	96	108	467
5310	CSR 10 (Early duration Saline Check)	87	60	455	87	72	333	87	72	333	72	64	67	80	85	432
5311	FL 478 (Saline Tolerant Check & Donor Parent)	87	91	382	89	106	300	89	106	300	89	100	133	105	112	385
5312	30162	84	97	327	85	122	276	85	122	276	84	116	148	85	130	406
5313	Local Check (LC)	81	71	360	83	95	294	83	95	294	105	130	125	103	117	458
5314	30827	117	73	428	105	95	303	105	95	303	105	96	156	106	109	400
5315	30830	119	73	347	116	95	239	116	95	239	97	89	172	95	102	477
Exp. Mean		**93**	**84**	**409**	**94**	**101**	**318**	**94**	**101**	**318**	**92**	**100**	**144**	**95**	**111**	**418**
SE(m)		**2.12**			**1.05**			**1.05**			**0.46**			**0.55**		

Table No. 5.7 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 1 – AL&ISTVT, (Alkalinity), Kharif 2022

ENTRY NO	IET NO	ZONE VII-SOUTHERN															Overall Mean (8)		
		Tamil Nadu (2)			Puducherry						Puducherry (2)			Zone VII (4)					
		Mean			Karaikal			Puducherry			Mean			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5301	30164	85	101	254	85	111	496	84	87	563	85	99	529	85	100	392	88	102	337
5302	30174	85	100	267	89	109	479	81	108	482	85	109	481	85	104	374	94	110	303
5303	30180	98	120	239	96	132	445	86	119	514	91	125	480	95	122	359	105	121	294
5304	30178	88	100	284	87	112	530	82	94	546	85	103	538	86	102	411	90	102	324
5305	30176	96	114	331	88	125	462	88	96	498	88	111	480	92	112	405	93	115	346
5306	CSR 36 (Alkaline Check)	100	109	286	93	123	462	96	98	482	95	110	472	97	109	379	100	109	310
5307	Pusa 44 (Sensitive Check and Recurrent Parent)	98	93	249	92	114	479	84	82	514	88	98	497	93	95	373	100	94	309
5308	CSR 23 (Inland Saline Check)	96	114	302	93	110	445	90	96	546	92	103	496	94	108	399	95	111	344
5309	30165	95	108	321	89	121	445	81	102	563	85	112	504	90	110	412	91	110	321
5310	CSR 10 (Early duration Saline Check)	76	75	249	74	84	565	75	80	579	75	82	572	75	78	410	86	77	339
5311	FL 478 (Saline Tolerant Check & Donor Parent)	97	106	259	86	120	513	85	89	514	85	105	514	91	105	386	95	108	302
5312	30162	85	123	277	81	142	445	71	108	450	76	125	447	80	124	362	89	124	296
5313	Local Check (LC)	104	124	291	92	123	445	92	90	482	92	106	464	98	115	377	97	110	313
5314	30827	105	103	278	88	112	530	85	100	563	86	106	546	96	104	412	103	99	322
5315	30830	96	96	324	94	110	462	80	109	595	87	110	528	92	103	426	100	98	317
Exp. Mean		**94**	**105**	**281**	**89**	**117**	**480**	**84**	**97**	**526**	**86**	**107**	**503**	**90**	**106**	**392**	**95**	**106**	**318**
SE(m)		**0.82**			**0.83**			**1.19**			**0.77**			**1.02**			**1.29**		

Table No. 5.7: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 1 – AL&ISTVT, (Sodic Micro Plot), Kharif 2022

ENTRY NO	IET NO	ZONE II-NORTHERN (1)		
		Haryana (1)		
		Karnal (Sodic)		
		DFF	PH	PAN
5301	30164	84	81	190
5302	30174	116	81	200
5303	30180	111	77	186
5304	30178	83	74	222
5305	30176	103	78	234
5306	CSR 36 (Alkaline Check)	115	75	229
5307	Pusa 44 (Sensitive Check and Recurrent Parent)	87	56	173
5308	CSR 23 (Inland Saline Check)	106	74	210
5309	30165	104	80	237
5310	CSR 10 (Early duration Saline Check)	118	59	241
5311	FL 478 (Saline Tolerant Check & Donor Parent)	85	71	153
5312	30162	87	92	211
5313	Local Check (LC)	86	73	192
5314	30827	123	68	172
5315	30830	94	73	216
Exp. Mean		**100**	**74**	**204**
SE(m)		**3.30**		

Table No. 5.7 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 1 – AL&ISTVT, (Saline), Kharif 2022

ENTRY NO	IET NO	ZONE II-NORTHERN			ZONE VII – SOUTHERN			Overall Mean (2)		
		Haryana (1)			Karnataka (1)					
		Panipat (Karnal)			Gangavathi					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5301	30164	103	85	212	112	86	279	107	85	246
5302	30174	101	84	198	113	87	266	107	86	232
5303	30180	115	80	214	126	98	345	121	89	279
5304	30178	99	70	212	114	86	266	106	78	239
5305	30176	112	81	179	113	85	270	112	83	225
5306	CSR 36 (Alkaline Check)	120	76	197	129	84	235	124	80	216
5307	Pusa 44 (Sensitive Check and Recurrent Parent)	101	60	177	113	73	307	107	67	242
5308	CSR 23 (Inland Saline Check)	82	74	248	118	102	357	100	88	302
5309	30165	119	94	211	113	90	256	116	92	233
5310	CSR 10 (Early duration Saline Check)	106	63	271	90	66	255	98	65	263
5311	FL 478 (Saline Tolerant Check & Donor Parent)	106	75	194	110	78	274	108	77	234
5312	30162	105	105	247	95	104	267	100	104	257
5313	Local Check (LC)	91	78	231	107	96	318	99	87	274
5314	30827	120	67	196	109	82	316	115	74	256
5315	30830	106	67	163	107	77	285	106	72	224
Exp. Mean		**106**	**77**	**210**	**111**	**86**	**286**	**108**	**82**	248
SE(m)		**4.30**			**1.32**			**3.86**		

Table No. 5.7 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 1 – AL&ISTVT, (Normal), Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN												ZONE VII – SOUTHERN		
		Gujarat						Gujarat (2)			Zone VI (2)			Karnataka		
		Danti			Nawagam			Mean			Mean			Mandya		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5301	30164	96	95	335	101	107	280	99	101	308	99	101	308	106	53	284
5302	30174	95	106	329	93	123	280	94	114	304	94	114	304	106	60	284
5303	30180	118	133	306	116	135	288	117	134	297	117	134	297	102	65	267
5304	30178	97	116	338	98	127	289	97	122	313	97	122	313	118	83	301
5305	30176	103	115	455	99	146	268	101	131	361	101	131	361	102	71	335
5306	CSR 36 (Alkaline Check)	110	105	392	101	138	279	105	121	335	105	121	335	113	42	352
5307	Pusa 44 (Sensitive Check and Recurrent Parent)	104	101	369	109	94	268	106	98	318	106	98	318	102	78	343
5308	CSR 23 (Inland Saline Check)	97	121	358	102	153	274	100	137	316	100	137	316	105	92	377
5309	30165	96	111	351	99	147	277	98	129	314	98	129	314	108	70	309
5310	CSR 10 (Early duration Saline Check)	100	80	378	96	91	273	98	85	325	98	85	325	121	82	309
5311	FL 478 (Saline Tolerant Check & Donor Parent)	84	91	378	91	132	271	88	112	325	88	112	325	102	87	284
5312	30162	95	142	410	93	151	261	94	146	335	94	146	335	101	76	309
5313	Local Check (LC)	102	124	349	100	117	283	101	121	316	101	121	316	115	93	284
5314	30827	97	95	374	104	96	275	100	96	324	100	96	324	103	77	267
5315	30830	97	84	344	102	89	271	100	87	308	100	87	308	105	66	301
Exp. Mean		**99**	**108**	**364**	**100**	**123**	**276**	**100**	**116**	**320**	**100**	**116**	**320**	**107**	**73**	**307**
SE(m)		**1.59**			**0.39**			**1.65**			**1.65**			**0.09**		

Table No. 5.7 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 1 – AL&ISTVT, (Normal), Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN									Overall Mean (4)		
		Karnataka			Karnataka (2)			Zone VII (2)					
		Brahmavar			Mean			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5301	30164	106	81	196	106	67	240	106	67	240	102	84	274
5302	30174	112	86	160	109	73	222	109	73	222	101	93	263
5303	30180	97	91	211	99	78	239	99	78	239	108	106	268
5304	30178	107	63	189	112	73	245	112	73	245	105	97	279
5305	30176	108	68	191	105	69	263	105	69	263	103	100	312
5306	CSR 36 (Alkaline Check)	108	75	198	110	58	275	110	58	275	108	90	305
5307	Pusa 44 (Sensitive Check and Recurrent Parent)	115	87	232	109	83	288	109	83	288	107	90	303
5308	CSR 23 (Inland Saline Check)	91	106	191	98	99	284	98	99	284	99	118	300
5309	30165	96	77	214	102	73	261	102	73	261	100	101	288
5310	CSR 10 (Early duration Saline Check)	101	74	193	111	78	251	111	78	251	104	82	288
5311	FL 478 (Saline Tolerant Check & Donor Parent)	107	79	239	105	83	261	105	83	261	96	97	293
5312	30162	109	81	192	105	78	251	105	78	251	99	112	293
5313	Local Check (LC)	106	93	189	111	93	237	111	93	237	106	107	276
5314	30827	108	75	191	105	76	229	105	76	229	103	86	277
5315	30830	104	77	211	105	72	256	105	72	256	102	79	282
Exp. Mean		**105**	**81**	**200**	**106**	**77**	**253**	**106**	**77**	**253**	**103**	**96**	**287**
SE(m)		**1.41**			**1.40**			**1.40**			**1.15**		

Table No. 5.7 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 1 – AL&ISTVT (Trials Not Considered), (Alkalinity), Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONISDERED					
		Uttar Pradesh 1			Telangana		
		@Kanpur			@Kampasagar		
		DFF	PH	PAN	DFF	PH	PAN
5301	30164	61	97	352	108	55	391
5302	30174	62	107	366	106	71	368
5303	30180	52	107	367	126	82	355
5304	30178	57	105	372	118	81	386
5305	30176	49	108	370	118	80	346
5306	CSR 36 (Alkaline Check)	65	100	348	120	78	444
5307	Pusa 44 (Sensitive Check and Recurrent Parent)	64	101	367	108	65	389
5308	CSR 23 (Inland Saline Check)	54	105	376	114	78	331
5309	30165	73	102	377	114	85	313
5310	CSR 10 (Early duration Saline Check)	51	74	373	109	50	322
5311	FL 478 (Saline Tolerant Check & Donor Parent)	54	97	372	115	70	331
5312	30162	57	111	385	115	81	411
5313	Local Check (LC)	79	110	387	108	78	364
5314	30827	62	90	378	112	62	389
5315	30830	66	115	371	109	53	382
Exp. Mean		**60**	**102**	**371**	**113**	**71**	**368**
SE(m)		**5.10**			**1.20**		

Table No. 5.7 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 1 – AL&ISTVT (Trials Not Considered), (Saline Micro Plot), Kharif 2022

ENTRY NO	IET NO	ZONE II-NORTHERN		
		Haryana(0)		
		@Karnal (Saline)		
		DFF	PH	PAN
5301	30164	87	77	212
5302	30174	102	76	228
5303	30180	116	73	177
5304	30178	100	77	261
5305	30176	99	74	227
5306	CSR 36 (Alkaline Check)	110	74	261
5307	Pusa 44 (Sensitive Check and Recurrent Parent)	101	48	195
5308	CSR 23 (Inland Saline Check)	102	73	227
5309	30165	101	64	261
5310	CSR 10 (Early duration Saline Check)	111	52	277
5311	FL 478 (Saline Tolerant Check & Donor Parent)	101	66	228
5312	30162	84	79	211
5313	Local Check (LC)	102	68	261
5314	30827	105	68	210
5315	30830	106	78	244
Exp. Mean		**102**	**70**	**232**
SE(m)		**3.47**		

Table No. 5.7 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 1 – AL&ISTVT (Trials Not Considered), (Normal), Kharif 2022

ENTRY NO	IET NO	TRIAL NOT CONSIDERED		
		Kerala (0)		
		@Vytilla		
		DFF	PH	PAN
5301	30164	107	105	218
5302	30174	102	110	270
5303	30180	90	109	262
5304	30178	105	102	294
5305	30176	108	115	156
5306	CSR 36 (Alkaline Check)	107	102	230
5307	Pusa 44 (Sensitive Check and Recurrent Parent)	108	108	253
5308	CSR 23 (Inland Saline Check)	90	114	309
5309	30165	108	115	245
5310	CSR 10 (Early duration Saline Check)	108	102	278
5311	FL 478 (Saline Tolerant Check & Donor Parent)	90	110	195
5312	30162	108	108	296
5313	Local Check (LC)	85	135	325
5314	30827	89	116	242
5315	30830	87	115	255
Exp. Mean		**99**	**111**	**255**
SE(m)				

Table No. 5.8: Grain quality characteristics of entries in AVT 1-AL&ISTVT, kharif 2022

Entry No.	IET No.	Hull %	Mill %	HRR %	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
5301	30164	79.9	62.9	44.1	4.91	2.19	2.24	SB	VOC	4.0	26.57	41
5302	30174	81.0	70.7	46.6	6.36	2.43	2.61	LB	OC	4.0	27.89	47
5303	30180	77.5	64.6	49.2	5.17	2.26	2.28	SB	A	5.0	28.21	24
5304	30178	80.2	73.6	58.7	5.43	2.29	2.37	SB	VOC	7.0	23.17	24
5305	30176	80.1	68.0	39.8	5.41	2.18	2.48	SB	VOC	4.0	25.90	25
5306	CSR-36	78.9	65.4	56.0	6.70	2.07	3.23	LS	VOC	4.0	26.42	48
5307	PUSA-44	79.8	68.3	58.2	5.71	2.04	2.79	MS	VOC	7.0	23.84	33
5308	CSR-23	77.8	67.1	56.7	5.54	2.17	2.55	MS	VOC	4.0	23.14	46
5309	30165	79.8	69.3	59.7	6.59	1.93	3.41	LS	A	4.0	24.22	45
5310	CSR-10	77.8	68.8	67.8	5.33	2.53	2.10	SB	VOC	5.0	24.40	45
5311	FL-478	78.8	66.8	58.6	5.53	2.17	2.54	MS	VOC	4.0	24.46	22
5312	30162	78.5	64.5	36.1	6.26	2.05	3.05	LS	A	4.0	25.10	45
5313	L.C	81.7	69.8	52.5	5.11	1.84	2.77	MS	A	4.0	23.99	22
5314	30827	77.9	65.9	40.5	6.39	2.25	2.84	LB	VOC	4.0	26.04	22
5315	30830	76.5	67.5	52.5	6.08	2.09	2.90	LB	VOC	7.0	28.98	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. 5.9: Composition of entries in Initial Variety Trial -Alkaline and Inland Saline Tolerant Variety Trial (IVT-AL&ISTVT), Kharif 2022

Entry No.	IET No.	Designation	Cross Combination	GT
1st year of testing				
5401	31040	NVSR 6489	IR 76346-B-B-10-1-1-1 / IET 21237	
5402	31041	RNR 28361	Bhadrakali / NSN 20894	LS
5403	31042	NVSR 6526	IET 22016 / GNR-3	
5404	31043	KPS 6343	JGL 11470 / Rita	LS
5405	**CSR 36 (Alkaline Check)**			
5406	31044	CSR 103-10-2	PR 115 / FL 478	
5407	31045	RP 6684-CGR 13	Samba Mahsuri*2 / Oryza rufipogon-3-TRP-3	LS
5408	31046	CSR 141-11-107	Pusa 44 / CSR 27	
5409	31047	RP Bio 4919-NSR 85	KMR3 / O.rufipogon WR 120	LS
5410	**CSR 23 (Inland Saline Check)**			
5411	31048	CSR 116-10-2	Pusa 44 / CSR 27	
5412	31049	RP 6682-CGR 11	Samba Mahsuri*2 / Oryza rufipogon-1-TRP-1 (Rexono)	LS
5413	31050	CSR 104-10-2	IR 60997-L / FL 478	
5414	31051	NVSR 6494	IET 22016 / IET 21237	
5415	**CSR 10 (Early duration Saline Check)**			
5416	31052	***IIRRH 163 (Hybrid)***	-	MS
5417	31053	RNR 29325	TME 80518 / BPT 5204	LS
5418	31054	CSAR 9-29-2021	Selection from BC 9-29	
5419	31055	CSR 141-11-112	Pusa 44 / CSR27	
5420	31056	RP 6688-16-397	IR 64 / Rasi	LS
5421	**FL 478 (Saline Tolerant Check)**			
5422	31057	RP 6711-MS-SS-20-2-9-5-23-6-1	Samba Mahsuri Mutant- 20 / BPT 5204	
5423	**Pusa 44 (Sensitive Check)**			
5424	**Local Check (LC)**			

Table No.5.10: Grain Yield (kg/ha) of entries in (IVT -AL & ISTVT), (Alkalinity), Kharif 2022

ENTRY NO	IET NO	ZONE II-NORTHERN								ZONE III-EASTHERN	
		Haryana				Haryana (2)		Zone II (2)		Uttar Pradesh	
		Anjantelli (Karnal)		Kurukshetra (Karnal)		Mean		Mean		Masodha	
5401	31040	3167		2433		2800		2800		4313	10
5402	31041	3567	9	3667		3617	10	3617	10	3080	
5403	31042	3620	8	4093	2	3857	7	3857	7	5543	6
5404	31043	1733		2000		1867		1867		1112	
5405	CSR 36 (Alkaline Check)	3467		3693		3580		3580		3908	
5406	31044	3860	6	3967	5	3914	5	3914	5	5593	4
5407	31045	2813		3827	10	3320		3320		5644	3
5408	31046	3760	7	3653		3707	9	3707	9	4124	
5409	31047	2853		2987		2920		2920		3602	
5410	CSR 23 (Inland Saline Check)	3240		3873	9	3557		3557		4852	7
5411	31048	4140	1	4000	4	4070	2	4070	2	4532	8
5412	31049	3067		2807		2937		2937		3201	
5413	31050	3873	5	3907	8	3890	6	3890	6	3525	
5414	31051	4047	2	3947	6	3997	4	3997	4	4094	
5415	CSR 10 (Early duration Saline Check)	2753		2893		2823		2823		5745	1
5416	31052	1747		1873		1810		1810		2713	
5417	31053	3507	10	3933	7	3720	8	3720	8	5593	4
5418	31054	3960	4	4047	3	4004	3	4004	3	4245	
5419	31055	3987	3	4253	1	4120	1	4120	1	2726	
5420	31056	1620		1960		1790		1790		5711	2
5421	FL 478 (Saline Tolerant Check)										
5422	31057	3133		3287		3210		3210		3420	
5423	Pusa 44 (Sensitive Check)										
5424	Local Check (LC)	2920		2873		2897		2897		4343	9
Exp. Mean		**3220**		**3362**		**3291**		**3291**		**4164**	
F Value		**4.86(p<0.0001)S**		**3.04(p=0.0009)S**		**8.59(p<0.0001)S**		**8.59(p<0.0001)S**		**59.97(p<0.0001)S**	
CD		963		1188		690		690		414	
CV%		**18.16**		**21.44**		**12.72**		**12.72**		**7.03**	
D/S		09-06-2022		09-06-2022						26-06-2022	
D/P		12-07-2022		12-07-2022						30-07-2022	
Local Check Name		CSR 36		CSR 36						NDRK 2008	

For Promotion of entries:

***For Varietal entries: Yield of entry should be superior over yield of BVC+CD (at 5%level of significance).**

#For hybrid entries: Yield of entry should be superior over yield of BVC+CD and over yield of BHC+CD (at 5% level of significance)

In locations where the F variance ratio between treatments is non-significant, data from such locations was not considered in analysis.

Table No.5.10 (Contd): Grain Yield (kg/ha) of entries in (IVT -AL & ISTVT), (Alkalinity), Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTHERN						ZONE VII-SOUTHERN			
		Uttar Pradesh		Uttar Pradesh (2)		Zone III (2)		Tamil Nadu			
		Lucknow-ICAR		Mean		Mean		Trichy		Annamalainagar	
5401	31040	2750	2.5	3532	7	3532	7	2822		3017	
5402	31041	2358	8	2719		2719		4811	4	3297	
5403	31042	2750	2.5	4147	1	4147	1	3863	7	3357	7
5404	31043	1729		1421		1421		3645		3324	9
5405	CSR 36 (Alkaline Check)	2687	4	3298		3298		4345	5	3185	
5406	31044	1771		3682	6	3682	6	3689		3028	
5407	31045	1838		3741	5	3741	5	2929		3060	
5408	31046	2188		3156		3156		4867	3	1296	
5409	31047	2792	1	3197		3197		5444	2	3478	3
5410	CSR 23 (Inland Saline Check)	1771		3312	10	3312	10	2260		3301	
5411	31048	1896		3214		3214		3833	8	3338	8
5412	31049	1929		2565		2565		3022		3322	10
5413	31050	1292		2409		2409		1700		3840	1
5414	31051	2250	10	3172		3172		2781		3322	10
5415	CSR 10 (Early duration Saline Check)	1979		3862	3	3862	3	2445		3420	5
5416	31052	2584	6	2649		2649		2600		3215	
5417	31053	2084		3839	4	3839	4	3700	10	3215	
5418	31054	2563	7	3404	9	3404	9	3733	9	3388	6
5419	31055	1763		2245		2245		2545		3210	
5420	31056	2334	9	4023	2	4023	2	4100	6	3172	
5421	FL 478 (Saline Tolerant Check)	2604	5	2604		2604				3474	4
5422	31057			3420	8	3420	8	1956		2686	
5423	Pusa 44 (Sensitive Check)									2886	
5424	Local Check (LC)	1971		3157		3157		5533	1	3825	2
Exp. Mean		**2176**		**3163**		**3163**		**3483**		**3194**	
F Value		**6.96(p<0.0001)S**		**3.73(p<0.0001)S**		**3.73(p<0.0001)S**		**21.56(p<0.0001)S**		**24.43(p<0.0001)S**	
CD		433		309		309		636		256	
CV%		**14.08**		**6.93**		**6.93**		**11.08**		**5.68**	
D/S		13-06-2022						26-08-2022		27-06-2022	
D/P		13-07-2022								23-07-2022	
Local Check Name		CSR56						TRY 3		Trichy-2	

Table No.5.10 (Contd): Grain Yield (kg/ha) of entries in (IVT -AL & ISTVT), (Alkalinity), Kharif 2022

ENTRY NO	IET NO	ZONE VII-SOUTHERN										Overall Mean (8)	
		Tamil Nadu (2)		Puducherry				Puducherry (2)		Zone VII (4)			
		Mean		Karaikal		Puducherry		Mean		Mean			
5401	31040	2920		2888		2232		2560		2740		2953	
5402	31041	4054	3	2959	9	2321		2640	10	3347	3	3258	8
5403	31042	3610	6	3066	5	2143		2605		3107	5	3554	1
5404	31043	3485	9	2781		1667		2224		2854		2249	
5405	CSR 36 (Alkaline Check)	3765	4	2549		2053		2301		3033	6	3236	10
5406	31044	3359		2816		1816		2316		2837		3318	6
5407	31045	2995		2852		2232		2542		2768		3149	
5408	31046	3082		1212		1190		1201		2141		2786	
5409	31047	4461	2	3048	7	2619	3	2834	4	3647	2	3353	4
5410	CSR 23 (Inland Saline Check)	2781		2870		2411	8	2641	9	2711		3072	
5411	31048	3586	7	3155	3	2500	6	2828	5	3207	4	3424	3
5412	31049	3172		2923	10	2202		2563		2867		2809	
5413	31050	2770		3351	2	3214	2	3283	2	3026	7	3088	
5414	31051	3052		3013	8	2589	4	2801	6	2926	8	3255	9
5415	CSR 10 (Early duration Saline Check)	2933		3102	4	2589	4	2846	3	2889	10	3116	
5416	31052	2908		2905		2381	10	2643	8	2775		2502	
5417	31053	3458		2495		2113		2304		2881		3330	5
5418	31054	3561	8	2602		1637		2120		2840		3272	7
5419	31055	2878		3066	5	2411	8	2739	7	2808		2995	
5420	31056	3636	5	2318		1190		1754		2695		2801	
5421	FL 478 (Saline Tolerant Check)	3474	10	2852		2411	8	2632		2912	9	2835	
5422	31057	2321		2514		1875		2195		2258		2696	
5423	Pusa 44 (Sensitive Check)	2886		2620		2232		2426		2579		2579	
5424	Local Check (LC)	4679	1	3458	1	3304	1	3381	1	4030	1	3528	2
Exp. Mean		**3295**		**2809**		**2222**		**2516**		**2984**		**3077**	
F Value		**5.94(p<0.0001)S**		**5.23(p<0.0001)S**		**1.82(p=0.0415)S**		**3.91(p<0.0001)S**		**7.88(p<0.0001)S**		**7.31(p<0.0001)S**	
CD		511		523		1069		626		383		335	
CV%		**10.99**		**11.33**		**29.28**		**15.15**		**9.09**		**7.72**	
D/S				22-06-2022		26-06-2022							
D/P				29-07-2022		15-07-2022							
Local Check Name				TRY 2		TRY 2							

Table No.5.10 (Contd): Grain Yield (kg/ha) of entries in (IVT -AL & ISTVT), (Sodic Micro Plot), Kharif 2022

ENTRY NO	IET NO	ZONE II-NORTHERN Haryana (1) Karnal (Sodic)	
5401	31040	2519	
5402	31041	3037	
5403	31042	3037	
5404	31043	1778	
5405	CSR 36 (Alkaline Check)	3111	10
5406	31044	3778	5
5407	31045	2963	
5408	31046	4000	2
5409	31047	2963	
5410	CSR 23 (Inland Saline Check)	3704	7
5411	31048	3852	3
5412	31049	3259	9
5413	31050	3778	5
5414	31051	4074	1
5415	CSR 10 (Early duration Saline Check)	2667	
5416	31052	1704	
5417	31053	3037	
5418	31054	3778	5
5419	31055	3704	7
5420	31056	1481	
5421	FL 478 (Saline Tolerant Check)		
5422	31057	2667	
5423	Pusa 44 (Sensitive Check)		
5424	Local Check (LC)	2889	
Exp. Mean		**3081**	
F Value		**2.48(p=0.0052)S**	
CD		**1287**	
CV%		**25.35**	
D/S		09-06-2022	
D/P		12-07-2022	
Local Check Name		CSR 36	

Table No.5.10 (Contd): Grain Yield (kg/ha) of entries in (IVT -AL & ISTVT), (Saline Micro Plot), Kharif 2022

ENTRY NO	IET NO	ZONE II-NORTHERN Haryana (1) Karnal (Saline)	
5401	31040	2444	
5402	31041	2889	
5403	31042	3259	
5404	31043	1556	
5405	CSR 36 (Alkaline Check)	2963	
5406	31044	3481	
5407	31045	3852	5
5408	31046	3556	9
5409	31047	2741	
5410	CSR 23 (Inland Saline Check)	3630	8
5411	31048	4222	3
5412	31049	3407	
5413	31050	3556	9
5414	31051	4148	4
5415	CSR 10 (Early duration Saline Check)	2593	
5416	31052	2000	
5417	31053	3333	
5418	31054	3852	5
5419	31055	3704	7
5420	31056	1185	
5421	FL 478 (Saline Tolerant Check)		
5422	31057	3111	1
5423	Pusa 44 (Sensitive Check)		
5424	Local Check (LC)	3037	2
Exp. Mean		**3114**	
F Value		**4.05(p<0.0001)S**	
CD		1083.1	
CV%		**21.1**	
D/S		09-06-2022	
D/P		12-07-2022	
Local Check Name		CSR 27	

Table No.5.10 (Contd): Grain Yield (kg/ha) of entries in (IVT -AL & ISTVT), (Saline), Kharif 2022

ENTRY NO	IET NO	ZONE II-NORTHERN Haryana (1) Panipat (Karnal)		ZONE VII – SOUTHERN Karnataka (1) Gangavathi		Overall Mean (2)	
5401	31040	2927		3146	8	3037	
5402	31041	2993		4863	1	3928	1
5403	31042	2853		2544		2699	
5404	31043	1760		4132	3	2946	
5405	CSR 36 (Alkaline Check)	2987		2551		2769	
5406	31044	3667	6	2143		2905	
5407	31045	3213	8	3373	6	3293	7
5408	31046	3413	7	2738		3076	
5409	31047	2507		3925	5	3216	8
5410	CSR 23 (Inland Saline Check)	3213	8	1940		2577	
5411	31048	3993	3	2745		3369	4
5412	31049	2607		2475		2541	
5413	31050	3760	5	2962	10	3361	5
5414	31051	4080	1	1982		3031	
5415	CSR 10 (Early duration Saline Check)	2393		1631		2012	
5416	31052	1560		4694	2	3127	9
5417	31053	2893		2183		2538	
5418	31054	3887	4	3156	7	3522	2
5419	31055	4047	2	2857		3452	3
5420	31056	1587		2748		2168	
5421	FL 478 (Saline Tolerant Check)						
5422	31057	3207	10	3001	9	3104	10
5423	Pusa 44 (Sensitive Check)						
5424	Local Check (LC)	2687		3938	4	3313	6
Exp. Mean		**3011**		**2988**		**3022**	
F Value		**3.91(p<0.0001)S**		**4.80(p=0.0003)S**		**1.44(p=0.1518)S**	
CD		1044		1141		1034	
CV%		**21.04**		**18.36**		**20.77**	
D/S		09-06-2022		14-07-2022			
D/P		12-07-2022		26-08-2022			
Local Check Name		CSR 27		CSR-22			

Table No.5.10 (Contd): Grain Yield (kg/ha) of entries in (IVT -AL & ISTVT), (Normal), Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN								ZONE VII - SOUTHERN	
		Gujarat				Gujarat (2)		Zone VI (2)		Karnataka	
		Danti		Nawagam		Mean		Mean		Mandya	
5401	31040	3630	3 *	7604	4	5617	1	5617	1	4777	1 *
5402	31041	3174	5	7922	2	5548	2	5548	2	2697	
5403	31042	2756	9	7176	5	4966	7	4966	7	2392	
5404	31043	2873	7	6843	9	4858	9	4858	9	3565	2
5405	CSR 36 (Alkaline Check)	2432		6325		4379		4379		2340	
5406	31044	2116		6626	10	4371		4371		2951	9
5407	31045	4023	2 *	7027	6	5525	3	5525	3	2332	
5408	31046	3365	4	7022	7	5194	5	5194	5	2284	
5409	31047	4038	1 *	5986		5012	6	5012	6	2903	10
5410	CSR 23 (Inland Saline Check)	1576		3747		2662		2662		2731	
5411	31048	2095		6271		4183		4183			
5412	31049	2525		5393		3959		3959		3238	4
5413	31050	1998		4588		3293		3293		2173	
5414	31051	2113		7749	3	4931	8	4931	8	2959	8
5415	CSR 10 (Early duration Saline Check)	2675		6861	8	4768	10	4768	10	3256	3
5416	31052	2600		8179	1 *	5390	4	5390	4	2826	
5417	31053	2075		4732		3404		3404		3116	6
5418	31054	2983	6	5963		4473		4473		2180	
5419	31055	2636		5048		3842		3842		3008	7
5420	31056	2844	8	6484		4664		4664		2305	
5421	FL 478 (Saline Tolerant Check)	2141		3783		2962		2962			
5422	31057	1962		4658		3310		3310		2666	
5423	Pusa 44 (Sensitive Check)	2544		3944		3244		3244			
5424	Local Check (LC)	2703	10	6439		4571		4571		3184	5
Exp. Mean		**2662**		**6099**		**3497**		**3497**		**2852**	
F Value		**6.71(p<0.0001)S**		**4.46(p=0.0003)S**		**13.82(p<0.0001)S**		**13.82(p<0.0001)S**		**19.88(p<0.0001)S**	
CD		667		1888		851		851		353	
CV%		**17.77**		**14.965**		**17.25**		**17.25**		**8.76**	
D/S		17-06-2022		44730						30-07-2022	
D/P		20-07-2022		28-07-2022						44800	
Local Check Name		GNR-5		Dandi						IR-30864	

Table No.5.10 (Contd): Grain Yield (kg/ha) of entries in (IVT -AL & ISTVT), (Normal), Kharif 2022

ENTRY NO	IET NO	ZONE VII - SOUTHERN						Overall Mean(4)	
		Karnataka		Karnataka (2)		Zone VII (2)			
		Brahmawar		Mean		Mean			
5401	31040	1855		3316	1	3316	1	4467	1 *
5402	31041	1242		1970		1970		3759	9
5403	31042	2550		2471		2471		3719	10
5404	31043	2710	6	3138	2	3138	2	3998	2
5405	CSR 36 (Alkaline Check)	2730	5	2535		2535		3457	
5406	31044	2350		2651		2651		3511	
5407	31045	2470		2401		2401		3963	3
5408	31046	2940	3	2612		2612		3903	5
5409	31047	2431		2667	9	2667	9	3840	7
5410	CSR 23 (Inland Saline Check)	2700	7	2716	8	2716	8	2689	
5411	31048	3040	1	3040	3	3040	3	3802	8
5412	31049	2578	10	2908	6	2908	6	3434	
5413	31050	1240		1707		1707		2500	
5414	31051	1990		2475		2475		3703	
5415	CSR 10 (Early duration Saline Check)	2605	9	2931	5	2931	5	3849	6
5416	31052	2010		2418		2418		3904	4
5417	31053	2490		2803	7	2803	7	3103	
5418	31054	2502		2341		2341		3407	
5419	31055	3010	2	3009	4	3009	4	3426	
5420	31056	2815	4	2560		2560		3612	
5421	FL 478 (Saline Tolerant Check)	2653	8	2653	10	2653	10	2859	
5422	31057	1840		2253		2253		2782	
5423	Pusa 44 (Sensitive Check)	2550		2550		2550		3013	
5424	Local Check (LC)	1970		2577		2577		3574	
Exp. Mean		**2386**		**2725**		**2725**		**3101**	
F Value		**6.26(p<0.0001)S**		**7.97(p<0.0001)S**		**7.97(p<0.0001)S**		**12.03(p<0.0001)S**	
CD		563		431		431		490	
CV%		**11.41**		**11.21**		**11.21**		**11.21**	
D/S		25-06-2022							
D/P		03-08-2022							
Local Check Name		Karikagga							

Table No.5.10 (Contd): Grain Yield (kg/ha) of entries in (IVT -AL & ISTVT), (Alkalinity), Kharif 2022 (Trials Not Considered)

ENTRY NO	IET NO	TRIALS NOT CONSIDERED			
		Uttar Pradesh		Telangana	
		@Kanpur		Kampasagar	
5401	31040	3333	7		
5402	31041	3581	4	1111	
5403	31042	3111		1841	9
5404	31043	4459	2	2335	6
5405	CSR 36 (Alkaline Check)	3193		524	
5406	31044	2941		2305	7
5407	31045	3196		2253	8
5408	31046	3263		2984	4
5409	31047	3204		3642	3
5410	CSR 23 (Inland Saline Check)	3248		998	
5411	31048	2511		1039	
5412	31049	3281	10	946	
5413	31050	3330	8		
5414	31051	2726		658	
5415	CSR 10 (Early duration Saline Check)	3396	6	669	
5416	31052	2726		1276	10
5417	31053	3607	3	658	
5418	31054	3078		3755	2
5419	31055	2915		998	
5420	31056	4544	1	679	
5421	FL 478 (Saline Tolerant Check)	3526	5		
5422	31057	2726		2562	5
5423	Pusa 44 (Sensitive Check)	3111		987	
5424	Local Check (LC)	3293	9	3920	1
Exp. Mean		**3263**		**1721**	
F Value		**1.64(p=0.0715)NS**		**40.34(p<0.0001)S**	
CD		1083		481	
CV%		**20.19**		**16.92**	
D/S		11-07-2022		02-07-2022	
D/P				06-08-2022	
Local Check Name		CSR 43		KPS-2874	

Table No. 5.10 (Contd): Grain Yield (kg/ha) of entries in (IVT -AL & ISTVT), (Normal), Kharif 2022 (Trials Not Considered)

ENTRY NO	IET NO	TRIAL NOT CONSIDERED	
		Kerala (0)	
		@Vytilla	
5401	31040	1661	9
5402	31041	2113	2
5403	31042	1981	3
5404	31043	832	
5405	CSR 36 (Alkaline Check)	1403	
5406	31044	1688	8
5407	31045	1488	
5408	31046	866	
5409	31047		
5410	CSR 23 (Inland Saline Check)	622	
5411	31048	731	
5412	31049	1835	5
5413	31050	1719	7
5414	31051	1189	
5415	CSR 10 (Early duration Saline Check)	731	
5416	31052	1434	
5417	31053	1040	
5418	31054	1105	
5419	31055	1733	6
5420	31056	1585	10
5421	FL 478 (Saline Tolerant Check)	1870	4
5422	31057		
5423	Pusa 44 (Sensitive Check)	832	
5424	Local Check (LC)	2343	1
Exp. Mean		**1400**	
F Value		**10.86(p<0.0001)S**	
CD		436	
CV%		**14.99**	
D/S		44737	
D/P		44760	
Local Check Name		Lavanya	

Table No. 5.11: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT– AL&ISTVT, (Alkalinity), Kharif 2022

ENTRY NO	IET NO	ZONE II-NORTHERN												ZONE III-EASTERN		
		Haryana						Haryana (2)			Zone II (2)			Uttar Pradesh		
		Anjantelli (Karnal)			Kurukshetra (Karnal)			Mean			Mean			Masodha		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5401	31040	107	119	195	108	115	188	107	117	192	107	117	192	89	76	225
5402	31041	103	110	177	102	113	155	103	112	166	103	112	166	76	84	155
5403	31042	91	132	161	102	121	221	97	127	191	97	127	191	90	100	245
5404	31043	88	116	198	103	106	191	96	111	195	96	111	195	125	97	135
5405	CSR 36 (Alkaline Check)	112	123	177	104	122	174	108	122	176	108	122	176	98	105	220
5406	31044	87	97	211	101	95	234	94	96	223	94	96	223	94	100	257
5407	31045	103	107	223	91	107	158	97	107	191	97	107	191	98	125	260
5408	31046	110	119	232	100	109	240	105	114	236	105	114	236	90	93	261
5409	31047	105	145	148	98	139	186	101	142	167	101	142	167	91	96	209
5410	CSR 23 (Inland Saline Check)	101	127	214	91	127	204	96	127	209	96	127	209	87	102	223
5411	31048	79	111	254	98	106	197	89	108	226	89	108	226	93	95	239
5412	31049	106	130	296	107	125	191	106	128	244	106	128	244	86	102	197
5413	31050	93	97	186	102	99	147	98	98	167	98	98	167	94	95	168
5414	31051	85	121	273	102	121	202	93	121	238	93	121	238	98	112	219
5415	CSR 10 (Early duration Saline Check)	101	92	260	106	86	204	103	89	232	103	89	232	87	82	262
5416	31052	103	122	241	107	115	224	105	119	233	105	119	233	100	107	160
5417	31053	83	98	223	106	96	172	94	97	197	94	97	197	86	107	255
5418	31054	84	99	130	111	103	123	98	101	126	98	101	126	92	107	247
5419	31055	93	107	158	95	109	139	94	108	148	94	108	148	81	106	203
5420	31056	107	113	143	95	111	188	101	112	166	101	112	166	91	120	257
5421	FL 478 (Saline Tolerant Check)															
5422	31057	111	107	161	98	113	153	105	110	157	105	110	157	97	93	209
5423	Pusa 44 (Sensitive Check)															
5424	Local Check (LC)	108	115	179	97	111	136	103	113	158	103	113	158	91	108	228
Exp. Mean		**98**	**114**	**202**	**101**	**111**	**183**	**100**	**113**	**192**	**100**	**113**	**192**	**92**	**101**	**220**
SE(m)		**3.36**			**2.99**			**2.43**			**2.43**			**0.68**		

Table No.5.11 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT– AL&ISTVT, (Alkalinity), Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN									ZONE VII-SOUTHERN					
		Uttar Pradesh			Uttar Pradesh (2)			Zone III (2)			Tamil Nadu					
		Lucknow-ICAR			Mean			Mean			Trichy			Annamalainagar		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5401	31040	95	82	317	92	79	271	92	79	271	97	105	339	95		327
5402	31041	99	77	303	87	81	229	87	81	229	96	96	413	105	129	410
5403	31042	91	76	332	90	88	288	90	88	288	98	109	309	97	140	405
5404	31043	87	83	297	106	90	216	106	90	216	91	89	323	83	88	510
5405	CSR 36 (Alkaline Check)	87	85	313	93	95	267	93	95	267	99	103	309	101	112	526
5406	31044	91	70	282	92	85	269	92	85	269	94	100	295	104	98	450
5407	31045	88	81	332	93	103	296	93	103	296	90	89	217	97	92	395
5408	31046	88	78	302	89	85	281	89	85	281	94	100	294	94	109	442
5409	31047	101	87	340	96	91	274	96	91	274	99	123	387	99	133	411
5410	CSR 23 (Inland Saline Check)	87	83	322	87	92	272	87	92	272	74	97	231	82	100	336
5411	31048	85	77	307	89	86	273	89	86	273	89	80	261	88	122	356
5412	31049	94	75	297	90	88	247	90	88	247	91	107	209	100	131	339
5413	31050	86	75	298	90	85	233	90	85	233	87	95	140	78	89	391
5414	31051	90	80	305	94	96	262	94	96	262	96	106	253	108	114	471
5415	CSR 10 (Early duration Saline Check)	89	74	358	88	78	310	88	78	310	74	49	183	84	69	425
5416	31052	93	83	332	96	95	246	96	95	246	85	101	228	84	103	702
5417	31053	89	67	297	87	87	276	87	87	276	90	96	279	97	88	381
5418	31054	97	72	303	94	90	275	94	90	275	98	106	263	85	107	373
5419	31055	84	76	290	82	91	247	82	91	247	85	94	379	82	92	403
5420	31056	93	75	318	92	97	287	92	97	287	96	108	372	99	100	335
5421	FL 478 (Saline Tolerant Check)	91	92	333	91	92	333	91	92	333				86	92	360
5422	31057				97	93	209	97	93	209	88	85	137	82	95	467
5423	Pusa 44 (Sensitive Check)													95	138	406
5424	Local Check (LC)	86	81	297	88	95	262	88	95	262	105	123	403	95	103	317
Exp. Mean		**90**	**79**	**312**	**91**	**90**	**266**	**91**	**90**	**266**	**92**	**98**	**283**	**92**	**106**	**414**
SE(m)		**1.74**			**0.93**			**0.93**			**0.62**			**0.71**		

Table No. 5.11 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT– AL&ISTVT, (Alkalinity), Kharif 2022

ENTRY NO	IET NO	ZONE VII-SOUTHERN															Overall Mean (8)		
		Tamil Nadu (2)			Puducherry						Puducherry (2)			Zone VII (4)					
		Mean			Karaikal			Puducherry			Mean			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5401	31040	96	105	333	109	139	650	89	107	466	99	123	558	97	117	446	98	106	338
5402	31041	100	113	411	97	120	702	86	97	563	92	108	632	96	110	522	95	103	360
5403	31042	98	125	357	103	148	633	84	102	530	94	125	582	96	125	469	95	116	354
5404	31043	87	88	417	96	105	582	81	76	530	89	91	556	88	89	486	94	95	346
5405	CSR 36 (Alkaline Check)	100	108	418	104	123	513	83	96	498	94	109	506	97	108	462	99	109	341
5406	31044	99	99	372	107	116	599	83	70	514	95	93	557	97	96	464	95	93	355
5407	31045	94	90	306	95	121	599	81	86	530	88	104	565	91	97	435	93	101	339
5408	31046	94	105	368	92	116	530	91	104	530	91	110	530	93	107	449	95	103	354
5409	31047	99	128	399	95	147	599	94	108	530	95	127	565	97	128	482	98	122	351
5410	CSR 23 (Inland Saline Check)	78	99	284	73	108	513	73	105	546	73	106	530	75	102	407	83	106	324
5411	31048	89	101	309	86	89	530	76	75	482	81	82	506	85	91	407	87	94	328
5412	31049	95	119	274	90	133	667	96	108	563	93	121	615	94	120	445	96	114	345
5413	31050	82	92	265	82	92	599	76	81	546	79	87	573	80	89	419	87	90	309
5414	31051	102	110	362	97	124	736	98	91	546	98	108	641	100	109	502	97	109	376
5415	CSR 10 (Early duration Saline Check)	79	59	304	86	82	633	76	79	579	81	80	606	80	69	455	88	76	363
5416	31052	85	102	465	91	123	684	90	109	514	90	116	599	87	109	532	94	108	386
5417	31053	94	92	330	86	90	616	80	79	530	83	85	573	88	88	452	89	90	344
5418	31054	92	107	318	96	130	548	81	92	530	88	111	539	90	109	429	93	102	315
5419	31055	83	93	391	88	100	599	79	101	579	83	100	589	83	97	490	86	98	344
5420	31056	97	104	353	97	126	530	84	87	530	91	106	530	94	105	442	95	105	334
5421	FL 478 (Saline Tolerant Check)	86	92	360	87	106	548	81	88	514	84	97	531	85	95	474	86	94	439
5422	31057	85	90	302	96	135	548	82	107	546	89	121	547	87	105	424	93	105	317
5423	Pusa 44 (Sensitive Check)	95	138	406	90	104	548	90	94	530	90	99	539	92	112	495	92	112	495
5424	Local Check (LC)	100	113	360	94	124	650	91	91	546	93	108	598	96	110	479	96	107	345
Exp. Mean		**92**	**103**	**353**	**93**	**117**	**598**	**84**	**93**	**532**	**89**	**105**	**565**	**90**	**104**	**461**	**93**	**102**	**354**
SE(m)		**0.94**			**1.39**			**1.29**			**1.00**			**2.74**			**1.46**		

Table No.5.11 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – AL&ISTVT, (Sodic Micro Plot), Kharif 2022

ENTRY NO	IET NO	ZONE II-NORTHERN		
		Haryana (1)		
		Karnal (Sodic)		
		DFF	PH	PAN
5401	31040	110	128	162
5402	31041	115	118	212
5403	31042	102	128	214
5404	31043	91	111	197
5405	CSR 36 (Alkaline Check)	109	121	145
5406	31044	98	104	134
5407	31045	86	131	140
5408	31046	103	124	141
5409	31047	110	132	188
5410	CSR 23 (Inland Saline Check)	102	129	168
5411	31048	86	101	196
5412	31049	98	128	141
5413	31050	100	101	168
5414	31051	97	118	160
5415	CSR 10 (Early duration Saline Check)	105	92	134
5416	31052	104	119	159
5417	31053	99	91	214
5418	31054	107	110	205
5419	31055	86	110	177
5420	31056	105	108	132
5421	FL 478 (Saline Tolerant Check)			
5422	31057	105	109	138
5423	Pusa 44 (Sensitive Check)			
5424	Local Check (LC)	104	127	158
Exp. Mean		**101**	**115**	**167**
SE(m)		**2.31**		

Table No. 5.11 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – AL&ISTVT, (Saline Micro Plot), Kharif 2022

ENTRY NO	IET NO	ZONE II-NORTHERN		
		Haryana (1)		
		Karnal (Saline)		
		DFF	PH	PAN
5401	31040	109	131	205
5402	31041	104	119	221
5403	31042	82	128	192
5404	31043	103	116	147
5405	CSR 36 (Alkaline Check)	101	123	127
5406	31044	92	107	126
5407	31045	104	127	146
5408	31046	101	127	135
5409	31047	104	135	184
5410	CSR 23 (Inland Saline Check)	91	129	194
5411	31048	91	106	169
5412	31049	96	129	142
5413	31050	87	104	153
5414	31051	95	120	129
5415	CSR 10 (Early duration Saline Check)	97	94	133
5416	31052	106	118	182
5417	31053	92	94	169
5418	31054	103	116	150
5419	31055	92	111	148
5420	31056	96	108	122
5421	FL 478 (Saline Tolerant Check)			
5422	31057	104	113	153
5423	Pusa 44 (Sensitive Check)			
5424	Local Check (LC)	107	126	174
Exp. Mean		**98**	**117**	**159**
SE(m)		**2.90**		

Table No. 5.11 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – AL&ISTVT, (Saline), Kharif 2022

ENTRY NO	IET NO	ZONE II-NORTHERN Haryana (1) Panipat (Karnal)			ZONE VII – SOUTHERN Karnataka (1) Gangavathi			Overall Mean (2)		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5401	31040	104	129	217	123	87	288	113	108	253
5402	31041	111	114	214	113	87	300	112	101	257
5403	31042	104	129	143	122	89	236	113	109	189
5404	31043	102	115	133	105	84	295	103	99	214
5405	CSR 36 (Alkaline Check)	90	124	144	127	89	247	109	106	195
5406	31044	99	104	231	118	69	260	109	86	245
5407	31045	99	131	192	106	82	270	103	106	231
5408	31046	82	124	147	106	86	290	94	105	218
5409	31047	109	132	203	115	109	268	112	120	235
5410	CSR 23 (Inland Saline Check)	108	131	186	90	90	241	99	110	213
5411	31048	99	104	181	94	75	252	97	89	216
5412	31049	81	127	158	107	89	300	94	108	229
5413	31050	75	98	169	108	75	299	91	86	234
5414	31051	104	118	165	122	91	264	113	104	214
5415	CSR 10 (Early duration Saline Check)	89	90	180	89	62	244	89	76	212
5416	31052	112	117	175	109	92	331	110	104	253
5417	31053	99	91	120	113	75	282	106	83	201
5418	31054	106	112	128	123	92	259	115	102	193
5419	31055	87	113	113	106	80	244	97	97	178
5420	31056	105	109	189	114	78	255	110	93	222
5421	FL 478 (Saline Tolerant Check)									
5422	31057	112	111	168	113	91	259	113	101	214
5423	Pusa 44 (Sensitive Check)									
5424	Local Check (LC)	100	127	140	108	96	331	104	111	236
Exp. Mean		**99**	**116**	**168**	**110**	**85**	**273**	**105**	**100**	**221**
SE(m)		**3.44**			**0.93**			**3.09**		

Table No. 5.11 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – AL&ISTVT, (Normal), Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN Gujarat Danti			Gujarat Nawagam			Gujarat (2) Mean			Zone VI (2) Mean			ZONE VII - SOUTHERN Karnataka Mandya		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5401	31040	115	116	353	114	130	283	114	123	318	114	123	318	105	83	376
5402	31041	100	96	324	114	111	278	107	103	301	107	103	301	108	87	325
5403	31042	99	122	313	103	138	282	101	130	297	101	130	297	109	77	300
5404	31043	96	87	392	94	117	279	95	102	335	95	102	335	99	75	292
5405	CSR 36 (Alkaline Check)	101	107	394	105	134	282	103	120	338	103	120	338	109	77	283
5406	31044	101	100	331	101	92	278	101	96	304	101	96	304	105	66	300
5407	31045	98	107	362	100	120	281	99	113	321	99	113	321	101	74	308
5408	31046	95	108	349	97	124	273	96	116	311	96	116	311	86	43	317
5409	31047	108	141	374	112	161	277	110	151	325	110	151	325	117	88	292
5410	CSR 23 (Inland Saline Check)	97	111	324	94	144	251	95	127	288	95	127	288	102	54	308
5411	31048	95	90	335	93	102	273	94	96	304	94	96	304			
5412	31049	98	116	290	103	138	275	100	127	282	100	127	282	101	88	249
5413	31050	90	82	349	93	91	270	91	87	309	91	87	309	99	73	308
5414	31051	100	115	326	103	136	287	102	125	307	102	125	307	116	94	300
5415	CSR 10 (Early duration Saline Check)	100	73	362	92	88	275	96	81	319	96	81	319	101	70	275
5416	31052	99	123	304	105	124	288	102	124	296	102	124	296	99	70	334
5417	31053	99	86	313	90	95	271	95	91	292	95	91	292	105	67	283
5418	31054	101	114	389	109	124	264	105	119	326	105	119	326	99	74	300
5419	31055	88	101	335	91	117	275	89	109	305	89	109	305	101	59	308
5420	31056	110	113	383	106	123	270	108	118	326	108	118	326	118	82	325
5421	FL 478 (Saline Tolerant Check)	84	89	275	93	96	272	88	92	273	88	92	273			
5422	31057	99	112	324	101	132	269	100	122	297	100	122	297	114	71	300
5423	Pusa 44 (Sensitive Check)	98	109	239	98	92	262	98	100	250	98	100	250			
5424	Local Check (LC)	100	113	378	97	110	285	98	112	331	98	112	331	114	72	300
Exp. Mean		**99**	**105**	**338**	**100**	**118**	**275**	**99**	**112**	**306**	**99**	**112**	**306**	**105**	**74**	**304**
SE(m)		**1.58**			**0.29**			**1.45**			**1.45**			**0.08**		

Table No. 5.11 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – AL&ISTVT, (Normal), Kharif 2022

ENTRY NO	IET NO	ZONE VII - SOUTHERN									Overall Mean(4)		
		Karnataka Brahmawar			Karnataka (2) Mean			Zone VII (2) Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5401	31040	85	86	181	95	84	278	95	84	278	105	104	298
5402	31041	106	91	121	107	89	223	107	89	223	107	96	262
5403	31042	105	71	182	107	74	241	107	74	241	104	102	269
5404	31043	110	76	176	104	75	234	104	75	234	100	89	285
5405	CSR 36 (Alkaline Check)	111	90	201	110	83	242	110	83	242	106	102	290
5406	31044	103	81	193	104	74	247	104	74	247	102	85	275
5407	31045	101	99	174	101	86	241	101	86	241	100	100	281
5408	31046	100	82	181	93	63	249	93	63	249	94	89	280
5409	31047	95	91	**195**	106	90	243	106	90	243	108	120	284
5410	CSR 23 (Inland Saline Check)	91	74	224	97	64	266	97	64	266	96	95	277
5411	31048	110	67	261	110	67	261	110	67	261	99	86	290
5412	31049	91	74	187	96	81	218	96	81	218	98	104	250
5413	31050	106	72	136	103	72	222	103	72	222	97	79	266
5414	31051	106	66	172	111	80	236	111	80	236	106	103	271
5415	CSR 10 (Early duration Saline Check)	117	61	191	109	65	233	109	65	233	102	73	276
5416	31052	104	63	180	102	66	257	102	66	257	102	95	276
5417	31053	107	52	186	106	59	234	106	59	234	100	75	263
5418	31054	119	71	192	109	72	246	109	72	246	107	96	286
5419	31055	115	83	252	108	71	280	108	71	280	99	90	292
5420	31056	114	75	180	116	79	252	116	79	252	112	98	289
5421	FL 478 (Saline Tolerant Check)	105	77	182	105	77	182	105	77	182	94	87	243
5422	31057	105	81	**155**	110	76	228	110	76	228	105	99	262
5423	Pusa 44 (Sensitive Check)	116	83	191	116	83	191	116	83	191	104	95	231
5424	Local Check (LC)	100	83	182	107	78	241	107	78	241	103	95	286
Exp. Mean		**105**	**77**	**186**	**105**	**75**	**239**	**105**	**75**	**239**	**102**	**94**	**274**
SE(m)		**2.45**			**1.65**			**1.65**			**1.19**		

Table No. 5.11 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – AL&ISTVT (Trials Not Considered), (Alkalinity), Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED					
		Uttar Pradesh @Kanpur			Telangana (0) @Kampasagar		
		DFF	PH	PAN	DFF	PH	PAN
5401	31040	69	92	363			
5402	31041	67	112	347	116	76	373
5403	31042	68	97	361	115	89	318
5404	31043	57	101	368	107	72	403
5405	CSR 36 (Alkaline Check)	60	86	349	116	73	399
5406	31044	58	99	351	110	66	405
5407	31045	54	94	368	106	83	363
5408	31046	71	113	364	111	76	363
5409	31047	57	99	364	117	86	432
5410	CSR 23 (Inland Saline Check)	62	96	364	119	64	433
5411	31048	61	101	347	107	62	454
5412	31049	46	93	346	110	72	409
5413	31050	70	95	364			
5414	31051	60	65	337	120	81	513
5415	CSR 10 (Early duration Saline Check)	62	108	340	108	45	396
5416	31052	56	73	361	111	75	434
5417	31053	56	101	357	117	58	350
5418	31054	60	106	354	116	85	441
5419	31055	48	100	356	106	65	277
5420	31056	63	93	360	117	80	466
5421	FL 478 (Saline Tolerant Check)	67	86	334			
5422	31057	47	63	370	118	81	342
5423	Pusa 44 (Sensitive Check)	65	102	350	107	76	433
5424	Local Check (LC)	60	91	358	109	81	340
Exp. Mean		**60**	**94**	**355**	**113**	**73**	**397**
SE(m)		**3.05**			**0.67**		

Table No. 5.11 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – AL&ISTVT (Trials Not Considered), (Normal), Kharif 2022

ENTRY NO	IET NO	TRIAL NOT CONSIDERED Kerala @Vytilla		
		DFF	PH	PAN
5401	31040	93	114	246
5402	31041	98	102	266
5403	31042	90	110	242
5404	31043	90	108	259
5405	CSR 36 (Alkaline Check)	90	105	236
5406	31044	98	96	248
5407	31045	98	85	244
5408	31046	107	105	185
5409	31047			
5410	CSR 23 (Inland Saline Check)	90	109	293
5411	31048	107	102	291
5412	31049	107	85	230
5413	31050	102	102	185
5414	31051	90	108	226
5415	CSR 10 (Early duration Saline Check)	105	94	267
5416	31052	108	95	291
5417	31053	107	102	234
5418	31054	108	110	218
5419	31055	90	108	283
5420	31056	108	105	254
5421	FL 478 (Saline Tolerant Check)	108	96	275
5422	31057			
5423	Pusa 44 (Sensitive Check)	100	98	238
5424	Local Check (LC)	85	130	321
Exp. Mean		**99**	**103**	**251**
SE(m)		**0.53**		

ADVANCED VARIETY TRIAL - COASTAL SALINE TOLERANT VARIETY TRIAL (AVT 2 & 1 CSTVT)

Locations: 10 **Test Entries: 9**

Checks: Bhuthnath (Coastal Saline Check), FL478, CSR 10 (Early duration check), Pusa 44 (Sensitive check) and Local check **Table: 5.12**

AVT 2 & 1 – CSTVT trial was constituted with 9 test entries of which three entries (IET nos. 30200, 30201 & 30207) are in the second year of testing and one entry (IET 27847) is a repeat entry along with five checks namely Bhuthnath (Coastal Saline Check), FL478, CSR10(Early duration check), Pusa 44 (Sensitive check) and Local check. The trial was sent to 15 locations and data was received from 10 locations. Data from Navsari, Baruch, Goa, Machilipatnam, Canning, Chinsurah (Gosaba), Panvel, Vytilla, Brahmavar and Karaikal were received. Very high level of saline stress as high as 19.9 dSm-1 at tillering and 10.46 dSm^{-1} at flowering was observed at Machilipatnam that affected the survival of most of entries. Low stress level at Canning, Chinsurah (Gosaba) Panvel, Vytilla, Brahmavar and Karaikal were recorded due to continuous floods during the tillering to flowering stage. These locations are not considered for analysis. Hence, three among the 10 locations the data namely from Navsari, Baruch and Goa 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 5.13, 5.14. and 5.15. 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
Navsari (Danti)	8.48	5.68	2450	1359-3483	14.7	Data considered for analysis under stress
Baruch (Karnal)	8.0	5.7	2253	1950-2580	9.67	Data considered for analysis under stress
Goa	6.58	4.52	2293	1619- 4532	22.7	Data considered for analysis under stress
Machilipatnam	8.1	19.9 to 10.46	115	1-552	193.94	Very high stress level EC of 19.9 dSm^{-1} at tillering to 10.46 dSm^{-1} at flowering. Poor survival of entries. Low mean (115 kg/ha) and high CV recorded (193.9%). Data not considered in final analysis.
Canning	6.5	3.6	2410	67- 4059	47.94	Data not considered for analysis due to low stress level, high CV (47.94)
Chinsurah (Gosaba)	6.5	3.5	4937	4059-5381	9.18	Data not considered for analysis due to low stress level.
Panvel	7.6	1.8	3476	921-5466	10.7	Data not considered for analysis due to low stress level.

Location/State	Soil pH	Soil EC (dSm-1)	Exptl mean (kg/ha)	Grain Yield Range (Kg/ha)	CV %	Remarks
Vytilla	3.6	4.2	1326	622-2025	10.29	Data not considered for analysis due to low stress level and low experimental mean yield (1326 kg/ha)
Brahmavar	6.58	2.8	2354	1430-3030	14.47	Data not considered for analysis due to low stress level. Occurrence of frequent rains and floods during crop growth reported.
Karaikal	8.9	2.8	2690	1319-3422	8.13	Data not considered due to low stress level.

Performance of entries on overall basis across locations & Zone-VI

In overall, data from three locations Navsari, Baruch and Goa were considered for analysis. The grain yield ranged from 1853 kg/ha (FL 478) to 3254 kg/ha (IET30201), days to 50%flowering ranged from 86 (FL 478) to 112 days (IET30200), plant height of the entries ranged from 76 cm (CSR 10) to 124 cm (Bhuthnath) and the panicles/m2 varied from 267 (IET 30207) to 354 (CSR 10). Among the checks, local check (2958 kg/ha), recorded highest yield followed by Bhuthnath (2684 kg/ha), CSR 10 (2198 kg/ha), Pusa 44 (2152 kg/ha) and FL 478 (1853 kg/ha). Promising genotypes were identified based on significant critical difference of the test entries over the checks- either best check. On overall basis, the local check (2958 kg/ha) with 94 days to 50% flowering is the best check for identification of the promising genotypes.

Among the test entries, IET 30201 (CR 4283-274-6-2-1-3) derived from the parentage of CR Dhan 310/Getu with 4897 kg/ha grain yield and 110 days to 50% flowering recorded significant superiority over best check on overall basis and is promoted to AVT1- CSTVT. Quality wise, this culture exhibited HRR of 55.1%, ASV of 4.0, high amylose content of 26.63% with GC of 32 mm at IIRR, Hyderabad. Based on yield and desired quality IET 30201 is promoted for further testing.

Performance of check in IVT–CSTVT during Kharif 2022

IET No/ Name of Check	Overall & Z-VI (3)	Remarks
30201 (CR 4283-274-6-2-1-3) CR Dhan 310/Getu	3254* 99	Promising for yield in Z-VI and on overall basis and with desirable quality. Promoted
Bhuthnath (Coastal Saline Check)	2684 108	
CSR10 (Early saline check)	2198 94	
FL478 (Saline Tolerant Check)	1853 86	
Pusa44 (Sensitive Check)	2152 101	
Local Check	***2958*** ***97***	
CD	**458**	

***Significant over best check**

Performance in Zone III & VII

In zone-III, the data from Canning and Chinsurah (Gosaba) were received. Due to low stress levels, the data was not included in the analysis. Similarly, in zone VII, the data from Machilipatnam was received. However, due to very high stress level EC of 19.9 dSm^{-1} at tillering to 10.46 dSm^{-1} at flowering. Poor survival of entries was recorded. Low mean (115 kg/ha) and high CV recorded (193.9%). Data not considered in final analysis. **Hence none found merit for promotion in Zone III & VII.**

Performance of entries in CSTVT during three years of testing

IET No / Designation/ Cross combination	GT	Year	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
27847 IIRRH-115 (Hybrid)		2018	2540 96	--	Z-VII	3150 92	15	AP (1L)	3150 92	15
	--	2019	--	--	--	--	--	--	--	--
	MS	2020	4027 104	15	Z-III	3676 105	6	WB (1L)	5111	9.0
					Z-VI	4468 100	46	GU (1L)	4468 95	46
	LB	2021	3666 105	--	Z-VII	4955 98	19.4	AP	4955	19.4
	LB	2022	3014 99	--	Z-VI	3014 99	--	Goa (1)	4532 (1) 106	6.0

Quality characteristics of entries in CSTVT during three years of testing

IET No.	YEAR	HRR	GT	ASV	AC	GC
27847 (IIRRH-115)	2020	60.9	MS	5.0	26.78	50
	2021	66.7	LB	5.0	25.78	48
	2021 (NRRI)	62	SS	4.0	22.42	33
	2022 (IIRR)	58.4	LB	5.0	25.93	51

Performance of entries under CSTVT over the years of testing (2018-2022)

IET 27847 (IIRRH 115), a hybrid culture was tested in CSTVT trials during 2018, 2020 2021 and 2022. During 2018, IET 27847 with 3150 kg/ha exhibited superior performance over the best check by 15.0% and is found promising in Andhra Pradesh state. During 2020, this culture is found promising on overall basis with 4027 kg/ha and 15% yield superiority over the best check, and is also found promising in Z-VI with 4468 kg/ha and 46% yield advantage over the best check. During 2021, this culture is found promising in Z-VII with 4955 kg/ha and 19.4 % yield superiority over the best check. State wise, IET 27847 found promising in Andhra Pradesh for two years (2018 and 2021) while, it is promising for one year each in Gujarat (2020) and Odisha (2021) with required yield superiority over the best check. In 2022, IET 27847 exhibited 6% yield superiority over best check in Goa. Quality wise, IET 27847 recorded HRR of 60.9% (2020), 66.7% (2021) & 58.4% (2022); ASV of 5.0, Amylose content of 26.78% (2020), 25.78 % (2021), 25.93 % (2022) and 48 mm (2020)-50

mm (2021) & 51 mm (2022) GC at IIRR Hyderabad.

IET 27847 was repeated in CSTVT during 2022 for testing at more locations. However, the data from Z-VII due to severe stress level, while in Z-III, low stress level across the locations data was not included in the analysis. Hence IET 27847 is discontinued from further testing.

The following entries in the second year of testing are promoted to final year of testing in AVT 2- CSTVT

Overall: IET 30201

Zone VI: IET 30201

INITIAL VARIETY TRIAL - COASTAL SALINE TOLERANT VARIETY TRIAL (IVT- CSTVT)

Locations:	**10**	**Test Entries: 30**
Checks:	**Bhuthnath (Coastal Saline Check), FL478, CSR 10 (Early duration check), Pusa 44 (Sensitive check) and Local check**	**Table: 5.16**

IVT– CSTVT trial was constituted with 30 test entries including five checks namely Bhuthnath (Coastal Saline Check), FL478, CSR10(Early duration check), Pusa 44 (Sensitive check) and Local check. The trial was sent to 15 locations and data was received from 10 locations. Data from Navsari, Baruch, Goa, Machilipatnam, Canning, Chinsurah (Gosaba), Panvel, Vytilla, Brahmavar and Karaikal were received. Very high level of saline stress as high as 19.9 dSm-1 at tillering and 10.46 dSm^{-1} at flowering was observed at Machilipatnam that affected the survival of most of entries. Low stress level at Canning, Chinsurah (Gosaba) Panvel, Vytilla, Brahmavar and Karaikal were recorded due to continuous floods during the tillering to flowering stage. These locations are not considered for analysis. Hence, three among the 10 locations the data namely from Navsari, Baruch and Goa 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 5.17 and 5.18. 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
Navsari (Danti)	8.57	5.39	2310	1650-3662	17.09	Data considered for analysis under stress
Baruch (Karnal)	8.0	5.5	2564	1550-3080	12.38	Data considered for analysis under stress
Goa	6.58	4.52	3437	739-6125	13.21	Data considered for analysis under stress
Machilipatnam	8.1	14.92 to 8.76	317	27-1341	73.17	Very high stress level EC of 14.92 dSm^{-1} at tillering to 8.73 dSm^{-1} at flowering. Poor survival of entries. Low Exptl. mean (<2000 kg/ha) and high CV recorded (73.17%). Data not considered in final analysis.
Canning	6.5	3.6	1989	258-3725	44.93	Data not considered for analysis due to low stress level, low Exptl. mean (<2000 kg/ha) and high CV(44.93%)
Chinsurah (Gosaba)	6.5	3.5	4707	4030-5288	10.51	Data not considered for analysis due to low stress level.
Panvel	7.6	1.8	3879	333-7099	13.52	Data not considered for analysis due to low stress level.
Vytilla	3.3	3.9	1548	622-2720	11.16	Data not considered for analysis due to low stress level and low experimental mean yield (<2000 kg/ha)
Brahmavar	5.9	2.8	2329	1045-3090	12.09	Data not considered for analysis due to low stress level. Occurrence of frequent rains and floods during crop growth reported.
Karaikal	8.9	2.8	2685	1230-3422	10.01	Data not considered due to low stress level.

Performance of entries on overall basis across locations and in Zone-VI

In overall, data from three locations Navsari, Baruch and Goa were considered for analysis. The grain yield ranged from 1744 kg/ha (IET 31060) to 4236 kg/ha (IET 31067), days to 50%flowering ranged from 83 (FL 478) to 116 days (IET 31077), plant height of the entries ranged from 77 cm (CSR 10) to 129 cm (IET 31074) and the panicles/m2 varied from 245 (IET 31059) to 354 (IET 31067). Among the checks Bhuthnath (3583 kg/ha) recorded highest yield followed by local check (3391 kg/ha), FL 478 (2435 kg/ha), Pusa 44 (2418 kg/ha) and CSR 10 (2128 kg/ha). Promising genotypes were identified based on significant critical difference of the test entries over the checks- either best check. FL 478 is the early duration check with 83 days to 50% flowering and none of the entries are comparable to the early duration check for yield and DFF. On overall basis, Bhuthnath (3583 kg/ha) with 96 days to 50% flowering is the best check for identification of the promising genotypes.

Among the test entries, IET 31067 (CR 4283-274-6-2-1) derived from the parentage of CR Dhan 310/Getu with 4236 kg/ha grain yield and 96 days to 50% flowering recorded significant critical difference over best check on overall basis and in Z-VI. IET 31067 is promoted to AVT1-CSTVT.

Performance of check in IVT–CSTVT during Kharif 2022

IET No/ Name of Check	Overall & Z-VI (3)	Remarks
	GY (kg/ha)/ DFF	
31067 CR 4283-274-6-2-1 CR Dhan 310/ Getu	4236* 96	Promising for yield in Z-VI and on overall basis. Promoted
Bhuthnath (Coastal Saline Check)	***3583*** ***96***	
CSR10 (Early saline check)	2128 92	
FL478 (Saline Tolerant Check)	2435 83	
Pusa44 (Sensitive Check)	2418 104	
Local Check	3391 93	
CD	**527**	

***Significant over best check**

Performance in Zone Z-III &VII

In zone-III, the data from Canning and Chinsurah (Gosaba) were received. Due to low stress level, low exptl. mean (<2000 kg/ha) and high CV (44.93%) at Canning and low stress level at Chinsurah, the data was not included in the analysis. Similarly, in zone VII, the data from Machilipatnam was received. However, due to very high stress level EC of 14.92 dSm^{-1} at tillering to 8.73 dSm^{-1} at flowering. Due to continuous salt water intrusion through the crop growth period and high salinity at seedling establishment stage lead to poor survival at seedling stage and later high sterility, papery spikelets of survived plants at reproductive phases in failure of performance of most of the entries was observed. Low mean (317 kg/ha) and high CV recorded (73.17%). Hence, data was not considered in final analysis. None found merit for promotion in Zone III & VII.

The following entries were promoted to second year of testing in CSTVT

Overall: IET Nos.31067
Zone VI: IET Nos. 31067

Table No. 5.12: Composition of entries in Advance Variety Trial 2 & 1 -Coastal Saline Tolerant Variety Trial (AVT 2 & 1-CSTVT), Kharif 2022

Entry No.	IET No.	Designation	Cross Combination	GT
3rd year of testing				
5501	27847 (R)	***IIRRH 115 (Hybrid)***	-	LB
2nd year of testing				
5502	30207	MTU 1384	MTU 1010 / FL 478	MS
5503	30200	CSR 2019 IRBD 78	IR 77092-2R-B-10	MS
5504	**FL 478 (Saline Tolerant Check)**			
5505	30201	CR 4283-274-6-2-1-3	CR Dhan 310 /Getu	LB
5506	**Pusa 44 (Sensitive Check)**			
5507	**Bhuthnath (Coastal Saline Check)**			
5508	**CSR 10 (Early duration saline check)**			
5509	**Local Check (LC)**			

Table No.5.13: Grain Yield (kg/ha) in AVT 2 & 1-CSTVT (Coastal Saline), Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN												Overall Mean (3)	
		Goa (1)		Gujarat				Gujarat (2)		Zone VI (3)					
		Goa		Danti		Baruch (Karnal)		Mean		Mean					
5501	27847 (R)	4532	1	6%	2242	7	2267	4	2255	6	3014	2		3014	2
5502	30207	2672	4		2416	4	1950	9	2183	7	2346	6		2346	6
5503	30200	2665	5		2848	3	2375	3	2612	3	2629	5		2629	5
5504	FL 478 (Saline Tolerant Check)	1619	9		1691	8	2250	5	1971	8	1853	9		1853	9
5505	30201	4240	3		3483	1	2040	8	2762	2	3254	1	10%	3254	1 10%
5506	Pusa 44 (Sensitive Check)	1885	8		2386	6	2185	6	2286	5	2152	8		2152	8
5507	Bhuthnath (Coastal Saline Check)	2391	7		3217	2	2445	2	2831	1	2684	4		2684	4
5508	CSR 10 (Early duration saline check)	2654	6		1359	9	2580	1	1970	9	2198	7		2198	7
5509	Local Check (LC)	4280	2		2412	5	2183	7	2298	4	2958	3		2958	3
Exp. Mean		**2993**			**2450**		**2253**		**2352**		**2509**			**2509**	
F Value		**6.08(p<0.0008)S**			**10.84(p<0.0001)S**		**2.53(p=0.0276)S**		**16.33(p<0.0001)S**		**5.20(p=0.0004)S**			**5.20(p=0.0004)S**	
CD		1180			528		318		323		458			458	
CV%		**22.77**			**14.77**		**9.67**		**9.41**		**12.5**			**12.5**	
D/S					17-06-2022		24-06-2022								
D/P					20/07/2022		26-07-2022								
Local Check Name					GR-19		CSR27								

***Superior to best check; #Superior to hybrid check**

Table No. 5.13 (Contd): Grain Yield (kg/ha) in AVT 2 & 1-CSTVT (Normal), Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN			ZONE VII – SOUTHERN						Overall Mean (3)	
		Maharashtra (1)			Karnataka (1)		Puducherry (1)		Zone VII (2)			
		Panvel			Brahmawar		Karaikal		Mean			
5501	27847 (R)	4529	3	30%	1831	7	2709	7	2270	6	3023	4
5502	30207				2930	3	2816	4	2873	2	2873	6
5503	30200	5143	2 *	48%	1430	9	2959	3	2195	7	3177	1
5504	FL 478 (Saline Tolerant Check)	2677	6		3030	1	1319	9	2175	8	2342	8
5505	30201	5466	1 *	57%	1740	8	2014	8	1877	9	3073	3
5506	Pusa 44 (Sensitive Check)	921	8		2835	4	2816	4	2826	4	2191	9
5507	Bhuthnath (Coastal Saline Check)	2656	7		1900	6	3405	2	2653	5	2654	7
5508	CSR 10 (Early duration saline check)	2942	5		2960	2	2745	6	2853	3	2882	5
5509	Local Check (LC)	3476	4		2531	5	3422	1	2977	1	3143	2
Exp. Mean		**3476**			**2354**		**2690**		**2586**		**2903**	
F Value		**38.44(p<0.0001)S**			**5.99(p=0.0096)S**		**5.99(p=0.0096)S**		**3.70(p=0.0098)S**		**7.80(p=0.0002)S**	
CD		652			786		378		656		481	
CV%		**10.71**			**14.47**		**8.13**		**14.65**		**9.56**	
D/S		24-06-2022			25-06-2022		22-06-2022					
D/P		01-08-2022			03-08-2022		28-07-2022					
Local Check Name		Panvel-3			Karikagga		TRY 2					

Table No. 5.13 (Contd): Grain Yield (kg/ha) in AVT 2 & 1-CSTVT (Coastal Saline), Kharif 2022 (Trial Not Considered)

ENTRY NO	IET NO	TRIAL NOT CONSIDERED	
		Andhra Pradesh (0)	
		@Machilipatnam	
5501	27847 (R)	92	3
5502	30207	3	7
5503	30200	16	5
5504	FL 478 (Saline Tolerant Check)	219	2
5505	30201	19	4
5506	Pusa 44 (Sensitive Check)	1	8
5507	Bhuthnath (Coastal Saline Check)	13	6
5508	CSR 10 (Early duration saline check)	552	1
5509	Local Check (LC)		
Exp. Mean		**115**	
F Value		**2.31(p=0.0507)S**	
CD		327	
CV%		**193.94**	
D/S		01-07-2022	
D/P		01-08-2022	
Local Check Name		Panduranga (MCM 100)	

Table No. 5.13 (Contd): Grain Yield (kg/ha) in AVT 2 & 1-CSTVT (Normal), Kharif 2022 (Trial Not Considered)

ENTRY NO	IET NO	TRIALS NOT CONSIDERED					
		West Bengal (0)				Kerala (0)	
		@Canning-ICAR		@Gosaba		@Vytilla	
5501	27847 (R)	4059	1	5212	4	1733	3
5502	30207	1715	7	4644	8	1585	4
5503	30200	2895	3	5225	3	1870	2
5504	FL 478 (Saline Tolerant Check)	67	9	4059	9	785	7
5505	30201	2818	4	5381	1	732	8
5506	Pusa 44 (Sensitive Check)	1467	8	4703	7	622	9
5507	Bhuthnath (Coastal Saline Check)	3733	2	4814	6	1564	5
5508	CSR 10 (Early duration saline check)	2640	5	5297	2	1023	6
5509	Local Check (LC)	2298	6	5102	5	2025	1
Exp. Mean		**2410**		**4937**		**1326**	
F Value		**3.88(p0.0026)S**		**1.56(p=0.2708)NS**		**28.65(p<0.0001)S**	
CD		1686		1046		315	
CV%		**47.94**		**9.18**		**10.29**	
D/S		20-06-2022		13-07-2022		25-06-2022	
D/P		12-08-2022		20-08-2022		19-07-2022	
Local Check Name		Canning 7		Gosaba -5		Lavanya	

Table No. 5.14: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 & 1 – CSTVT, (Coastal Saline), Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN								
		Goa (1)			Gujarat					
		Goa			Danthi			Baruch (Karnal)		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5501	27847 (R)	106	133	301	103	119	360	89	97	245
5502	30207	121	114	260	126	111	353	86	91	188
5503	30200	122	134	308	115	133	374	99	98	224
5504	FL 478 (Saline Tolerant Check)	93	94	341	83	82	308	82	78	248
5505	30201	105	114	330	108	106	344	83	89	201
5506	Pusa 44 (Sensitive Check)	103	101	297	113	99	365	87	78	203
5507	Bhuthnath (Coastal Saline Check)	121	141	352	117	132	389	86	99	248
5508	CSR 10 (Early duration saline check)	97	82	326	102	78	439	83	68	298
5509	Local Check (LC)	100	128	400	100	101	405	84	83	243
MEAN		**108**	**116**	**324**	**107**	**107**	**371**	**86**	**87**	**233**
SE(m)		**4.76**			**1.37**			**1.34**		

Table No. 5.14 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 & 1 – CSTVT, (Coastal Saline), Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN						Overall Mean (3)		
		Gujarat (2)			Zone 6(3)					
		Mean			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5501	27847 (R)	96	116	303	99	108	302	99	116	302
5502	30207	106	105	270	111	101	267	111	105	267
5503	30200	107	122	299	112	115	302	112	122	302
5504	FL 478 (Saline Tolerant Check)	82	85	278	86	80	299	86	85	299
5505	30201	95	103	273	99	97	292	99	103	292
5506	Pusa 44 (Sensitive Check)	100	92	284	101	88	288	101	92	288
5507	Bhuthnath (Coastal Saline Check)	101	124	318	108	116	330	108	124	330
5508	CSR 10 (Early duration saline check)	93	76	368	94	73	354	94	76	354
5509	Local Check (LC)	92	104	324	94	92	349	94	104	349
MEAN		**97**	**103**	**302**	**100**	**97**	**309**	**100**	**103**	**309**
SE(m)		**1.02**			**1.18**			**1.18**		

Table No. 5.14 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 & 1 – CSTVT, (Normal), Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN			ZONE VII – SOUTHERN									Overall Mean (3)		
		Maharashtra (1)			Karnataka (1)			Puducherry (1)			Zone VII (2)					
		Panvel			Brahmawar			Karaikal			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5501	27847 (R)	102	107	236	106	82	163	85	117	616	95	100	389	98	102	338
5502	30207				91	91	191	102	146	548	97	118	369	97	118	369
5503	30200	86	94	296	107	111	160	99	149	496	103	130	328	97	118	317
5504	FL 478 (Saline Tolerant Check)	125	117	167	110	74	225	91	122	462	101	98	344	109	104	285
5505	30201	113	106	330	113	82	166	89	117	702	101	99	434	105	102	399
5506	Pusa 44 (Sensitive Check)	105	81	171	94	71	207	96	102	599	95	87	403	98	85	326
5507	Bhuthnath (Coastal Saline Check)	116	94	179	97	81	166	73	88	548	85	85	357	95	88	298
5508	CSR 10 (Early duration saline check)	98	66	225	91	85	207	97	139	530	94	112	368	96	97	321
5509	Local Check (LC)	106	84	256	104	81	185	95	124	462	99	102	323	102	96	301
Exp. Mean		**106**	**94**	**233**	**101**	**84**	**185**	**92**	**123**	**551**	**97**	**103**	**368**	**100**	**101**	**328**
SE(m)		**0.31**			**1.85**			**1.23**			**2.39**			**1.41**		

Table No. 5.14 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 & 1 – CSTVT, (Coastal Saline), Kharif 2022 (Trial Not Considered)

ENTRY NO	IET NO	TRIAL NOT CONSIDERED		
		Andhra Pradesh (0)		
		@Machilipatnam		
		DFF	PH	PAN
5501	27847 (R)	119	62	9
5502	30207	142	68	1
5503	30200	138	65	3
5504	FL 478 (Saline Tolerant Check)	110	48	16
5505	30201	127	60	1
5506	Pusa 44 (Sensitive Check)			
5507	Bhuthnath (Coastal Saline Check)	128	63	5
5508	CSR 10 (Early duration saline check)	103	54	67
5509	Local Check (LC)	129	62	2
Exp. Mean		**124**	**60**	**13**
SE(m)		**1.90**		

Table No. 5.14 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 & 1 – CSTVT, (Normal), Kharif 2022 (Trial Not Considered)

ENTRY NO	IET NO	TRIALS NOT CONSIDERED								
		West Bengal						Kearala		
		@Canning-ICAR			@Gosaba			@Vytilla		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5501	27847 (R)	115	93	409	110	102	413	98	139	263
5502	30207	146	87	364	121	81	347	108	106	330
5503	30200	133	101	488	116	108	479	105	80	460
5504	FL 478 (Saline Tolerant Check)	122	54	15	103	84	363	105	137	265
5505	30201	121	82	420	113	84	446	103	96	378
5506	Pusa 44 (Sensitive Check)	138	74	319	119	70	380	99	107	248
5507	Bhuthnath (Coastal Saline Check)	121	102	470	118	105	495	98	98	470
5508	CSR 10 (Early duration saline check)	116	79	408	102	57	446	98	98	323
5509	Local Check (LC)	109	96	384	109	103	429	87	94	283
Exp. Mean		**124**	**85**	**364**	**112**	**88**	**422**	**100**	**106**	**335**
SE(m)		**1.33**			**0.61**			**1.24**		

Table No. 5.15: Grain quality characteristics of entries in AVT 2 & 1-CSTVT, kharif 2022

Entry No.	IET No.	Hull %	Mill %	HRR %	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
5501	27847 (R)	79.0	69.5	58.4	6.11	2.10	2.90	LB	A	5.0	25.93	51
5502	30207	75.0	63.9	40.2	5.35	2.13	2.51	MS	VOC	4.0	26.78	46
5503	30200	78.7	69.9	66.5	5.72	2.18	2.62	MS	VOC	4.0	21.20	60
5504	FL-478	81.6	69.8	66.9	6.37	2.30	2.76	LB	VOC	4.0	24.72	22
5505	30201	76.5	64.9	55.1	6.18	2.13	2.90	LB	VOC	4.0	26.63	32
5506	Pusa -44	75.4	64.0	56.0	5.49	2.04	2.69	MS	VOC	7.0	23.52	32
5507	Bhuthnath	79.8	69.0	59.5	7.07	2.14	3.30	LS	VOC	4.0	26.78	23
5508	CSR -10	79.3	68.3	56.0	6.40	2.09	3.06	LS	VOC	4.0	23.11	46
5509	Canning -7 (LC)	80.2	65.5	55.6	5.64	2.57	2.19	SB	OC	4.0	25.37	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. 5.16: Composition of entries in Initial Variety Trial -Coastal Saline Tolerant Variety Trial (IVT-CSTVT), Kharif 2022

Entry No.	IET No.	Designation	Cross Combination	GT
1st year of testing				
5601	31058	CR 4252-243-14-3-1	Naveen / FL478	MS
5602	31059	MCM 140 (MCM 147-1-1-2-1)	PLA 1100 / BM71	MS
5603	31060	CR 3478-M-11-B-1	MTU 1010 / Korgut // IR64 / FL478 /// IR 73931-40-1-2-3-2-22-1	MS
5604	31061	NVSR 6519	IET 17704 / IR 7204-B-R-22-3-1-1	
5605	31062	CR 4307-298-10-1-1	SR 27-8-1 / FL 478	MS
5606	**Bhuthnath (Coastal Saline Check)**			
5607	31063	CR 3439-E-5-2-1-1-B-1	Naveen / Chettivirippu (AC 39394)	LS
5608	31064	MCM 138 (MCM 208-12-1-1)	MTU 7029 / CSR 27	MS
5609	31065	CR 4086-5-B-7-B-1	CR 2814-1-S-1-6-3-2B-1 / Binadhan 10	MS
5610	31066	NVSR 6226	NAUR-1 / IET 18850	
5611	31067	CR 4283-274-6-2-1	CR Dhan 310 /Getu	MS
5612	31068	CSR 2018-43-36	CSR 27 / FL478 // FR13A / KHO	
5613	**CSR 10 (Early duration saline check)**			
5614	31069	CR 4260-251-2-2-2	Naveen / CST-7-1	MS
5615	31070	RP 6166-47-1-21-1	MTU1010 / O. rufipogon	SB
5616	31071	MCM 139 (MCM 145-25-1-1-3)	IR 50 / BM71	MS
5617	31072	CR 4241-232-6-4-2	R 255 / Luna Sankhi	MS
5618	31073	NVSR 6488	IR 76346-B-B-10-1-1-1 / IET 21237	
5619	31074	CR 3460-E-2-2-B-1	CR 3299-11-1-1 // IR64 / FL478	MS
5620	**FL 478 (Saline Tolerant Check)**			
5621	31075	CSR 2018-43-16	CSR 36 / FL478 // FR13A / KHO	
5622	31076	CR 4246-237-12-4-1	R 255 / Bina Dhan 10	MS
5623	31077	MCM 141	IR64 / CSR10	MS
5624	31078	CSR 2018-43-18	CSR 36 / FL 478 // FR 13A / KHO	
5625	31079	CSR 2018-43-37	CSR 27 / FL478 // FR 13A / KHO	
5626	**Pusa 44 (Sensitive Check)**			
5627	31080	CR 4087-5-B-1	CR 2843-1-5-1-6-B-5-B / Binadhan 10	MS
5628	31081	RP Bio 4919-NSR 5	KMR3 / O.rufipogon WR 120	LB
5629	31082	CR 2845-S-B-B-4-1-1-4	Swarna Sub1 / SR 26B	MS
5630	**Local Check (LC)**			

Table No. 5.17: Grain Yield (kg/ha) in IVT - CSTVT (Coastal Saline), Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN					
		Goa (1)		Gujarat			
		Goa		Danti		Baruch (Karnal)	
5601	31058	3556		2586	6	2621	
5602	31059	1525		2166		1746	
5603	31060	739		2944	3	1550	
5604	31061	4386	10	2127		2505	
5605	31062	5609	3	1908		2881	8
5606	Bhuthnath (Coastal Saline Check)	5650	2	2068		3030	3
5607	31063	4664	7	2007		2349	
5608	31064	1259		2614	5	2468	
5609	31065	3645		2243		2483	
5610	31066	3047		2281		2345	
5611	31067	6125	1	3662	1	2920	6
5612	31068	2772		1826		2600	
5613	CSR 10 (Early duration saline check)	2842		1650		1893	
5614	31069	4428	9	2050		3080	1
5615	31070	1539		2450	8	2904	7
5616	31071	1634		2409	10	2735	
5617	31072	4814	6	2327		3009	4
5618	31073	3375		2191		1668	
5619	31074	3764		2335		3075	2
5620	FL 478 (Saline Tolerant Check)			2030		2839	9
5621	31075	3233		2293		2987	5
5622	31076	5162	4	3348	2	2775	
5623	31077	1742		2425	9	2767	
5624	31078	2306		1887		2570	
5625	31079	2961		1872		2439	
5626	Pusa 44 (Sensitive Check)			2110		2725	
5627	31080	4336		1894		2175	
5628	31081	4583	8	2545	7	2813	10
5629	31082	1536		2277		2575	
5630	Local Check (LC)	5014	5	2768	4	2393	
Exp. Mean		**3437**		**2310**		**2564**	
F Value		**21.48(p<0.0001)S**		**4.54(p<0.0001)S**		**6.26(p<0.0001)S**	
CD		**932**		555		446	
CV%		**13.21**		**17.09**		**12.38**	
D/S				17-06-2022		24-06-2022	
D/P				25-07-2022		25-07-2022	
Local Check Name				GR-19		CSR27	

For Promotion of entries:
***For Varietal entries: Yield of entry should be superior over yield of BVC+CD (at 5%level of significance).**
#For hybrid entries: Yield of entry should be superior over yield of BVC+CD and over yield of BHC+CD (at 5% level of significance)
In locations where the F variance ratio between treatments is non-significant, data from such locations was not considered in analysis.

Table No. 5.17 (Contd): Grain Yield (kg/ha) in IVT - CSTVT (Coastal Saline), Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN				Overall Mean (3)	
		Gujarat (2)		Zone VI (3)			
		Mean		Mean			
5601	31058	2604	8	2921		2921	
5602	31059	1956		1812		1812	
5603	31060	2247		1744		1744	
5604	31061	2316		3006		3006	
5605	31062	2395		3466	4	3466	4
5606	Bhuthnath (Coastal Saline Check)	2549		3583	3	3583	3
5607	31063	2178		3007	10	3007	10
5608	31064	2541		2114		2114	
5609	31065	2363		2790		2790	
5610	31066	2313		2558		2558	
5611	31067	3291	1 *	4236	1 *	4236	1 *
5612	31068	2213		2399		2399	
5613	CSR 10 (Early duration saline check)	1772		2128		2128	
5614	31069	2565		3186	8	3186	8
5615	31070	2677	5	2298		2298	
5616	31071	2572		2259		2259	
5617	31072	2668	6	3383	6	3383	6
5618	31073	1930		2411		2411	
5619	31074	2705	3	3058	9	3058	9
5620	FL 478 (Saline Tolerant Check)	2435		2435		2435	
5621	31075	2640	7	2838		2838	
5622	31076	3062	2 *	3762	2	3762	2
5623	31077	2596	9	2311		2311	
5624	31078	2229		2255		2255	
5625	31079	2156		2424		2424	
5626	Pusa 44 (Sensitive Check)	2418		2418		2418	
5627	31080	2035		2802		2802	
5628	31081	2679	4	3314	7	3314	7
5629	31082	2426		2129		2129	
5630	Local Check (LC)	2581	10	3391	5	3391	5
Exp. Mean		**2437**		**2588**		**2588**	
F Value		**5.26(p<0.0001)S**		**5.55(p<0.0001)S**		**5.55(p<0.0001)S**	
CD		374		527		527	
CV%		**10.93**		**14.48**		**14.48**	
D/S							
D/P							
Local Check Name							

Table No. 5.17 (Contd): Grain Yield (kg/ha) in IVT - CSTVT (Normal), Kharif 2022

ENTRY NO	IET NO	ZONE VII - SOUTHERN						Overall Mean (2)	
		Karnataka (1)		Puducherry (1)		Zone VII (2)			
		Brahmawar		Karaikal		Mean			
5601	31058	1795		2763		2279		2279	
5602	31059	2630		3102	5	2866	5	2866	5
5603	31060	1550		2353		1952		1952	
5604	31061	2800	6	3209	3	3005	2	3005	2
5605	31062	1550		2870		2210		2210	
5606	Bhuthnath (Coastal Saline Check)	1970		2602		2286		2286	
5607	31063	2130		2371		2251		2251	
5608	31064	2910	4	2745		2828	8	2828	8
5609	31065	2080		2902		2491		2491	
5610	31066	2070		2906	10	2488		2488	
5611	31067	2950	3	2995	8	2973	3	2973	3
5612	31068	2680	10	3039	7	2860	6	2860	6
5613	CSR 10 (Early duration saline check)	2700	9	3369	2	3035	1	3035	1
5614	31069	2150		2816		2483		2483	
5615	31070	3070	2	1996		2533		2533	
5616	31071	3090	1	2727		2909	4	2909	4
5617	31072	1900		2906	10	2403		2403	
5618	31073	2750	8	2050		2400		2400	
5619	31074	2900	5	2567		2734	10	2734	10
5620	FL 478 (Saline Tolerant Check)	2100		3102	5	2601		2601	
5621	31075	2330		2674		2502		2502	
5622	31076	2600		1818		2209		2209	
5623	31077	2309		2888		2599		2599	
5624	31078	2470		3137	4	2804	9	2804	9
5625	31079	2040		2442		2241		2241	
5626	Pusa 44 (Sensitive Check)	1045		2602		1824		1824	
5627	31080	2800	6	2906	10	2853	7	2853	7
5628	31081	2600		2050		2325		2325	
5629	31082	1940		1230		1585		1585	
5630	Local Check (LC)	1971		3422	1	2697		2697	
Exp. Mean		**2329**		**2685**		**2557**		**2557**	
F Value		**6.28(p<0.0001)S**		**9.17(p<0.0001)S**		**5.26(p<0.0001)S**		**5.26(p<0.0001)S**	
CD		576		440		442		442	
CV%		**12.09**		**10.01**		**10.58**		**10.58**	
D/S		23-06-2022		27-06-2022					
D/P		03-08-2022		28-07-2022					
Local Check Name		Karikagga		TRY 2					

Table No. 5.17 (Contd): Grain Yield (kg/ha) in IVT - CSTVT (Coastal Saline), Kharif 2022 (Trial Not Considered)

ENTRY NO	IET NO	TRIAL NOT CONSIDERED	
		Andhra Pradesh (0)	
		@Machilipatnam	
5601	31058	966	2
5602	31059	102	
5603	31060	111	
5604	31061	1341	1
5605	31062	888	3
5606	Bhuthnath (Coastal Saline Check)	236	
5607	31063	226	
5608	31064	262	
5609	31065	175	
5610	31066	629	4
5611	31067	339	9
5612	31068	317	10
5613	CSR 10 (Early duration saline check)	264	
5614	31069	419	6
5615	31070		
5616	31071	100	
5617	31072	209	
5618	31073	113	
5619	31074	90	
5620	FL 478 (Saline Tolerant Check)	213	
5621	31075	451	5
5622	31076	384	7
5623	31077	27	
5624	31078	126	
5625	31079	73	
5626	Pusa 44 (Sensitive Check)		
5627	31080	101	
5628	31081	249	
5629	31082	375	8
5630	Local Check (LC)	106	
Exp. Mean		**317**	
F Value		**6.92(p<0.0001)S**	
CD		327	
CV%		**73.17**	
D/S		01-07-2022	
D/P		01-08-2022	
Local Check Name		Pnnduranga (MCM 100)	

Table No. 5.17 (Contd): Grain Yield (kg/ha) in IVT - CSTVT (Normal), Kharif 2022 (Trial Not Considered)

ENTRY NO	IET NO	TRIALS NOT CONSIDERED							
		West Bengal				Maharashtra		Kearala	
		@Canning-ICAR		@Gosaba		@Panvel		@Vytilla	
5601	31058	2686	9	4412		7025	2	622	
5602	31059	1862		4200		2210		731	
5603	31060	3319	3	4158		6790	3	1835	8
5604	31061	3725	1	4073		1556		1719	
5605	31062	2043		4031		5086	10	1189	
5606	Bhuthnath (Coastal Saline Check)	2964	7	4788		5444	9		
5607	31063	3336	2	5192	4	3679		661	
5608	31064	1789		4539		2590		1661	
5609	31065	3063	5	5073	8	5753	6	2113	4
5610	31066	3059	6	5042	10	2432			
5611	31067	2826	8	5288	1	3704		1981	5
5612	31068	931		5064	9	333		832	
5613	CSR 10 (Early duration saline check)	1096		4666		3543		1727	10
5614	31069	1870		4200		6358	5	1688	
5615	31070	2140		4624		951		1787	9
5616	31071	3152	4	4797		6654	4		
5617	31072	1846		4412		5469	8	771	
5618	31073	2134		4115		1309			
5619	31074	2460		5127	7	7099	1	1471	
5620	FL 478 (Saline Tolerant Check)	265		4449				1373	
5621	31075	720		4869		3827		1587	
5622	31076	2503	10	5238	2	5000		2720	1
5623	31077	1217		4793		4593		1332	
5624	31078	310		5217	3	628		1042	
5625	31079	531		4581		1099			
5626	Pusa 44 (Sensitive Check)	258		4314		3593		2167	3
5627	31080	2444		4581		5481	7	1981	5
5628	31081	1976		5178	5	1728		1915	7
5629	31082	2429		5171	6			1403	
5630	Local Check (LC)	720		5005		4679		2397	2
Exp. Mean		**1989**		**4707**		**3879**		**1548**	
F Value		**4.94(p<0.0001)S**		**1.56(p=0.1187)NS**		**31.35(p<0.0001)S**		**20.08(p<0.0001)S**	
CD		1256		1012		1076		357	
CV%		**44.93**		**10.51**		**13.52**		**11.16**	
D/S				13-07-2022		24-06-2022		25-06-2022	
D/P				18-08-2022		03-08-2022		19-07-2022	
Local Check Name				Gosaba 5		Panvel- 1		Lavanya	

Table No. 5.18: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – CSTVT, (Coastal Saline), Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN								
		Goa (1)			Gujarat					
		Goa			Danti			Baruch (Karnal)		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5601	31058	107	120	215	105	100	324	86	94	247
5602	31059	128	123	193	128	92	330	87	81	213
5603	31060	122	139	270	120	124	345	96	89	200
5604	31061	101	139	297	106	117	348	97	100	343
5605	31062	106	127	286	101	101	309	97	92	297
5606	Bhuthnath (Coastal Saline Check)	98	121	297	108	121	360	80	97	347
5607	31063	99	140	259	104	119	330	91	105	287
5608	31064	116	100	193	119	89	339	91	79	225
5609	31065	97	145	215	110	134	333	89	107	330
5610	31066	96	124	319	106	103	345	81	89	258
5611	31067	101	118	281	108	105	381	80	84	345
5612	31068	88	120	308	96	88	354	80	77	277
5613	CSR 10 (Early duration saline check)	94	88	319	101	71	318	81	73	193
5614	31069	119	118	231	102	96	339	87	88	273
5615	31070	110	119	270	108	102	336	96	98	207
5616	31071	112	118	286	115	91	339	97	92	240
5617	31072	105	119	314	107	107	348	94	103	330
5618	31073	98	127	259	103	99	339	83	93	207
5619	31074	108	146	193	115	134	324	98	106	273
5620	FL 478 (Saline Tolerant Check)				85	100	339	81	78	213
5621	31075	88	121	336	102	91	333	82	82	310
5622	31076	98	118	292	115	111	363	83	82	277
5623	31077	126	104	237	131	88	303	92	78	253
5624	31078	86	118	314	88	89	348	82	97	220
5625	31079	89	120	325	95	74	330	83	80	223
5626	Pusa 44 (Sensitive Check)				109	85	315	98	78	287
5627	31080	104	141	198	112	121	342	97	101	197
5628	31081	108	156	270	114	128	312	87	96	317
5629	31082	125	129	264	97	84	327	95	84	270
5630	Local Check (LC)	95	140	352	102	90	372	83	81	270
Exp. Mean		**104**	**125**	**271**	**107**	**102**	**338**	**88**	**89**	**264**
SE(m)		**3.30**			**2.65**			**1.46**		

Table No. 5.18 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – CSTVT, (Coastal Saline), Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN						Overall Mean(3)		
		Gujarat (2)			Zone VI (3)					
		Mean			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5601	31058	96	97	285	99	104	262	99	104	262
5602	31059	108	86	272	114	98	245	114	98	245
5603	31060	108	106	273	113	117	272	113	117	272
5604	31061	101	108	346	101	118	329	101	118	329
5605	31062	99	97	303	102	107	297	102	107	297
5606	Bhuthnath (Coastal Saline Check)	94	109	353	96	113	335	96	113	335
5607	31063	98	112	308	98	121	292	98	121	292
5608	31064	105	84	282	109	89	252	109	89	252
5609	31065	99	120	332	98	129	293	98	129	293
5610	31066	94	96	302	94	105	307	94	105	307
5611	31067	94	95	363	96	102	336	96	102	336
5612	31068	88	83	315	88	95	313	88	95	313
5613	CSR 10 (Early duration saline check)	91	72	256	92	77	277	92	77	277
5614	31069	95	92	306	103	101	281	103	101	281
5615	31070	102	100	271	105	106	271	105	106	271
5616	31071	106	91	290	108	100	288	108	100	288
5617	31072	100	105	339	102	110	331	102	110	331
5618	31073	93	96	273	95	106	268	95	106	268
5619	31074	106	120	299	107	129	263	107	129	263
5620	FL 478 (Saline Tolerant Check)	83	89	276	83	89	276	83	89	276
5621	31075	92	86	322	90	98	326	90	98	326
5622	31076	99	97	320	99	104	310	99	104	310
5623	31077	112	83	278	116	90	264	116	90	264
5624	31078	85	93	284	85	101	294	85	101	294
5625	31079	89	77	277	89	91	293	89	91	293
5626	Pusa 44 (Sensitive Check)	104	81	301	104	81	301	104	81	301
5627	31080	105	111	269	104	121	246	104	121	246
5628	31081	100	112	314	103	127	299	103	127	299
5629	31082	96	84	299	106	99	287	106	99	287
5630	Local Check (LC)	92	86	321	93	104	331	93	104	331
Exp. Mean		**98**	**96**	**301**	**100**	**104**	**291**	**100**	**104**	**291**
SE(m)		**1.44**			**1.63**			**1.63**		

Table No. 5.18 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – CSTVT, (Normal), Kharif 2022

ENTRY NO	IET NO	ZONE VII - SOUTHERN									Overall Mean (2)		
		Karnataka (1)			Puducherry (1)			Zone VII (2)					
		Brahmawar			Karaikal			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5601	31058	107	75	176	107	133	496	107	104	336	107	104	336
5602	31059	110	99	198	110	116	582	110	107	390	110	107	390
5603	31060	106	80	163	107	138	530	106	109	347	106	109	347
5604	31061	105	64	209	104	131	736	104	97	472	104	97	472
5605	31062	107	85	157	105	124	479	106	104	318	106	104	318
5606	Bhuthnath (Coastal Saline Check)	109	73	190	97	126	376	103	100	283	103	100	283
5607	31063	94	77	199	95	121	565	94	99	382	94	99	382
5608	31064	98	91	208	109	116	633	103	104	421	103	104	421
5609	31065	106	86	173	97	108	565	101	97	369	101	97	369
5610	31066	99	85	166	95	97	462	97	91	314	97	91	314
5611	31067	109	94	203	95	121	633	102	108	418	102	108	418
5612	31068	109	71	187	85	111	787	97	91	487	97	91	487
5613	CSR 10 (Early duration saline check)	105	90	177	75	80	342	90	85	260	90	85	260
5614	31069	107	84	178	105	111	582	106	98	380	106	98	380
5615	31070	112	85	206	98	104	359	105	95	283	105	95	283
5616	31071	118	94	212	97	125	616	107	109	414	107	109	414
5617	31072	111	83	186	104	112	599	108	98	392	108	98	392
5618	31073	106	73	198	106	117	445	106	95	321	106	95	321
5619	31074	104	81	205	107	132	548	105	106	376	105	106	376
5620	FL 478 (Saline Tolerant Check)	101	91	176	84	108	411	93	99	293	93	99	293
5621	31075	110	74	181	86	88	530	98	81	356	98	81	356
5622	31076	96	73	190	93	116	325	95	95	257	95	95	257
5623	31077	111	84	175	112	113	394	111	98	284	111	98	284
5624	31078	109	74	171	85	105	479	97	90	325	97	90	325
5625	31079	118	61	169	81	89	496	99	75	332	99	75	332
5626	Pusa 44 (Sensitive Check)	94	61	161	108	91	479	101	76	320	101	76	320
5627	31080	116	87	222	106	146	513	111	116	367	111	116	367
5628	31081	114	92	188	103	141	342	108	116	265	108	116	265
5629	31082	107	81	184	95	119	325	101	100	255	101	100	255
5630	Local Check (LC)	106	94	178	91	113	582	99	103	380	99	103	380
Exp. Mean		**107**	**81**	**186**	**98**	**115**	**507**	**102**	**98**	**347**	**102**	**98**	**347**
SE(m)		**1.37**			**0.77**			**2.09**			**2.09**		

Table No. 5.18 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – CSTVT, (Coastal Saline), Kharif 2022 (Trial Not Considered)

ENTRY NO	IET NO	TRIAL NOT CONSIDERED		
		Andhra Pradesh (0)		
		@Machilipatnam		
		DFF	PH	PAN
5601	31058	119	74	58
5602	31059	129	74	6
5603	31060	122	68	10
5604	31061	117	78	54
5605	31062	119	79	48
5606	Bhuthnath (Coastal Saline Check)	116	70	14
5607	31063	120	79	19
5608	31064	143	79	7
5609	31065	119	80	19
5610	31066	105	84	20
5611	31067	121	76	19
5612	31068	104	61	10
5613	CSR 10 (Early duration saline check)	104	59	25
5614	31069	119	67	16
5615	31070	121		
5616	31071	123	69	2
5617	31072	120	75	10
5618	31073	120	76	3
5619	31074	124	79	
5620	FL 478 (Saline Tolerant Check)	106	62	12
5621	31075	104	68	39
5622	31076	117	79	40
5623	31077	121	63	3
5624	31078	103	58	22
5625	31079	106	58	35
5626	Pusa 44 (Sensitive Check)	124	50	3
5627	31080	119	82	8
5628	31081	120	62	3
5629	31082	131	73	15
5630	Local Check (LC)	131	50	3
Exp. Mean		**118**	**70**	**19**
SE(m)		**1.21**		

Table No. 5.18 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – CSTVT, (Normal), Kharif 2022 (Trial Not Considered)

ENTRY NO	IET NO	TRIALS NOT CONSIDERED											
		West Bengal						Maharashtra			Kerala		
		@Canning-ICAR			@Gosaba			@Panvel			@Vytilla		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5601	31058	131	88	425	113	99	347	107	122	339	98	101	438
5602	31059	144	89	430	119	85	330	121	98	186	124	142	270
5603	31060	127	111	446	114	110	363	109	139	274	98	105	195
5604	31061	115	109	599	112	110	347	101	134	153	98	107	213
5605	31062	127	96	474	119	94	396	106	109	251	116	141	180
5606	Bhuthnath (Coastal Saline Check)	116	103	327	121	116	396	108	104	252			
5607	31063	115	116	403	109	112	347	103	129	257	98	130	268
5608	31064	141	96	414	119	81	380	126	99	176	98	118	245
5609	31065	122	114	316	106	128	380	108	121	214	124	99	443
5610	31066	117	104	468	111	100	314	98	122	261			
5611	31067	122	94	446	111	94	380	105	103	264	124	107	293
5612	31068	111	92	512	97	86	446	99	94	136	124	114	320
5613	CSR 10 (Early duration saline check)	108	65	561	90	71	446	96	78	254	98	138	238
5614	31069	131	89	441	109	96	380	108	112	315	98	122	330
5615	31070	130	93	452	111	100	363	113	110	179	98	116	290
5616	31071	127	99	414	113	98	281	105	110	292			
5617	31072	130	100	397	114	95	446	104	117	310	116	106	335
5618	31073	126	101	386	114	90	363	97	122	152			
5619	31074	131	114	479	113	115	347	107	131	355	98	118	358
5620	FL 478 (Saline Tolerant Check)	113	52	204	81	84	314				98	108	295
5621	31075	113	81	365	94	86	479	99	99	238	124	125	338
5622	31076	122	94	490	111	89	330	102	105	327	98	137	280
5623	31077	141	89	408	121	88	330	123	137	250	98	121	340
5624	31078	117	73	286	91	85	479	93	90	144	116	112	305
5625	31079	112	88	329	94	79	396	97	91	177			
5626	Pusa 44 (Sensitive Check)	135	76	316	115	82	380	105	97	231	98	105	295
5627	31080	126	108	381	114	118	314	107	135	316	124	96	318
5628	31081	121	116	370	114	130	297	111	131	157	98	85	248
5629	31082	136	101	496	112	102	281				116	98	375
5630	Local Check (LC)	108	109	435	110	113	330	97	108	284	86	130	415
Exp. Mean		**124**	**95**	**416**	**109**	**98**	**366**	**105**	**112**	**241**	**107**	**115**	**305**
SE(m)		**2.44**			**0.81**			**0.33**			**0.2**		

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- Jarnapani (Medziphema), Sirsi and Ponnampet. Medium elevation hills-Rajouri, Bajaura, Palampur, Almora, Bageshwar, ICAR- Barapani, Gangtok, Kohima and Gudalur; High elevations hills-Khudwani, Wadura, Pombay, Bandipore, Larnoo, Baderwah and Upper Shillong.

A total of 7 trials namely, IVT-E(H), AVT1-E(H), AVT 2-E(H), IVT-M(H), AVT1-M(H), AVT 2-M(H) and IVT-U(H) were conducted with 24, 15, 10, 19, 15, 8 and 16 entries respectively thus making a total of 107 entries. Each trial was evaluated at low, medium and high hills: IVT-E (H), AVT 1-E (H) and AVT-2 E (H) at 39 locations (13 low, 11 medium, 15 high), IVT M (H), AVT 1-M (H) and AVT 2-M (H) at 41 locations (19 low, 13 medium, 9 high), IVT-U(H) at 10 locations (6 low, 3 medium and 1 high). Ponnampet and Dhaulakaun data not included in the analysis due to late receipt. The trials were sent to 27 locations to conduct 123 experiments. The data of 90 experiments received from 23 locations indicating 73.17% (Funded 90.0%, Voluntary 67.74%).

List of centres and elevations

I.Low Elevation:	
Northern Hills:	
ICAR-Jarnapani (Medziphema)	304 msl
Dhaulakaun	350 msl
ICAR- Lamphelpat	774 msl
Wangbal	781 msl
CAU-Imphal	808 msl
Sundernagar	858 msl
Bhertin	870 msl
CAU, Barapani	940 msl
Malan	950 msl
Southern Hills:	
Sirsi	697 msl
Ponnampet	867 msl
II. Medium Elevation:	
Northern Hills:	
Rajouri	953 msl
Bajaura	1080 msl
ICAR- Almora	1250 msl
Palampur	1267msl
Bageshwar	1320 msl
Gangtok	1322 msl
Kohima	1444 msl

I.Low Elevation:	
ICAR- Barapani	1500 msl
Southern Hills:	
Gudalur	1300 msl
III. High Elevation:	
Khudwani	1560 msl
Wadura	1590 msl
Baderwah	1613 msl
Bandipore	1680 msl
Upper Shillong	1735 msl
Pombay	1990 msl
Larnoo	2150 msl

ADVANCE VARIETY TRIAL -2 EARLY (Hills) AVT - 2- E (H)

Locations : 12 **Test Entries:7**

Checks : Vivekdhan 86 (National), Shalimar Rice 3 (Zonal) and Local check **Table: 6.1**

The AVT-2 E (H) trial was constituted with seven test entries of third year of testing and 3 checks *i.e.,* Vivekdhan 86 (National), Shalimar Rice 3 (Zonal) and local check. The trial was sent to 17 locations while it was conducted at 12 locations. Due to low yield, the data from Bajura (2064 Kg/ha) and Upper Shillong (1308 Kg/ha) was not considered for analysis while due to high CV, the data of Mediziphema (33.41 CV) was not considered for analysis. Data from remaining nine locations were considered for analysis and interpretation.

The overall mean grain yield across altitudes ranged from 3132 kg/ha (IET 28890) to 4836 kg/ha (IET 28895) with overall mean of 4097 Kg/ha. The experimental mean yield under low northern, medium northern and high altitude were 3666 Kg/ha, 3652 Kg/ha and 4676 (high) Kg/ha respectively.

The mean flowering duration ranged from 97 days (IET 28196 and Shalimar Rice 3) to 111 days (IET 28884) while plant height ranged from 82.90 cm (IET 28890) to 114.22 cm (IET 28883) and panicles per plant ranged from 312 (Vivek Dhan 86) to 367 (IET 28884). The data pertaining to grain yield, days to 50% flowering, plant height, panicles/m^2 and quality are presented in tables 6.2, 6.3 and 6.4. The performance of entries under different elevations are given below.

Low Northern Hills

Data from two locations namely Malan and Sundernagar were considered for analysis under low northern hills. The mean grain yield of entries ranged from 2718 kg/ha (Local check) to 4176 kg/ha (IET 28206). Days to 50% flowering ranged from 82 days (Shalimar Rice 3) to 105 days (IETs 28890 and 28884), panicles/m^2 ranged from 342 (Shalimar Rice 3) to 445 (IET 28206) and plant height ranged from 76.50 cm (Local check) to 109.85 cm (IET 28883).

Among the checks, national check (Vivek Dhan 86) recorded highest grain yield of 4139 kg/ha with 86 days to 50% flowering. Among the test entries, none recorded required grain yield advantage of >5% over the best check.

Medium Northern Hills

Data from three locations namely Palampur, Almora and Rajouri were considered for analysis under medium northern hills. The mean grain yield of entries ranged from Shalimar Rice 3 kg/ha (IET 1902) to 4659 kg/ha (IET 28890).

Days to 50% flowering ranged from 93 days (IET 28890) to 109 days (IET 28196), panicles/m^2 ranged from 200 (Shalimar Rice 3) to 373 (IET 28884) and plant height ranged from 89.37 cm (IET 28884) to 109.19 cm (IET 28882).

Among the checks, National check (Vivek Dhan 86) recorded highest grain yield of 3671 kg/ha with 97 days to 50% flowering. Among the test entries, **IETs 28890 (27%), 28895(18%), 28882(16%), 28883(15%) and 28206R (6%)** recorded required grain yield advantage of >5% over the best check.

Performance of promising entries in AVT-2 E (H) trial at Medium northern elevation during Kharif 2022

Medium Northern Elevation			
IET No.	**GY (Kg/ha)/ days to 50% flowering / grain type**	**Percentage of yield advantage over the best check (Vivek dhan 86)**	**Grain quality**
IET 28890	4659 93 LS	27	Good
IET 28895	4320 100 LS	18	Good
IET 28882	4246 98 LS	16	**Low HRR (54%), high AC (26.07 with low GC (22)**
IET 28883	4228 95 LB	15	Good
IET 28206 (R)	3883 101 LB	6	Good
Vivekdhan 86 (NC)	***3671*** ***97***	**BC**	
Shalimar Rice 3 (ZC)	1902 94		
Local Check (LC)	3439 95		

Bold & Italics: Best check & over the best check; NC: National Check; ZC: Zonal Check; LC: Local Check; GY: Grain Yield; R: Repeat

High Elevation hills

Data from four locations namely Larno, Khudwani, Pombay and Wadura were considered for analysis under low high elevation hills. The mean grain yield of entries ranged from 2174 kg/ha (IET 28890) to 6134 kg/ha (Shalimar Rice 3). Days to 50% flowering ranged from 104 days (Local check) to 125 days (IET 28884), panicles/m^2 ranged from 157 (IET 28890) to 361 (Shalimar Rice 3) and plant height ranged from 78.90 cm (IET 28890) to 119.48 cm (IET 28883).

Among the checks, Zonal check (Shalimar Rice 3) recorded highest grain yield of 6134 kg/ha with 106 days to 50% flowering. Among the test entries, none recorded required grain yield advantage of >5% over the best check.

Three-year performance of test entries in AVT2 E(H) Trial

IET No. / Designation / Cross Combination	Year	% Yield Advantage over BVC								Remarks
		Low			Medium			High Hills		
		Southern	Northern	States	Northern	Southern	States	Zone	States	
IET 28884 TRC BN 793-B-B-27-4-1 Bhalum 3 / Naveen	2020	-	-	-	24% (2)	-	-	-	-	Discontinued due to inconsistency in yield
	2021	-	10% (2)	HP (2)-10%	-	-	-	-	-	
	2022	-	-	-	-	-	-	-	-	
IET 28206 (R) HPR 3106 HPR 2336 / AC 19146 // HPR 2143	2019	-	-	-	7% (3)	-	-	-	-	**Promising in Medium Northern Zone for the state of Uttarkhand**
	2020	-	17% (1)	HP (1) 17%	-	-	-	-	-	
	2021	-	-	-	28% (3)	-	UT (1)-45% HP (3)-9% J&K (1)-24%	-	-	
	2022	-	-	-	6% (3)	-	UT (1)-22%	-	-	
IET 28883 VL 32585 VL 31290 / O. minuta	2020	-	-	-	33% (2)	-	HP (1)-15%	-	-	**Promising in Medium Northern hill Zone for the state of Uttarkhand and Himachal Pradesh**
	2021	-	12% (2)	HP (2)-12%	27% (3)	-	UT (1)-63% HP (3)-14% J&K (1) - 16%	-	-	
	2022				15% (3)		HP (1)-19% UT (1)-22%			
IET 28890 TRC GN 117-B-B-12-1-1	2020	30% (1)	17% (1)	HP (1)-17% KA (1)-30%	-	-	-	-	-	Discontinued due to inconsistency in yield

IET No. / Designation / Cross Combination	Year	% Yield Advantage over BVC								Remarks
		Low			Medium			High Hills		
		Southern	Northern	States	Northern	Southern	States	Zone	States	
Gomatidhan / Tripura Nirog	2021	-	-	-	-	17% (1)	TN (1)-17	-	-	
	2022				27% (1)		-			
IET 28895 VL 32560 VL 31339 / BL 122	2020	-		-	24% (2)	-	HP (1)-23%	-	-	**Promising in Medium Northern hill Zone for the state of Uttarkhand and Himachal Pradesh**
	2021	25% (1)	14% (2)	KA (1)-25% HP (2)-14%	6%3)	-	UT (1)-34% HP (3)-14%	-	-	
	2022	-	-	-	18% (3)	-	HP (1)-20% UT (1)-24%	-	-	
IET 28882 HPR 3201 HPR 2143 / AC19146	2020	-	-	-	16% (2)	-	UT (1)-15	-	-	Discontinued due to poor grain quality HRR (54.0), AC (26.07) and GC (22)
	2021	-	15% (2)	HP (2)-15%	10% (3)	22% (1)	UT (1)-72% HP (3)-11% TN (1)-22%	-	-	
	2022	-	-	-	16% (1)	-	HP (1)-19% J&K (1)-16%	-	-	
IET 28196 (R) TRC KS - 1512-B-B-1-12-1 Kanaktara / Swarna	2019	-	9% (2)	HP (2)-9%	-	-	-	-	-	Discontinued due to inconsistency in yield
	2020	-	-	-	9% (2)	-	-	-	-	
	2021	-	-	-	16% (3)	-	UT (1)-51% J&K-15%	-	-	
	2022	-	-	-	-	-	-	-	-	

A total of seven test entries have completed three years of testing system in early hill rice ecology. Among the these seven, two test entries IET 28884 and IET 28196 did not required the required yield advantage over the best check hence these two entries were discontinued. The performance of the remaining entries are discussed below.

IET 28206 (R) (HPR 3106) derived from HPR 2336 / AC 19146 // HPR 2143 showed consistent yield superiority over the best check in Medium Northern Zone for three years consecutively (2019, 2021 and 2022). The entry also showed consistent superior yield in Uttarkhand during third and fourth year of testing. The test entry possesses long bold grain type with other desirable grain quality parameters *viz*., HRR (59.5), ASV (7.0), AC (24.31) and GC (22). ***Hence, the test entry IET 28206 (HPR 3106) found promising in Medium Northern hill Zone for the state of Uttarkhand***.

IET 28883 (VL 32585) derived from VL 31290 / *O. minuta* 2143 showed consistent yield superiority over the best check in Medium Northern Zone for three years consecutively (2020, 2021 and 2022). The entry also showed consistent superior yield in the state of Uttarakhand (second & third year) and Himachal Pradesh (first and third year). The test entry

possesses long bold grain type with other desirable grain quality parameters *viz*., HRR (56.2), ASV (4.0), AC (23.32) and GC (22). ***Hence, the test entry IET 28883 (VL 32585) found promising in Medium Northern hill Zone for the state of Uttarakhand and Himachal Pradesh.***

IET 28895 (VL 32560) derived from cross VL 31339 / BL 122 showed consistent yield superiority over the best check in Medium Northern Zone for three years consecutively (2020, 2021 and 2022). The entry also showed consistent superior yield in the state of Uttarakhand (second & third year) and Himachal Pradesh (first, second and third year). The test entry possesses long slender grain type with other desirable grain quality parameters *viz*., HRR (62.4), ASV (5.0), AC (23.26) and GC (22). ***Hence, the test entry* IET 28895 (**VL 32560) ***found promising in Medium Northern hill Zone for the state of Uttarakhand and Himachal Pradesh.***

IET 28882 **(**HPR 3201) derived from HPR 2143 / AC19146 showed consistent yield superiority over the best check in Medium Northern Zone for three years consecutively (2020, 2021 and 2022). The entry also showed consistent superior yield in the state of Himachal Pradesh (second and third year). The test entry possesses long slender grain type. However, the entry showed poor grain quality parameters *viz*., low HRR (54.0), high AC (26.07) and hard GC (22). Hence, the test entry IET 28882 (VL 32560) is discontinued.

ADVANCE VARIETY TRIAL -1- EARLY (Hills) AVT - 1- E (H)

Locations : 10 **Test Entries:12**

Checks : Vivekdhan 86 (National), Shalimar Rice 3 (Zonal) and Local check **Table: 6.5**

The AVT-1-E (H) trial was constituted with 12 test entries of second year of testing and 3 checks *.ie.,* Vivekdhan 86 (National), Shalimar Rice 3 (Zonal) and local check. The trial was sent to 17 locations while it was conducted at 10 locations: two in low norther (Malan and Mediziphema), five in medium northern (Palampur, Almora and Rajouri) and three in high elevations (Larno, Upper Shillong, Khudwani, Pombay, Wadura). Due to low yield, the data from Larno (2424 Kg/ha) and Upper Shillong (1199 Kg/ha) was not considered for analysis. Data from remaining eight locations were considered for analysis and interpretation.

The overall mean grain yield across altitudes ranged from 3129 kg/ha (IET 29639) to 4832 kg/ha (IET 28896) with overall mean of 4123 Kg/ha. The experimental mean yield under low northern, medium northern and high altitude were 4006 Kg/ha, 3276 Kg/ha and 5074 (high) Kg/ha respectively.

The mean flowering duration ranged from 92 days (IET 28880) to 108 days (IET 29633 and 29639) while plant height ranged from 95.17 cm (IET 29641) to 126.08 cm (IET 29635) and panicles per plant ranged from 269 (IET 29639) to 332 (IET 29638). The data pertaining to grain yield, days to 50% flowering, plant height, panicles/m^2 and quality are presented in tables 6.6, 6.7 and 6.8. The performance of entries under different elevations are given below.

Low Northern Hills

Data from two locations namely Malan and Mediziphema (ICAR) were considered for analysis under low northern hills. The mean grain yield of entries ranged from 3318 kg/ha (IET 28880) to 4727 kg/ha (IET 29641). Days to 50% flowering ranged from 80 days (IET 28897) to 95 days (IET 29633), panicles/m^2 ranged from 237 (IET 29640) to 335 (Shalimar Rice 3) and plant height ranged from 88.85 cm (IET 29641) to 128.30 cm (IET 28880).

Among the checks, national check (Vivek Dhan 86) recorded highest grain yield of 4654 kg/ha with 81 days to 50% flowering. Among the test entries, none recorded required grain yield advantage of >5% over the best check.

Medium Northern Hills

Data from three locations namely Palampur, Almora and Rajouri were considered for analysis under medium northern hills. The mean grain yield of entries ranged from 2410 kg/ha (IET 28897) to 4321 kg/ha (IET 29638).

Days to 50% flowering ranged from 89 days (IET 28880) to 106 days (IET 29633), panicles/m^2 ranged from 254 (IET 28897) to 375 (IET 29640) and plant height ranged from 101.03 cm (IET 29641) to 124.51 cm (IET 28880).

Among the checks, zonal check (Shalimar Rice 3) recorded highest grain yield of 4256 kg/ha with 92 days to 50% flowering. Among the test entries, none recorded required grain yield advantage of >5% over the best check.

High Elevation hills

Data from three locations namely Khudwani, Pombay and Wadura were considered for analysis under low high elevation hills. The mean grain yield of entries ranged from 1774 kg/ha (IET 29639) to 7375 kg/ha (IET 28896). Days to 50% flowering ranged from 102 days (IET 28893) to 124 days (Shalimar Rice 3), panicles/m^2 ranged from 235 (IET 29639) to 360 (IET 28896) and plant height ranged from 93.51 cm (IET 29641) to 127.78 cm (IET 29635).

Among the checks, national check (Vivek Dhan 86) recorded highest grain yield of 7232 kg/ha with 103 days to 50% flowering. Among the test entries, none recorded required grain yield advantage of >5% over the best check.

INITIAL VARIETYTRIAL-EARLY (HILLS) IVT-E (H)

Locations : 10 **Test Entries:21**

Checks : Vivekdhan 86 (National), Shalimar Rice 3 (Zonal) and Local check **Table: 6.9**

Initial Variety Trial – Early Hills (IVT-E(H) was constituted with 24 entries which included 21 test entries and 3 checks. **Vivekdhan 86 (NC) was** used as national check and **Shalimar Rice 3 (ZC)** as zonal check along with Local checks. Trial was sent to 17 locations of various altitudes. Data was received from ten locations (Almora-ICAR, Khudwani, Upper Shillong, Pombay- Khudwani, Wadura- Khudwani, Rajouri, Larnoo, Malan, Palampur, upper shilling, Mediziphema-ICAR, and Gudaluru). The data from six locations (Bandipore, Badarwa, Sundernagar(Malan), Bajuara(Malan), Dhaulakaun, and Ponnampet) was not received.

Among the 10 locations, data from two locations namely Malan (MLN), and Almora-ICAR was not considered for analysis due to low experimental mean yield or due to low CV %. The data pertaining to yield, flowering, plant height and panicles/m^2 were presented in tables 6.10 and 6.11. Performance of the test entries at different elevations is discussed below.

Overall mean yield among entries ranged from 2899 kg/ha (IET 30487) to 5128 kg/ha (IET 30492) while Vivekdhan 86 (NC) yielded 5256 kg/ha and overall mean of local check was 5378 kg/ha, therefore, none of the entries promoted based on overall mean performance over best check; days to 50% flowering ranged from 95 days (IET 30495) to 112 days (IET 30487); plant height varied from 86.6 cm (IET 30489) to 120.9 (IET 30499) and number of panicles/m^2 ranged from 272 (IET 30493, IET 30487) to 386 (IET 30492).

Low altitude Northern (≤ 950 MSL)

IVT-E (H) was conducted at 2 locations (Mediziphema-ICAR and Malan (MLN)) and Malan data was not considered for analysis. The mean grain yield of the entries ranged from 2589 kg/ha (IET 30482) to 4833 kg/ha (IET 30498); days to 50% flowering varied from 75 days (IET 30482) to 99 days (IET 30498). Among the checks, local check recorded highest grain yield average of 4194 kg/ha with 93 days to 50% flowering. IET 30498 showed 15% (4833kg/ha) and IET 30483 showed 7% (4478kg/ha) (> 5%) superior yield performance over the best check (LC) in northern medium altitude locations. Among the test entries, none of the entries showed significant yield performance over and above the best check (LC) based on CD values and hence not promoted to 2nd year of testing in northern low altitude locations.

Medium altitude northern (951-1500 MSL)

The trial was conducted in 3 locations and only two Palampur and Rajouri were considered for analysis. The mean grain yield at medium altitude ranged from 2425 kg/ha (IET 30482) to 4705 kg/ha (IET 30490); and highest yield was 4746 kg/ha (Vivekanda 86 (NC)). Days to 50% flowering varied between 88 days (IET 30484) and 110 days (IET 30483). Among the test entries, none of the entries showed superior yield performance over and above the best

check (NC) based on CD values and hence not promoted to 2nd year of testing in Medium altitude northern locations.

Medium altitude Southern (951-1500 MSL)

The data from only Gudalur location under this altitude was received and considered for analysis. The mean grain yield of the entries ranged from 2676 kg/ha (IET 30493) to 6230 kg/ha (IET 30498); days to 50% flowering varied from 82 days (IET 30482, IET 30488, IET 30495) to 103 days (IET 30487). Among the checks, local check recorded highest grain yield average of 5984 kg/ha with 100 days to 50% flowering. Among the test entries, none of the entries showed above superior yield performance over the local check (LC) based on CD values and hence not promoted to 2nd year of testing in southern medium altitude locations.

High altitude hills (≥1501 MSL)

IVT-E (H) trial was conducted at four locations i.e., Khudwani, Larnoo and Pombay and Wadura and the data was considered for analysis. The mean grain yield at high altitude ranged from 1182 kg/ha (IET 30498) to 7031 kg/ha (IET 30491); days to 50% flowering varied between 103 days (IET 30495) and 124 days (IET 30498). Among the checks, local check recorded highest grain yield average of 6380 kg/ha with 104 days to 50% flowering. IET 30491 showed 10% (7031kg/ha) and IET 30495 showed 7% (6994kg/ha) (> 5%) superior yield performance over the best check (LC) in High altitude locations. Among the test entries, none of the entries showed significant yield performance over the local check (LC) based on CD values and hence not promoted to 2nd year of testing in in High altitude locations.

IVT – E (H) The trial comprised of 21 test entries and three checks and tested in 10 locations.

List of the entries promoted in IVT-E (H)

Overall basis: none
Low altitude Northern: none
Low altitude Southern: not conducted
Medium altitude Northern: none
Medium altitude Southern: none
High altitude hills: none

Table No. 6.1: Composition of entries in Advance Variety Trial 2- Early (Hills) (AVT 2-E (H), kharif 2022

Entry No.	IET No.	Designation	Cross Combination	GT
3rd Year of testing				
2301	28884	TRC BN 793-B-B-27-4-1	Bhalum 3 / Naveen	SB
2302	28206 (R)	HPR 3106	HPR 2336 / AC 19146 // HPR 2143	LB
2303	28883	VL 32585	VL 31290 / O. minuta	LB
2304	**Vivekdhan 86 (NC)**			
2305	28890	TRC GN 117-B-B-12-1-1	Gomatidhan / Tripura Nirog	LS
2306	28895	VL 32560	VL 31339 / BL 122	LS
2307	**Shalimar Rice 3 (ZC)**			
2308	28882	HPR 3201	HPR 2143 / AC19146	LS
2309	28196 (R)	TRC KS -1512-B-B-1-12-1	Kanaktara / Swarna	SB
2310	**Local Check (LC)**			

Table No. 6.2: Grain Yield (kg/ha) in AVT 2 – E (H), Kharif 2022

ENTRY NO	IET NO	LOW NORTHERN						MEDIUM_NORTHERN	
		HIMACHAL PRADESH 1				LOW NORTHERN (2)		HIMACHAL PRADESH 2	
		MALAN		Sundernagar (Malan)		Mean		Palampur	
2301	28884	4192	8	3558	3	3875	4	1283	9
2302	28206 (R)	4787	2	3564	2	4176	1	3153	6
2303	28883	4654	5	3625	1	4140	2	4841	3 *
2304	Vivekdhan 86 (NC)	5061	1	3217	5	4139	3	4084	4
2305	28890	4659	4	1997	9	3328	8		
2306	28895	4693	3	2786	7	3740	6	4901	1 *
2307	Shalimar Rice 3 (ZC)	3849	10	2458	8	3154	9	1921	7
2308	28882	4444	6	3225	4	3835	5	4869	2 *
2309	28196 (R)	3988	9	3117	6	3553	7	1837	8
2310	Local Check (LC)	4293	7	1142	10	2718	10	3231	5
Exp. Mean		**4462**		**2869**		**3666**		**3347**	
CD		567		451		350		327	
CV%		**7.41**		**9.16**		**5.57**		**5.64**	
D/S		10-06-2022		27-05-2022				27-05-2022	
D/P		06-07-2022		22-06-2022				04-07-2022	
Local Check Name		HPR 1068		HPR 2612				HPR1068	

Table No. 6.2 (Contd): Grain Yield (kg/ha) in AVT 2 – E (H), Kharif 2022

ENTRY NO	IET NO	MEDIUM_NORTHERN								
		UTTARAKHAND (1)			JAMMU & KASHMIR1 (1)			MEDIUM_NORTHERN (3)		
		Almora- ICAR			Rajouri			Mean		
2301	28884	3194	5	9%	4739	2	14%	3072	9	
2302	28206 (R)	3861	2 *	32%	4636	4	11%	3883	5	6%
2303	28883	3547	4 *	22%	4295	6		4228	4 *	15%
2304	Vivekdhan 86 (NC)	2861	8		4068	8		3671	6	
2305	28890				4659	3	12%	4659	1 *	27%
2306	28895	3628	3 *	24%	4432	5	6%	4320	2 *	18%
2307	Shalimar Rice 3 (ZC)	500	9		3284	10		1902	10	
2308	28882	3028	6		4841	1 *	16%	4246	3 *	16%
2309	28196 (R)	4111	1 *	41%	3352	9		3100	8	
2310	Local Check (LC)	2917	7		4170	7		3439	7	
Exp. Mean		**3072**			**4248**			**3652**		
CD		355			647			348		
CV%		**6.67**			**8.88**			**5.55**		
D/S		27-05-2022			27.05.2022					
D/P		27-06-2022			22.06.2022					
Local Check Name		VLD 85			K-39					

Table No. 6.2 (Contd): Grain Yield (kg/ha) in AVT 2 – E (H), Kharif 2022

ENTRY NO	IET NO	HIGH ELEVATION												Overall Mean (9)	
		JAMMU & KASHMIR 2								HIGH ELEVATION (4)					
		Larnoo		KHUDWANI		Pombay (Khudwani)		Wadura (Khudwani)		Mean					
2301	28884			2818	9			2800	9	2809	9			3226	9
2302	28206 (R)	1667	6	7400	5	5062	3	6961	2	5273	5			4566	3
2303	28883	1785	5	5644	7	3388	7	5323	7	4035	7			4122	6
2304	Vivekdhan 86 (NC)	1426	7	7045	6	5068	2	6742	3	5070	6			4397	4
2305	28890			2267	10			2080	10	2174	10			3132	10
2306	28895	3971	2	7832	2	4860	6	6417	5	5770	3			4836	1 * 10%
2307	Shalimar Rice 3 (ZC)	4083	1	7893	1	4950	5	7608	1	6134	1			4061	7
2308	28882	3786	4	7711	4	5120	1	6369	6	5747	4			4821	2 * 10%
2309	28196 (R)			4183	8			3650	8	3917	8			3463	8
2310	Local Check (LC)	3854	3	7791	3	5010	4	6681	4	5834	2			4343	5
Exp. Mean		**2939**		**6058**		**4780**		**5463**		**4676**				**4097**	
CD		484		986		764		867		493				216	
CV%		**9.26**		**9.48**		**8.99**		**9.26**		**6.14**				**3.08**	
D/S		10-05-2022		05-05-2022		13-5-2022		10-05-2022							
D/P		12-06-2022		02-06-2022		14-06-2022		09-06-2022							
Local Check Name		Shalimar Rice-5		Shalimar Rice-4		Shalimar Rice-4		Shalimar Rice-4							

Table No. 6.2 (Contd): Grain Yield (kg/ha) in AVT 2 – E (H), (State Means) Kharif 2022

ENTRY NO	IET NO	STATE MEANS							
		HIMACHAL PRADESH (3)			UTTARAKHAND (1)			JAMMU & KASHMIR (5)	
		Mean			Mean			Mean	
2301	28884	3011	7		3194	5	9%	3452	9
2302	28206 (R)	3835	5		3861	2 *	32%	5145	5
2303	28883	4373	1	6.13%	3547	4 *	22%	4087	7
2304	Vivekdhan 86 (NC)	4121	4		2861	8		4870	6
2305	28890	3328	6					3002	10
2306	28895	4127	3		3628	3 *	24%	5502	3
2307	Shalimar Rice 3 (ZC)	2743	10		500	9		5564	2
2308	28882	4179	2		3028	6		5565	1
2309	28196 (R)	2981	8		4111	1 *	41%	3728	8
2310	Local Check (LC)	2889	9		2917	7		5501	4
Exp. Mean		**3559**			**3072**			**4642**	
CD		258			355			395	
CV%		**4.21**			**6.67**			**4.96**	
D/S									
D/P									
Local Check Name									

Table No. 6.2 (Contd): Grain Yield (kg/ha) in AVT 2 – E (H), (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED					
		NAGALAND (0)		HIMACHAL PRADESH		MEGHALAYA (0)	
		@ICAR-Mediziphema		@Bajura (Malan)		@UPPER SHILLONG	
2301	28884	4604	1	1510	8		
2302	28206 (R)	3956	5	2419	2	1300	5
2303	28883	4400	3	1879	6	633	7
2304	Vivekdhan 86 (NC)	3752	7	1940	5	1617	1
2305	28890						
2306	28895	4137	4	3366	1	1433	3
2307	Shalimar Rice 3 (ZC)	1578	9	1219	9	1433	3
2308	28882	4500	2	2289	4	1270	6
2309	28196 (R)	2756	8	1536	7		
2310	Local Check (LC)	3926	6	2416	3	1467	2
Exp. Mean		**3734**		**2064**		**1308**	
CD		2159		234		205	
CV%		**33.41**		**6.55**		**6.421**	
D/S		18-06-2022		16-06-2022		21-04-2022	
D/P		27-07-2022		15-07-2022		29-06-2022	
Local Check Name						Meg 1	

Table No.6.3: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 – E (H), Kharif 2022

ENTRY NO	IET NO	LOW NORTHERN									MEDIUM NORTHERN		
		HIMACHAL PRADESH 1						LOW NORTHERN (2)			HIMACHAL PRADESH 2 (1)		
		MALAN			Sundernagar (Malan)			Mean			Palampur		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
2301	28884	104	99	338	106	60	548	105	79	443	117	82	
2302	28206 (R)	86	112	306	92	67	583	89	89	445	108	96	
2303	28883	82	131	302	96	89	553	89	110	428	100	122	
2304	Vivekdhan 86 (NC)	83	125	316	89	76	430	86	100	373	98	112	
2305	28890	113	90	370	98	75	444	105	82	407			
2306	28895	89	112	246	92	68	452	91	90	349	112	82	
2307	Shalimar Rice 3 (ZC)	77	126	274	86	81	410	82	103	342	93	111	
2308	28882	91	119	332	95	70	502	93	94	417	113	98	
2309	28196 (R)	99	117	324	101	70	443	100	93	384	116	100	
2310	Local Check (LC)	83	96	302	91	58	552	87	77	427	98	86	
Exp. Mean		**91**	**113**	**311**	**95**	**71**	**492**	**93**	**92**	**401**	**106**	**99**	

Table No. 6.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2-E (H), Kharif 2022

ENTRY NO	IET NO	MEDIUM NORTHERN									HIGH ELEVATION		
		UTTARAKHAND (1)			JAMMU & KASHMIR1 (1)			MEDIUM NORTHERN (3)			JAMMU & KASHMIR 2		
		Almora- ICAR			Rajouri			Mean			Larnoo		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
2301	28884	105	80	273	93	106	473	105	89	373			
2302	28206 (R)	100	101	224	95	124	459	101	107	342	125	109	215
2303	28883	91	115	287	95	93	382	95	110	335	126	111	211
2304	Vivekdhan 86 (NC)	91	111	205	101	105	366	97	109	286	124	103	175
2305	28890				93	92	466	93	92				
2306	28895	92	96	236	96	108	434	100	96	335	123	85	291
2307	Shalimar Rice 3 (ZC)	85	103	135	106	111	265	94	108	200	114	109	337
2308	28882	98	106	194	85	124	477	98	109	336	126	87	328
2309	28196 (R)	105	103	270	104	109	272	109	104	271			
2310	Local Check (LC)	87	104	156	100	96	369	95	95	262	103	89	328
Exp. Mean		**95**	**102**	**220**	**97**	**107**	**396**	**99**	**102**	**304**	**120**	**99**	**269**

Table No. 6.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2-E (H), Kharif 2022

ENTRY NO	IET NO	HIGH ELEVATION												Overall Mean (9)		
		JAMMU & KASHMIR 2									HIGH ELEVATION (4)					
		KHUDWANI			Pombay (Khudwani)			Wadura (Khudwani)			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
2301	28884	123	78	296				126	80	271	125	79	284	111	84	367
2302	28206 (R)	110	97	398	123	92	321	116	100	359	119	99	323	106	100	358
2303	28883	106	124	334	122	114	298	105	129	324	115	119	292	103	114	337
2304	Vivekdhan 86 (NC)	115	117	345	125	95	310	122	122	345	122	109	294	105	107	312
2305	28890	124	77	162				124	81	152	124	79	157	110	83	
2306	28895	106	101	396	119	92	328	112	105	361	115	96	344	105	94	343
2307	Shalimar Rice 3 (ZC)	96	120	384	113	115	347	102	117	374	106	115	361	97	110	316
2308	28882	114	103	392	125	97	332	111	99	366	119	96	354	106	100	365
2309	28196 (R)	120	96	328				122	96	308	121	96	318	110	99	324
2310	Local Check (LC)	100	124	394	109	109	345	104	120	338	104	111	351	97	98	348
Exp. Mean		**110**	**104**	**343**	**119**	**102**	**326**	**113**	**105**	**320**	**117**	**100**	**308**	**105**	**99**	**341**

Table No. 6.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2-E (H), (State Means) Kharif 2022

ENTRY NO	IET NO	STATE MEANS								
		HIMACHAL PRADESH (3)			UTTARAKHAND (1)			JAMMU & KASHMIR (5)		
		Mean			Mean			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
2301	28884	109	82	443	105	80	273	114	88	347
2302	28206 (R)	95	96	445	100	101	224	114	104	351
2303	28883	92	122	428	91	115	287	111	114	310
2304	Vivekdhan 86 (NC)	90	112	373	91	111	205	118	108	308
2305	28890	105		407				114	83	260
2306	28895	98	82	349	92	96	236	111	98	362
2307	Shalimar Rice 3 (ZC)	86	111	342	85	103	135	106	114	342
2308	28882	100	98	417	98	106	194	112	102	379
2309	28196 (R)	105	100	384	105	103	270	115	100	303
2310	Local Check (LC)	87	86	427	103	104	156		108	355
Exp. Mean		**95**	**99**	**401**		**102**	**220**		**102**	**332**

Table No.6.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2-E (H), (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED								
		NAGALAND (0)			HIMACHAL PRADESH 2			MEGHALAYA (0)		
		@ICAR-Mediziphema			@Bajura (Malan)			UPPER SHILLONG		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
2301	28884	94	68	269	71	78	326	77		
2302	28206 (R)	82	86	993	68	97	344	82	80	294
2303	28883	91	117	336	69	100	281	76		215
2304	Vivekdhan 86 (NC)	90	98	252	68	95	227	86	99	270
2305	28890							76		
2306	28895	92	99	268	66	92	274	76	80	313
2307	Shalimar Rice 3 (ZC)	94	95	284	56	103	224	83	94	313
2308	28882	94	97	311	63	99	301	82	90	278
2309	28196 (R)	82	93	319	72	95	348	78		
2310	Local Check (LC)	82	86	306	61	90	276	87	99	290
Exp. Mean		**89**	**93**	**371**	**66**	**94**	**289**	**81**	**90**	**282**

Table No. 6.4: Grain yield characteristics of entries in AVT 2-E (H), Kharif 2022

Entry No.	IET No.	Hull	Mill	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
2301	28884	79.1	66.6	55.8	5.18	2.24	2.31	SB	OC	5.0	21.53	61
2302	28206	82.0	70.8	59.5	6.10	2.25	2.71	LB	VOC	7.0	24.31	22
2303	28883	80.4	68.0	56.2	6.02	2.09	2.88	LB	VOC	4.0	23.32	22
2304	Vivekdhan-86 (NC)	83.4	66.5	53.9	5.28	2.47	2.13	SB	OC	4.0	24.25	22
2305	28890	79.1	67.1	58.8	6.73	2.05	3.28	LS	VOC	4.0	23.05	66
2306	28895	80.8	70.5	62.4	6.70	2.05	3.26	LS	VOC	5.0	23.26	22
2307	Shalimar Rice 3	78.5	65.5	52.3	5.47	2.39	2.28	SB	VOC	4.0	25.69	25
2308	28882	80.6	66.7	54.0	6.85	1.96	3.49	LS	VOC	3.0	26.07	22
2309	28196	79.9	67.0	55.2	5.29	2.29	2.32	SB	VOC	7.0	23.26	52
2310	VL Dhan-85	80.3	67.6	52.6	5.57	2.42	2.30	SB	VOC	4.0	27.07	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. 6.5: Composition of entries in Advance Variety Trial 1- Early (Hills) (AVT 1-E (H), kharif 2022

Entry No.	IET No.	Designation	Cross Combination	GT
2nd Year of testing				
2401	28897	SKUA 547 (K 12-9-1-9-1-2)	Jhelum / DHMAS	MS
2402	29636	VL 32654	VL 30424 / HPR 2644	LS
2403	28880	SKUA 548 (K 13-7-7-5-2)	Jhelum / Pusa Basmati 1509	LS
2404	29635	VL 32699	VL Dhan 65 / VL 32057	LS
2405	**Vivekdhan 86 (NC)**			
2406	29633	HPR 3216	HPU 741 / HPR 2512 // HPR 1149	LS
2407	29638	VL 32651	VL 30424 / HPR 2143	LS
2408	28896	SKUA 558 (K 13-7-7-1-1-1)	Jhelum / Pusa Basmati 1509	LB
2409	**Shalimar Rice-3 (ZC)**			
2410	28893	SKUA 551 (K 12-9-1-9-1-2)	Jhelum / DHMAS	LB
2411	29640	HPR 3212	HPR 2668 / HPR 2216	LS
2412	29641	VL 32678	VL Dhan 208 / VL 30424	LS
2413	29639	TRC CTSM-22-B-B-8-2-1	CT 9993-5-10-1-M / 2* Samba Mahsuri	SB
2414	28887	VL 32558	VL 31329 / Anjali	LB
2415	**Local Check (LC)**			

Table No. 6.6: Grain Yield (kg/ha) in AVT 1 – E (H), Kharif 2022

ENTRY NO	IET NO	LOW_NORTHERN						MEDIUM NORTHERN					
		HIMACHAL PRADESH (1)		NAGALAND (1)		LOW NORTHERN (2)		HIMACHAL PRADESH (1)		UTTARAKHAND (1)		JAMMU & KASHMIR (1)	
		MALAN		Mediziphema - ICAR		Mean		PALAMPUR		Almora- ICAR		Rajouri	
2401	28897	2698		3948		3323		2580	7	1410		3239	
2402	29636	4589	1 * 16%	3867		4228	4	1784		4381	3 13%	3466	
2403	28880	2488		4148	10	3318		2099		1295		4500	5
2404	29635	3347	10	4511	6	3929	9	2379	9	2286	9	3330	
2405	**Vivekdhan 86 (NC)**	3951	4	5356	2	4654	3	2223	10	1552		3534	
2406	29633	3344		4616	5	3980	8	3991	3	2619	8	4068	9
2407	29638	3295		4193	9	3744		3894	5	4238	4 10%	4830	2
2408	28896	3706	5	4107		3907	10	2425	8	2076		4216	7
2409	**Shalimar Rice-3 (ZC)**	3661	7	4767	4	4214	5	4140	1	3867	6	4761	3
2410	28893	3171		4359	8	3765		2652	6	1552		4364	6
2411	29640	3706	5	3559		3633		3905	4	2267	10	4977	1
2412	29641	4358	2 10%	5096	3	4727	1	4120	2	3952	5	4648	4
2413	29639	3482	9	5833	1 9%	4658	2	1685		5095	1 * 32%	3614	10
2414	28887	4075	3	3944		4010	6	2101		4406	2 14%	3386	
2415	**Local Check (LC)**	3540	8	4456	7	3998	7	1544		3765	7	4205	8
Exp. Mean		**3561**		**4451**		**4006**		**2768**		**2984**		**4076**	
CD		549		1499		842		1114		601		639	
CV%		**9.22**		**20.14**		**12.57**		**24.07**		**12.04**		**9.37**	
D/S		10-06-2022		18-06-2022				27-05-2022		26-05-2022		27.05.2022	
D/P		30-06-2022		27-07-2022				04-07-2022		25-06-2022		22.06.2022	
Local Check Name		HPR 1068						HPR 1068		VLD 85		K-39	

Table No. 6.6 (Contd): Grain Yield (kg/ha) in AVT 1 – E (H), Kharif 2022

ENTRY NO	IET NO	MEDIUM NORTHERN		HIGH ELEVATION						HIGH ELEVATION (3)		Overall Mean (8)	
		MEDIUM_NORTHERN (3)		JAMMU & KASHMIR									
		Mean		KHUDWANI		Pombay (Khudwani)		Wadura (Khudwani)		Mean			
2401	28897	2410		6782	4	4963	4	5573	5	5773	6	3899	9
2402	29636	3210	8	4236		2918		3589		3581		3604	
2403	28880	2631		5516	9	3867	7	4408		4597	10	3540	
2404	29635	2665		5487		3432	10	4901	8	4607	9	3709	
2405	**Vivekdhan 86 (NC)**	2436		8453	1	6133	2	7110	3	7232	2	4789	2
2406	29633	3559	5	4179				3400		3790		3745	
2407	29638	4321	1	6472	6	4472	6	5510	6	5485	7	4613	5
2408	28896	2906	10	8330	2	6269	1	7526	1	7375	1	4832	1
2409	**Shalimar Rice-3 (ZC)**	4256	2	6253	7			5489	7	5871	5	4705	3
2410	28893	2856		5873	8	3515	8	4737	9	4708	8	3778	10
2411	29640	3716	4	5496	10	3496	9	4494		4495		3988	8
2412	29641	4240	3	5139		2616		4639	10	4131		4321	7
2413	29639	3465	6	2340		1362		1619		1774		3129	
2414	28887	3298	7	6618	5	4618	5	7199	2	6145	4	4543	6
2415	**Local Check (LC)**	3171	9	7353	3	5287	3	6987	4	6542	3	4642	4
Exp. Mean		**3276**		**5902**		**4073**		**5145**		**5074**		**4123**	
CD		484		763		759		758		432		334	
CV%		**8.84**		**7.73**		**11.06**		**8.81**		**5.1**		**4.84**	
D/S				05-05-2022		13-05-2022		10-05-2022					
D/P				03-06-2022		14-06-2022		09-06-2022					
Local Check Name				Shalimar Rice-4		Shalimar Rice-4		Shalimar Rice-4					

Table No. 6.6 (Contd): Grain Yield (kg/ha) in AVT 1 – E (H), (State Means) Kharif 2022

ENTRY NO	IET NO	STATE MEAN							
		HIMACHAL PRADESH (2)		NAGALAND (1)		UTTARAKHAND (1)		JAMMU & KASHMIR (4)	
		Mean		Mean		Mean		Mean	
2401	28897	2639		3948		1410		5139	7
2402	29636	3187	6	3867		4381	3 13%	3552	
2403	28880	2294		4148	10	1295		4573	10
2404	29635	2863		4511	6	2286	9	4288	
2405	**Vivekdhan 86 (NC)**	3087	8	5356	2	1552		6308	2
2406	29633	3668	4	4616	5	2619	8	3882	
2407	29638	3595	5	4193	9	4238	4 10%	5321	6
2408	28896	3066	9	4107		2076		6585	1
2409	**Shalimar Rice-3 (ZC)**	3901	2	4767	4	3867	6	5501	4
2410	28893	2912	10	4359	8	1552		4622	8
2411	29640	3806	3	3559		2267	10	4616	9
2412	29641	4239	1 8.67%	5096	3	3952	5	4261	
2413	29639	2584		5833	1 9%	5095	1 * 32%	2234	
2414	28887	3088	7	3944		4406	2 14%	5455	5
2415	**Local Check (LC)**	2542		4456	7	3765	7	5958	3
Exp. Mean		**3164**		**4451**		**2984**		**4820**	
CD		612		1499		601		398	
CV%		**11.57**		**20.14**		**12.04**		**4.94**	
D/S				18-06-2022		26-05-2022			
D/P				27-07-2022		25-06-2022			
Local Check Name						VLD 85			

Table No. 6.6(Contd): Grain Yield (kg/ha) in AVT 1–E (H), (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED			
		JAMMU & KASHMIR		MEGHALAYA (0)	
		@Lamoo		@UPPER SHILLONG	
2401	28897	2216	6		
2402	29636	1694	10		
2403	28880	1564			
2404	29635	1593			
2405	**Vivekdhan 86 (NC)**	4142	1	1033	6
2406	29633			1500	2
2407	29638	3059	4	433	9
2408	28896	3950	2	510	8
2409	**Shalimar Rice-3 (ZC)**			1500	2
2410	28893	2460	5		
2411	29640	2083	7		
2412	29641	1613		2450	1
2413	29639	1711	9	1200	5
2414	28887	1734	8	833	7
2415	**Local Check (LC)**	3696	3	1333	4
Exp. Mean		**2424**		**1199**	
CD		509		260	
CV%		**12.47**		**9.412**	
D/S		10-05-2022		21-04-2022	
D/P		12-06-2022		29-06-2022	
Local Check Name		Shalimar Rice-5		Meg 1	

Table No.6.7: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 1 – E (H), Kharif 2022

ENTRY NO	IET NO	LOW NORTHERN									MEDIUM NORTHERN								
		HIMACHAL PRADESH (1)			NAGALAND (1)			LOW NORTHERN (2)			HIMACHAL PRADESH 2 (1			UTTARAKHAND (1)			JAMMU & KASHMIR (1)		
		MALAN			Mediziphema - ICAR			Mean			PALAMPUR			Almora- ICAR			Rajouri		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
2401	28897	73	131	385	87	99	254	80	115	319	92	111		84	123		101	114	264
2402	29636	91	142	326	96	105	275	93	123	301	110	121		99	123		97	117	286
2403	28880	70	137	300	95	120	268	83	128	284	92	136		81	115		93	122	441
2404	29635	84	145	364	93	110	246	89	127	305	100	118		92	129		98	124	268
2405	Vivekdhan 86 (NC)	72	137	304	89	98	279	81	117	292	93	118		83	116		97	133	320
2406	29633	94	115	350	97	73	277	95	94	313	120	96		103	100		95	118	337
2407	29638	83	142	308	93	103	257	88	123	283	99	115		90	114		84	123	486
2408	28896	74	134	316	96	101	227	85	118	272	93	120		84	121		94	126	378
2409	Shalimar Rice-3 (ZC	82	131	352	87	96	317	84	113	335	100	119		92	115		84	121	482
2410	28893	74	134	308	91	110	296	83	122	302	95	121		84	112		93	126	411
2411	29640	77	137	221	84	95	252	81	116	237	99	115		92	103		82	129	491
2412	29641	86	102	360	90	76	299	88	89	330	105	78		91	102		88	123	447
2413	29639	92	136	318	93	100	283	92	118	300	116	114		105	115		96	115	323
2414	28887	88	147	312	93	102	256	91	124	284	114	121		93	113		97	112	274
2415	Local Check (LC)	84	102	324	85	110	283	85	106	304	96	80		86	122		95	118	371
Exp. Mean		**82**	**131**	**323**	**91**	**100**	**271**	**86**	**116**	**297**	**102**	**112**		**91**	**115**		**93**	**121**	**372**

Table No. 6.7 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 1 – E (H), Kharif 2022

ENTRY NO	IET NO	MEDIUM NORTHERN (3)			HIGH ELEVATION												Overall Mean (8)		
					JAMMU & KASHMIR									HIGH ELECTION (3)					
		Mean			KHUDWANI			Pombay (Khudwani)			Wadura (Khudwani)			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
2401	28897	93	116	254	100	121	369	108	113	310	104	110	337	104	115	339	94	115	309
2402	29636	102	120	282	117	135	343	124	115	283	121	127	310	121	125	312	107	123	300
2403	28880	89	125	316	99	130	350	107	111	304	101	131	359	103	124	338	92	125	316
2404	29635	97	124	258	111	137	308	120	117	308	118	129	307	117	128	308	102	126	293
2405	**Vivekdhan 86 (NC)**	91	123	282	98	124	374	106	113	338	106	113	362	103	116	358	93	119	317
2406	29633	106	105	267	121	95	313				125	94	287	123	95	300	108	99	293
2407	29638	91	117	368	106	129	357	114	117	329	109	127	336	110	124	341	97	121	332
2408	28896	90	122	279	100	137	378	107	112	346	107	125	356	105	124	360	94	122	312
2409	**Shalimar Rice-3 (ZC**	92	118	347	122	121	340				126	120	328	124	121	334	99	117	339
2410	28893	91	120	321	98	123	305	106	108	327	102	115	310	102	115	314	93	118	312
2411	29640	91	116	375	106	121	335	115	112	382	110	114	312	110	116	343	96	116	322
2412	29641	95	101	343	114	94	311	125	88	304	114	99	293	118	94	303	102	95	322
2413	29639	105	115	290	115	102	246	123	90	248	122	98	211	120	97	235	108	109	269
2414	28887	101	115	256	114	122	339	120	110	349	109	123	332	114	118	340	103	118	300
2415	**Local Check (LC)**	92	107	309	101	128	377	109	113	357	106	123	343	106	121	359	95	112	329
Exp. Mean		**95**	**116**	**303**	**108**	**121**	**336**	**114**	**109**	**322**	**112**	**116**	**319**	**112**	**115**	**326**	**99**	**116**	**311**

Table No. 6.7 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 1-E (H), (State Means) Kharif 2022

ENTRY NO	IET NO	STATE MEAN											
		HIMACHAL PRADESH (2)			NAGALAND (1)			UTTARAKHAND (1)			JAMMU & KASHMIR (4)		
		Mean			Mean			Mean			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
2401	28897	83	121	385	87	99	254	84	123	244	103	114	320
2402	29636	101	132	326	96	105	275	99	123	278	115	123	305
2403	28880	81	137	300	95	120	268	81	115	191	100	124	363
2404	29635	92	131	364	93	110	246	92	129	248	112	127	298
2405	**Vivekdhan 86 (NC)**	83	128	304	89	98	279	83	116	243	102	121	349
2406	29633	107	105	350	97	73	277	103	100	197	114	102	312
2407	29638	91	129	308	93	103	257	90	114	250	103	124	377
2408	28896	84	127	316	96	101	227	84	121	179	102	125	365
2409	**Shalimar Rice-3 (ZC)**	91	125	352	87	96	317	92	115	212	111	121	383
2410	28893	85	127	308	91	110	296	84	112	231	100	118	338
2411	29640	88	126	221	84	95	252	92	103	259	103	119	380
2412	29641	96	90	360	90	76	299	91	102	238	110	101	339
2413	29639	104	125	318	93	100	283	105	115	257	114	101	257
2414	28887	101	134	312	93	102	256	93	113	238	110	116	324
2415	**Local Check (LC)**	90	91	324	85	110	283	86	122	246	103	121	362
Exp. Mean		**92**	**122**	**323**	**91**	**100**	**271**	**91**	**115**	**234**	**107**	**117**	**338**

Table No.6.7 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 1-E (H), (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED					
		JAMMU & KASHMIR			MEGHALAYA (0)		
		@Lamoo			@UPPER SHILLONG		
		DFF	PH	PAN	DFF	PH	PAN
2401	28897	114	114	267			
2402	29636	123	123	201			
2403	28880	113	113	213			
2404	29635	126		168			
2405	**Vivekdhan 86 (NC)**	112	112	348	86	82	214
2406	29633				86	82	300
2407	29638	120	120	323	81	73	186
2408	28896	113	113	281	79	85	186
2409	**Shalimar Rice-3 (ZC)**				82	85	300
2410	28893	110	110	267			
2411	29640	121	121	236			
2412	29641	124	125	207	88	86	565
2413	29639	126	127	172	89	97	190
2414	28887	124	123	192	77	81	203
2415	**Local Check (LC)**	103	103	209	86	82	
Exp. Mean		**118**	**117**	**261**	**84**	**84**	

Table No. 6.8: Grain quality characteristics of entries in AVT 1-E (H), kharif 2022

Entry No.	IET No.	Hull	Mill	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
2401	28897	79.6	65.7	32.0	5.94	2.06	2.88	MS	VOC	5.0	24.66	22
2402	29636	79.2	67.4	50.2	6.86	2.07	3.31	LS	OC	4.0	24.55	40
2403	28880	79.7	68.6	49.1	6.62	1.95	3.34	LS	VOC	4.0	26.37	35
2404	29635	80.9	68.8	43.6	6.53	2.14	3.05	LS	VOC	4.0	25.75	98
2405	Vivek dhan-86	80.3	67.0	55.6	5.42	2.46	2.20	SB	OC	4.0	24.78	22
2406	29633	82.2	73.5	66.8	6.77	2.04	3.31	LS	VOC	5.0	26.10	60
2407	29638	80.1	69.3	53.4	7.23	1.92	3.76	LS	VOC	4.0	27.42	80
2408	28896	80.6	67.7	43.7	6.34	2.26	2.80	LB	OC	4.0	28.65	55
2409	Shalimar Rice-3	81.3	68.4	53.6	5.50	2.50	2.20	SB	VOC	4.0	25.60	25
2410	28893	81.1	69.4	38.6	6.08	2.08	2.92	LB	VOC	5.0	26.51	57
2411	29640	82.8	70.7	53.2	6.49	2.13	3.04	LS	VOC	4.0	27.45	41
2412	29641	78.2	60.0	35.9	6.28	2.01	3.12	LS	VOC	7.0	26.07	22
2413	29639	80.0	71.2	58.5	5.55	2.37	2.34	SB	VOC	4.0	25.43	22
2414	28897	81.3	70.8	59.7	6.59	2.52	2.61	LB	VOC	5.0	26.31	65
2415	VL Dhan 85	80.7	70.1	55.9	6.01	2.42	2.48	LB	VOC	4.0	27.04	45

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. 6.9: Composition of entries in Initial Variety Trial - Early (Hills) (IVT-E (H), kharif 2022

Entry No.	IET No.	Designation	Cross Combination	GT
1st Year of testing:				
2501	30482	SKUA-562 (K 15-12-1-1-2)	K-39 / Vldhan-85 // K-39 /// K-39	SB
2502	30483	RCPL 1-438	RCM 15-Manipur Local	LS
2503	30484	SKUA-566 (K 15-10-3-1)	Pusa Sugandh-3 / Mushkbudji // Pusa Sughandh-3 // Pusa Sugandh-3	SB
2504	30485	TRC CTSM-71-B-B-6-1-1	CT 9993-5-10-1-M / 2 / Sambha Mahsuri	MS
2505	**Vivekdhan 86 (NC)**			
2506	30486	SKUA-564 (K 15-20-1-1-1)	Jhelum / S-44	LS
2507	30487	TRC BN-78-B-B-7-7-6	Bhalum 3 / Naveen	MS
2508	30488	SKUA-568 (K09-2-2-1)	SKUA-292 / SR-2	SB
2509	30489	CAUS 122	Shahsarang / DHMAS // Shahsarang	MS
2510	30490	VL 32838	VL Dhan 85 / VL 32056	LS
2511	30491	SKUA-561 (K 15-10-6-1-1	Pusa-3 / Mushkbudji / Pusa-3 /// Pusa-3	SB
2512	30492	HPR 3232	Bhalum / HPR 2143	LS
2513	**Shalimar Rice-3 (ZC)**			
2514	30493	SKUA-560 (K 15-10-4-12-1)	Pusa-3 / Mushkbudji / Pusa-3 /// Pusa-3	SB
2515	30494	VL 32835	VL Dhan 85 / VL 32056	LS
2516	30495	SKUA-572 (K11-9-1-1-1-2)	Jhelum / R24	SB
2517	30496	TRC GN-33-b-b-51-9-2	Gomati / Tripura Nirog	LS
2518	30497	SKUA-565 (K 15-21-1-2-2)	Jhelum / IR64	MS
2519	30498	RCPL 1-437	Bapana / Megha Collection 1	LS
2520	30499	SKUA-563 (K-15-18-3-1	K-332 / Heera // SR-5 /// SR-5	LS
2521	30500	VL 32769	VL Dhan 85 / HPR 2143	LS
2522	30501	HPR 3233	Achoo / HPR2512 // HPR 2143	LS
2523	30502	SKUA-567 (K 15-10-3-3)	Pusa Sugandh-3 / Mushkbudji // Pusa Sugandh-3 /// Pusa Sugandh-3	SB
2524	**Local Check (LC)**			

Table No. 6.10: Grain Yield (kg/ha) in IVT – E (H), Kharif 2022

ENTRY NO	IET NO	LOW_NORTHERN (1)				MEDIUM_NORTHERN					
		NAGALAND (1)		LOW_NORTHERN (1)		HIMACHAL PRADESH 2 (1)		JAMMU & KASHMIR 1 (1)		MEDIUM_NORTHERN (2)	
		Mediziphema - ICAR		Mean		Palampur		Rajouri		Mean	
2501	30482	2589		2589		1530		3320		2425	
2502	30483	4478	2	4478	2	3065	8	4864	5	3965	5
2503	30484	2811		2811		2090		3360		2725	
2504	30485	3350		3350		1886		4814	7	3350	
2505	**Vivekdhan 86 (NC)**	3156		3156		4199	1	5292	2	4746	1
2506	30486	3750	5	3750	5	1893		3580		2737	
2507	30487	3356	10	3356	10	1814		3882		2848	
2508	30488	3178		3178		1936		3612		2774	
2509	30489	2744		2744		2196		3481		2839	
2510	30490	3794	4	3794	4	3996	2	5413	1	4705	2
2511	30491	3050		3050		1703		3233		2468	
2512	30492	3033		3033		3402	5	5231	3	4317	3
2513	**Shalimar Rice-3 (ZC)**	3411	9	3411	9	3245	7	3462		3354	10
2514	30493	3217		3217		2155		4019		3087	
2515	30494	2672		2672		3953	3	4091	9	4022	4
2516	30495	2633		2633		2303	10	3574		2939	
2517	30496	3583	7	3583	7	1935		5140	4	3538	8
2518	30497	3050		3050		1455		4850	6	3153	
2519	30498	4833	1	4833	1			3113		3113	
2520	30499	3472	8	3472	8	1913		4056	10	2985	
2521	30500	3006		3006		3280	6	3614		3447	9
2522	30501	3161		3161		3800	4	3958		3879	6
2523	30502	3644	6	3644	6	2208		3880		3044	
2524	**Local Check (LC)**	4194	3	4194	3	2979	9	4342	8	3661	7
Exp. Mean		**3340**		**3340**		**2563**		**4091**		**3338**	
F Value		2.77(p=0.0086)S		2.77(p=0.0086)S		5.19(p<0.0001)S		5.08(p<0.0001)S		6.26(p<0.0001)S	
CD		1047		1047		1104		919		746	
CV%		**15.16**		**15.16**		**20.77**		**10.86**		**10.81**	
D/S		18-06-2022				27-05-2022		27-05-2022			
D/P		27-07-2022				04-07-2022		23-06-2022			
Local Check Name						HPR 1068		K-39			

Table No. 6.10 (Contd): Grain Yield (kg/ha) in IVT – E (H), Kharif 2022

ENTRY NO	IET NO	MEDIUM SOUTHERN				HIGH ELEVATION										Overall Mean (8)	
		TAMILNADU (1)		MEDIUM SOUTHERN (1)		JAMMU & KASHMIR 2								HIGH ELEVATION (4)			
		Gudaluru		Mean		Larnoo		KHUDWANI		Pombay (Khudwani)		Wadura (Khudwani)		Mean			
2501	30482	3221		3221		1630		7174		4180		6606		4898		3781	
2502	30483	6057	3	6057	3	1287		7018		3891		6913	9	4777		4697	8
2503	30484	4508	10	4508	10	1763		6605		3413		5945		4432		3812	
2504	30485	4795	9	4795	9			4264				4123		4194		3872	
2505	**Vivekdhan 86 (NC)**	4836	8	4836	8	3550	4	8672	3	4938	8	7404	5	6141	6	5256	2
2506	30486	3049		3049		3359	6	8218	6	4359		8396	1	6083	7	4576	9
2507	30487	5492	5	5492	5	1995		3863		1313		1476		2162		2899	
2508	30488	2893		2893		1384		6625		4379	10	5962		4588		3746	
2509	30489	4057		4057		2183		5371		3400		4834		3947		3533	
2510	30490	4959	7	4959	7	2925	7	7311	9	4988	7	6580		5451	9	4996	4
2511	30491	3803		3803		5728	1	8747	1	5978	2	7670	3	7031	1	4989	5
2512	30492	3533		3533		3537	5	8710	2	5738	3	7839	2	6456	4	5128	3
2513	**Shalimar Rice-3 (ZC)**	3648		3648		2858	8	7683	8	4780	9	6943	8	5566	8	4504	10
2514	30493	2676		2676		2090		6084		3894		5559		4407		3712	
2515	30494	3689		3689		2250	10	7256	10	5090	6	6794	10	5348		4474	
2516	30495	3000		3000		5588	2	8481	5	6275	1 *	7633	4	6994	2	4936	6
2517	30496	3689		3689				4157		1688		3846		3230		3434	
2518	30497	6148	2	6148	2	2325	9	6855		4213		6020		4853		4365	
2519	30498	6230	1	6230	1			1375				988		1182		3308	
2520	30499	3443		3443		1494		6511		1994		5360		3840		3530	
2521	30500	3385		3385				8635	4	4274		6771		6560	3	4709	7
2522	30501	5041	6	5041	6	2220		5767		2322				3436		3753	
2523	30502	3311		3311		1743		6916		5605	4	7224	6	5372	10	4316	
2524	**Local Check (LC)**	5984	4	5984	4	5178	3	8193	7	5140	5	7010	7	6380	5	5378	1
Exp. Mean		**4227**		**4227**		**2754**		**6687**		**4175**		**5995**		**4888**		**4237**	
F Value		127.99(p<0.0001)S		127.99(p<0.0001)S		50.72(p<0.0001)S		17.66(p<0.0001)S		17.23(p<0.0001)S		17.26(p<0.0001)S		35.79(p<0.0001)S		24.82(p<0.0001)S	
CD		287		287		553		1253		951		1304		705		398	
CV%		**3.28**		**3.28**		**9.59**		**9.06**		**10.95**		**10.49**		**6.97**		**4.54**	
D/S		20-07-2022				10-05-2022		05-05-2022		13-05-2022		10-05-2022					
D/P		23-08-2022				14-06-2022		03-06-2022		16-06-2022		09-06-2022					
Local Check Name		CO 51				Shalimar Rice-5		Shalimar Rice-4		Shalimar Rice-4		Shalimar Rice-4					

Table No. 6.10 (Contd): Grain Yield (kg/ha) in IVT – E (H), (State Means) Kharif 2022

ENTRY NO	IET NO	STATE MEAN											
		NAGALAND (1)		HIMACHAL PRADESH 2 (1)		JAMMU & KASHMIR 1 (1)		TAMILNADU (1)		JAMMU & KASHMIR 2 (4)		JAMMU & KASHMIR (5)	
		Mean		Mean		Mean		Mean		Mean		Mean	
2501	30482	2589		1530		3320		3221		4898		4582	
2502	30483	4478	2	3065	8	4864	5	6057	3	4777		4795	
2503	30484	2811		2090		3360		4508	10	4432		4217	
2504	30485	3350		1886		4814	7	4795	9	4194		4400	
2505	**Vivekdhan 86 (NC)**	3156		4199	1	5292	2	4836	8	6141	6	5971	5
2506	30486	3750	5	1893		3580		3049		6083	7	5582	7
2507	30487	3356	10	1814		3882		5492	5	2162		2506	
2508	30488	3178		1936		3612		2893		4588		4392	
2509	30489	2744		2196		3481		4057		3947		3854	
2510	30490	3794	4	3996	2	5413	1	4959	7	5451	9	5443	8
2511	30491	3050		1703		3233		3803		7031	1	6271	2
2512	30492	3033		3402	5	5231	3	3533		6456	4	6211	3
2513	**Shalimar Rice-3 (ZC)**	3411	9	3245	7	3462		3648		5566	8	5145	9
2514	30493	3217		2155		4019		2676		4407		4329	
2515	30494	2672		3953	3	4091	9	3689		5348		5096	10
2516	30495	2633		2303	10	3574		3000		6994	2	6310	1
2517	30496	3583	7	1935		5140	4	3689		3230		3708	
2518	30497	3050		1455		4850	6	6148	2	4853		4853	
2519	30498	4833	1			3113		6230	1	1182		1825	
2520	30499	3472	8	1913		4056	10	3443		3840		3883	
2521	30500	3006		3280	6	3614		3385		6560	3	5824	6
2522	30501	3161		3800	4	3958		5041	6	3436		3567	
2523	30502	3644	6	2208		3880		3311		5372	10	5074	
2524	**Local Check (LC)**	4194	3	2979	9	4342	8	5984	4	6380	5	5973	4
Exp. Mean		**3340**		**2563**		**4091**		**4227**		**4888**		**4742**	
F Value		2.77(p=0.0086)S		5.19(p<0.0001)S		5.08(p<0.0001)S		127.99(p<0.0001)S		35.79(p<0.0001)S		29.26(p<0.0001)S	
CD		1047		1104		919		287		705		614	
CV%		**15.16**		**20.77**		**10.86**		**3.28**		**6.97**		**6.26**	
D/S		18-06-2022		27-05-2022		27-05-2022		20-07-2022					
D/P		27-07-2022		04-07-2022		23-06-2022		23-08-2022					
Local Check Name				HPR 1068		K-39		CO 51					

Table No.6.10 (Contd): Grain Yield (kg/ha) in IVT – E (H), (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED			
		HIMACHAL PRADESH 1 (0)		UTTARAKHAND (0)	
		@MALAN		@Almora- ICAR	
2501	30482	2392		741	
2502	30483	2938	4	4139	2
2503	30484	2073		1426	
2504	30485	2289		3093	8
2505	**Vivekdhan 86 (NC)**	3209	2	3509	6
2506	30486	1726		1333	
2507	30487	2397	10	1898	
2508	30488	2181		787	
2509	30489	2603	7	2009	10
2510	30490	3290	1	4102	3
2511	30491	1120		1389	
2512	30492	2749	5	3537	5
2513	**Shalimar Rice-3 (ZC)**	2073		1111	
2514	30493	1071		843	
2515	30494	2960	3	4220	1
2516	30495	2316		1306	
2517	30496	2370		3380	7
2518	30497	2722	6	1759	
2519	30498				
2520	30499	1342		1296	
2521	30500	2208		1056	
2522	30501	2581	8	3935	4
2523	30502	1504		1657	
2524	**Local Check (LC)**	2489	9	2778	9
Exp. Mean		**2287**		**2231**	
F Value		16.50(p<0.0001)S		62.20(p<0.0001)S	
CD		432		448	
CV%		**9.1**		**9.68**	
D/S		10-06-2022		26-05-2022	
D/P		04-07-2022		28-06-2022	
Local Check Name		HPR 1068		VLD 85	

Table No. 6.11: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – E (H), Kharif 2022

ENTRY NO	IET NO	LOW NORTHERN						MEDIUM NORTHERN								
		NAGALAND (1)			LOW NORTHERN (1)			HIMACHAL PRADESH 2 (1)			JAMMU & KASHMIR 1 (1)			MEDIUM NORTHERN (2)		
		Mediziphema - ICAR			Mean			Palampur			Rajouri			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
2501	30482	75	89	263	75	89	263	96	97		93	112	275	94	105	275
2502	30483	96	78	337	96	78	337	118	88		102	110	473	110	99	473
2503	30484	93	92	269	93	92	269	94	116		82	117	280	88	117	280
2504	30485	94	91	250	94	91	250	121	105		96	104	475	108	105	475
2505	**Vivekdhan 86 (NC)**	91	101	298	91	101	298	99	108		106	99	529	102	103	529
2506	30486	91	94	293	91	94	293	96	93		94	98	284	95	96	284
2507	30487	94	99	355	94	99	355	121	89		103	118	350	112	104	350
2508	30488	77	99	230	77	99	230	95	108		94	98	300	94	103	300
2509	30489	97	72	389	97	72	389	113	86		93	112	321	103	99	321
2510	30490	85	93	498	85	93	498	99	107		85	94	528	92	101	528
2511	30491	89	84	231	89	84	231	104	106		100	107	280	102	106	280
2512	30492	87	95	290	87	95	290	98	92		92	102	503	95	97	503
2513	**Shalimar Rice-3 (ZC)**	82	93	228	82	93	228	96	93		96	102	287	96	98	287
2514	30493	88	100	205	88	100	205	100	121		87	112	346	94	117	346
2515	30494	92	78	254	92	78	254	103	100		109	118	368	106	109	368
2516	30495	78	87	286	78	87	286	97	94		90	111	291	94	103	291
2517	30496	94	89	346	94	89	346	105	91		91	119	497	98	105	497
2518	30497	92	106	178	92	106	178	100	111		89	113	484	94	112	484
2519	30498	99	134	319	99	134	319				100	115	272	100	115	272
2520	30499	95	114	359	95	114	359	97	116		96	121	339	96	119	339
2521	30500	94	100	311	94	100	311	97	112		92	108	307	94	110	307
2522	30501	98	90	424	98	90	424	111	98		104	106	335	107	102	335
2523	30502	93	92	276	93	92	276	100	121		98	112	315	99	116	315
2524	**Local Check (LC)**	93	87	316	93	87	316	97	90		93	92	351	95	91	351
Exp. Mean		**90**	**94**	**300**	**90**	**94**	**300**	**102**	**102**		**95**	**108**	**366**	**99**	**105**	**366**

Table No. 6.11 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – E (H), Kharif 2022

ENTRY NO	IET NO	MEDIUM SOUTHERN						HIGH ELEVATION															Overall Mean (8)		
		TAMILNADU (1)			MEDIUM SOUTERN (1)			JAMMU & KASHMIR 2												HIGH ELEVATION (4)					
		Gudaluru			Mean			Larnoo			KHUDWANI			Pombay (Khudwani)			Wadura (Khudwani)			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
2501	30482	82	78	445	82	78	445	114	112	188	98	126	330	108	119	283	102	125	299	105	120	275	96	107	297
2502	30483	98	71	442	98	71	442	123	103	169	112	89	342	123	81	239	113	81	336	118	88	271	110	87	334
2503	30484	88	86	462	88	86	462	114	113	243	97	138	303	108	121	279	106	126	277	106	124	275	98	114	302
2504	30485	101	80	438	101	80	438				122	91	303				120	93	293	121	92	298	109	94	352
2505	**Vivekdhan 86 (NC)**	82	90	382	82	90	382	126	112	278	112	137	417	124	124	328	118	129	379	120	125	350	107	112	373
2506	30486	80	85	248	80	85	248	121	92	316	98	120	378	113	98	321	100	118	381	108	107	349	99	100	317
2507	30487	103	84	446	103	84	446	123	99	193	116	99	207	125	87	160	113	100	193	119	96	188	112	97	272
2508	30488	82	86	455	82	86	455	120	105	232	102	137	288	110	111	282	105	124	262	109	119	266	98	108	293
2509	30489	91	70	363	91	70	363	124	99	177	118	87	274	127	82	202	125	85	262	123	88	229	111	87	284
2510	30490	92	78	263	92	78	263	117	92	287	103	116	334	111	98	296	106	105	306	109	103	306	100	98	359
2511	30491	92	93	270	92	93	270	115	107	340	98	127	385	107	113	345	102	125	347	105	118	354	101	108	314
2512	30492	96	77	450	96	77	450	120	90	332	104	106	392	114	95	367	102	98	368	110	97	365	101	94	386
2513	**Shalimar Rice-3 (ZC)**	88	101	473	88	101	473	115	109	317	98	124	365	109	109	320	107	111	335	107	113	334	99	105	332
2514	30493	95	107	279	95	107	279	118	109	231	101	144	321	119	121	241	110	133	281	112	127	268	102	118	272
2515	30494	90	86	397	90	86	397	120	109	234	104	118	344	115	115	319	107	119	294	111	115	298	105	105	316
2516	30495	82	76	240	82	76	240	114	105	335	96	114	427	106	111	350	95	98	383	103	107	373	95	99	330
2517	30496	101	80	348	101	80	348				114	95	294	122	90	168	113	87	256	116	91	239	106	93	318
2518	30497	90	102	397	90	102	397	118	115	311	100	131	325	110	116	315	101	123	289	107	121	310	100	115	328
2519	30498	96	62	433	96	62	433				122	134	161				126	138	180	124	136	170	108	117	273
2520	30499	88	102	260	88	102	260	117	115	275	102	146	365	108	120	179	110	133	337	109	128	289	101	121	302
2521	30500	88	89	288	88	89	288				110	125	389	122	112	330	111	120	355	114	119	358	102	109	330
2522	30501	101	79	417	101	79	417	126	100	176	113	109	246	126	81	186				122	97	203	111	95	297
2523	30502	91	91	275	91	91	275	114	109	217	97	140	303	108	115	312	100	127	280	104	123	278	100	113	282
2524	**Local Check (LC)**	100	77	430	100	77	430	102	85	302	100	126	315	110	112	355	106	122	354	104	112	332	100	99	346
Exp. Mean		**91**	**85**	**371**	**91**	**85**	**371**	**118**	**104**	**257**	**105**	**120**	**325**	**115**	**106**	**281**	**108**	**114**	**306**	**112**	**111**	**291**	**103**	**104**	**317**

Table No. 6.11 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT-E (H), (State Means) Kharif 2022

ENTRY NO	IET NO	STATE MEAN																	
		NAGALAND (1)			HIMACHAL PRADESH 2 (1)			JAMMU & KASHMIR 1 (1)			TAMILNADU (1)			JAMMU & KASHMIR 2 (4)			JAMMU & KASHMIR (5)		
		Mean			Mean			Mean			Mean			Mean			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
2501	30482	75	89	263	96	97		93	112	275	82	78	445	105	120	275	103	119	275
2502	30483	96	78	337	118	88		102	110	473	98	71	442	118	88	271	114	93	312
2503	30484	93	92	269	94	116		82	117	280	88	86	462	106	124	275	101	123	276
2504	30485	94	91	250	121	105		96	104	475	101	80	438	121	92	298	113	96	357
2505	Vivekdhan 86 (NC)	91	101	298	99	108		106	99	529	82	90	382	120	125	350	117	120	386
2506	30486	91	94	293	96	93		94	98	284	80	85	248	108	107	349	105	105	336
2507	30487	94	99	355	121	89		103	118	350	103	84	446	119	96	188	116	101	220
2508	30488	77	99	230	95	108		94	98	300	82	86	455	109	119	266	106	115	273
2509	30489	97	72	389	113	86		93	112	321	91	70	363	123	88	229	117	93	247
2510	30490	85	93	498	99	107		85	94	528	92	78	263	109	103	306	104	101	350
2511	30491	89	84	231	104	106		100	107	280	92	93	270	105	118	354	104	116	339
2512	30492	87	95	290	98	92		92	102	503	96	77	450	110	97	365	106	98	392
2513	Shalimar Rice-3 (ZC)	82	93	228	96	93		96	102	287	88	101	473	107	113	334	105	111	325
2514	30493	88	100	205	100	121		87	112	346	95	107	279	112	127	268	107	124	284
2515	30494	92	78	254	103	100		109	118	368	90	86	397	111	115	298	111	116	312
2516	30495	78	87	286	97	94		90	111	291	82	76	240	103	107	373	100	108	357
2517	30496	94	89	346	105	91		91	119	497	101	80	348	116	91	239	110	98	304
2518	30497	92	106	178	100	111		89	113	484	90	102	397	107	121	310	103	120	345
2519	30498	99	134	319				100	115	272	96	62	433	124	136	170	116	129	204
2520	30499	95	114	359	97	116		96	121	339	88	102	260	109	128	289	106	127	299
2521	30500	94	100	311	97	112		92	108	307	88	89	288	114	119	358	109	116	345
2522	30501	98	90	424	111	98		104	106	335	101	79	417	122	97	203	117	99	236
2523	30502	93	92	276	100	121		98	112	315	91	91	275	104	123	278	103	120	285
2524	Local Check (LC)	93	87	316	97	90		93	92	351	100	77	430	104	112	332	102	108	335
Exp. Mean		**90**	**94**	**300**	**102**	**102**		**95**	**108**	**366**	**91**	**85**	**371**	**112**	**111**	**291**	**108**	**111**	**308**

Table No. 6.11 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT-E (H), (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED					
		HIMACHAL PRADESH 1 (0)			UTTARAKHAND (0)		
		@MALAN			@Almora- ICAR		
		DFF	PH	PAN	DFF	PH	PAN
2501	30482	78	120	240	80	96	111
2502	30483	98	93	390	98	86	306
2503	30484	83	131	381	92	116	156
2504	30485	104	110	354	105	99	285
2505	Vivekdhan 86 (NC)	83	133	273	91	113	190
2506	30486	70	112	240	80	107	174
2507	30487	103	119	336	105	89	200
2508	30488	77	135	267	84	116	181
2509	30489	85	91	321	102	78	202
2510	30490	83	128	360	90	105	255
2511	30491	87	133	243	91	109	205
2512	30492	86	114	306	91	95	219
2513	Shalimar Rice-3 (ZC)	79	128	285	84	111	174
2514	30493	83	143	327	90	119	128
2515	30494	86	131	336	92	105	231
2516	30495	71	125	282	84	107	167
2517	30496	99	116	336	103	91	261
2518	30497	81	142	246	87	120	206
2519	30498						
2520	30499	79	141	279	87	117	206
2521	30500	86	143	291	96	107	182
2522	30501	93	116	288	105	101	255
2523	30502	83	132	351	90	119	176
2524	Local Check (LC)	84	99	249	88	105	217
Exp. Mean		**85**	**123**	**304**	**92**	**104**	**204**

ADVANCE VARIETY TRIAL 2 – MEDIUM (HILLS) AVT 2-M (H)

Locations : 14 **Test Entries:4**

Checks : Vivekdhan 62 (NC), VL Dhan 68 (NC), VL Dhan 65 (ZC for North & South), RC Maniphou 11 (ZC for North East) and Local Check **Table: 6.12**

AVT 2 – M (H) trial was constituted with a total of 8 entries including 4 test entries (third year of testing) and 4 checks – Vivekdhan 62 (NC), VL Dhan 68 (NC), ZC: VL Dhan 65 (North/South) and RC Maniphou 11 (North East), a Local Check. The trial was sent to 20 locations of various altitudes and data was received from 14 locations and remaining 6 locations viz., CAU Imphal, Kohima, Pombay, Badarwa, Dhaulakaun and Gudaluru did not send the data. Even though 14 locations sent the data, 8 locations data was not considered for analysis due to low grain yield (Sirsi, ICAR-Barapani, ICAR-Almora, Bajura and Upper Shillong), High CV (Lamphelpat-ICAR), low CV (Wangbal) and rat damage (Gangtok). The data from remaining six locations (CAU Barapani, Malan, Sundernagar, Rajouri, Khudwani and Wadura) was considered for analysis and interpretation. Overall mean yield ranged from 3797 kg/ha (IET 28222) to 5282 kg/ha (IET 28217); days to 50% flowering ranged from 92 days (IET 28224) to 108 days (Zonal check); plant height varied from 96.64 cm (IET 28222) to 117.95 (NC Vivekdhan 62); number of panicles/m^2 ranged from 331 (Zonal check) to 384 (Local check). **On overall mean grain yield, none of the entries outperformed the best check (Local check). Therefore, none of the entries got promoted on overall mean basis.** The data pertaining to yield, flowering, plant height and panicles/m2 and quality were presented in tables 6.13, 6.14 and 6.15. Performance of the test entries at different elevations is discussed below.

Low altitude Northern (≤ 950 MSL)

Under Low altitude northern region, the data for AVT 2-M (H) trial was received from five locations of which the data from Lamphelpat-ICAR (High CV 27.17%) and Wangbal (Low CV 1.31%) was not considered for analysis. The data from CAU-Barapani, Malan and Sundernagar was considered for analysis and interpretations are drawn. The mean grain yield of the entries ranged from 3310 kg/ha (IET 28224) to 4255 kg/ha (VL Dhan 68, NC); days to 50% flowering varied from 82 days (IET 28224) to 101 days (IET 28907). Among the checks, National check (VL Dhan 68) recorded highest grain yield of 4255 kg/ha with 91 days to 50% flowering. Among the test entries, none of the entries surpassed the yield of best check (VL Dhan 68, NC), hence **none of the test entries got promoted under Low Northern altitude.**

Low altitude Southern (≤ 950 MSL)

The data from Sirsi location under this altitude was not considered for analysis due to low experimental mean yield (1453 kg/ha), hence **none of the entries got promoted under Low Altitude Southern region.**

Medium altitude Northern (951-1500 MSL)

AVT-2-M (H) trial was conducted in 4 locations under medium altitude northern region, but data from only one location viz., Rajouri was considered for analysis. Data from ICAR Barapani, ICAR-Almora and Bajura was not considered for analysis due to low grain yield.

The mean grain yield at medium altitude northern ranged from 3688 kg/ha (VL Dhan 68, NC) to 5003 kg/ha (Vivekdhan 62, NC); days to 50% flowering varied between 93 days (IET 28217 & IET 28222) and 107 days (Zonal Check). Among the checks, National check (Vivekdhan 62 recorded highest yield of 5003 kg/ha with 86 days to 50% flowering. None of the test entries are superior to best Check i.e national check, Vivekdhan 62, **hence none of the entries are promoted to third year of testing in medium altitude Northern locations.**

Medium altitude Southern (951-1500 MSL)

AVT-2-M (H) trial was sent to only one location i.e. Gudaluru under medium altitude southern region. The data was not received from this location; **hence none of the entries are promoted under medium southern altitude.**

High altitude (>1500 MSL)

AVT 2-M (H) trial was conducted at three locations i.e. Khudwani, Wadura and Upper Shillong under High altitudes. However, data of Upper Shillong was not considered due to low mean grain yield. The data from only two centers viz., Khudwani and Wadura centers was considered for analysis and interpretation. The mean grain yield at high altitude northern ranged from 3374 kg/ha (IET 28222) 8386 kg/ha (IET 28217); days to 50% flowering varied between 100 days (Local check) and 126 days (Zonal check). Among the checks, local check produced highest grain yield of 7257 kg/ha with 100 days to 50% flowering. Among the test entries, two entries viz., IET 28217 and IET 28224 recorded yield advantage of 16% and 7% respectively over best check (Local check). **HRR of both IET 28217 and IET 28224 was 37.5% and 43.9% respectively, hence these two entries are discontinued.**

Performance of the entries in AVT 2- M (H), Kharif 2022 at High altitude

Rank	IET No / Designation/ Cross combination	Grain Yield (Kg/ha)/ Days to 50% flowering/ Grain type	%Yield superiority over (NC, NC, ZC, LC)	Quality data HRR (%)/AC (%) / GC (mm)/ASV
1	**IET 28217** SKUA 533-2 Jhelum / Shalimar Rice-1 //Jhelum	8386 107 SB	24.9 107.7 80.23 **15.56**	**37.5** 24.34 22 4.0
2	**IET 28224** SKUA 535 Vivekdhan 82 / Shalimar Rice-3	7511 103 SB	16.15 93.16 67.59 **7.45**	**43.9** 24.9 22 4.0
	Vivekdhan 62 (NC)	6714 113		
	VL Dhan 68 (NC)	4037 115		
	Zonal Check (ZC)	4653 126		
	Local Check (LC)	***7257*** ***100***		

Note: The entries IET 28217 and IET 28224 recorded Low HRR during Kharif 2022

Three year's performance of four entries:

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 28907** CAUS 124 (ULRC 26-11-2-1-1) Kasalath / Borodhan	2020	18	MN 11 ML 24	6	UK 6	-	-	-	-
		2021	-	MN 5	-	-	10	TN 10	-	-
		2022	-	-	-	-	-	-	-	-
2	**IET 28217** SKUA 533-2 Jhelum / Shalimar Rice-1 // Jhelum	2020	-	-	-	-	-	-	9	JK 9
		2021	-	-	-	JK 9	-	-	5	JK 5
		2022	-	-	-	-	-	-	16 *	JK 16
3	**IET 28222** TRC BN-1818-B-B-23-7-1 Bhalum 3 / Naveen	2020	6	MN 14	-	-	-	-	-	-
		2021	-	-	-	-	-	TN 21	-	-
		2022	-	-	-	-	-	-	-	-
4	**IET 28224** SKUA 535 Vivekdhan 82 / Shalimar Rice-3	2020	-	-	-	-	-	-	11	JK 11
		2021	-	-	-	JK 12	-	-	7	JK 7
		2022	-	-	-	-	-	-	7 *	JK 7

*** The entries IET 28217 and IET 28224 recorded Low HRR during 2022, hence discontinued.**

IET 28907 (CAUS 124) (ULRC 26-11-2-1-1) derived from the cross Kasalath / Borodhan showed yield superiority over best check Low northern hills (Manipur and Meghalaya) and Medium northern hills (Uttarkhand) during 2020. The entry has shown better performance than best check in Southern medium hills (Tamil Nadu) and also in Manipur during 2021. Among all three years of testing, this entry has shown superior yield over best check only in Manipur state. The entry exhibited HRR of 55.2%, Amylose content of 25.31%, GC of 22% and ASV 5.0. **It is found promising only for the state of Manipur.**

IET 28217 (SKUA 533-2) obtained from the cross Jhelum / Shalimar Rice-1 // Jhelum showed yield superiority over best check for all the three years of testing 2020, 2021 and 2022 under High hill situations in the state of Jammu and Kashmir. It has shown yield superiority over best check during 2021 under medium northern hills (Jammu and Kashmir). The entry exhibited HRR of 37.5%, Amylose content of 24.34%, GC of 22% and ASV 4.0. **Due to unacceptable grain quality character (low HRR of 37.5%), the entry is discontinued.**

IET 28222 (TRC BN-1818-B-B-23-7-1) a product from the cross Bhalum 3 / Naveen has shown yield superiority over best check during 2020 in low northern region (Manipur) and in the state of Tamil nadu during 2021. It has showed the grain characteristics of HRR 60.8%, Amylose content of 23.9%, GC 45 and ASV 7.0. **Due to its inconsistent performance in yield during last three years, the entry IET 28222 is discontinued**.

IET 28224 (SKUA 535) derived from the cross Vivekdhan 82 / Shalimar Rice-3 showed yield superiority over best check for all the three years of testing 2020, 2021 and 2022 under High hill situations in the state of Jammu and Kashmir. It has also showed yield superiority over best check during 2021 under medium northern hills (Jammu and Kashmir). The entry exhibited HRR of 43.9%, Amylose content of 24.9%, GC of 22% and ASV 4.0. **Due to unacceptable grain quality character (low HRR of 43.9%), the entry is discontinued.**

ADVANCE VARIETY TRIAL 1 – MEDIUM (HILLS) AVT 1-M (H)

Locations : 11 **Test Entries:8**

Checks : Vivekdhan 62 (NC), VL Dhan 68 (NC), VL Dhan 65 (ZC for North & South), RC Maniphou 11 (ZC for North East) and Local Check **Table: 6.16**

AVT 1 – M (H) trial was constituted with 15 entries including 8 test entries, 4 checks – Vivekdhan 62 (NC), VL Dhan 68 (NC), ZC: VL Dhan 65 (North/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 8 test entries, six entries were in second year of testingand remaining 2 NIL entries were in first year of testing.The trial was sent to 20 locations of various altitudes and data was received from 11 locations and remaining nine locations viz., CAU Imphal, Kohima, Pombay, Rajouri, Badarwa, Sundernagar, Bajaura, Dhaulakaun, Gudaluru did not send the data. Even though 11 locations sent the data, 7 locations data was not considered for analysis due to low grain yield (Malan, Sirsi, Barapani-ICAR, Upper Shillong), High CV (Lamphelpat-ICAR), low CV (Wangbal) and rat damage (Gangtok). The data from remaining four locations (CAU Barapani, Almora-ICAR, Khudwani and Wadura) was considered for analysis and interpretation.

Overall mean yield ranged from 2940 kg/ha (IET 30503) to 5384 kg/ha (Local check); days to 50% flowering ranged from 90 days (IET 28906) to 111 days (IET 29656 & Zonal check); plant height varied from 105.81 cm (IET 29643) to 125.8 (NC Vivekdhan 62) and number of panicles/m^2 ranged from 262 (IET 29643) to 336 (K-343, Recurrent parent). **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 6.17, 6.18 and 6.19. Performance of the test entries at different elevations was discussed below.

Low altitude Northern (≤ 950 MSL)

AVT1-M (H) trial was sent to six locations of which data was not received from CAU Imphal and Sundernagar. The data from remaining four locations viz., Lamphelpat-ICAR, Wangbal, CAU Barapani and Malan was received. However, the data from three locations viz., Lamphelpat-ICAR (High CV, 41.38%), Wangbal (Low CV, 1.49%) and Malan (Low yield, 1807 kg/ha) was not considered for analysis. The data from CAU Barapani was

considered for analysis. The mean grain yield of the entries ranged from 2153 kg/ha (DHMAS, Donor Parent 1) to 4821 kg/ha (IET 29654); days to 50% flowering varied from 76days (IET 28906) to 101 days (Zonal check and Local check). Among the checks, National check (Vivekdhan 62) recorded highest grain yield of 3919 kg/ha with 81 days to 50% flowering. Among the test entries, IET 29654 ranked first in the trial and yielded 23% higher yield than best check (National check) and is satisfying the required yield advantage of ≥10% (Single location) criteria. But the entry IET 29654 recorded 57.9% HRR, AC of 27.33 and GC of 22%. **Based on unacceptable grain quality parameters, the entry IET 29654 is not promoted to third year of testing. Hence none of the entries got promoted under Low Northern altitude.**

Performance of the entries in AVT 1- M (H), Kharif 2022 at Low Northern altitude

Rank	IET No / Designation/ Cross combination	Grain Yield (Kg/ha)/ Days to 50% flowering/ Grain type	% Yield superiority over (NC, NC, ZC, LC)	Quality data HRR (%)/AC (%) / GC (mm)/ASV
1	**IET 29654** VL 32605 VivekDhan 62 / HPR 2644	4821 92 LB	**47** **23** **73** **34**	57.9 **27.33** **22** 4.0
	VL Dhan 68 (NC)	3276 89		
	Vivekdhan 62 (NC)	3919 81		
	Zonal Check (ZC)	2781 101		
	Local Check (LC) Shasarang	***3603*** ***101***		

Low altitude Southern (≤ 950 MSL)

The trial was sent to two locations, Viz., Sirsi and Ponnampet under low altitude southern region. The data from Ponnampet was not received and the data from Sirsi location showed low experimental mean yield (1264 kg/ha). Hence **none of the entries got promoted under Low altitude Southern.**

Medium altitude Northern (951-1500 MSL)

AVT-1-M (H) trial was sent to 7 locatons viz., Rajouri, Bajaura, ICAR-Almora, Palampur, Bageshwar, Gangtok and ICAR-Barapani. The data from Rajouri, Bajaura, Palampur and Bageshwar was not received. The data was received from3locations Viz., ICAR-Almora, ICAR-Barapani and Gangtok. The data from Gangtok (Rat damage) and ICAR Barapani (Low mean grain yield; 491 kg/ha) was not considered for analysis. Therefore, the data from ICAR-Almora was considered for analysis. The mean grain yield at medium altitude northern ranged from 894 kg/ha (IET 30503) to 4628 kg/ha (IET 29656); days to 50% flowering varied between 77 days (IET 28906 & IET 28914) and 100 days (Local check). Among the checks, National check (VL Dhan 68) recorded highest grain yield of 4261 kg/ha with 93 days to 50% flowering. None of the test entries is satisfying the required yield advantage of ≥10% (Single location) criteria, **hence none of the entries got promoted under Medium Northern altitude.**

Medium altitude Southern (951-1500 MSL)

AVT-1-M (H) trial was sent to only one location i.e., Gudaluru under medium altitude southern region. The data was not received from this location; **hence none of the entries are promoted under medium southern altitude.**

High altitude (951-1500 SL)

AVT1-M (H) trial was sent to 5 locations Viz., Khudwani, Wadura, Upper Shillong, Pombay and Larnoo under high altitude region, but the data from Pombay and Larnoo was not received. The data from Upper Shillong was not considered due to low experimental mean yield (662 kg/ha). Hence data from Khudwani and Wadura was considered for analysis. The mean grain yield at high altitude northern ranged from 3198 kg/ha (IET 28915) to 7954 kg/ha (IET 28906); days to 50% flowering varied between 99 days (IET 28906) and 126 days (IET 29654 & VL Dhan 68). Among the checks, Vivekdhan 62 (National check)produced highest grain yield of7545 kg/hawith 116 days to 50% flowering. Among the test entries, only one entry viz., IET 28906 recorded yield advantage of 5% over best check (National check, Vivekdhan 62). But the entry IET 28906 recorded low HRR of 33.6%, high amylose content of 26.78%. Due to poor grain qualities, it is not qualifying for promotion. **Hence none of the entries are promoted to third year of testing under high altitude region.**

Performance of the entries in AVT 1- M (H), Kharif 2021 at High altitude

Rank	IET No / Designation/ Cross combination	Grain Yield (Kg/ha)/ Days to 50% flowering/ Grain type	% Yield superiority over (NC, NC, ZC, LC)	Quality data HRR (%)/AC (%) / GC (mm)/ASV
1	**IET 28906** SKUA 543 (K-11—5-1-9-4-3 CH1039 / IR 24	7954 116 MS	70.01 **5.42** 60.56 7.05	**33.6** **26.78** 22 4.0
	VL Dhan 68 (NC)	4674 126		
	Vivekdhan 62 (NC)	**7545** **116**		
	Zonal Check (ZC)	4954 122		
	Local Check (LC)	7430 104		

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 K-343. 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 two NILs IET 30503 and IET 30504 were identified as tolerant NILs. The yield performance of these NIL

entries along with recurrent parent and best check at different altitudes are mentioned in the following table.

Grain yield (Kg/ha) of NIL entries in different elevations:

NIL Entry	Low Northern	Medium Northern	High Elevation			Reaction to leaf blast	Reaction to neck blast
	CAU Barapani	ICAR-Almora	Khudwani	Wadura	High Elevation (Mean)		
IET 30503	3255*	894*	4222	3390	3806	4.5	7.5
IET 30504	2484*	1328*	6299	5732	6016	5.2	6.5
K-343 (Recurrent parent)	2390	1278	8316	6984	7650	5.2	6.0
CD	752	634			832		
Recurrent parent ±CD	1638 to 3142	644 to 1912			6852 to 8482		
Best Check	3919	4261	7958	7170	7545		

Based on Recurrent parent ±CD, both the NILs IET 30503 and IET 30504 are having on-par yield with recurrent at low northern and medium northern altitudes. But both are not surpassing required yield advantage under high altitude.

Data on Blast reaction: The data on blast reaction of NILs and Recurrent parent suggests that IET 30503, a NIL of K 343 recurrent parent has shown disease score of 4.5 which is considered as moderately tolerant as against moderately susceptible score of 5.2 of recurrent parent for leaf blast. But another NIL IET 30504 has shown susceptible reaction to leaf blast and neck blast in line with recurrent parent. Both the NILs did not show tolerant reaction for neck blast. This suggests that the targeted genes impart resistance against only leaf blast but not against neck blast. IET 30503 has shown moderate resistance reaction to leaf blast and on-par yield with recurrent parent under low and medium northern hill ecologies.**Hence the entry IET 30503 is promoted to second year of testing under AVT 2 M (H).**

Promotions in AVT 1 M (H)

The entry IET 30503 is promoted to second year of testing under AVT 2 M (H).

INITIAL VARIETY TRIAL - MEDIUM (HILLS) IVT – M (H)

Locations: 20 **Test Entries: 15**

Checks: Vivekdhan 62 (NC) VL Dhan 68 (NC), VL Dhan 65(ZC for North & South), RC Maniphou 11 (ZC forNorth East) and Local Check **Table: 6.20**

The Initial Variety Trial – Medium (Hills) comprised of 15 test entries and our checks *viz.*, National check (Vivekdhan 62 and VL Dhan 68), Zonal Check (VL Dhan 65 for North & South; RC Maniphou 11 Zonal Check for North East) and Local check. The trialwas sent to 20 locations of various altitudes. The trial was not conducted by 7 Centres Viz. Imphal (CAU), Kohima (KHM), Pombay (PMB-KHD), Badarwa (BDW), Sundernagar (SDN), Bajura (BJR) and DaulaKuan (DLK). Among the 13 locations, data from six locations namely Lamphelpat-ICAR (high CV), Wangbal (low CV), Malan (low experimental yield), Sirsi (low experimental yield), Barapani (Umiam) ICAR (high CV) and Gangtok (high CV) was not considered for analysis due to low CV, high CV and low experimental yield.

Overall mean yield ranged from 5672 kg/ha (IET 30518) to 3186 kg/ha (IET 30512); days to 50% flowering ranged from 88 days (IET 30506) to 133 days (IET 30515); plant height varied from 82.58 cm (IET 30515) to 115.75 cm (IET 30511) and number of panicles/m^2 ranged from 294 (IET 30512) to 362 (IET 30518). Among the checks, local check ranked first with grain yield of 5145 kg/ha followed by national check VL Dhan 68 (4793 kg/ha). The data pertaining to yield, flowering, plant height and panicles/m^{2}were presented in tables 6.21and 6.22. Performance of the test entries at different elevations was discussed below.

On the basis of overall mean yield superiority, one entry IET 30518 (VL 32850) obtained from the cross VL Dhan 87 / VL 32056 showed significant yield gain over all the checks with a yield of 5672 kg/ha and 102 days to 50% flowering with long slender grain type.

Performance of promising entries on overall basis in Initial variety Trial -Medium Hills IVT- M (H), Kharif 2022.

Rank	IET No/Designation/Cross combination	Grain Yield (Kg/ha)/ Days to 50% flowering/Grain type
1	IET 30518 VL 32850 VL Dhan 87 / VL 32056	5672* 102 LS
	VL Dhan 68 (NC 1)	4793 101
	Vivekdhan 62 (NC 2)	4047 103
	Zonal Check (ZC)	4036 105
	Local Check (LC)	***5145*** ***102***
	Critical difference (CD at 5%)	***408***

Low altitude Northern (≤ 950 MSL)

IVT-M (H) was conducted at 4 locations (ICAR-Lamphelpat, Wangbal, CAU- Barapani, and Malan) and only data from CAU- Barapani, was considered for analysis. The mean grain yield of the entries ranged from 1115 kg/ha (IET 30510) to 5723 kg/ha (IET VL Dhan 68); days to 50% flowering varied from 77 days (IETs 30506, 30510, 30513 and 30516) to 106 days (Local check). Among the checks, national check (VL Dhan 68) recorded highest grain yield of 5723 kg/ha with 89 days to 50% flowering. Among the test entries, **none of the entries were promoted to second year of testing as they did not possess required yield advantage.**

Low altitude Southern (≤ 950 MSL)

The data from Sirsi location under this altitude was not considered for analysis due to low experimental mean yield.

Medium altitude Northern hills (951-1500 MSL)

IVT-M (H) trial was conducted only at 4 locations, data from two centres were considered for analysis i.e., Almora, Uttarakhand (UK) and Rajouri (Jammu and Kashmir). The mean grain yield at medium altitude northern ranged from 2595 kg/ha (IET 30506) to 5296 kg/ha (IET 30517); days to 50% flowering varied between 81days (IET 30517) and 112 days (IET 30512). Among the checks, National check VL Dhan 68 recorded highest yield of 4852 kg/ha with 92 days to50% flowering.

On the basis of yield improvement over the best check (NC) including CD value, **none of the entries were reported to be promoted for second year of testing**

Medium altitude Southern hills (951-1500 MSL)

IVT-M (H) trial was conducted only at one location, Gudaluru and the data was considered for analysis. The mean grain yield at medium altitude southern hills ranged from 2607 kg/ha (IET 30506) to 6393 kg/ha (IET 30515); days to 50% flowering varied between 79 days (IETs 30506 and 30510) and 108 days (Local check). Among the checks, Local check recorded highest yield of 6352 kg/ha with 108 days to 50% flowering. Based on the criteria for promotion to next level of testing, **none of the entries showed yield superiority**

High altitude hills (≥ 1501 MSL)

IVT-M (H) trial was conducted only at two locations i.e., Khudwani (KHD) and Wadura and data from both the locations was considered. The mean grain yield at high altitude ranged from 1844 kg/ha (IET 30517) to 8428 kg/ha (IET 30513); days to 50% flowering varied between 98 days (IET 30516) and 129 days (IET 30515 and IET 30517). Among the checks, local check recorded highest yield of 7001 kg/ha with 101 days to 50% flowering. On the basis of yield improvement over the best check (LC), two entries IETs 30513 (8428 Kg/ha) and 30506 (8207 Kg/ha) recorded significant yield gain and therefore the entries can be promoted to next level of testing.

Performance of promising entries at High elevated Hills in Initial variety Trial – Medium Hills IVT- M (H), Kharif 2022.

Rank	IET No /Designation/Cross combination	Grain Yield (Kg/ha) Days to 50% flowering/Grain type
1	IET 30513 SKUA-570 (K08-28-11) SR1 / China 1039	8428* 103 SB
2	IET 30506 SKUA-571 (K 11-5-1-9-4-3) China 1039 / IR 24	8207* 102 MS
	VL Dhan 68 (NC)	4514 125
	Vivekdhan 62 (NC)	4314 124
	Zonal Check (ZC)	4098 127
	Local Check (LC)	***7001*** ***101***
	Critical difference (CD at 5%)	***949***

List of the entries promoted in IVT-M (H)

Elevation	Test Entries
Over all basis	**IET 30518**
High Elevation hills (≥ 1501 MSL)	**IET 30513 and IET 30506**

Table No. 6.12: Composition of entries in Advance Variety Trial 2- Medium (Hills) (AVT 2-M (H), kharif 2022

Entry No.	IET No.	Designation	Cross Combination	GT
3rd Year of testing:				
2601	28907	CAUS 124 (ULRC 26-11-2-1-1)	Kasalath / Borodhan	LB
2602	28217	SKUA 533-2	Jhelum / Shalimar Rice-1 // Jhelum	SB
2603	**Vivekdhan 62 (NC)**			
2604	28222	TRC BN-1818-B-B-23-7-1	Bhalum 3 / Naveen	LB
2605	**VL Dhan 68 (NC)**			
2606	28224	SKUA 535	Vivekdhan 82 / Shalimar Rice-3	SB
2607	**VL Dhan 65 (ZC for North & South), RC Maniphou-11 (ZC for North East)**			
2608	**Local Check (LC)**			

Table No. 6.13: Grain Yield (kg/ha) in AVT 2 – M (H), Kharif 2022

ENTRY NO	IET NO	LOW NORTHERN								MEDIUM NORTHERN	
		MEGHALAYA 1(1)		HIMACHAL PRADESH 1				LOW NORTHERN (3)		JAMMU & KASHMIR 1 (1)	
		CAU, Barapani		MALAN		Sundernagar (Malan)		Mean		Rajouri	
2601	28907	5128	1 16%	3894	7	3378	5	4133	2	3903	6
2602	28217	2406	8	4386	2	3782	4	3525	7	4344	3
2603	Vivekdhan 62 (NC)	4413	3	4293	5	2120	7	3609	6	5003	1
2604	28222	4459	2	4591	1	2088	8	3713	5	4898	2
2605	VL Dhan 68 (NC)	4043	5	4346	4	4375	1	4255	1	3688	8
2606	28224	2697	7	4359	3	2875	6	3310	8	4136	5
2607	Zonal Check (ZC)	3895	6	3707	8	4147	2	3916	4	3813	7
2608	Local Check (LC)	4266	4	3932	6	3968	3	4055	3	4193	4
Exp. Mean		**3913**		**4188**		**3342**		**3814**		**4247**	
CD		798		442		216		323		481	
CV%		**13.87**		**7.18**		**4.4**		**5.77**		**7.7**	
D/S		20-06-2022		13-06-2022		27-05-2022				26-05-2022	
D/P		14-07-2022		07-07-2022		22-06-2022				21-06-2022	
Local Check Name		SHAHSARANG		HPR-2143		HPR 2612				K-39	

Table No.6.13 (Contd): Grain Yield (kg/ha) in AVT 2 – M (H), Kharif 2022

ENTRY NO	IET NO	MEDIUM NORTHERN		HIGH ELEVATION						Overall Mean (6)	
		MEDIUM NORTHERN (1)		JAMMU & KASHMIR 2				HIGH ELEVATION (2)			
		Mean		KHUDWANI		Wadura (Khudwani)		Mean			
2601	28907	3903	6	3831	8	3363	7	3597	7	3916	7
2602	28217	4344	3	8661	1	8111	1	8386	1 16%	5282	1
2603	Vivekdhan 62 (NC)	5003	1	5736	4	7691	2	6714	4	4876	4
2604	28222	4898	2	3842	7	2905	8	3374	8	3797	8
2605	VL Dhan 68 (NC)	3688	8	4378	6	3696	6	4037	6	4088	6
2606	28224	4136	5	8658	2	6938	3	7798	2 7%	4944	3
2607	Zonal Check (ZC)	3813	7	5100	5	4206	5	4653	5	4145	5
2608	Local Check (LC)	4193	4	7666	3	6848	4	7257	3	5146	2
Exp. Mean		**4247**		**5984**		**5470**		**5727**		**4358**	
CD		481		1016		1117		1611		545	
CV%		**7.7**		**9.69**		**11.66**		**19.13**		**8.5**	
D/S				06-05-202		11-05-2022					
D/P				02-06-2022		10-06-2022					
Local Check Name				Shalimar Rice-4		Shalimar Rice-4					

Table No. 6.13 (Contd): Grain Yield (kg/ha) in AVT 2 – M (H), (State Means) Kharif 2022

ENTRY NO	IET NO	STATE MEANS							
		MEGHALAYA 1(1)		HIMACHAL PRADESH 1(2)		JAMMU & KASHMIR 2 (2)		JAMMU & KASHMIR (3)	
		Mean		Mean		Mean		Mean	
2601	28907	5128	1 16%	3636	5	3597	7	3699	8
2602	28217	2406	8	4084	2	8386	1 16%	7039	1 13%
2603	Vivekdhan 62 (NC)	4413	3	3207	8	6714	4	6143	4
2604	28222	4459	2	3340	7	3374	8	3882	7
2605	VL Dhan 68 (NC)	4043	5	4361	1	4037	6	3921	6
2606	28224	2697	7	3617	6	7798	2 7%	6577	2 5.5%
2607	Zonal Check (ZC)	3895	6	3927	4	4653	5	4373	5
2608	Local Check (LC)	4266	4	3950	3	7257	3	6236	3
Exp. Mean		**3913**		**3765**		**5727**		**5234**	
CD		798		255		1611		1035	
CV%		**13.87**		**4.61**		**19.13**		**14.08**	

Table No. 6.13 (Contd): Grain Yield (kg/ha) in AVT 2 – M (H), (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED													
		MANIPUR (0)				KARNATAKA (0)		MEGHALAYA 2 (0)		UTTARAKHAND (0)		HIMACHAL PRADESH 2(0)		MEGHALAYA 3 (0)	
		@Lamphelpat-ICAR		@WANGBAL		@SIRSI		@Barapani (Umiam) ICAR		@Almora- ICAR		@Bajura (Malan)		@UPPER SHILLONG	
2601	28907	7371	2	3733	4	3013	1	1068	6	1898	5	507	7	533	4
2602	28217	498	8	3400	6	1067	6	580	7	395	8	3347	1	783	2
2603	Vivekdhan 62 (NC)	836	7	3367	7	1093	5	1449	4	1673	6	401	8		
2604	28222	6182	4	3667	5	2087	2	1526	3	4568	1	1981	3		
2605	VL Dhan 68 (NC)	1402	6	3767	3	1167	4	1069	5	3747	2	1691	4	533	4
2606	28224	2373	5	2733	8	1020	7	1559	1	846	7	2554	2	533	4
2607	Zonal Check (ZC)	9330	1	4500	1	967	8	363	8	3546	3	1133	5		
2608	Local Check (LC)	7314	3	4067	2	1207	3	1529	2	3188	4	1022	6	1333	1
Exp. Mean		**4413**		**3654**		**1453**		**1143**		**2483**		**1580**		**743**	
CD		1763		71		476		541		575		114		279	
CV%		**27.17**		**1.31**		**18.70**		**32.18**		**15.75**		**4.13**		**13.53**	
D/S		13-06-2022		15-06-2022		18-06-2022		19-04-2022		30-05-2022		16-06-2022		21-04-2022	
D/P		11-07-2022		10-07-2022		27-07-2022		27-05-2022		30-06-2022		15-07-2022		28-06-2022	
Local Check Name		RC Maniphou 13		Punshi		PRASANNA		NEH MEGHA RICE 1		VLD 61				Meg 1	

Table No. 6.14: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 – M (H), Kharif 2022

ENTRY NO	IET NO	LOW NORTHERN												MEDIUM NORTHERN		
		MEGHALAYA 1(1)			HIMACHAL PRADESH 1						LOW NORTHERN (3)			JAMMU & KASHMIR 1 (1)		
		CAU, Barapani			MALAN			Sundernagar (Malan)			Mean			Rajouri		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
2601	28907	99	104	461	98	116	339	107	76	392	101	99	397	97	111	324
2602	28217	79	98	264	83	125	306	91	86	448	84	103	339	93	91	369
2603	Vivekdhan 62 (NC)	87	115	282	93	144	362	94	92	429	91	117	358	86	96	493
2604	28222	96	100	326	99	114	315	100	79	393	98	98	344	93	93	485
2605	VL Dhan 68 (NC)	90	105	328	87	126	363	96	92	485	91	107	392	95	87	285
2606	28224	80	104	217	79	131	325	88	96	423	82	110	321	98	95	335
2607	Zonal Check (ZC)	99	74	324	92	132	269	98	94	468	96	100	354	107	90	319
2608	Local Check (LC)	101	100	402	86	112	329	91	61	471	93	91	401	94	87	365
Exp. Mean		**91**	**100**	**325**	**90**	**125**	**326**	**96**	**84**	**438**	**92**	**103**	**363**	**95**	**94**	**372**

Table No. 6.14 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 – M (H), Kharif 2022

ENTRY NO	IET NO	MEDIUM NORTHERN (1			HIGH ELEVATION									Overall Mean (6)		
					JAMMU & KASHMIR 2						HIGH ELEVATION (2)					
		Mean			KHUDWANI			Wadura (Khudwani)			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
2601	28907	97	111	324	123	103	284	121	98	258	122	101	271	107	101	343
2602	28217	93	91	369	104	127	396	110	119	352	107	123	374	93	107	356
2603	Vivekdhan 62 (NC)	86	96	493	112	134	318	114	127	326	113	130	322	98	118	368
2604	28222	93	93	485	120	95	293	126	98	268	123	97	281	106	97	347
2605	VL Dhan 68 (NC)	95	87	285	112	127	315	118	120	279	115	124	297	100	109	342
2606	28224	98	95	335	103	130	404	103	132	335	103	131	370	92	115	340
2607	Zonal Check (ZC)	107	90	319	124	128	316	127	115	292	126	121	304	108	105	331
2608	Local Check (LC)	94	87	365	98	123	382	103	127	354	100	125	368	95	102	384
Exp. Mean		**95**	**94**	**372**	**112**	**121**	**338**	**115**	**117**	**308**	**114**	**119**	**323**	**100**	**107**	**351**

Table No. 6.14 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2-M (H) (State Means) Kharif 2022

ENTRY NO	IET NO	STATE MEANS											
		MEGHALAYA 1(1)			HIMACHAL PRADESH 1(2)			JAMMU & KASHMIR 2 (2)			JAMMU & KASHMIR (3		
		Mean			Mean			Mean			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
2601	28907	99	104	461	102	96	365	122	101	271	114	104	289
2602	28217	79	98	264	87	105	377	107	123	374	102	112	372
2603	Vivekdhan 62 (NC)	87	115	282	94	118	395	113	130	322	104	119	379
2604	28222	96	100	326	100	96	354	123	97	281	113	96	349
2605	VL Dhan 68 (NC)	90	105	328	92	109	424	115	124	297	108	111	293
2606	28224	80	104	217	84	113	374	103	131	370	102	119	358
2607	Zonal Check (ZC)	99	74	324	95	113	368	126	121	304	119	111	309
2608	Local Check (LC)	101	100	402	89	86	400	100	125	368	98	112	367
Exp. Mean		**91**	**100**	**325**	**93**	**105**	**382**	**114**	**119**	**323**	**108**	**111**	**339**

Table No.6.14 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2-M (H) (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED																				
		MANIPUR (0)						KARNATAKA (0)			MEGHALAYA (0)			UTTARAKHAND (0)			HIMACHAL PRADESH 2(0)			MEGHALAYA 3 (0)		
		@Lamphelpat-ICAR			@WANGBAL			@SIRSI			@Barapani (Umiam) ICAR			@Almora- ICAR			@Bajura (Malan)			@UPPER SHILLONG		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
2601	28907	96	138	228	114		279	109	115	293	113	86	315	106	103	234	71	87	213	87	76	130
2602	28217	83	129	206	84		280	89	98	354	112	73	325	93	111	208	63	102	210	77	80	139
2603	Vivekdhan 62 (NC)	91	155	214	93		190	96	124	277	114	86	346	100	117	204	71	92	173	87		
2604	28222	96	122	207	88		197	106	105	249	117	82	345	105	107	217	72	87	150	80		
2605	VL Dhan 68 (NC)	90	143	256	96		262	94	106	337	116	87	307	98	123	247	68	98	241	76		130
2606	28224	82	127	218	86		229	88	104	302	115	94	333	87	114	194	66	104	156	79	95	126
2607	Zonal Check (ZC)	104	100	224	106		225	92	108	264	116	76	372	99	116	224	69	100	229	76		
2608	Local Check (LC)	105	112	190	105		205	91	97	372	115	85	369	105	110	200	82	74	236	87	100	414
Exp. Mean		**93**	**128**	**218**	**97**		**233**	**96**	**107**	**306**	**115**	**84**	**339**	**99**	**113**	**216**	**70**	**93**	**201**	**81**	**88**	**188**

Table No. 6.15: Grain quality characteristics of entries in AVT 2-M(H), kharif 2022

Entry No.	IET No.	Hull	Mill	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
2601	28907	80.0	70.6	55.2	6.04	2.33	2.59	LB	VOC	5.0	25.31	22
2602	28217	77.0	60.9	37.5	5.22	2.45	2.13	SB	OC	4.0	24.34	22
2603	Vivek Dhan 62	81.1	70.2	52.2	5.17	2.62	1.97	SB	VOC	4.0	24.55	22
2604	28222	79.7	69.8	60.8	6.13	2.48	2.47	LB	OC	7.0	23.90	45
2605	VL Dhan 68 (NC)	80.3	70.0	57.8	6.19	2.23	2.77	LB	VOC	4.0	25.87	45
2606	28224	81.4	71.1	43.9	5.45	2.61	2.08	SB	OC	4.0	24.90	22
2607	VL Dhan 65 (ZC)	80.3	69.7	56.6	6.18	2.20	2.80	LB	VOC	4.0	25.52	22
2608	VL Dhan 61 (ZC)	82.3	71.3	59.5	6.47	2.58	2.50	LB	OC	5.0	27.25	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. 6.16: Composition of entries in Advance Variety Trial 1- Medium (Hills) (AVT 1-M (H), kharif 2022

Entry No.	IET No.	Designation	Cross Combination	GT
2nd Year of testing				
2701	29656	VL 32606	Vivek Dhan 62 / HPR 2143	LS
2702	28915	HPR 3205	HPR 2143*3 / DHMAS 164 // HPR 2143*3 / Pusa 1637	LS
2703	29654	VL 32605	Vivek Dhan 62 / HPR 2644	LB
2704	**VL Dhan 68 (NC)**			
2705	28906	SKUA 543 (K 11-5-1-9-4-3)	CH 1039 / IR 24	SB
2706	29643	HPR 3215	HPR 2143 / Balwan	LS
2707	**Vivekdhan 62 (NC)**			
2708	28914	SKUA 555 (K 13-39-36-1-1-2)	K 39 / IR 64	SB
2709	**VL Dhan 65 (ZC for North & South) RC Maniphou-11 (ZC for North East)**			
2710	**Local Check (LC)**			
NILs 1st year of testing:				
2711	30503	SJHR-1	MAS based backcross inbred line F5 progeny seeds of the cross (K 343*3 / DHMAS / (K343*3 / RML 22)	SB
2712	30504	SJHR-3	MAS based backcross inbred line F5 progeny seeds of the cross (K 343*3/ DHMAS / (K343*3 / RML 22)	SB
2713	K-343 **(Recurrent Parent)**			SB
2714	DHMAS **(Donor Parent 1)**			LS
2715	RML-22 **(Donor Parent 2)**			LB

Table No. 6.17: Grain Yield (kg/ha) in AVT 1 – M (H), Kharif 2022

ENTRY NO	IET NO	LOW NORTHERN						MEDIUM NORTHERN		
		MEGHALAYA 1 (1)			LOW_NORTHERN (1)			UTTARAKHAND (1)		
		CAU, Barapani			Mean			Almora- ICAR		
2701	29656	4174	2	7%	4174	2	7%	4628	1	9%
2702	28915	2781	8		2781	8		3041	7	
2703	29654	4821	1 *	23%	4821	1 *	23%	4586	2	8%
2704	**VL Dhan 68 (NC)**	3276	5		3276	5		4261	4	
2705	28906	2368			2368			1462		
2706	29643	3256	6		3256	6		4553	3	7%
2707	**Vivekdhan 62 (NC)**	3919	3		3919	3		2427	9	
2708	28914	2775	10		2775	10		2916	8	
2709	**Zonal Check (ZC)**	2781	8		2781	8		3893	5	
2710	**Local Check (LC)**	3603	4		3603	4		3074	6	
2711	30503	3255	7		3255	7		894		
2712	30504	2484			2484			1328		
2713	K-343 **(Recurrent Parent)**	2390			2390			1278		
2714	DHMAS **(Donor Parent 1)**	2153			2153			1629		
2715	RML-22 **(Donor Parent 2)**	2298			2298			2105	10	
Exp. Mean		**3089**			**3089**			**2805**		
CD		752			752			634		
CV%		**14.56**			**14.56**			**13.52**		
D/S		20-06-2022						06-06-2022		
D/P		14-07-2022						01-07-2022		
Local Check Name		SHASARANG						VLD 61		

Table No. 6.17 (Contd): Grain Yield (kg/ha) in AVT 1 – M (H), Kharif 2022

ENTRY NO	IET NO	MEDIUM NORTHERN			HIGH ELEVATION							Overall Mean (4)	
		MEDIUM NORTHERN (1)			JAMMU & KASHMIR				HIGH ELEVATION (2)				
		Mean			KHUDWANI		Wadura (Khudwani)		Mean				
2701	29656	4628	1	9%	5745	9	4710		5228	9		4814	6
2702	28915	3041	7		3361		3035		3198			3055	
2703	29654	4586	2	8%	5163		5183	9	5173	10		4938	3
2704	**VL Dhan 68 (NC)**	4261	4		4854		4494		4674			4221	
2705	28906	1462			7946	3	7961	1	7954	1	5%	4934	4
2706	29643	4553	3	7%	5122		4888	10	5005			4455	9
2707	**Vivekdhan 62 (NC)**	2427	9		7920	5	7170	2	7545	3		5359	2
2708	28914	2916	8		7928	4	5858	7	6893	7		4869	5
2709	**Zonal Check (ZC)**	3893	5		5195	10	4713		4954			4146	
2710	**Local Check (LC)**	3074	6		7958	2	6902	4	7430	4		5384	1
2711	30503	894			4222		3390		3806			2940	
2712	30504	1328			6299	8	5732	8	6016	8		3961	
2713	K-343 **(Recurrent Parent)**	1278			8316	1	6984	3	7650	2		4742	7
2714	DHMAS **(Donor Parent 1)**	1629			7602	6	6299	6	6951	6		4421	10
2715	RML-22 **(Donor Parent 2)**	2105	10		7239	7	6769	5	7004	5		4603	8
Exp. Mean		**2805**			**6325**		**5606**		**5965**			**4456**	
CD		634			987		901		832			365	
CV%		**13.52**			**9.33**		**9.61**		**8.34**			**4.90**	
D/S					06-05-2022		11-05-2022						
D/P					04-06-2022		10-06-2022						
Local Check Name					Shalimar Rice-4		Shalimar Rice-4						

Table No. 6.17 (Contd): Grain Yield (kg/ha) in AVT 1 – M (H), (State Means) Kharif 2022

ENTRY NO	IET NO	STATE MEANS							
		MEGHALAYA 1 (1)		UTTARAKHAND (1)			JAMMU & KASHMIR (2)		
		Mean		Mean			Mean		
2701	29656	4174	2	4628	1	9	5228	9	
2702	28915	2781	8	3041	7		3198		
2703	29654	4821	1 *	4586	2	8	5173	10	
2704	**VL Dhan 68 (NC)**	3276	5	4261	4		4674		
2705	28906	2368		1462			7954	1	5%
2706	29643	3256	6	4553	3	7	5005		
2707	**Vivekdhan 62 (NC)**	3919	3	2427	9		7545	3	
2708	28914	2775	10	2916	8		6893	7	
2709	**Zonal Check (ZC)**	2781	8	3893	5		4954		
2710	**Local Check (LC)**	3603	4	3074	6		7430	4	
2711	30503	3255	7	894			3806		
2712	30504	2484		1328			6016	8	
2713	K-343 **(Recurrent Parent)**	2390		1278			7650	2	
2714	DHMAS **(Donor Parent 1)**	2153		1629			6951	6	
2715	RML-22 **(Donor Parent 2)**	2298		2105	10		7004	5	
Exp. Mean		**3089**		**2805**			**5965**		
CD		752		634			832		
CV%		**14.56**		**13.52**			**8.34**		

Table No. 6.17 (Contd): Grain Yield (kg/ha) in AVT 1 – M (H), (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED											
		MANIPUR (0)				HIMACHAL PRADESH (0)		KARNATAKA (0)		MEGHALAYA 2 (0)		MEGHALAYA 3 (0)	
		@Lamphelpat-ICAR		@WANGBAL		@MALAN		@SIRSI		@Barapani (Umiam) ICAR		@UPPER SHILLONG (0	
2701	29656	6582	3	4200	7	3016	1	1443	5	456	7	300	10
2702	28915	6386	4	3000		1144		1057		627	2	233	
2703	29654	6235	5	6267	1	2918	2	1429	6	566	3	733	4
2704	**VL Dhan 68 (NC)**	4529	6	4533	4	2760	4	786		379		533	6
2705	28906	1253		2467		1638	7	686		387		300	10
2706	29643	1479		4089	8	2489	5	1700	2	438	10	1300	3
2707	**Vivekdhan 62 (NC)**	4257	7	4467	6	1151	10	871		454	8	433	7
2708	28914	1208		4689	3	2291	6	1336	7	466	6	300	10
2709	**Zonal Check (ZC)**	7760	2	4956	2	2771	3	1264	9	359			
2710	**Local Check (LC)**	7790	1	4533	4	1479	9	1271	8	441	9		
2711	30503	1178		3533	9	949		1600	3	493	4	1475	1
2712	30504	3986	8	2800		1039		1836	1	491	5	600	5
2713	K-343 **(Recurrent Parent)**	2687	9	3067	10	985		1529	4	406		400	8
2714	DHMAS **(Donor Parent 1)**	2023	10	2689		844		1264	9	352			
2715	RML-22 **(Donor Parent 2)**	1178		2778		1638	7	886		1047	1	1333	2
Exp. Mean		**3902**		**3871**		**1807**		**1264**		**491**		**662**	
CD		2700		96		245		354		295		277	
CV%		**41.38**		**1.49**		**8.12**		**13.05**		**35.92**		**19.05**	
D/S		13-06-2022		19-06-2022		10-06-2022		20-06-2022		19-04-2022		21-04-2022	
D/P		12-07-2022		14-07-2022		11-07-2022		27-07-2022		25-07-2022		28-06-2022	
Local Check Name		RC Maniphou 13		Punshi		HPR 2143		PRASANNA		NEH MEGHA RICE 1		Meg 1	

Table No. 6.18: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 1 – M (H), Kharif 2022

ENTRY NO	IET NO	LOW NORTHERN						MEDIUM NORTHERN					
		MEGHALAYA 1 (1)			LOW NORTHERN (1)			UTTARAKHAND (1)			MEDIUM NORTHERN (1)		
		CAU, Barapani			Mean			Almora- ICAR			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
2701	29656	88	108	293	88	108	293	95	109	241	95	109	241
2702	28915	87	93	346	87	93	346	93	107	187	93	107	187
2703	29654	92	102	372	92	102	372	99	117	231	99	117	231
2704	**VL Dhan 68 (NC)**	89	107	299	89	107	299	93	115	260	93	115	260
2705	28906	76	99	193	76	99	193	84	102	197	84	102	197
2706	29643	86	92	229	86	92	229	89	106	211	89	106	211
2707	**Vivekdhan 62 (NC)**	81	126	277	81	126	277	94	111	185	94	111	185
2708	28914	86	136	390	86	136	390	84	116	184	84	116	184
2709	**Zonal Check (ZC)**	101	79	397	101	79	397	99	121	262	99	121	262
2710	**Local Check (LC)**	101	102	432	101	102	432	100	98	153	100	98	153
2711	30503	86	104	339	86	104	339	91	82	191	91	82	191
2712	30504	85	102	346	85	102	346	89	90	202	89	90	202
2713	K-343 **(Recurrent Parent)**	85	101	387	85	101	387	90	89	189	90	89	189
2714	DHMAS **(Donor Parent 1)**	85	99	341	85	99	341	92	104	157	92	104	157
2715	RML-22 **(Donor Parent 2)**	81	92	372	81	92	372	87	103	189	87	103	189
Exp. Mean		**87**	**103**	**334**	**87**	**103**	**334**	**92**	**105**	**203**	**92**	**105**	**203**

Table No. 6.18 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 1 – M (H), Kharif 2022

ENTRY NO	IET NO	HIGH ELEVATION									Overall Mean (4)		
		JAMMU & KASHMIR						HIGH ELEVATION (2)					
		KHUDWANI			Wadura (Khudwani)			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
2701	29656	124	119	336	122	116	311	123	118	324	107	113	295
2702	28915	113	113	295	115	115	274	114	114	285	102	107	276
2703	29654	126	115	310	125	110	287	126	113	298	111	111	300
2704	**VL Dhan 68 (NC)**	123	125	334	129	129	285	126	127	309	108	119	294
2705	28906	97	117	355	101	109	348	99	113	352	90	107	273
2706	29643	103	110	299	108	115	309	105	113	304	97	106	262
2707	**Vivekdhan 62 (NC)**	115	139	400	117	127	371	116	133	386	102	126	308
2708	28914	101	119	376	107	125	347	104	122	362	95	124	324
2709	**Zonal Check (ZC)**	121	120	335	124	120	309	122	120	322	111	110	326
2710	**Local Check (LC)**	101	130	378	107	121	343	104	125	360	102	113	326
2711	30503	104	128	320	108	127	299	106	128	310	97	110	287
2712	30504	102	123	369	108	123	340	105	123	355	96	109	314
2713	K-343 **(Recurrent Parent)**	104	124	396	105	118	371	105	121	384	96	108	336
2714	DHMAS **(Donor Parent 1)**	103	124	393	109	119	357	106	122	375	97	111	312
2715	RML-22 **(Donor Parent 2)**	100	130	385	106	126	340	103	128	363	93	113	322
Exp. Mean		**109**	**122**	**352**	**113**	**120**	**326**	**111**	**121**	**339**	**100**	**112**	**304**

Table No.6.18 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 1-M (H) (State Means) Kharif 2022

ENTRY NO	IET NO	STATE MEANS								
		MEGHALAYA 1 (1)			UTTARAKHAND (1)			JAMMU & KASHMIR (2)		
		Mean			Mean			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
2701	29656	88	108	293	95	109	241	123	118	324
2702	28915	87	93	346	93	107	187	114	114	285
2703	29654	92	102	372	99	117	231	126	113	298
2704	**VL Dhan 68 (NC)**	89	107	299	93	115	260	126	127	309
2705	28906	76	99	193	84	102	197	99	113	352
2706	29643	86	92	229	89	106	211	105	113	304
2707	**Vivekdhan 62 (NC)**	81	126	277	94	111	185	116	133	386
2708	28914	86	136	390	84	116	184	104	122	362
2709	**Zonal Check (ZC)**	101	79	397	99	121	262	122	120	322
2710	**Local Check (LC)**	101	102	432	100	98	153	104	125	360
2711	30503	86	104	339	91	82	191	106	128	310
2712	30504	85	102	346	89	90	202	105	123	355
2713	K-343 **(Recurrent Parent)**	85	101	387	90	89	189	105	121	384
2714	DHMAS **(Donor Parent 1)**	85	99	341	92	104	157	106	122	375
2715	RML-22 **(Donor Parent 2)**	81	92	372	87	103	189	103	128	363
Exp. Mean		**87**	**103**	**334**	**92**	**105**	**203**	**111**	**121**	**339**

Table No.6.18 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 1-M (H) (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED																	
		MANIPUR (0)						HIMACHAL PRADESH (0)			KARNATAKA (0)			MEGHALAYA 2 (0)			MEGHALAYA 3 (0)		
		@Lamphelpat-ICAR			@WANGBAL			@MALAN			@SIRSI			@Barapani (Umiam) ICAR			UPPER SHILLONG (0)		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
2701	29656	99	151		102		297	95	125	323	92	101	311	109			88	78	200
2702	28915	84	124		103		266	96	117	277	94	104	264	82			86	76	171
2703	29654	94	142		98		521	95	129	314	92	107	267	74			87	98	257
2704	**VL Dhan 68 (NC)**	100	150		100		350	95	130	318	89	108	311	154			78	81	213
2705	28906	92	117		83		334	83	122	314	84	98	258	87			87	75	190
2706	29643	85	120		87		317	91	111	281	95	106	288	74			88	82	288
2707	**Vivekdhan 62 (NC)**	98	167		89		331	96	134	292	90	111	274	90			88	83	230
2708	28914	84	124		84		327	83	124	370	92	102	238	74			89	83	190
2709	**Zonal Check (ZC)**	84	98		105		281	94	130	306	92	113	294	57			78		
2710	**Local Check (LC)**	84	113		102		258	95	101	254	91	107	254	89			77		
2711	30503	95	129		105		318	91	121	314	90	104	264	90			87	81	288
2712	30504	85	131		85		375	91	120	334	94	103	350	86			77	96	250
2713	K-343 **(Recurrent Parent)**	86	160		81		343	92	123	282	91	105	274	109			86	78	225
2714	DHMAS **(Donor Parent 1)**	86	133		92		294	91	120	329	92	101	294	67			88		
2715	RML-22 **(Donor Parent 2)**	87	137		86		367	90	128	276	91	105	274	92			87	96	324
Exp. Mean		**89**	**133**		**93**		**332**	**92**	**122**	**306**	**91**	**105**	**281**	**89**			**85**	**84**	**235**

Table No. 6.19: Grain quality characteristics of entries in AVT 1-M (H), kharif 2022

Entry No.	IET No.	Hull	Mill	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
2701	29656	80.2	69.2	57.6	6.33	2.02	3.13	LS	VOC	4.0	26.84	22
2702	28915	79.3	68.5	60.3	7.86	2.00	3.93	LS	A	4.0	27.36	48
2703	29654	82.8	71.5	57.9	6.30	2.20	2.86	LB	VOC	4.0	27.33	22
2704	VL Dhan 68	80.2	69.6	58.9	6.25	2.24	2.79	LB	VOC	4.0	26.16	45
2705	28906	79.3	63.3	33.5	5.65	2.37	2.38	SB	VOC	4.0	26.78	22
2706	29643	83.1	67.0	40.3	6.54	2.08	3.14	LS	VOC	4.0	27.57	60
2707	Vivek Dhan 62	81.2	67.9	55.7	5.34	2.43	2.19	SB	VOC	5.0	24.22	22
2708	28914	80.9	70.3	46.7	5.68	2.49	2.33	SB	VOC	4.0	27.74	22
2709	VL Dhan 65	80.5	70.5	60.6	6.24	2.26	2.76	LB	VOC	4.0	25.69	22
2710	VL Dhan 61 (LC)	79.9	66.5	53.7	6.25	2.60	2.40	LB	VOC	5.0	27.69	22
2711	30503	74.7	59.9	42.6	5.41	2.58	2.09	SB	F	5.0	27.16	22
2712	30504	78.0	63.3	46.4	5.42	2.49	2.17	SB	F	5.0	25.52	22
2713	K-343 (RP)	75.9	58.8	35.4	5.48	2.54	2.15	SB	F	5.0	28.07	22
2714	Dhmas (DP1)	79.5	69.0	50.5	6.19	2.14	3.03	LS	VOC	4.0	28.01	22
2715	RML-22(DP2)	79.6	66.6	46.2	6.37	2.36	2.69	LB	VOC	4.0	26.01	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. 6.20: Composition of entries in Initial Variety Trial - Medium (Hills) (IVT-M (H), kharif 2022

Entry No.	IET No.	Designation	Cross Combination	GT
1st Year of testing:				
2801	30505	TRC CTSM-179-B-B-2-2-1	CT 9993-5-10-1-M/2 / Sambha Mahsuri	LS
2802	30506	SKUA-571 (K11-5-1-9-4-3)	China 1039 / IR 24	MS
2803	30507	VL 32848	VL Dhan 87 / VL 32056	LS
2804	30508	SKUA-423 (K1416-31)	SKUA 494 / Pusa Sugandh-3	LS
2805	30509	TRC BN-814-B-B-31-3-1	Bhalum 3 / Naveen	MS
2806	**Vivekdhan 62 (NC)**			
2807	30510	SKUA-569 (K09-2-2-1-4)	SKUA-292 / SR-2	SB
2808	30511	HPR 3235	T23 / IR67011 // Hasan sarai	LS
2809	**VL Dhan 68 (NC)**			
2810	30512	CAUS 128 (ULRC 24 -48-5-1)	Kasalath / Shahsarang	MS
2811	30513	SKUA-570 (K08-28-11)	SR1 / China 1039	SB
2812	30514	VL 40739	VL 31486 / VL 40217	LS
2813	30515	RCPL 1-426	Yamuk / MN 30	MS
2814	30516	SKUA-422 (K1416-26)	SKUA 494 / Pusa Sugandh-3	LS
2815	30517	CS-1	Pureline selection from Chirakey (Local landrace)	MS
2816	**VL Dhan 65 (ZC for North & South) RC Maniphou-11 (ZC for North East)**			
2817	30518	VL 32850	VL Dhan 87 / VL 32056	LS
2818	30519	TRC GN-792-B-B-1-4-9	Gomati / Tripura Nirog	MS
2819	**Local Check (LC)**			

Table No. 6.21: Grain Yield (kg/ha) in IVT – M (H) Kharif 2022

ENTRY NO	IET NO	LOW NORTHERN				MEDIUM NORTHERN					
		MEGHALAYA 1 (1)		LOW NORTHERN (1)		UTTARAKHAND (1)			JAMMU & KASHMIR 1 (1)	MEDIUM NORTHERN (2)	
		CAU, Barapani		Mean		Almora- ICAR			Rajouri	Mean	
2801	30505	3447	6	3447	6	4911	1	14%	4900 10	4906	3
2802	30506	1597		1597		848			4341	2595	
2803	30507	3273	8	3273	8	4107	6		5440 4	4774	5
2804	30508	1514		1514		2366			4329	3348	
2805	30509	2027		2027		3884	7		4056	3970	
2806	Vivekdhan 62 (NC)	4453	4	4453	4	2054			5180 8	3617	
2807	30510	1115		1115		1607			4593	3100	
2808	30511	4058	5	4058	5	4196	4		5022 9	4609	6
2809	VL Dhan 68 (NC)	5723	1	5723	1	4321	2		5383 5	4852	4
2810	30512	3241	9	3241	9	536			5372 6	2954	
2811	30513	1643		1643		1339			4394	2867	
2812	30514	1767		1767		4152	5		5715 2	4934	2
2813	30515	4904	3	4904	3	2411			4432	3422	
2814	30516	1739		1739		2679			5958 1	4319	8
2815	30517	2975		2975					5296 7	5296	1
2816	Zonal Check (ZC)	3139	10	3139	10	3393	9		5515 3	4454	7
2817	30518	5040	2	5040	2	3759	8		4280	4020	10
2818	30519	1666		1666		4286	3		3956	4121	9
2819	Local Check (LC)	3366	7	3366	7	2813	10		4340	3577	
Exp. Mean		2983		2983		2981			4868	3986	
F Value		19.89(p<0.0001)S		19.89(p<0.0001)S		38.52(p<0.0001)S			2.59(p=0.0243)S	10.80(p<0.0001)S	
CD		912		912		618			1092	708	
CV%		14.56		14.56		9.82			10.68	8.45	
D/S		20-06-2022				27-05-2022			26-05-2022		
D/P		15-07-2022				25-06-2022			21-06-2022		
Local Check Name		SHAHSARANG				VLD 61			K-39		

Table No. 6.21 (Contd): Grain Yield (kg/ha) in IVT – M (H) Kharif 2022

ENTRY NO	IET NO	MEDIUM SOUTHERN				HIGH ELEVATION						Overall Mean (6)	
		TAMILNADU (1)		MEDIUM SOUTHERN (1)		JAMMU & KASHMIR 2				HIGH ELEVATION (2)			
		Gudaluru		Gudaluru		KHUDWANI		Wadura (Khudwani)		Mean			
2801	30505	5082	7	5082	7	4000		3958		3979		4383	8
2802	30506	2607		2607		8650	2 *	7764	2	8207	2 *	4301	
2803	30507	4754	9	4754	9	7825	4	7025	6	7425	4	5404	2
2804	30508	4123		4123		6973	8	5210	10	6092	8	4086	
2805	30509	5533	4	5533	4	4300		4109		4205		3985	
2806	**Vivekdhan 62 (NC)**	3967		3967		4491		4137		4314		4047	
2807	30510	3123		3123		8200	3	7369	4	7785	3	4335	10
2808	30511	3049		3049		6124	9	5652	8	5888	9	4684	6
2809	**VL Dhan 68 (NC)**	4303	10	4303	10	4787		4241		4514		4793	5
2810	30512	5533	4	5533	4	1785		2649		2217		3186	
2811	30513	3434		3434		8975	1 *	7881	1	8428	1 *	4611	7
2812	30514	2951		2951		4627		3271		3949		3747	
2813	30515	6393	1	6393	1	1828		2187		2008		3693	
2814	30516	4178		4178		7108	7	7417	3	7263	6	4847	4
2815	30517	5000	8	5000	8	1844				1844		3779	
2816	**Zonal Check (ZC)**	3975		3975		4779		3416		4098		4036	
2817	30518	6148	3	6148	3	7535	5	7272	5	7404	5	5672	1 *
2818	30519	5385	6	5385	6	5350	10	5540	9	5445	10	4364	9
2819	**Local Check (LC)**	6352	2	6352	2	7234	6	6767	7	7001	7	5145	3
Exp. Mean		**4521**		**4521**		**5601**		**5326**		**5371**		**4373**	
F Value		7.98(p<0.0001)S		7.98(p<0.0001)S		25.62(p<0.0001)S		17.82(p<0.0001)S		42.42(p<0.0001)S		20.23(p<0.0001)S	
CD		1215		1215		1316		1312		949		408	
CV%		**12.80**		**12.80**		**11.18**		**11.68**		**8.41**		**4.44**	
D/S		20-07-2022		20-07-2022		06-05-2022		11-05-2022					
D/P		23-08-2022		23-08-2022		09-06-2022		10-06-2022					
Local Check Name		Bharathi (Ptb 41)		Bharathi (Ptb 41)		Shalimar Rice-4		Shalimar Rice-4					

Table No. 6.21 (Contd): Grain Yield (kg/ha) in IVT – M (H) (State Means) Kharif 2022

ENTRY NO	IET NO	STATE MEANS											
		MEGHALAYA 1 (1)		UTTARAKHAND (1)		JAMMU & KASHMIR 1 (1)		TAMILNADU (1)		JAMMU & KASHMIR 2 (2)		JAMMU & KASHMIR (3)	
		CAU, Barapani		Almora- ICAR		Rajouri		Gudaluru		Mean		Mean	
2801	30505	3447	6	4911	1 14%	4900	10	5082	7	3979		4286	
2802	30506	1597		848		4341		2607		8207	2 *	6918	2 *
2803	30507	3273	8	4107	6	5440	4	4754	9	7425	4	6763	4
2804	30508	1514		2366		4329		4123		6092	8	5504	9
2805	30509	2027		3884	7	4056		5533	4	4205		4155	
2806	**Vivekdhan 62 (NC)**	4453	4	2054		5180	8	3967		4314		4603	
2807	30510	1115		1607		4593		3123		7785	3	6721	5
2808	30511	4058	5	4196	4	5022	9	3049		5888	9	5599	8
2809	**VL Dhan 68 (NC)**	5723	1	4321	2	5383	5	4303	10	4514		4804	
2810	30512	3241	9	536		5372	6	5533	4	2217		3269	
2811	30513	1643		1339		4394		3434		8428	1 *	7083	1 *
2812	30514	1767		4152	5	5715	2	2951		3949		4538	
2813	30515	4904	3	2411		4432		6393	1	2008		2816	
2814	30516	1739		2679		5958	1	4178		7263	6	6828	3
2815	30517	2975				5296	7	5000	8	1844		3570	
2816	**Zonal Check (ZC)**	3139	10	3393	9	5515	3	3975		4098		4570	
2817	30518	5040	2	3759	8	4280		6148	3	7404	5	6362	6
2818	30519	1666		4286	3	3956		5385	6	5445	10	4949	10
2819	**Local Check (LC)**	3366	7	2813	10	4340		6352	2	7001	7	6114	7
Exp. Mean		**2983**		**2981**		**4868**		**4521**		**5371**		**5234**	
F Value		19.89(p<0.0001)S		38.52(p<0.0001)S		2.59(p=0.0243)S		7.98(p<0.0001)S		42.42(p<0.0001)S		25.41(p<0.0001)S	
CD		912		618		1092		1215		949		769	
CV%		**14.56**		**9.82**		**10.68**		**12.80**		**8.41**		**6.99**	

Table No.6.21 (Contd): Grain Yield (kg/ha) in IVT – M (H) (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONDUCTED											
		MANIPUR (0)				HIMACHAL PRADESH (0)		KARNATAKA (0)		MEGHALAYA 2 (0)		SIKKIM (0)	
		@Lamphelpat-ICAR		@WANGBAL		@MALAN		@Sirsi		@Barapani (Umiam) ICAR		@Gangtok	
2801	30505	5399	7	8000	1	2403	7	1000		283		6957	1
2802	30506	3261		2600		1734		1686	5	743	6		
2803	30507	3696		6400	6	2775	4	1871	3	613	10	4317	4
2804	30508	3333		6650	4	2106	8	1049		767	4		
2805	30509	7029	5	5850	7	2440	6	1557	8	307		2938	
2806	**Vivekdhan 62 (NC)**	326		5200		1964		957		668	7	3497	6
2807	30510	4203	9	3050		1882		2029	2	747	5	1467	
2808	30511	2101		5350	9	1920		1429	9	215		3410	7
2809	**VL Dhan 68 (NC)**	2101		3950		2991	3	936		307		678	
2810	30512	5435	6	5100		513		2536	1	640	9	3152	10
2811	30513	1667		3500		1476		721		790	3		
2812	30514	2899		5600	8	2560	5	1600	6	293		2913	
2813	30515	9348	2	5350	9	1503		1129		287		3340	8
2814	30516	1014		5000		2031	10	900		212			
2815	30517	5145	8	5250				1814	4	312		3915	5
2816	**Zonal Check (ZC)**	9058	3	6800	3	3110	2	1571	7	373		783	
2817	30518	7899	4	6850	2	3445	1	1114		817	2	3267	9
2818	30519	4094	10	6450	5	2068	9	914		645	8	5310	3
2819	**Local Check (LC)**	9783	1	3800		1332		1214	10	1153	1	5777	2
Exp. Mean		**4621**		**5303**		**2125**		**1370**		**535**		**3448**	
F Value		8.24(p<0.0001)S		1086.34(p<0.0001)S		17.05(p<0.0001)S		20.08(p<0.0001)S		1.19(p=0.3565)NS		1.86(p=0.1265)NS	
CD		2898		125		499		330		714		3701	
CV%		**29.85**		**1.12**		**11.13**		**11.46**		**63.45**		**50.05**	
D/S		10-06-2022		19-06-2022		13-06-2022		18-06-2022		19-04-2022		03-06-2022	
D/P		13-07-2022		14-07-2022		13-07-2022		27-07-2022		27-05-2022		14-07-2022	
Local Check Name		RC Maniphou 13		Punshi		HPR2143		PRASANNA		NEH MEGHA RICE 1		Attey	

Table No. 6.22: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – M (H) Kharif 2022

ENTRY NO	IET NO	LOW_NORTHERN						MEDIUM NORTHERN								
		MEGHALAYA 1 (1)			LOW_NORTHERN (1)			UTTARAKHAND (1)			JAMMU & KASHMIR 1 (1)			MEDIUM_NORTHERN (2)		
		CAU, Barapani			Mean			Almora- ICAR			Rajouri			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
2801	30505	102	76	333	102	76	333	103	98	254	102	124	474	103	111	364
2802	30506	77	88	222	77	88	222	88	100	152	84	117	341	86	109	246
2803	30507	95	89	311	95	89	311	102	115	216	96	82	514	99	99	365
2804	30508	87	75	281	87	75	281	90	94	215	88	105	390	89	100	303
2805	30509	99	91	326	99	91	326	104	102	250	95	82	317	99	92	283
2806	**Vivekdhan 62 (NC)**	87	115	333	87	115	333	98	108	183	96	93	497	97	100	340
2807	30510	77	88	189	77	88	189	88	104	170	99	121	471	94	113	320
2808	30511	90	101	315	90	101	315	98	128	265	95	119	500	97	124	383
2809	**VL Dhan 68 (NC)**	89	105	356	89	105	356	96	117	237	88	88	529	92	103	383
2810	30512	101	92	342	101	92	342	115	100	151	108	100	510	112	100	330
2811	30513	77	84	245	77	84	245	85	101	182	98	99	418	92	100	300
2812	30514	90	85	308	90	85	308	96	117	268	91	110	539	94	113	403
2813	30515	102	74	454	102	74	454	104	88	198	83	105	459	93	96	329
2814	30516	77	76	192	77	76	192	89	91	204	97	96	537	93	94	370
2815	30517	96	114	347	96	114	347				81	115	523	81	115	523
2816	**Zonal Check (ZC)**	99	67	380	99	67	380	98	111	234	96	116	524	97	114	379
2817	30518	98	82	461	98	82	461	101	106	210	95	85	374	98	96	292
2818	30519	95	81	291	95	81	291	99	115	243	95	105	346	97	110	294
2819	**Local Check (LC)**	106	100	387	106	100	387	100	107	163	94	89	370	97	98	266
Exp. Mean		**92**	**89**	**319**	**92**	**89**	**319**	**97**	**105**	**211**	**94**	**103**	**454**	**95**	**104**	**341**

Table No.6.22 (Contd). Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – M (H) Kharif 2022

ENTRY NO	IET NO	MEDIUM_SOUTERN						HIGH ELEVATION									Overall Mean (6)		
		TAMILNADU (1)			MEDIUM-SOUTERN (1)			JAMMU & KASHMIR 2						HIGH ELEVATION (2)					
		Gudaluru			Mean			KHUDWANI			Wadura (Khudwani)			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
2801	30505	101	73	378	101	73	378	122	77	321	120	74	294	121	75	307	108	87	342
2802	30506	79	86	315	79	86	315	99	122	373	105	124	375	102	123	374	88	106	296
2803	30507	97	76	313	97	76	313	113	103	359	115	100	314	114	101	337	103	94	338
2804	30508	94	65	427	94	65	427	103	86	338	108	85	310	105	85	324	95	85	327
2805	30509	102	83	442	102	83	442	116	95	274	117	99	267	117	97	271	105	92	313
2806	Vivekdhan 62 (NC)	87	96	346	87	96	346	121	130	297	128	122	298	124	126	297	103	111	326
2807	30510	79	91	353	79	91	353	104	132	385	102	124	372	103	128	379	91	110	323
2808	30511	96	103	248	96	103	248	111	123	330	114	121	298	112	122	314	100	116	326
2809	VL Dhan 68 (NC)	83	80	433	83	80	433	122	124	305	128	131	286	125	127	295	101	107	357
2810	30512	104	82	360	104	82	360	126	93	186	129	89	218	127	91	202	114	93	294
2811	30513	87	86	320	87	86	320	102	123	392	105	119	359	103	121	375	92	102	319
2812	30514	91	89	320	91	89	320	108	113	289	114	117	277	111	115	283	98	105	333
2813	30515	104	69	401	104	69	401	128	78	120	130	83	167	129	80	143	108	83	300
2814	30516	87	64	397	87	64	397	99	85	332	97	88	325	98	87	328	91	84	331
2815	30517	91	79	400	91	79	400	129	78	165		.		129	78	165	99	97	359
2816	Zonal Check (ZC)	83	83	390	83	83	390	125	126	306	129	122	285	127	124	295	105	104	353
2817	30518	91	79	460	91	79	460	113	101	357	116	99	312	114	100	335	102	92	362
2818	30519	97	81	443	97	81	443	113	98	290	111	95	291	112	97	291	102	96	317
2819	Local Check (LC)	108	75	422	108	75	422	100	118	375	103	123	356	101	121	366	102	102	345
Exp. Mean		**93**	**81**	**377**	**93**	**81**	**377**	**113**	**106**	**305**	**115**	**106**	**300**	**114**	**105**	**299**	**100**	**98**	**329**

Table No. 6.22 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – M (H) (State Means) Kharif 2022

ENTRY NO	IET NO	STATE MEANS																	
		MEGHALAYA 1 (1)			UTTARAKHAND (1)			JAMMU & KASHMIR 1 (1)			TAMILNADU (1)			JAMMU & KASHMIR 2 (2)			JAMMU & KASHMIR (3)		
		Mean			Mean			Mean			Mean			Mean			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
2801	30505	102	76	333	103	98	254	102	124	474	101	73	378	121	75	307	114	91	363
2802	30506	77	88	222	88	100	152	84	117	341	79	86	315	102	123	374	96	121	363
2803	30507	95	89	311	102	115	216	96	82	514	97	76	313	114	101	337	108	95	396
2804	30508	87	75	281	90	94	215	88	105	390	94	65	427	105	85	324	99	92	346
2805	30509	99	91	326	104	102	250	95	82	317	102	83	442	117	97	271	109	92	286
2806	Vivekdhan 62 (NC)	87	115	333	98	108	183	96	93	497	87	96	346	124	126	297	115	115	364
2807	30510	77	88	189	88	104	170	99	121	471	79	91	353	103	128	379	101	126	409
2808	30511	90	101	315	98	128	265	95	119	500	96	103	248	112	122	314	106	121	376
2809	VL Dhan 68 (NC)	89	105	356	96	117	237	88	88	529	83	80	433	125	127	295	113	114	373
2810	30512	101	92	342	115	100	151	108	100	510	104	82	360	127	91	202	121	94	304
2811	30513	77	84	245	85	101	182	98	99	418	87	86	320	103	121	375	102	114	390
2812	30514	90	85	308	96	117	268	91	110	539	91	89	320	111	115	283	104	113	368
2813	30515	102	74	454	104	88	198	83	105	459	104	69	401	129	80	143	113	88	249
2814	30516	77	76	192	89	91	204	97	96	537	87	64	397	98	87	328	98	90	398
2815	30517	96	114	347				81	115	523	91	79	400	129	78	165	105	97	344
2816	Zonal Check (ZC)	99	67	380	98	111	234	96	116	524	83	83	390	127	124	295	116	121	372
2817	30518	98	82	461	101	106	210	95	85	374	91	79	460	114	100	335	108	95	348
2818	30519	95	81	291	99	115	243	95	105	346	97	81	443	112	97	291	106	100	309
2819	Local Check (LC)	106	100	387	100	107	163	94	89	370	108	75	422	101	121	366	99	110	367
Exp. Mean		**92**	**89**	**319**	**97**	**105**	**211**	**94**	**103**	**454**	**93**	**81**	**377**	**114**	**105**	**299**	**107**	**105**	**354**

Table No. 6.22 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – M (H) (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED																	
		MANIPUR (0)						HIMACHAL PRADESH (0)			KARNATAKA (0)			MEGHALAYA 2 (0)			SIKKIM (0)		
		@Lamphelpat-ICAR			@WANGBAL			@MALAN			@Sirsi			@Barapani (Umiam) ICAR			@Gangtok		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
2801	30505	98	106	208	81		391	113	89	279	97	110		115	89	282	118	117	175
2802	30506	82	117	225	90		416	81	112	312	95	101		116	88	332	92	89	
2803	30507	94	120	210	104		373	101	109	246	103	105		115	77	304	107	103	239
2804	30508	86	98	214	102		380	93	91	270	95	103		127	78	313		.	
2805	30509	100	119	224	93		468	108	98	252	99	108		115	65	296	110	110	348
2806	Vivekdhan 62 (NC)	95	129	141	102		358	93	136	261	94	96		114	86	310	108	108	240
2807	30510	96	121	237	92		289	81	126	226	89	106		117	77	329	102	94	177
2808	30511	93	131	192	107		338	96	125	276	96	110		127	68	299	105	106	318
2809	VL Dhan 68 (NC)	93	144	220	110		389	94	123	316	89	96		113	79	326	99	98	344
2810	30512	100	122	186	83		489	108	92	174	109	106		113	88	372	117	117	290
2811	30513	86	117	205	102		461	88	111	279	89	100		119	77	324	87	86	
2812	30514	85	125	245	105		443	97	113	270	97	115		116	101	377	100	101	202
2813	30515	85	107	177	92		376	110	110	242	95	98		115	61	290	119	117	366
2814	30516	94	103	217	99		514	87	88	258	90	98		117	90	324	99	99	
2815	30517	86	184	228	89		320				99	114		122	67	282	104	111	257
2816	Zonal Check (ZC)	90	101	222	103		461	94	130	273	95	92		116	69	293	134	127	413
2817	30518	94	118	237	103		474	101	106	303	101	101		115	82	354	122	120	286
2818	30519	93	122	215	90		439	105	111	303	95	104		115	84	329	117	114	257
2819	Local Check (LC)	112	109	180	83		386	95	98	321	98	102		114	84	363	110	110	286
Exp. Mean		**92**	**121**	**209**	**96**		**408**	**97**	**109**	**270**	**96**	**103**		**117**	**79**	**321**	**108**	**107**	**280**

INITIAL VARIETY TRIAL- UPLAND (HILLS) IVT-U (H)

Locations : 9 **Test Entries:12**

Checks : Sukaradhan 1 (NC), Zonal Check (ZC)-Vivek Dhan 154 (ZC1 for North & South), Bhalum-1 (ZC1 for North East, VL Dhan 158 (ZC2 for North and South) and Local Check **Table: 6.23**

The Initial Variety Trial- Upland (Hills) [IVT-(UH)] comprised of 12 test entries and four checks *viz*., Sukaradhan 1 (National check), Bhalum-1 as Zonal Check (ZC1) for North Eastern locations, VivekDhan 154 as ZC1for Northern locations and VL Dhan 158 as common ZC (ZC2) and a Local Check. All 12 entries were in first year of testing. The trial was sent to 12 locations spanning 4 hill states comprising Himachal Pradesh, Manipur, Meghalaya, and Uttarakhand viz., Lamphelpat-ICAR, Imphal (CAU), Dhaulakaun, Wangbal, Upper Shilling, Barapani (Umiam), Barapani (CAU), Almora-ICAR, Bageshwar, Malan, Surendra nagar Malan and Bhertin. Data was received from nine locations and the data from

remaining three locations *viz*., Lamphelpat-ICAR, Imphal (CAU), Dhaulakaun was not received. Data received from Wangbal, Sundernagar (Malan), Bhertin, Barapani (Umaim) ICAR and Almora was not considered for analysis as CV and mean values are out of prescribed range. The experimental mean yield was in the range of 433 Kg/ha (Almora-ICAR) to 5330 (Wangbal), While the CV% varied from 1.39 % (Wangbal) to 36.6% (Bhertin).

The analysed data pertaining to yield, flowering, plant height, panicles/m^2 and quality are presented in tables 6.24 and 6.25. Over all mean grain yield ranged from 1020 Kg/ha (IET 30528) to 2935 Kg/ha (IET 30521). Though the entries IET 30521 (2935 Kg/ha) and 30522 (2879 kg/ha) are high yielders compared to zonal check VL Dhan 158 (2813 kg/ha) but not significantly superior to the best check, however recorded only 4.3 and 2.3 percent superiorty. Days to fifty percent flowering (DFF) varied from 82 days (IET 30522 & 30525) to 97 days (IETs 30527), plant height (PH) from 74 cm (IET 30530) to 126 cm (30529) and panicles/m^2 from 193 (zonal check) to 283 (IETs 30521). The mean of the entries at low northern hills ranged from 1401 kg/ha (IET 30520) to 2935 kg/ha (IET 30521). Though the entry IET 30521 yielded higher than the best check VL Dhan 158 (2813 kg/ha) but not significantly superior. In low northern hills days to fifty percent flowering (DFF) varied from 81 days (IET 30524) to 94 days (IETs 30521), plant height (PH) from 74 cm (IET 30530) to 126 cm (IET 30529) and panicles/m^2 from 182 (IET 30524) to 283 (IETs 30521 & 30523).

At lower northern and medium northern elevations, none of the entries are found significantly superior over the best check VL Dhan 158, **hence none of the entries are promoted for further testing.**

Table No.6.23: Composition of entries in Initial Variety Trial - Upland (Hills) (IVT-U (H), kharif 2022

Entry No.	IET No.	Designation	Cross Combination	GT
1st Year of testing:				
2901	30520	HPR 2645	VL 221 / RP 2421 // IR53915	LB
2902	30521	TRC BN-736-B-B-19-7-1	Bhalum 3 / Naveen	MS
2903	30522	VL 20867	VL 8116 / Sukradhan-1	LS
2904	**Sukaradhan 1 (NC)**			
2905	30523	RCPL1-439	Selection from IURON 9/19	LS
2906	30524	HPR 2559	MLN 2017-B-2-1 (VL 221 / CH 988)	LS
2907	30525	VL 20986	VL 7620 / VL 8801	MS
2908	**Vivek Dhan 154 (ZC for North & South), Bhalum-1 (ZC for North East)**			
2909	30526	HPR 2845	Kalizini / HPR 2143 // HPR 2143	LS
2910	30527	TRC CTSM-346-B-B-7-1	CT 9993-5-10-1-M / 2 / Sambha Mahsuri	MS
2911	30528	HPR 2885	HPR 2143 / AC 19180 // VL 30424	LS
2912	**VL Dhan 158 (ZC for North & South)**			
2913	30529	VL 20859	VL 8116 / VL 8732	LS
2914	30530	TRC BN-1189-B-B-11-1-1	Bhalum 3 / Naveen	MS
2915	30531	HPR 2655	Vandana / VL 221	LB
2916	**Local Check (LC)**			

Table No. 6.24: Grain Yield (kg/ha) in IVT – U (H) Kharif 2022

ENTRY NO	IET NO	LOW NORTHERN						Overall Mean (2)	
		MEGHALAYA 1 (1)		HIMACHAL PRADESH		LOW NORTHERN (2)			
		CAU, Barapani		MALAN		Mean			
2901	30520	902		1899		1401		1401	
2902	30521	1782	5	4087	1 *	2935	1	2935	1
2903	30522	2176	3	3582	2 *	2879	2	2879	2
2904	**Sukaradhan 1 (NC)**	1000	10	2476	8	1738	10	1738	10
2905	30523	2146	4	2572	7	2359	6	2359	6
2906	30524	817		1803		1310		1310	
2907	30525	459		2837	5	1648		1648	
2908	**Zonal Check (ZC)**	3097	1	1875		2486	4	2486	4
2909	30526	1147	9	1875		1511		1511	
2910	30527	1373	7	3149	3 *	2261	7	2261	7
2911	30528	501		1538		1020		1020	
2912	**VL Dhan 158 (ZC)**			2813	6	2813	3	2813	3
2913	30529	1541	6	2428	9	1985	9	1985	9
2914	30530	970		3077	4	2024	8	2024	8
2915	30531	1160	8	1947		1554		1554	
2916	**Local Check (LC)**	2424	2	2356	10	2390	5	2390	5
Exp. Mean		**1433**		**2520**		**2019**		**2019**	
F Value		20.71(p<0.0001)S		56.62(p<0.0001)S		42.94(p<0.0001)S		42.94(p<0.0001)S	
CD		494.94		275.56		265.84		265.84	
CV%		**16.1**		**5.13**		**6.18**		**6.18**	
D/S		20-06-2022		07-06-2022					
D/P									
Local Check Name		BHALUM 3		HPR 2656					

Table No. 6.24 (Contd): Grain Yield (kg/ha) in IVT – U (H) (State Means) Kharif 2022

ENTRY NO	IET NO	STATE MEANS			
		MEGHALAYA 1 (1)		HIMACHAL PRADESH (1)	
		CAU, Barapani		Mean	
2901	30520	902		1899	
2902	30521	1782	5	4087	1 *
2903	30522	2176	3	3582	2 *
2904	**Sukaradhan 1 (NC)**	1000	10	2476	8
2905	30523	2146	4	2572	7
2906	30524	817		1803	
2907	30525	459		2837	5
2908	**Zonal Check (ZC)**	3097	1	1875	
2909	30526	1147	9	1875	
2910	30527	1373	7	3149	3 *
2911	30528	501		1538	
2912	**VL Dhan 158 (ZC)**			2813	6
2913	30529	1541	6	2428	9
2914	30530	970		3077	4
2915	30531	1160	8	1947	
2916	**Local Check (LC)**	2424	2	2356	10
Exp. Mean		**1433**		**2520**	
F Value		20.71(p<0.0001)S		56.62(p<0.0001)S	
CD		494.94		275.56	
CV%		**16.1**		**5.13**	
D/S		20-06-2022			
D/P					
Local Check Name		BHALUM 3			

Table No. 6.24 (Contd: Grain Yield (kg/ha) in IVT – U (H) (Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED									
		MANIPUR (0)		HIMACHAL PRADESH				MEGHALAYA 2 (0)		UTTARAKHAND (0)	
		@WANGBAL		@Sundernagar (Malan)		@Bhertin		@Barapani (Umiam) ICAR		@Almora- ICAR	
2901	30520	5450	7	2430	3	385		833	9	458	6
2902	30521	7050	1	2815	1	1385	1	712		242	
2903	30522	5350	9	2405	4	692	7	1075	5	817	3
2904	**Sukaradhan 1 (NC)**	6200	3	2000	8	615	8	1212	3	425	8
2905	30523	7000	2	1735		923	3	607		250	10
2906	30524	5100	10	1595		231		1093	4	700	4
2907	30525	4600		1900	10	538	10	757		1025	1
2908	**Zonal Check (ZC)**	5050		1395		308		777		342	9
2909	30526	3850		2155	6	231		1007	8	108	
2910	30527	5550	5	1735		808	4	668		167	
2911	30528	4050		1480		104		1042	6	117	
2912	**VL Dhan 158 (ZC)**			1305		615	8	443		167	
2913	30529	5750	4	1985	9	731	6	1015	7	908	2
2914	30530	5400	8	2170	5	1000	2	827	10	225	
2915	30531	4050		2125	7	308		1402	2	442	7
2916	**Local Check (LC)**	5500	6	2450	2	769	5	1422	1	542	5
Exp. Mean		**5330**		**1980**		**603**		**931**		**433**	
F Value		314.41(p<0.0001)S		63.68(p<0.0001)S		4.42(p=0.0031)S		2.16(p=0.0722)S		47.61(p<0.0001)S	
CD		158.72		155.56		470.32		667.89		123.4	
CV%		**1.39**		**3.69**		**36.62**		**33.67**		**13.36**	
D/S		20-06-2022		22-06-2022		13-06-2022		19-04-2022		01-06-2022	
D/P		15-07-2022						27-05-2022			
Local Check Name		Punshi		HPR 2656		HPR 2656		NEH MEGHA RICE 1		VLD 221	

Table No. 6.25: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – U (H), Kharif 2022

ENTRY NO	IET NO	LOW NORTHERN									Overall Mean (2)		
		MEGHALAYA 1 (1)			HIMACHAL PRADESH			LOW NORTHERN (2)					
		CAU, Barapani			MALAN			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
2901	30520	79	103	215	84	99	183	81	101	199	81	101	199
2902	30521	88	90	246	94	95	320	91	93	283	91	93	283
2903	30522	76	117	257	87	127	295	82	122	276	82	122	276
2904	**Sukaradhan 1 (NC)**	83	104	222	86	106.0o	270	84	104	246	84	104	246
2905	30523	90	100	323	93	91	243	91	95	283	91	95	283
2906	30524	93	115	182	81	114	183	87	114	182	87	114	182
2907	30525	78	97	212	86	119	225	82	108	218	82	108	218
2908	**Zonal Check (ZC)**	87	124	195	84	112	190	85	118	193	85	118	193
2909	30526	81	90	272	93	101	175	87	96	223	87	96	223
2910	30527	99	61	266	94	102	298	97	82	282	97	82	282
2911	30528	78	89	233	90	92	188	84	90	210	84	90	210
2912	**VL Dhan 158 (ZC)**				88	113	213	88	113	213	88	113	213
2913	30529	76	117	228	84	135	328	80	126	278	80	126	278
2914	30530	99	56	206	93	92	278	96	74	242	96	74	242
2915	30531	81	97	222	85	111	315	83	104	269	83	104	269
2916	**Local Check (LC)**	93	97	251	86	107	288	89	102	269	89	102	269
Exp. Mean		**85**	**97**	**235**	**88**	**107**	**249**	**87**	**103**	**241**	**87**	**103**	**241**

Table No. 6.25 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – U (H) (State Means) Kharif 2022

ENTRY NO	IET NO	STATE MEAN					
		MEGHALAYA 1 (1)			HIMACHAL PRADESH (1		
		Mean			Mean		
		DFF	PH	PAN	DFF	PH	PAN
2901	30520	79	103	215	84	99	183
2902	30521	88	90	246	94	95	320
2903	30522	76	117	257	87	127	295
2904	**Sukaradhan 1 (NC)**	83	104	222	86	106.0o	270
2905	30523	90	100	323	93	91	243
2906	30524	93	115	182	81	114	183
2907	30525	78	97	212	86	119	225
2908	**Zonal Check (ZC)**	87	124	195	84	112	190
2909	30526	81	90	272	93	101	175
2910	30527	99	61	266	94	102	298
2911	30528	78	89	233	90	92	188
2912	**VL Dhan 158 (ZC)**				88	113	213
2913	30529	76	117	228	84	135	328
2914	30530	99	56	206	93	92	278
2915	30531	81	97	222	85	111	315
2916	**Local Check (LC)**	93	97	251	86	107	288
Exp. Mean		**85**	**97**	**235**	**88**	**107**	**249**

Table No. 6.25 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – U (H)(Trials Not Considered) Kharif 2022

ENTRY NO	IET NO	TRIALS NOT CONSIDERED														
		MANIPUR (0)			HIMACHAL PRADESH						MEGHALAYA 2 (0)			UTTARAKHAND (0)		
		@WANGBAL			@Sundernagar (Malan)			@Bhertin			@Barapani (Umiam) ICAR			@Almora- ICAR		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
2901	30520	85		508	106	100	389	77	129	158	111	111	352	103	92	149
2902	30521	94		408	107	102	490	91	91	217	110	110	296	103	84	79
2903	30522	85		345	102	85	480	73	131	150	110	110	313	104	112	163
2904	**Sukaradhan 1 (NC)**	87		314	103	77	419	77	132	157	110	110	338	106	98	121
2905	30523	97		436	104	98	400	90	100	168	110	110	296	105	84	87
2906	30524	85		367	98	102	520	78	106	84	114	114	304	104	103	124
2907	30525	84		316	107	85	382	73	149	172	114	114	310	99	104	163
2908	**Zonal Check (ZC)**	92		233	97	117	476	70	102	130	114	114	377	93	89	127
2909	30526	87		259	109	104	502	88	104	71	114	114	324	110	85	91
2910	30527	102		428	117	83	471	94	83	174	114	114	327	109	85	133
2911	30528	86		343	100	92	447	75	85	51	116	116	332	109	93	84
2912	**VL Dhan 158 (ZC)**				104	82	462	75	132	229	117	117	290	105	109	90
2913	30529	86		355	103	95	410	73	138	128	117	117	307	104	110	144
2914	30530	104		387	119	101	477	91	93	190	117	117	277	104	84	115
2915	30531	88		354	109	84	389	75	105	149	117	117	340	104	93	167
2916	**Local Check (LC)**	103		384	110	100	408	74	102	198	117	117	310	98	88	137
Exp. Mean		**91**		**362**	**106**	**94**	**445**	**80**	**111**	**151**	**114**	**114**	**318**	**104**	**94**	**123**

INITIAL VARIETY TRIAL-JAPONICA (IVT-J)

Locations: 12 **Test Entries: 4**

Checks: Bhrigudhan, Varundhan, Shalimar Rice-5 and a local check **Table: 6.26**

The IVT-Japonica trial was constituted with four test entries and four checks viz. Bhrigudhan, Varundhan, Shalimar Rice-5 and a local check (LC). The trial was sent to 8 locations and data was not received from Almora ICAR, Pundibhari, Titabar, Gerua ICAR, and Lembuchera. Data from Khudwani, Malan and Malda is considered for analysis. It is observed that F variance ratio between treatments is significant at all the three locations.The data pertaining to yield, days to 50% flowering, plant height, panicles/m^2 and quality are presented in the tables 6.27, 6.28 and 6.29.

Experimental mean at the locations varied from 1310 kg/ha at Malan to 5825 kg/ha at Khudwani and CV ranged from as low as 3.18 % at Malda to 13.3 % at Malan. Overall mean grain yield of the entries varied from 2688 kg/ha (IET 30307) to 4254 kg/ha (Varundhan-check) days to fifty percent flowering from 67 (IET 30308) to 84 days (IET 30309 & 30306), plant height from 71.07 (IET 30308) to 105.13 cm (IET 30309) and panicles/m^2 from 265 (IET 30307) to 312 (Shalimar rice-5). On overall basis check Varunadhan is found superior among all the entries tested. In Zone I local check (LC) is the best among all the entries tested. The entry IET 30306 is in the second year of testing however the entry is not found superior to checks in Zone I as well as overall. Hence it is dropped for further testing.

None of the Entries are promoted to AVT1-Japonica

Table No. 6.26: Composition of entries in Initial Variety Trial- Japonica, (IVT-J), Kharif 2021-2022

Entry No.	IET No.	Designation	Cross Combination	Grain Type
1st year of testing:				
4701	30306	Hitomebore		SB
4702	30307	Hinohikari		SB
4703	**Bhrigudhan (Check)**			
4704	30308	Haenuki		SB
4705	**Varundhan (Check)**			
4706	30309	Akitakomachi		SB
4707	**Shalimar Rice-5 (Check)**			
4708	**Local Check**			

Table No. 6.27: Grain Yield (kg/ha) in IVT – Japonica (2021-2022)

ENTRY NO	IET NO	ZONE I – HILLY REGION								ZONE III-EASTERN (1)		Overall Mean (3)	
		JAMMU & KASHMIR (1)			HIMACHAL PRADESH (1)		ZONE I (2)			WEST BENGAL			
		KHUDWANI			MALAN		Mean			Malda			
4701	30306	6781	2	9%	519	8	3650	4		4033	2	3778	4
4702	30307	3661	8		1444	4	2553	8		2958	8	2688	8
4703	Bhrigudhan (Check)	6226	3		1019	5	3623	5		3369	4	3538	5
4704	30308	6188	4		556	7	3372	6		3027	7	3257	6
4705	Varundhan (Check)	5666	6		2000	2	3833	3		5096	1	4254	1
4706	30309	6953	1	12%	1481	3	4217	2		3358	5	3931	3
4707	Shalimar Rice-5 (Check)	5063	7		593	6	2828	7		3089	6	2915	7
4708	Local Check	6069	5		2870	1	4470	1		3424	3	4121	2
Exp. Mean		**5825.78**			**1310.19**		**2821.56**			**3544.17**		**3183.46**	
F Value		6.08(p=0.0001)S			52.31(p<0.0001)S		15.90(p<0.0001)S			93.96(p<0.0001)S		19.26(p<0.0001)S	
CD		1365.2			305.17		861.57			197.12		482.05	
CV%		**9.9102**			**13.3**		**17.44**			**3.18**		**8.65**	
D/S		28-05-2022			18-06-2022					29-06-2022			
D/P		18-06-2022			11-07-2022					25-07-2022			
Local Check Name		Shalimar Rice-5			Naggar dhan					Satchali			

Table No. 6.28: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – Japonica (2021-2022)

ENTRY NO	IET NO	ZONE I – HILLY REGION									ZONE III-EASTERN (1)			Overall mean (3)		
		JAMMU & KASHMIR (1)			HIMACHAL PRADESH (1)			ZONE I (2)			WEST BENGAL					
		KHUDWANI			MALAN			Mean			Malda					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
4701	30306	99	123	357	81	85	193	90	104	275	73	105	104	84	344	298
4702	30307	104	90	238	83	75	198	94	82	218	50	72	79	79	358	265
4703	Bhrigudhan (Check)	86	113	339	80	85	122	83	99	230	71	95	98	79	389	283
4704	30308	76	83	357	70	59	213	73	71	285	56	71	71	67	252	274
4705	Varundhan (Check)	92	111	315	82	93	152	87	102	233	64	85	96	79	401	289
4706	30309	100	123	350	82	106	192	91	115	271	69	86	105	84	354	298
4707	Shalimar Rice-5 (Che	75	86	312	72	59	252	73	72	282	68	73	73	71	373	312
4708	Local Check	77	83	361	83	89	222	80	86	291	78	105	92	79	350	311
Exp. Mean		**88**	**102**	**328**	**79**	**81**	**193**	**84**	**91**	**261**	**66**	**87**	**90**	**78**	**352**	**291**

Table No. 6.29: Grain quality characteristics of entries in IVT-J, kharif 2022

Entry No.	IET No.	Hull	Mill	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
4701	30306	81.3	71.9	58.0	4.34	2.70	1.60	SB	OC	7.0	19.97	22
4702	30307	82.7	74.4	72.0	4.63	2.63	1.76	SB	A	7.0	19.18	75
4703	Brigudhan	87.3	75.6	62.5	5.30	3.10	1.70	SB	VOC	7.0	18.92	77
4704	30308	85.4	75.2	51.9	4.85	3.14	1.54	SB	VOC	7.0	19.44	72
4705	Varundhan	83.3	73.5	63.3	5.01	2.91	1.72	SB	VOC	7.0	17.07	77
4706	30309	84.1	75.9	72.9	5.06	2.82	1.79	SB	VOC	7.0	18.21	56
4707	Shalimar Rice 5	85.3	75.6	56.8	4.91	2.99	1.64	SB	VOC	7.0	16.19	60
4708	Local Check	85.0	74.6	52.9	4.75	3.10	1.53	SB	VOC	7.0	19.09	74

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 SHORT GRAIN (IVT-ASG)

Locations: 36 **Test Entries: 13**

Checks: Shobini (National); Badshabhog Sel.-1 (Northern & Central), CR Sugandh Dhan 907 (Eastern & North Eastern), GAR-14 (Western), Sugandh Samba (Southern)—Zonal; Dubraj Sel.1 & Ketekejoja (Quality) and local check **Table:7.1**

The Initial Variety Trial – Aromatic Short Grain was constituted with 13 test entries and 5 checks viz., Shobini (NC), Zonal checks: Badshah bhog Sel.-1 (Northern and Central), CR Sugandh dhan 907 (Eastern & North Eastern), GAR-14 (Western), Sugandh Samba (Southern), and 2 quality checks: Dubraj Sel.1 (QC), Ketikijoha (QC) and Local check. The trial was conducted in six zones namely Zone 2 (Northern): UP, Zone 3 (Eastern): Odisha, Bihar, Jharkhand, 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 and Zone 7 (southern): Telangana, Tamil Nadu, Puducherry, Kerala and Karnataka. The trial data was received from 28 locations covering 15 states and six zones across the country. Data from six locations *viz*., Nagina, ICAR- NRRI, Jeypore, Jagadalpur, Sirsi, Karaikal are having low/ high CV, non significant F value and low mean yield were not considered for analysis.

Overall mean yield ranged from 3623 kg/ha (IET 31086) to 4841 kg/ha (NC); days to 50% flowering ranged from 96 days (IET 31084 and IET 31090) to 112 days (IET 31083 and Dubraj Sel. 1); plant height varied from 95 cm (IET 31088) to 135 cm (IET 31087) and number of panicles/m^2 ranged from 254 (IET 31093) to 284 (IET 31087). The data pertaining to yield, flowering, plant height, panicles/m^2 and quality were presented in tables 7.2, 7.3, and 7.4. Among the yield checks, National check is the top yielder (4841 kg/ha) followed by local check (4407 kg/ha), Ketekijoha (4310 kg/ha) Zonal check (4215 kg/ha) and Dubraj Sel.1 (4172 kg/ha).

On overall mean basis none of the entries showed required yield superiority over best varietal check. Similarly in zones III, IV, V, VI and VII none of the entries exhibited significant yield superiority over best check.

Zone wise performance of the entries in IVT ASG Kharif 2022

Zone II (Northern):

In Zone II a total of 18 entries were evaluated. Among the entries IET 31091 (HUR 22-6) derived from Basmati 370/ Sonowal Basmati-1-4-1-4 recorded maximum grain yield of 4976 kg/ha (Days to 50% flowering-57 days) and ranked first. The quality traits reported as HRR (50.8 %), ASV (7.0), low AC (17.07 %) and GC (70 mm) and has strong aroma and grain type is short bold. Based on grain type and head rice recovery, the entry is promoted to AVT 1 ASG.

Zone V (Central):

In Zone V, the entry IET 31090 recorded maximum grain yield of 4805 kg/ha (Days to 50% flowering 93). The quality traits reported as HRR (26.6 %), ASV (4.0), low AC (29.06 %) and GC (22 mm) and has strong aroma and grain type is short bold. Based on aroma, grain type and head rice recovery, however the entry is not promoted to AVT 1 ASG.

Zone wise performance of promising entries in IVT-ASG, Kharif 2022

Rank	IET No/ Designation/ Cross combination	GY/ DFF/ GT	Remarks
Promising entries in Zone - II (Northern):			
1	**IET 31091** (HUR 22-6) Basmati 370/ Sonowal Basmati-1-4-1-4	4976* 87 SB	Strong aroma with HRR-50.8 %, AC-17.07, GC-70, ASV 7.0
	National check(NC)	3976 56	
	Zonal Check (ZC)	3040 45	
	Local Check(LC)	-	
	Dubraj (QC1)	*4492* *54*	
	Ketkijoha (QC2)	3492 60	
	CD @ 5%	716	
Promising entries in Zone - V (Central):			
1	**IET 31090** (BKR 435) Lalat / Pusa 1176	4805 93 SB	Strong aroma with HRR-26.6 %, AC-29.06, GC-22, ASV 4.0-Dropped
	National check(NC)	4124 101	
	Zonal Check (ZC)	2613 112	
	Local Check(LC)	3418 108	
	Dubraj (QC1)	3114 109	
	Ketkijoha (QC2)	*4409* *103*	
	CD @ 5%	*585*	

Entry under consideration in IVT-ASG 2022

On basis of	Entries
Zone II	**IET 31091**

Table No. 7.1: Composition of entries in Initial Variety Trial -Aromatic Short Grain (IVT-ASG), Kharif 2022

Entry No.	IET No.	Designation	Cross Combination	GT
1st year of testing				
5701	31083	Aasanchunni Selection 1	Selection from Traditional Landrace Aasanchunni	SB
5702	31084	RNR 31637	UPRI 2012-8 / Sumathi	SS
5703	31085	Pusa 1176-91-1-3-2-1-1-7	Selection from Pusa 1176	SS
5704	**Shobini (NC)**			
5705	31086	Bauna Kalanamak SL-03		SB
5706	31087	Lokti Macchi Sel.-1	Sel. from local germplasm	SB
5707	**Badshabhog Sel.-1 (Northern & Central), CR Sugandh Dhan 907 (Eastern & North Eastern), GAR-14 (Western), Sugandh Samba (Southern)—ZC**			
5708	31088	Pusa 1652-10-11-2-2-2	PI 638 / Kalanamak	MS
5709	31089	NDR 8807-TFR-4	Pusa Basmati 1 Mutant / Karjat 4	MS
5710	31090	BKR 435	Lalat / Pusa 1176	SB
5711	**Dubraj Sel.1(QC)**			
5712	31091	HUR 22-6	Basmati 370 / Sonowal Basmati- 1-4-1-4	SB
5713	31092	BRR 2135	Sita / Rajendra Sweta	MS
5714	**Ketekijoha (QC)**			
5715	31093	NVSR 697	Indra MTU / Z-31	LS
5716	31094	Pusa 1638-07-130-2-67-1-2	P 1176 / Kalanamak	MS
5717	31095	Samundchini Mutant S 18-1	Mutant of Samundchini local landrace	SB
5718	**Local Check (LC)**			

Table No.7.2: Grain Yield (kg/ha) of entries in IVT - ASG, Kharif 2022

ENTRY NO	IET NO	ZONE II- NORTHERN				ZONE III- EASTERN					
		Uttar Pradesh (1)		Zone II (1)		Odisha (1)		Bihar			
		Kanpur		Mean		Chiplima		Bikramganj		Sabour	
5701	31083	4127	7	4127	7	2859		4337		5135	6
5702	31084	4500	3	4500	3			5941	5	4489	10
5703	31085	3119		3119		3324		4691		3877	
5704	Shobini (NC)	3976	8	3976	8	4588	1	6717	4	5591	3
5705	31086	3825	9	3825	9	4322	6	4217		3386	
5706	31087	4373	5	4373	5	4455	2	4034		3313	
5707	Zonal Check (ZC)	3040		3040		3790	8	4811	8	5276	5
5708	31088	3095		3095		4388	4	4722	10	3830	
5709	31089	3294		3294		3358	10	5448	7	5408	4
5710	31090	3635	10	3635	10	4422	3	7380	1	4923	8
5711	Dubraj Sel.1(QC)	4492	4	4492	4	3191		3712		4255	
5712	31091	4976	1	4976	1 *			7273	2	4923	8
5713	31092	2516		2516		4388	4	5455	6	6010	1
5714	Ketekijoha (QC)	3492		3492				4735	9	4077	
5715	31093	4603	2	4603	2			6862	3	5622	2
5716	31094	4373	5	4373	5	4056	7	4318		3955	
5717	31095	2413		2413		2992		4154		2812	
5718	Local Check (LC)					3557	9	4640		5009	7
Exp. Mean		**3756**		**3756**		**3835**		**5192**		**4549**	
F Value		**10.12(p<0.0001)S**		**10.12(p<0.0001)S**		**2.89(p=0.0320)S**		**9.10(p<0.0001)S**		**10.60(p<0.0001)S**	
CD		716		716		1238		1124		815	
CV%		**8.99**		**8.99**		**14.94**		**10.26**		**8.49**	
D/S		02-07-2022				19-07-022		28-06-2022		44730	
D/P		24-08-2022				29-08-2022		01-08-2022		44767	
Local Check Name						Geetanjali		R. Kashturi		Rajendra Kasturi	

For Promotion of entries:
***For Varietal entries: Yield of entry should be superior over yield of BVC+CD (at 5%level of significance).**
#For hybrid entries: Yield of entry should be superior over yield of BVC+CD and over yield of BHC+CD (at 5% level of significance)
In locations where the F variance ratio between treatments is non-significant, data from such locations was not considered in analysis.

Table No.7.2 (Contd): Grain Yield (kg/ha) of entries in IVT - ASG, Kharif 2022

ENTRY NO	IET NO	ZONE III- EASTERN											
		Bihar (2)		Jharkhand (1)		West Bengal						West Bengal (3)	
		Mean		Ranchi		Chinsurah		Pundibhari		Bankura		Mean	
5701	31083	4736	10	3517	6	5501	5	4983	10	5971	4	5485	9
5702	31084	5215	7	3517	6	4232		8146	1	5902	7	6093	2
5703	31085	4284		3381	8	5111	7	5846	8	6020	3	5659	5
5704	Shobini (NC)	6154	2	2840		5697	4	7667	2	6265	1	6543	1
5705	31086	3802		2908		4427		4408		5441		4759	
5706	31087	3674		3158		4622	8	3929		5951	5	4834	
5707	Zonal Check (ZC)	5044	8	3584	4	4590	9	6517	4	5480		5529	8
5708	31088	4276		3314	9	4525		4217		5137		4626	
5709	31089	5428	6	2908		4427		6229	5	5706	9	5454	
5710	31090	6152	3	3990	3	6315	1	6133	6	5539	10	5996	4
5711	Dubraj Sel.1(QC)	3984		4970	1 *	6152	2	4792		5941	6	5628	6
5712	31091	6098	4	2908		4492		6804	3	5157		5484	10
5713	31092	5733	5	3246		4557	10	4313		5412		4761	
5714	Ketekijoha (QC)	4406		3178		6022	3	5846	8	6157	2	6008	3
5715	31093	6242	1	3314	9.5	5143	6	6133	6	5402		5559	7
5716	31094	4137		2232		4329		4504		5784	8	4872	
5717	31095	3483		4058	2	4232		4792		5108		4711	
5718	Local Check (LC)	4825	9	3584	4	4069		4600		4324		4331	
Exp. Mean		**4870**		**3367**		**4914**		**5548**		**5594**		**5352**	
F Value		**12.03(p<0.0001)S**		**3.44(p=0.0070)S**		**4.99(p=0.0009)S**		**35.18(p<0.0001)S**		**2.44(p=0.0363)S**		**20.31(p<0.0001)S**	
CD		780		924		939		606		885		392	
CV%		**7.59**		**13.01**		**9.06**		**5.18**		**7.5**		**3.47**	
D/S				22-06-2022		28-06-2022		24-06-2022		22-07-2022			
D/P				02-08-2022		29-07-2022		20-07-2022		22-08-2022			
Local Check Name				BPT 5204		Gobindobhog		Gobindobhog		Danarguri			

Table No. 7.2 (Contd): Grain Yield (kg/ha) of entries in IVT - ASG, Kharif 2022

ENTRY NO	IET NO	ZONE III- EASTERN									
		Uttar Pradesh 2						Uttar Pradesh 2(3)		Uttar Pradesh (4)	
		Masodha		Varanasi		Gorakpur		Mean		Mean	
5701	31083	3590	4	4010		3125		3575		3713	
5702	31084	3723	2 *	4719		2793		3745		3934	8
5703	31085	3777	1 *	4479		3657	3	3971	8	3758	
5704	Shobini (NC)	2992		6573	4	3524	7	4363	5	4266	4
5705	31086	3125	10	6083	8	2394		3867	10	3857	
5706	31087	2992		1438		2327		2252		2783	
5707	Zonal Check (ZC)	2660		4010		2926		3199		3159	
5708	31088	2626		5406	10	3989	1	4007	7	3779	
5709	31089	2992		6448	5	1862		3767		3649	
5710	31090	2992		6365	7	2527		3961	9	3880	10
5711	Dubraj Sel.1(QC)	2660		5177		3723	2	3853		4013	5
5712	31091	3723	2 *	8042	1	2992		4919	1 *	4933	1 *
5713	31092	3524	6	6396	6	3590	4	4503	3	4007	6
5714	Ketekijoha (QC)	3590	4.5	5573	9	3191	9	4118	6	3962	7
5715	31093	3391	7	7115	2	3584	6	4697	2	4673	2
5716	31094	3358	8	4656		3191	9	3735		3895	9
5717	31095	3324	9	4000		3590	4	3638		3332	
5718	Local Check (LC)	2892		6854	3	3524	7	4423	4	4423	3
Exp. Mean		**3218**		**5408**		**3139**		**3922**		**3890**	
F Value		**3.21(p=0.0100)S**		**10.56(p<0.0001)S**		**7.65(p<0.0001)S**		**16.52(p<0.0001)S**		**11.15(p<0.0001)S**	
CD		640		1376		604		427		440	
CV%		**9.42**		**12.06**		**9.12**		**5.16**		**5.36**	
D/S		26-06-2022		14-06-2022		44743					
D/P		28-07-2022		44753		44779					
Local Check Name		NDR 6244		HUR-917		KN-3					

Table No. 7.2 (Contd): Grain Yield (kg/ha) of entries in IVT - ASG, Kharif 2022

ENTRY NO	IET NO	ZONE III- EASTERN		ZONE IV- NORTH EASTERN		ZONE V – CENTRAL					
		Zone III (10)		Tripura (1)		Madhya Pradesh (1)		Chhattisgarh			
		Mean		Arundhathinagar		Waraseoni		Raipur		Ambikapur	
5701	31083	4303		4190	8	4618	3	3649	9	3008	
5702	31084	4829	5	3590		2895		2661		5213	1
5703	31085	4416	10	4195	7	3540	8	1355		3742	4
5704	Shobini (NC)	5245	1	4505	4	3120		4602	5	3458	8
5705	31086	4071		3455		3158		1389		2708	
5706	31087	3622		4560	3	3070		5655	1	3921	3
5707	Zonal Check (ZC)	4364		4460	5	3421		2881		2850	
5708	31088	4215		4675	1	3509	9	1536		3575	6
5709	31089	4479	8	3975	9	3459	10	2497		3004	
5710	31090	5059	4	3860		5852	1 *	4842	4	3042	10
5711	Dubraj Sel.1(QC)	4457	9	3365		3114		3920	7	3021	
5712	31091	5146	3	4360	6	2826		3680	8	2971	
5713	31092	4689	7	3305		4217	4	2747		3600	5
5714	Ketekijoha (QC)	4708	6	3330		4179	5	4393	6	3963	2
5715	31093	5174	2	3580		3145		3337	10	3546	7
5716	31094	4038		3290		3571	7	1553		3325	9
5717	31095	3906		4650	2	5514	2 *	5552	2	2792	
5718	Local Check (LC)	4305		3870	10	3628	6	5127	3	2567	
Exp. Mean		**4502**		**3956**		**3713**		**3410**		**3350**	
F Value		**20.28(p<0.0001)S**		**2.36(p=0.0498)S**		**2.91(p=0.0161)S**		**23.7(p<0.0001)S**		**10.26(p<0.0001)S**	
CD		299		1005		1487		852		568	
CV%		**3.14**		**12.04**		**18.98**		**11.84**		**8.04**	
D/S				12-07-2022		18-06-2022		29-06-2022		11-07-2022	
D/P				05-08-2022		31-07-2022		26-07-2022		30-07-2022	
Local Check Name				Harinarayan (5718)		Improved Chinnor		Badshahbhog Sel. 1		MU1010	

Table No.7.2 (Contd): Grain Yield (kg/ha) of entries in IVT - ASG, Kharif 2022

ENTRY NO	IET NO	ZONE V – CENTRAL						ZONE VI – WESTERN			
		Chhattisgarh		Chhattisgarh (3)		Zone V (4)		Maharashtra			
		Bilaspur		Mean		Mean		Karjat		Vadagaon	
5701	31083	1700		2786		3244		5069	1	5299	4
5702	31084	6075	1	4650	1	4211	3	2505		4953	7
5703	31085	2660	10	2586		2824		2348		3405	
5704	Shobini (NC)	5315	4	4458	3	4124	4	3029	9	4460	
5705	31086	2440		2179		2424		2270		3408	
5706	31087	1350		3642	7	3499	9	2333		4610	10
5707	Zonal Check (ZC)	1300		2344		2613		3265	8	5445	1
5708	31088	2000		2370		2655		2289		3302	
5709	31089	4250	7	3250		3303		3907	4	5365	3
5710	31090	5485	3	4456	4	4805	1 *	2750		5432	2
5711	Dubraj Sel.1(QC)	2400		3114		3114		4543	2	4899	8
5712	31091	5690	2	4114	5	3792	6	3711	6	5126	5
5713	31092	4095	9	3481	9	3665	8	3567	7	4504	
5714	Ketekijoha (QC)	5100	5	4485	2	4409	2	2272		3501	
5715	31093	4775	6	3886	6	3701	7	4049	3	4686	9
5716	31094	4125	8	3001		3144		2777	10	3062	
5717	31095	2200		3515	8	4015	5	2012		3501	
5718	Local Check (LC)	2350		3348	10	3418	10	3789	5	5099	6
Exp. Mean		**3517**		**3426**		**3498**		**3138**		**4448**	
F Value		**30.55(p<0.0001)S**		**18.49(p<0.0001)S**		**10.71(p<0.0001)S**		**14.78(p<0.0001)S**		**5.66(p=0.0004)S**	
CD		857		537		585		674		1058	
CV%		**11.55**		**7.42**		**7.92**		**10.18**		**11.27**	
D/S		15-06-2022						17-06-2022		01-07-2022	
D/P		08-07-2022						13-07-2022		03-08-2022	
Local Check Name		VishnuBhog						Karjat Shatabdi		Indrayani	

Table No.7.2 (Contd): Grain Yield (kg/ha) of entries in IVT - ASG, Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN									
		Maharashtra (2)		Gujarat				Gujarat (2)		Zone VI (4)	
		Mean		Navasari		Nawagam		Mean		Mean	
5701	31083	5184	1 *	4218	9	1812		3015		4100	5
5702	31084	3729		3533		3965	6	3749	7	3739	
5703	31085	2877		4203	10	2856		3530	10	3203	
5704	Shobini (NC)	3745	10	5822	1	5352	4	5587	1	4666	3
5705	31086	2839		4653	4	1363		3008		2924	
5706	31087	3472		2767		3433	9	3100		3286	
5707	Zonal Check (ZC)	4355	7	4524	7	6304	1	5414	2	4885	1
5708	31088	2796		3456		2857		3157		2976	
5709	31089	4636	3	4432	8	984		2708		3672	
5710	31090	4091	8	3658		3934	7	3796	6	3944	6
5711	Dubraj Sel.1(QC)	4721	2	3228		3012		3120		3921	8
5712	31091	4419	5	4590	5	1781		3186		3802	10
5713	31092	4036	9			3644	8	3644	9	3905	9
5714	Ketekijoha (QC)	2887		3246		4161	5	3704	8	3295	
5715	31093	4368	6	4811	3	5675	2	5243	3	4805	2
5716	31094	2920		4543	6	5383	3	4963	4	3941	7
5717	31095	2757		2819		2086		2453		2605	
5718	Local Check (LC)	4444	4	5622	2	3307	10	4465	5	4454	4
Exp. Mean		**3793**		**4125**		**3439**		**3769**		**3785**	
F Value		**17.62(p<0.0001)S**		**9.63(p<0.0001)S**		**11.56(p<0.0001)S**		**11.66(p<0.0001)S**		**23.42(p<0.0001)S**	
CD		549		835		1311		818		393	
CV%		**6.86**		**9.55**		**18.07**		**10.29**		**4.92**	
D/S				18-06-2022		18-06-2022					
D/P				14-07-2022		28-07-2022					
Local Check Name				GAR-14		GR 101					

Table No.7.2 (Contd): Grain Yield (kg/ha) of entries in IVT - ASG, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN								Overall Mean (23)	
		Telanagana (1)		Tamil Nadu (1)		Kerala (1)		Zone VII (3)			
		Rajendranagar (1)		Aduthurai		Pattambi		Mean			
5701	31083	5067	6	6439	4	4819	6	5442	2	4219	9
5702	31084	5096	5	5341		4210		4882		4455	5
5703	31085	4045		5379		4448	9	4624		3889	
5704	Shobini (NC)	4016		5909	7	5329	2	5085	6	4841	1
5705	31086	3407		5758	9	4786	7	4650		3623	
5706	31087	3498		6667	3	4200		4788		3768	
5707	Zonal Check (ZC)	4782	8	6742	2	4276	10	5267	4	4215	10
5708	31088	3644		5152		5067	3	4621		3753	
5709	31089	4465	10	5833	8	3319		4539		4068	
5710	31090	5516	1	5530		4129		5058	7	4707	3
5711	Dubraj Sel.1(QC)	4807	7	5606	10	4971	5	5128	5	4172	
5712	31091	5337	2	5455		5529	1	5440	3	4652	4
5713	31092	4740	9	6136	5	4214		5030	8	4281	8
5714	Ketekijoha (QC)	4289		5455		5062	4	4935	10	4310	7
5715	31093	5289	3	5424		4119		4944	9	4709	2
5716	31094	2846		5303		4114		4088		3854	
5717	31095	3565		6136	5	4752	8	4818		3785	
5718	Local Check (LC)	5280	4	9545	1	3724		6183	1	4407	6
Exp. Mean		**4427**		**5989**		**4504**		**4973**		**4206**	
F Value		**5.94(p=0.0003)S**		**4.39(p=0.0003)S**		**6.63(p<0.0001)S**		**3.79(p=0.0042)S**		**41.09(p<0.0001)S**	
CD		958		1413		648		670		170	
CV%		**10.26**		**11.18**		**6.82**		**6.39**		**1.91**	
D/S		23-06-2022		13-08-2022		16-07-2022					
D/P		27-07-2022		16-09-2022		10-08-2022					
Local Check Name		Sugandha Sambha		ADT 52		JEERAKASHALA					

Table No.7.2 (Contd): Grain Yield (kg/ha) of entries in IVT - ASG, Kharif 2022 (Trial Not Considered)

ENTRY NO	IET NO	TRIALS NOT CONSIDERED											
		Uttar Pradesh		Odisha				Chhattisgarh		Karnataka		Puducherry	
		@Nagian		@ICAR-NRRI (Cuttack)		@Jeypore		@Jagadalpur		@Sirsi		@Karaikal	
5701	31083	2985		3968	3	804		4476	5	2538	2	2948	
5702	31084	3178		3079	10	2512		4082	10	788		3292	5
5703	31085	5672	1	1560		887		3724		1175		2813	
5704	Shobini (NC)	3112		4871	1	4145	3	3844		1325		3229	7
5705	31086	4182	5	2224		2638	9	4561	4	1213		3229	7
5706	31087	2892		3808	7	2754	8	4346	6	1606		2792	
5707	Zonal Check (ZC)	3497	9	3817	6	3538	5	4209	8	2225	4	2844	
5708	31088	5472	3	2161		820		3636		1125		3229	7
5709	31089	4455	4	2952		2029		4342	7	1925	9	3021	
5710	31090	5512	2	2420		4529	1	3757		2019	8	3646	3
5711	Dubraj Sel.1(QC)	3577	8	3840	5	2957	6	4665	3	2188	5	2917	
5712	31091	3098		3841	4	2826	7	3177		2106	7	4479	1
5713	31092	3411	10	3355	9	4290	2	4928	2	2544	1	2604	
5714	Ketekijoha (QC)	3032		4550	2	1981		3730		2350	3	3229	7
5715	31093	3152		3053		3768	4	4932	1	2175	6	3438	4
5716	31094	3717	7	1585		886		2389		956		3021	
5717	31095	3930	6	3709	8	2623	10	4170	9	1294		3125	10
5718	Local Check (LC)	3191		2449		2609		3893		1763	10	4167	2
Exp. Mean		**3781**		**3180**		**2589**		**4048**		**1740**		**3223**	
F Value		**52.94(p<0.0001)S**		**2.09(p=0.067)NS**		**12.46(p<0.0001)S**		**0.60(p=0.8504)NS**		**8.13(p<0.0001)S**		**2.06(p=0.0715)NS**	
CD		375		2010		991		2980		638		1016	
CV%		**4.69**		**29.97**		**18.15**		**34.89**		**17.39**		**14.94**	
D/S		19-06-2022		27-06-2022		17-07-2022		16-06-2022		13-06-2022		07-10-2022	
D/P		20-07-2022		27-08-2022		16-08-2022		11-07-2022		20-07-2022		30-08-2022	
Local Check Name		Type 3		CR DHAN 910		Kalajeera		Vishnubhog		ASHA		VGD 1	

Table No. 7.3: Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT - ASG, Kharif 2022

ENTRY NO	IET NO	ZONE II - NORTHERN						ZONE III - EASTERN								
		Uttar Pradesh (1)			Zone II (1)			Odisha (1)			Bihar					
		Kanpur			Mean			Chiplima			Bikramganj			Sabour		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5701	31083	45	86	278	45	86	278	118	96	228	122	133	364	128	123	243
5702	31084	54	78	247	54	78	247				94	106	361	102	97	256
5703	31085	45	70	304	45	70	304	121	72	374	102	114	359	116	114	213
5704	Shobini (NC)	56	91	336	56	91	336	98	70	237	103	111	351	116	109	222
5705	31086	57	76	286	57	76	286	117	86	330	104	112	335	117	108	220
5706	31087	53	64	278	53	64	278	117	109	189	121	143	375	127	150	309
5707	Zonal Check (ZC)	45	79	279	45	79	279	99	57	257	123	85	354	138	190	306
5708	31088	50	0		50	0		114	67	339	100	112	365	117	104	251
5709	31089	55	70		55	70		118	78	195	104	116	347	111	117	287
5710	31090	57	68	347	57	68	347	114	77	263	90	106	348	96	111	211
5711	Dubraj Sel.1(QC)	54	84	268	54	84	268	115	88	249	117	132	371	130	128	229
5712	31091	57	85	286	57	85	286				101	103	355	108	94	243
5713	31092	43	62	328	43	62	328	118	71	163	106	98	341	110	112	258
5714	Ketekijoha (QC)	60	68	358	60	68	358				105	123	360	121	97	257
5715	31093	58	77	315	58	77	315				106	128	349	116	125	238
5716	31094	33	66	350	33	66	350	99	59	301	102	105	329	116	109	251
5717	31095	55	74	311	55	74	311	115	98	294	122	120	323	125	110	193
5718	Local Check (LC)							118	108	142	98	116	347	116	126	332
Exp. Mean		**51**	**70**	**305**	**51**	**70**	**305**	**113**	**81**	**254**	**106**	**115**	**352**	**117**	**118**	**251**

Table No. 7.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT - ASG, Kharif 2022

ENTRY NO	IET NO	ZONE III - EASTERN														
		Bihar (2)			Jharkhand (1)			West Bengal								
		Mean			Ranchi			Chinsurah			Pundibhari			Bankura		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5701	31083	125	128	303	127	105	166	121	138	281	127	131	293	94	140	268
5702	31084	98	102	309	107	84	152	112	96	215	123	103	269	91	115	409
5703	31085	109	114	286	103	88	165	104	86	231	113	118	250	92	120	268
5704	Shobini (NC)	109	110	286	115	83	158	122	104	264	109	112	265	97	115	253
5705	31086	110	110	277	105	89	173	104	99	297	115	118	251	91	70	284
5706	31087	124	147	342	126	120	186	122	139	231	113	151	253	94	155	347
5707	Zonal Check (ZC)	130	137	330	130	73	139	123	98	281	115	90	189	120	90	472
5708	31088	108	108	308	105	83	162	109	90	281	115	105	339	88	90	346
5709	31089	107	116	317	117	91	147	114	109	264	116	113	290	89	90	268
5710	31090	93	109	280	107	94	166	112	107	330	118	119	292	94	110	269
5711	Dubraj Sel.1(QC)	123	130	300	127	102	186	122	132	281	127	133	299	98	150	330
5712	31091	104	99	299	116	77	146	114	98	297	101	94	296	90	100	316
5713	31092	108	105	299	120	82	152	123	110	231	102	104	296	97	115	348
5714	Ketekijoha (QC)	113	110	309	121	77	182	123	115	281	105	117	251	100	115	332
5715	31093	111	126	294	115	94	111	122	114	248	106	123	217	100	115	332
5716	31094	109	107	290	104	95	141	104	85	231	114	121	256	90	110	346
5717	31095	123	115	258	121	89	150	123	112	231	113	102	225	97	120	299
5718	Local Check (LC)	107	121	339	122	67	124	117	129	231	129	133	288	97	130	394
Exp. Mean		**112**	**116**	**301**	**116**	**89**	**156**	**116**	**109**	**261**	**114**	**116**	**268**	**96**	**114**	**327**

Table No. 7.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT - ASG, Kharif 2022

ENTRY NO	IET NO	ZONE III - EASTERN														
		West Bengal (3)			Uttar Pradesh 2									Uttar Pradesh 2(3)		
		Mean			Masodha			Varanasi			Gorakpur			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5701	31083	114	136	280	104	98	260	133	137	208	126	132	216	121	122	228
5702	31084	109	105	298	107	101	253	95	96	237	94	87	206	98	95	232
5703	31085	103	108	249	99	115	258	111	122	212	106	116	268	105	118	246
5704	Shobini (NC)	109	110	261	116	135	239	115	113	226	106	106	198	112	118	221
5705	31086	103	96	277	120	140	245	117	124	251	106	120	247	114	128	248
5706	31087	110	148	277	115	136	252	103	154	254	126	150	261	115	147	256
5707	Zonal Check (ZC)	119	93	314	110	126	239	137	88	243	130	86	280	126	100	254
5708	31088	104	95	322	97	101	227	117	104	280	108	97	265	107	101	257
5709	31089	106	104	274	93	116	237	113	121	216	109	108	225	105	115	226
5710	31090	108	112	297	107	104	215	93	125	212	94	106	185	98	112	204
5711	Dubraj Sel.1(QC)	116	138	303	112	110	217	129	136	197	122	131	213	121	126	209
5712	31091	102	97	303	111	115	230	106	99	251	102	94	220	106	103	234
5713	31092	107	110	292	103	125	230	106	110	203	104	96	229	104	110	220
5714	Ketekijoha (QC)	109	116	288	107	131	218	106	108	225	105	107	225	106	115	222
5715	31093	109	117	266	92	107	228	104	133	133	105	122	267	100	120	209
5716	31094	102	105	278	100	112	239	111	105	222	107	108	195	106	108	218
5717	31095	111	111	252	123	118	229	105	117	183	126	111	227	118	115	213
5718	Local Check (LC)	114	131	304	99	86	225	114	111	232	119	149	273	110	115	243
Exp. Mean		**109**	**113**	**285**	**106**	**115**	**235**	**112**	**117**	**221**	**111**	**113**	**233**	**110**	**115**	**230**

Table No.7.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT - ASG, Kharif 2022

ENTRY NO	IET NO	ZONE III - EASTERN						ZONE IV- NORTH EASTERN			ZONE-V – CENTRAL					
		Uttar Pradesh (4)			Zone III (10)			Tripura (1)			Madhya Pradesh (1)			Chhattisgarh		
		Mean			Mean			Arundhathinagar			Waraseoni			Raipur		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5701	31083	102	113	240	120	123	252	98	147	439	118	141	301	119	113	125
5702	31084	87	90	236	103	98	262	86	110	390	101	107	219	96	92	175
5703	31085	90	106	260	107	106	260	85	131	358	108	110	343	98	90	79
5704	Shobini (NC)	98	111	250	110	106	241	86	113	332	111	108	296	106	107	105
5705	31086	100	115	257	110	107	263	82	109	392	107	109	308	97	108	63
5706	31087	99	126	261	116	141	266	95	125	321	120	159	322	119	134	197
5707	Zonal Check (ZC)	105	95	260	122	98	276	96	108	408	116	143	303	112	109	128
5708	31088	93	76	257	107	95	285	81	120	399	109	102	290	99	112	105
5709	31089	92	104	226	108	106	247	98	132	364	108	112	267	109	111	116
5710	31090	88	101	240	102	106	249	97	130	404	97	123	324	97	107	163
5711	Dubraj Sel.1(QC)	104	115	224	120	124	257	101	129	275	116	161	283	112	108	146
5712	31091	94	98	247	105	97	261	99	95	389	107	105	204	106	99	134
5713	31092	89	98	247	109	102	245	78	134	391	110	121	269	106	112	155
5714	Ketekijoha (QC)	94	104	256	110	110	259	96	104	380	111	126	316	110	110	155
5715	31093	89	110	236	107	118	236	108	117	393	114	124	208	105	113	113
5716	31094	88	98	251	104	101	251	95	159	355	106	105	331	97	104	97
5717	31095	102	105	237	117	110	235	97	128	398	127	127	322	111	108	187
5718	Local Check (LC)	110	115	243	113	115	259	106	178	420	118	143	297	107	109	170
Exp. Mean		**96**	**104**	**246**	**110**	**109**	**256**	**93**	**126**	**378**	**111**	**124**	**289**	**106**	**108**	**134**

Table No. 7.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT - ASG, Kharif 2022

ENTRY NO	IET NO	ZONE-V – CENTRAL												ZONE VI – WESTERN		
		Chhattisgarh						Chhattisgarh (3)			Zone V (4)			Maharashtra		
		Ambikapur			Bilaspur			Mean			Mean			Karjat		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5701	31083	101	144	298	127	163		116	140	212	116	140	241	117	111	219
5702	31084	85	105	357	102	99		94	98	266	96	100	250	93	65	220
5703	31085	86	103	321	110	124		98	106	200	100	107	248	101	79	221
5704	Shobini (NC)	87	110	314	102	117		98	111	210	101	110	238	102	75	210
5705	31086	91	111	289	110	129		99	116	176	101	114	220	102	80	191
5706	31087	83	101	326	129	158		110	131	261	113	138	281	118	115	173
5707	Zonal Check (ZC)	100	143	292	122	165		111	139	210	112	140	241	101	84	207
5708	31088	90	143	317	114	122		101	125	211	103	119	237	97	74	196
5709	31089	86	99	300	113	138		102	116	208	104	115	227	103	85	209
5710	31090	88	107	298	91	139		92	118	230	93	119	261	90	84	205
5711	Dubraj Sel.1(QC)	86	105	298	123	160		107	125	222	109	134	242	119	108	216
5712	31091	90	146	299	89	111		95	119	216	98	115	212	98	79	210
5713	31092	90	95	318	96	99		97	102	236	100	107	247	98	71	202
5714	Ketekijoha (QC)	92	105	328	100	134		101	116	241	103	119	266	97	77	195
5715	31093	89	129	316	96	152		97	132	214	101	130	212	100	96	210
5716	31094	88	116	310	111	120		98	113	204	100	111	246	102	73	202
5717	31095	86	104	294	128	142		108	118	240	113	120	268	118	112	185
5718	Local Check (LC)	86	134	282	122	172		105	139	226	108	140	250	96	73	199
Exp. Mean		**89**	**117**	**309**	**110**	**136**		**102**	**120**	**221**	**104**	**121**	**244**	**103**	**86**	**204**

Table No. 7.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT - ASG, Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN																	
		Maharashtra			Maharashtra (2)			Gujarat						Gujarat (2)			Zone VI (4)		
		Vadagaon			Mean			Navasari			Nawagam			Mean			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5701	31083	108	113	269	112	112	244	119	187	276	128	184	158	124	185	217	118	149	231
5702	31084	99	87	252	96	76	236	90	109	209	95	114	187	92	111	198	94	93	217
5703	31085	90	76	207	95	78	214	108	133	190	111	127	164	109	130	177	102	104	195
5704	Shobini (NC)	102	77	232	102	76	221	101	124	232	109	123	231	105	123	231	103	100	226
5705	31086	88	84	188	95	82	189	107	148	291	111	147	147	109	147	219	102	115	204
5706	31087	107	141	253	112	128	213	122	173	408	128	191	169	125	182	288	119	155	251
5707	Zonal Check (ZC)	110	101	283	105	92	245	107	143	225	113	138	252	110	141	238	108	116	241
5708	31088	90	84	210	94	79	203	115	114	181	107	114	166	111	114	173	102	96	188
5709	31089	103	96	263	103	90	236	101	143	253	107	106	124	104	125	188	103	107	212
5710	31090	101	104	270	95	94	237	94	128	283	96	137	185	95	132	234	95	113	236
5711	Dubraj Sel.1(QC)	111	116	260	115	112	238	120	147	232	125	183	162	122	165	197	119	139	217
5712	31091	106	79	272	102	79	241	101	125	205	110	89	154	105	107	179	104	93	210
5713	31092	110	81	229	104	76	215		.		101	117	182	101	117	182	103	90	204
5714	Ketekijoha (QC)	108	81	208	102	79	201	97	130	190	109	138	204	103	134	197	102	106	199
5715	31093	111	82	223	106	89	216	98	151	186	113	146	238	105	148	212	105	119	214
5716	31094	92	72	236	97	72	219	108	131	304	123	124	222	116	127	263	106	100	241
5717	31095	105	106	229	111	109	207	109	118	169	123	156	163	116	137	166	114	123	187
5718	Local Check (LC)	108	86	237	102	80	218	107	124	227	114	121	170	110	123	198	106	101	208
Exp. Mean		**102**	**93**	**240**	**103**	**89**	**222**	**106**	**137**	**239**	**112**	**136**	**182**	**109**	**136**	**209**	**106**	**112**	**216**

Table No. 7.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m^2 in IVT - ASG, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN												Overall Mean (23)		
		Telanagana (1)			Tamil Nadu (1)			Kerala (1)			Zone VII (3)					
		Rajendranagar (1)			Aduthurai			Pattambi			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5701	31083	111	115	333	95	99	322	98	97	466	101	103	374	112	127	273
5702	31084	95	86	377	106	82	323	99	99	419	100	89	373	96	96	273
5703	31085	94	98	377	97	63	324	96	104	416	96	88	372	100	103	268
5704	Shobini (NC)	103	95	470	102	93	303	98	97	557	101	95	443	102	104	274
5705	31086	92	98	397	103	68	302	98	91	518	97	86	405	102	105	273
5706	31087	109	121	380	103	125	322	98	96	442	103	114	381	111	135	284
5707	Zonal Check (ZC)	103	83	427	106	71	304	98	105	368	102	86	366	111	107	283
5708	31088	96	83	427	99	71	263	96	89	349	97	81	346	100	95	274
5709	31089	103	102	377	97	82	322	98	91	435	99	91	378	103	105	262
5710	31090	100	104	413	93	72	283	98	82	417	97	86	371	96	106	276
5711	Dubraj Sel.1(QC)	116	106	410	109	86	292	98	92	397	108	95	366	112	123	264
5712	31091	105	80	513	95	83	321	99	93	421	100	85	418	100	97	274
5713	31092	107	98	357	109	86	222	98	97	434	105	94	338	101	100	263
5714	Ketekijoha (QC)	103	93	417	103	112	324	98	100	470	101	102	403	103	108	280
5715	31093	110	106	340	109	111	343	98	96	336	106	104	340	103	116	254
5716	31094	92	89	447	96	54	282	99	99	403	96	81	377	99	101	275
5717	31095	112	111	380	103	104	283	98	99	343	104	105	335	110	112	255
5718	Local Check (LC)	105	94	410	106	106	343	98	100	414	103	100	389	109	118	274
Exp. Mean		**103**	**98**	**403**	**102**	**87**	**304**	**98**	**96**	**422**	**101**	**94**	**376**	**104**	**109**	**271**

Table No. 7.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT - ASG, Kharif 2022

ENTRY NO	IET NO	TRIAL NOT CONSIDERED								
		Uttar Pradesh			Odisha					
		@Nagian			@ICAR-NRRI (Cuttack)			@Jeypore		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5701	31083	110	115	323	121	125	300	105	97	211
5702	31084	111	90	240	119	86	317	105	118	249
5703	31085	119	99	262	109	93	284	98	95	197
5704	Shobini (NC)	121	92	258	129	93	323	95	119	357
5705	31086	119	99	196	109	92	300	96	117	226
5706	31087	133	136	278	124	116	312	101	119	240
5707	Zonal Check (ZC)	132	138	212	124	88	279	112	93	320
5708	31088	125	89	228	109	79	300	93	119	190
5709	31089	127	101	230	117	93	292	112	113	322
5710	31090	111	105	249	118	92	305	100	92	355
5711	Dubraj Sel.1(QC)	134	97	283	120	104	290	98	116	335
5712	31091	117	86	298	128	77	305	114	110	329
5713	31092	126	85	293	115	88	292	108	91	377
5714	Ketekijoha (QC)	127	103	236	129	101	328	111	117	272
5715	31093	121	105	283	130	86	302	115	117	361
5716	31094	120	95	234	108	91	297	93	115	193
5717	31095	134	124	210	117	105	289	101	97	297
5718	Local Check (LC)	112	139	227	128	104	327	113	124	241
Exp. Mean		**122**	**105**	**252**	**119**	**95**	**302**	**104**	**109**	**281**

Table No. 7.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT - ASG, Kharif 2022

ENTRY NO	IET NO	TRIAL NOT CONSIDERED								
		Chhattisgarh			Karnataka			Puducherry		
		@Jagadalpur			@Sirsi			@Karaikal		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5701	31083	112	108	298	117	107	307	90	129	315
5702	31084	98	70	298	107	76	228	87	105	365
5703	31085	102	71	295	99	78	255	79	99	328
5704	Shobini (NC)	107	71	329	115	79	327	88	117	329
5705	31086	99	77	323	96	84	291	87	105	179
5706	31087	115	125	379	117	126	304	87	150	331
5707	Zonal Check (ZC)	110	121	345	115	81	300	89	123	313
5708	31088	103	78	312	100	70	284	79	69	369
5709	31089	90	80	360	117	93	248	83	116	343
5710	31090	97	82	299	106	84	241	89	131	350
5711	Dubraj Sel.1(QC)	111	112	260	121	106	241	86	134	300
5712	31091	107	73	285	119	77	330	89	108	356
5713	31092	106	78	348	123	87	271	86	121	381
5714	Ketekijoha (QC)	113	82	366	117	89	261	89	127	327
5715	31093	110	89	295	121	99	277	86	150	423
5716	31094	102	81	303	100	74	192	77	82	468
5717	31095	112	85	263	115	104	261	88	121	429
5718	Local Check (LC)	102	107	291	129	143	244	96	133	435
Exp. Mean		**105**	**88**	**314**	**113**	**92**	**270**	**86**	**118**	**352**

Table No. 7.4: Grain quality characteristics of entries in IVT-ASG, kharif 2022

Entry No.	IET No.	Hull	Mill	HRR	KL	KB	L/B	Grain Type	Grain Chalk	VER	WU	KLAC	ER	ASV	AC	GC	Aroma
5701	31083	79.3	67.5	63.8	3.73	2.19	1.70	SB	VOC	5.0	145	5.8	1.55	4.0	27.72	22	NS
5702	31084	79.1	64.7	49.2	5.27	1.71	3.08	SS	VOC	5.3	340	7.9	1.49	7.0	16.16	85	NS
5703	31085	76.5	55.2	30.8	5.94	1.81	3.28	SS	VOC	5.6	240	9.6	1.61	4.0	20.70	55	SS
5704	Shobini (NC)	78.9	68.1	55.2	5.74	1.71	3.35	SS	VOC	5.4	300	8.6	1.49	4.0	26.72	22	SS
5705	31086	79.5	62.5	26.2	4.95	2.27	2.18	SB	OC	4.8	240	8.7	1.75	4.0	20.41	53	SS
5706	31087	81.7	72.0	71.2	3.85	1.89	2.03	SB	VOC	4.5	195	6.8	1.89	4.0	22.11	38	SS
5707	Badshahbhog Sel-1 (ZC)	82.1	70.2	55.3	4.01	2.05	1.95	SB	VOC	5.2	225	7.8	1.94	4.0	23.34	51	MS
5708	31088	80.0	62.1	30.5	5.10	1.91	2.67	MS	VOC	5.4	240	9.3	1.82	4.0	21.91	49	MS
5709	31089	78.4	64.7	42.0	5.11	1.73	2.95	MS	VOC	4.8	245	10.1	1.97	5.0	25.54	22	NS
5710	31090	79.5	66.1	26.6	5.29	2.22	2.38	SB	VOC	5.3	185	9.4	1.77	4.0	29.06	22	SS
5711	Dubraj Selection-1 (QC)	81.6	68.1	55.5	5.38	1.88	2.86	MS	VOC	5.4	200	9.6	1.78	4.0	25.52	22	SS
5712	31091	77.9	67.1	50.8	4.09	2.09	1.95	SB	VOC	5.3	330	6.1	1.49	7.0	17.07	70	SS
5713	31092	81.7	68.9	55.0	5.01	1.76	2.84	MS	VOC	5.4	250	9.1	1.81	4.0	26.78	45	MS
5714	Ketekijoha (QC)	80.5	67.9	56.8	5.74	1.87	3.06	SS	VOC	5.4	235	9.6	1.67	4.0	26.81	43	SS
5715	31093	80.9	63.8	46.2	6.39	1.97	3.24	LS	VOC	4.7	390	9.7	1.51	7.0	25.98	44	SS
5716	31094	79.8	60.5	27.4	5.24	1.80	2.91	MS	VOC	5.6	280	9.7	1.85	4.0	21.82	47	SS
5717	31095	79.7	70.9	67.3	4.01	1.94	2.06	SB	VOC	5.4	200	6.4	1.59	4.0	23.49	50	SS
5718	Local Check (LC)	81.4	68.4	55.9	5.87	1.85	3.17	SS	VOC	5.3	220	9.5	1.61	4.0	28.36	44	MS

HULL: Hulling (%) MILL: Milling (%) HRR: Head Rice Recovery KL: Kernel length (mm) KB: Kernel Breadth(mm) L/B Length and Breadth(mm) Grain chalk: Grain Chalkiness VOC Very Occasionally Chalky OC: Occasionally Chalky P: Present A: Absent KLAC: Kernel length after cooking WU: Water uptake ER: Elongation ratio AC: Amylose content (%) ASV: Alkali Spreading Value AC: Amylose Content ELS: Extra Long Slender LS: Long Slender MS: Medium Slender SS: Strongly Scented MS: Mild Scented NS: Non-Scented

ADVANCE VARIETY TRIAL 2 &1-LOW PHOSPHORUS TOLERANCE (AVT 2 & 1 LPT)

Locations: 8 **Test Entries: 15**

Checks: Positive –Swarna, Rasi and Vandana (Early check) **Table:8.1**
Susceptible - Improved Samba Mahsuri

AVT 2 & 1Low Phosphorus Tolerance trial was constituted with 15 test entries, three positive checks Viz.,Swarna, Rasi and Vandana (Early check) and one susceptible check (Improved Samba Mahsuri), two recurrent parents (Pusa 44 and WGL 32100). Among the test entries, one entry IET 28821 was in third year of testing, 11 entries were in second year of testing, two entries IET 29558 and IET 29546 were NILs of Pusa 44 and one entry IET 30760 was NIL of WGL 32100. 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 13 locations but the data was not received from 5 locations viz., Ludhiana, Kaul, Varanasi, Raipur and Vadagaon. The data from remaining 8 locations viz., ICAR NRRI, Pusa, Ranchi, Karjat, Maruteru, ICAR IIRR, Mandya and Gangavati were received.In all eight locations, the trial was conducted under both P 50 % and P 0 except Pusa where in only P 50% treatment was conducted but not P 0. The data from Ranchi under P 0 was not considered for analysis due to high CV (25.48%). The data pertaining to yield, days to 50% flowering, plant height, panicles/m^2 and quality are presented in tables 8.2, 8.3 and 8.4 respectively

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. Zone wise promotion of entries at P 0 and P 50 % is mentioned in Table.

Zone wise promotion of entries at P 0 and P 50 % is tabulated below

	P 0	**P 50%**
	Entries promoted/found promising under different zones / overall mean	
Zone VII	IET 28821 (5054 kg/ha) *(HRR-62.5, AC-24.11, GC-22)* IET 29549 (5470 kg/ha) *(HRR-68, AC-21.85, GC-24)* IET 30240 (5256 kg/ha) *(HRR-70.7, AC-23.14, GC-26)* IET 30252 (5876 kg/ha) *(HRR-67.9, AC-23.18, GC-22)* IET 30235 (5808 kg/ha) *(HRR-64.7, AC-22.88, GC-22)* Swarna (4344 kg/ha) Rasi (4090 kg/ha)	IET 30233 (6036 kg/ha) *(HRR-64.9, AC-19.97, GC-22)* IET 29549 (5910 kg/ha) IET 30240 (5845 kg/ha) IET 30235 (6741 kg/ha) Swarna (5303 kg/ha) Rasi (4032kg/ha) CD = 538 kg/ha

	P 0	P 50%
	Entries promoted/found promising under different zones / overall mean	
	CD = 587 kg	
Overall	IET 29549 (4823 kg/ha) IET 30240 (4763 kg/ha) IET 30252 (4943 kg/ha) IET 30235 (5128 kg/ha) Swarna (4258 kg/ha) Rasi (3977 kg/ha) CD = 371 kg	IET 30233 (5027 kg/ha) IET 29549 (4897 kg/ha) IET 30252 (4766 kg/ha) IET 30235 (5388 kg/ha) Swarna (4352 kg/ha) Rasi (3809 kg/ha) CD = 385 kg/ha

At P 50%, in Zone VII and also on overall basis, the two entries IET 30230 and IET 30242 recorded 97 days to 50% flowering. Hence these are compared with Rasi for yield superiority. These two are found statistically superior to the check Rasi by considering CD in Zone VII and also on overall mean basis. Hence these two entries IET 30230(*HRR-67.9, AC-24.14, GC-22*) and IET 30242 (*HRR-65.5, AC-23.32, GC-22*) are promoted to third year of testing. By considering the performance of entries at P 0 and P 50%, **a total of seven entries Viz., IETs 29549, 30240, 30252, 30235, 30233, 30230 and 30242 are promoted to third year of testing.**The entry IET 28821 was in third of testing, hence discussed separately at the end.

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 one NIL IET 30760 in the background of WGL 32100.

	Grain yield (kg/ha)			
NIL entry	**Zone 3**	**Zone 6**	**Zone 7**	**Overall**
	P 0 Level			
IET 29558 (RP – Pusa 44)	3021	4809	4314	4181
IET 29546 (RP – Pusa 44)	3015	4699	4265	4129
Pusa 44	2564	4689	4207	4014
IET 30760 (RP – WGL 32100)	2624	3577	4555	4070
WGL 32100	3358	4128	4416	4192
CD	794	707	587	371
	P 50% Level			
IET 29558 (RP – Pusa 44)	3568	4961	4941	4429
IET 29546 (RP – Pusa 44)	3908	4803	4197	4164
Pusa 44	3525	4839	4792	4323
IET 30760 (RP – WGL 32100)	3376	3731	5218	4341
WGL 32100	3659	4306	5112	4466
CD	582	728	538	385

Among the tested locations two NILs IET 29558 and IET 29546 did not perform superior to recurrent parent (RP),Pusa 44 in any zone or overall either at P 0 or at P 50%. One NIL IET 30760 did not found superior to recurrent parent (RP), WGL 32100in any zone or overall either at P 0 or at P 50%. **Therefore, all the three NILs IET 29558, IET 29546 and IET 30760 are discontinued.**

Three years' performance of IET 28821

IET No/ Designation	Year	P level	Zone		State	
			Zone (GY)	% BC	State (GY)	%BC
IET 28821 RP 5964-82 KMR 3 / Swarna	2022	P 0	Z – 7 (5054)	16	KA (6341)	50
		P 50%			JH (3600) TE (4010) KA (5979)	59 11 19
	2021	P 0	Z – 3 (5200) Z – 7 (7560)	11.54 47	UP (5200) KA (7560)	11.54 47
		P 50%	-	-	-	-
	2020	P 0	-	-	TE (4200)	5.2
		P 50%	-	-	-	-

IET 28821 (RP 5964-82**)** derived from the cross KMR 3 / Swarna has recorded average days to 50% flowering of 102 days. It has shown superior performance over best check in Zone 7 consecutively during 2021 and 2022. Among the states it showed consistent superior performance in Karnataka during 2022 and 2021 and Telangana during 2022 and 2020. **Hence the entry IET 28821 is found to be promising for Karnataka and Telangana in Zone VII.**

INITIAL VARIETY TRIAL-LOW PHOSPHORUS TOLERANCE (IVT-LPT)

Locations: 7 **Test Entries: 21**

Checks: Positive –Swarna, Rasi and Vandana (Early check) **Table:8.5**
Susceptible - Improved Samba Mahsuri

IVT- Low Phosphorus Tolerance trial was constituted with 21 test entries, three positive checks Viz.,Swarna, Rasi and Vandana (Early check) and one susceptible 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 13 locations but the data was not received from 5 locations viz., Ludhiana, Kaul, Varanasi, Raipur and Vadagaon. The data from remaining 8 locations viz., ICAR NRRI, Pusa, Ranchi, Karjat, Maruteru, ICAR IIRR, Mandya and Gangavati were received. In all eight locations, the trial was conducted under both P 50 % and P 0 except Pusa where in only P 50% treatment was conducted but not P 0. The data from Ranchi under P 0 is not considered due to low experimental mean (1864 kg/ha). The entry qualifies for promotion if it is found significantly superior (By considering CD value) than the best check either at P 0 or at P 50% either at zone level or overall mean. The data pertaining to yield, days to 50% flowering, plant height and panicles/m^2 are presented in tables 8.6, and 8.7 respectively

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 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. Zone wise promotion of entries at P 0 and P 50 % is mentioned in Table.

Zone wise promotion of entries at P 0 and P 50 % is tabulated below

	P 0	P 50%
	Entries promoted under different zones / overall mean	
Zone VI	-	IET 31100 (6278 kg/ha) Swarna (5435 kg/ha) Rasi (5417 kg/ha) CD = 835 kg
Zone VII	IET 31096 (4066 kg/ha) IET 31098 (4947 kg/ha) IET 31100 (4386 kg/ha) IET 31101 (4497 kg/ha) IET 31102 (4456 kg/ha) IET 31103 (5028 kg/ha) IET 31105 (4398 kg/ha) IET 31108 (4388 kg/ha) IET 31110 (4693 kg/ha) Swarna (3913 kg/ha) Rasi (3600 kg/ha) CD = 461 kg	IET 31097 (5393 kg/ha) IET 31098 (5566 kg/ha) IET 31102 (5390 kg/ha) IET 31103 (5480 kg/ha) IET 31110 (5272 kg/ha) Swarna (4404 kg/ha) Rasi (4755 kg/ha) CD = 508 kg/ha
Overall	IET 31098 (4693 kg/ha) IET 31103 (4654 kg/ha) Swarna (4043 kg/ha) Rasi (4171 kg/ha) CD = 366 kg	IET 31097 (4510 kg/ha) IET 31098 (4748 kg/ha) IET 31100 (4599 kg/ha) IET 31101 (4501 kg/ha) IET 31102 (4530 kg/ha) IET 31103 (4783 kg/ha) IET 31106 (4552 kg/ha) Swarna (4192 kg/ha) Rasi (4246 kg/ha) CD = 242 kg/ha

At P 0, the entry IET 31096 recorded 98 days to 50% flowering in Zone VII, hence it is compared with Rasi for yield superiority. It was found that IET 31096 is statistically superior to check Rasi by considering CD value in zone VII. Hence IET 31096 is promoted to second year of testing.

At P 50%, on overall mean basis, the entries IET 31112 and IET 31115 recorded 89 days and 90 days to 50% flowering. Hence these are compared to Vandana for yield superiority. These two are found statistically superior to check Vandana by considering CD on overall mean basis. Hence these two entries IET 31112 and IET 31115 are promoted to second year of testing. By considering the performance of entries at P 0 and P 50%, **a total of 13entries Viz., IETs 31100, 31096, 31097, 31098, 31101, 31102, 31103, 31105, 31106, 31108, 31110, 31112 and 31115 are promoted to second year of testing.**

Table No. 8.1: Composition of entries in Advance Variety Trial 2 & 1 -Low Phosphorus Tolerance Trial (AVT 2 & 1-LPT), Kharif 2022

Entry No.	IET No.	Designation	Cross Combination	GT
3rd year of testing				
5801	28821	RP 5964-82	KMR 3R / Swarna*1	LB
2nd year of testing				
5802	30233	WGL 1495	MTU 1121*2 / Swarna	MS
5803	30230	RP 6112-MS-M-92-11-5-7-33-6-2	BPT 5204 Mutant	SB
5804	30241	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
5805	**Swarna (Positive Check)**			
5806	29549	RP 5977-MS-M-112-1-9-22-4-6-3	BPT 5204 Mutant	SB
5807	30240	RP 6524-MSA-16-399-16-332	Swarna / MTU 1010	MS
5808	30245	RP 6499-MAID-93-12-9-2-1-1-1	WGL14 / RP Patho-3 // WGL14/ Rathuheenati // /WGL14 / RP 5925-24 // WGL14 / IR 96321-1447-561-B-1 //// WGL14 / IR 81896-96-B-B-195	MS
5809	**Rasi (Positive Check)**			
5810	30252	RP Bio 4919-B2-NSR 5	KMR 3 / O.rufipogon	SB
5811	30247	RP 6525-MSA-16-439-16-491	Nin 1035 / IR 64	MS
5812	30242	RP 5977-MS-M-33-4-8-3-7-5-1	BPT 5204 Mutant	LS
5813	**Vandana (Positive Very Early Duration Check)**			
5814	30244	RP 6526-MSA-16-493-16-1484	IR 64 / Swarna	LB
5815	**Improved Samba Mahsuri (Negative Check)**			
5816	30235	RP 6522-MSA-16-24-16-1550	MTU 1010 / Swarna	MS
1st year of testing (AVT 1-NIL)				
5817	29558	Pusa 5417-15-11-9-50-27	Pusa 44 / IR64-Pup 1-F // Pusa 44*2	MS
5818	29546	Pusa 5417-15-11-9-54-17	Pusa 44 / IR64-Pup 1-F // Pusa 44*2	MS
5819	**Pusa 44 (RP)**			MS
5820	30760	WGL 1590	WGL 32100 / Swarna // 2* WGL 32100	MS
5821	**WGL 32100 (RP)**			MS

Table No. 8.2: Grain Yield (kg/ha) in AVT 2 & 1 – LPT 0%, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN		ZONE VI – WESTERN		ZONE VII – SOUTHERN					
		Odisha (1)		Maharashtra (1)		Andhra Pradesh (1)		Telangana (1)		Karnataka	
		ICAR-NRRI (Cuttack)		Karjat		Maruteru		ICAR-IIRR, Hyderabad		Mandya	
5801	28821	3525	5	2963		3943		3590		5302	4
5802	30233	3665	2	4348	9	4253		4767	3 * 21%	4392	8
5803	30230	2630		4430	8	4257		3624	10	4667	5
5804	30241	3354	9	3915		6894	4	5069	1 * 29%	3450	
5805	Swarna (Positive Check)	3381	7	4792	4	7706	1	1876		3492	
5806	29549	3590	3	3470		7360	3	3685	9	4487	7
5807	30240	2958		4597	7	4791	9	3001		5788	2
5808	30245	3727	1 5%	3649		6487	5	4199	6 7%	3587	
5809	Rasi (Positive Check)	3540	4	3962		3950		3939	8	3598	
5810	30252	1944		4209	10	5890	8	4884	2 * 24%	5735	3
5811	30247	2732		3557		4076		4738	4 * 20%	4011	
5812	30242	3488	6	3340		3593		2800		3280	
5813	Vandana (Positive Very Early Duration Check)	2317		5171	1	4707		3026		556	
5814	30244	2986		4008		3560		2515		4317	9
5815	Improved Samba Mahsuri (Negative Check)	2665		3296		6337	6	2517		2899	
5816	30235	2562		4971	2	7539	2	4674	5 * 19%	5852	1
5817	29558	3021	10	4809	3	4054		2158		4603	6
5818	29546	3015		4699	5	3448		3528		4212	10
5819	Pusa 44 (RP)	2564		4689	6	4034		2794		4063	
5820	30760	2624		3577		6121	7	3517		3799	
5821	WGL 32100 (RP)	3358	8	4128		4714	10	4075	7	3122	
Exp. Mean		**3031**		**4123**		**5129**		**3570**		**4058**	
F Value		**3.05(p=0.0011)S**		**5.83(p<0.0001)S**		**11.98(p<0.0001)S**		**60.08(p<0.0001)S**		**28.39(p<0.0001)S**	
CD		794		707		1132		331		604	
CV%		**15.88**		**10.39**		**13.37**		**5.62**		**9.03**	
D/S		14-07-2022		23-06-2022		25-06-2022		27-06-2022		30-07-2022	
D/P		29-08-2022		25-07-2022		29-07-2022		31-07-2022		25-08-2022	
Local Check Name											

Table No. 8.2 (Contd): Grain Yield (kg/ha) in AVT 2 & 1 – LPT 0%, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN								Overall Mean (6)		
		Karnataka		Karnataka (2)			Zone VII (4)					
		Gangavathi		Mean			Mean					
5801	28821	7380	2	6341	3 *	50%	5054	5 *	16%	4451	7	
5802	30233	5513		4953	10	17%	4731	7	9%	4490	5	5%
5803	30230	4984		4826	14%		4383			4099		
5804	30241	4127		3789			4885	6	12%	4468	6	
5805	Swarna (Positive Check)	4303		3898			4344			4258	9	
5806	29549	6346	5	5417	6 *	28%	5470	3 *	26%	4823	3 *	13%
5807	30240	7444	1	6616	1 *	56%	5256	4 *	21%	4763	4 *	12%
5808	30245	4463		4025			4684	8	8%	4352	8	
5809	Rasi (Positive Check)	4872		4235			4090			3977		
5810	30252	6995	3	6365	2 *	50%	5876	1 *	35%	4943	2 *	16%
5811	30247	4287		4149			4278			3900		
5812	30242	5889	7	4585	8%		3891			3732		
5813	Vandana (Positive Very Early Duration Check)	3662		2109			2988			3240		
5814	30244	5857	9	5087	7 *	20%	4062			3874		
5815	Improved Samba Mahsuri (Negative Check)	3702		3301			3864			3569		
5816	30235	5168		5510	5 *	30%	5808	2 *	34%	5128	1 *	20%
5817	29558	6442	4	5523	4 *	30%	4314			4181		
5818	29546	5873	8	5043	8 *	19%	4265			4129		
5819	Pusa 44 (RP)	5938	6	5001	9 *	18%	4207			4014		
5820	30760	4784		4292			4555	9		4070		
5821	WGL 32100 (RP)	5753	10	4438			4416	10		4192	10	
Exp. Mean		**5418**		**4506**			**4446**			**4142**		
F Value		**7.74(p<0.0001)S**		**17.96(p<0.0001)S**			**11.14(p<0.0001)S**			**11.98(p<0.0001)S**		
CD		1169		740			587			371		
CV%		**10.34**		**9.95**			**8.01**			**5.42**		
D/S		14-07-2022										
D/P		12-08-2022										
Local Check Name												

Table No. 8.2: Grain Yield (kg/ha) in AVT 2 & 1 – LPT 50%, Kharif 2022

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	Kariat	
5801	28821	3740	10	2103			3600	3 *	59%	3148	3164	
5802	30233	3975	3	4762	2 *	13%	2867	26%		3868	3 13%	4464	10
5803	30230	3275		4762	2 *	13%	2333			3457	4575	8
5804	30241	3888	5	3492			2667	18%		3349	4028	
5805	Swarna (Positive Check)	4152	2	2460			2067			2893	4928	4
5806	29549	3765	8	4563	5	8%	3533	4 *	56%	3954	1 16%	3675	
5807	30240	3544		3810			2333			3229	4703	7
5808	30245	3922	4	2857			2867	26%		3215	3725	
5809	Rasi (Positive Check)	3861	6	4107	8		2267			3412	4111	
5810	30252	2575		5476	1 *	30%	2800	24%		3617	7 6%	4531	9
5811	30247	3479		4603	4	9%	2733	21%		3605	9 6%	3819	
5812	30242	4194	1	3571			3067	9	35%	3611	8 6%	3400	
5813	Vandana (Positive Very Early Duration Check)	2634		3889			2000			2841	5250	1
5814	30244	3657		4008	9		3267	7 *	44%	3644	6 7%	4108	
5815	Improved Samba Mahsuri (Negative Check)	2875		4206	6		2267			3116	3508	
5816	30235	3619		4167	7		3267	7 *	44%	3684	4 8%	5089	2
5817	29558	3444		3794			3467	6 *	53%	3568	10	4961	3
5818	29546	3834	7	3889			4000	1 *	76%	3908	2 15%	4803	6
5819	Pusa 44 (RP)	3033		3810			3733	2 *	65%	3525	4839	5
5820	30760	3306		3889			2933	10	29%	3376	3731	
5821	WGL 32100 (RP)	3753	9	3690			3533	4 *	56%	3659	5 7%	4306	
Exp. Mean		**3549**		**3900**			**2933**			**3461**	**4272**	
F Value		**2.28(p=0.0114)S**		**14.64(p<0.0001)S**			**6.19(p<0.0001)S**			**3.27(p=0.0005)S**	**5.26(p<0.0001)S**	
CD		907		549			845			582	728	
CV%		**15.48**		**8.52**			**17.47**			**10.19**	**10.32**	
D/S		14-07-2022		06-07-2022			23-06-2022				23-06-2022	
D/P		29-08-2022		29-07-2022			11-08-2022				25-07-2022	
Local Check Name												

Table No. 8.2(Contd): Grain Yield (kg/ha) in AVT 2 & 1 – LPT 50%, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN														Overall Mean (8)	
		Andhra Pradesh (1)		Telangana (1)		Karnataka				Karnataka (2)		Zone VII (4)					
		Maruteru		ICAR-IIRR, Hyderabad		Mandya		Gangavathi		Mean		Mean					
5801	28821	5532		4010	11%	4657	10	7300	1	5979	2	19%	5375	6		4263	
5802	30233	6997	5	7140	1 *	98%	4439		5569	8	5004	10	6036	2 *	14%	5027	2 * 16%
5803	30230	4938		5669	5 *	57%	4100		5288		4694		4999			4368	9
5804	30241	7535	4	5008	8 *	39%	4669	9	4095		4382		5327	7		4423	8
5805	Swarna (Positive Check)	7933	1	3188			5394	3	4696		5045	8	5303	8		4352	
5806	29549	7786	2	5047	7 *	40%	4935	7	5873	6	5404	5	7%	5910	3 *	11%	4897	3 * 13%
5807	30240	6519	7	5196	6 *	44%	4572		7091	2	5832	4	16%	5845	4 *	10%	4721	5 8%
5808	30245	6643	6	4541	*	26%	2927		4022		3475			4533			3938	
5809	Rasi (Positive Check)	4311		3615			3641		4559		4100			4032			3809	
5810	30252	6440	9	5871	4 *	62%	3604		6827	4	5216	6		5686	5	7%	4766	4 * 10%
5811	30247	4313		5900	3 *	63%	4330		3870		4100			4603			4131	
5812	30242	3907		4968	9 *	37%	6290	1	5473	10	5882	3	17%	5160	10		4359	10
5813	Vandana (Positive Very Early Duration Check)	4855		3077			4983	6	2877		3930			3948			3696	
5814	30244	5289		4029	11%		4608		5441		5025	9		4842			4301	
5815	Improved Samba Mahsuri (Negative Check)	6472	8	2862			5370	4	3341		4356			4511			3863	
5816	30235	7650	3	6241	2 *	73%	6132	2	6939	3	6536	1 *	30%	6741	1 *	27%	5388	1 * 24%
5817	29558	5806		4005	11%		4463		5489	9	4976			4941			4429	7
5818	29546	4429		2623			3967		5769	7	4868			4197			4164	
5819	Pusa 44 (RP)	5265		3939	9%		4076		5889	5	4983			4792			4323	
5820	30760	6213	10	4916	10 *	36%	4741	8	5000		4871			5218	9		4341	
5821	WGL 32100 (RP)	5281		4857	*	34%	5237	5	5072		5155	7		5112			4466	6
Exp. Mean		**5910**		**4605**			**4626**		**5261**		**4842**			**5086**			**4339**	
F Value		**19.71(p<0.0001)S**		**57.34(p<0.0001)S**			**7.03(p<0.0001)S**		**6.61(p<0.0001)S**		**3.24(p=0.0006)S**			**12.57(p<0.0001)S**			**8.14(p<0.0001)S**	
CD		770		429			827		1368		1050			538			385	
CV%		**7.89**		**5.64**			**10.83**		**12.46**		**13.14**			**6.41**			**5.37**	
D/S		25-06-2022		27-06-2022			30-07-2022		14-07-2022									
D/P		29-07-2022		31-07-2022			25-08-2022		12-08-2022									
Local Check Name																		

Table No. 8.2(Contd): Grain Yield (kg/ha) in AVT 2 & 1 – LPT 0%, Kharif 2022, Trial Not Considered

ENTRY NO	IET NO	TRIAL NOT CONSIDERED	
		Jharkhand (0)	
		@Ranchi	
5801	28821	2467	8
5802	30233	2200	
5803	30230	1733	
5804	30241	1667	
5805	Swarna (Positive Check)	1867	
5806	29549	2400	10
5807	30240	2533	5
5808	30245	2533	5
5809	Rasi (Positive Check)	1733	
5810	30252	1867	
5811	30247	2467	8
5812	30242	2200	
5813	Vandana (Positive Very Early Duration Check)	1533	
5814	30244	2733	2
5815	Improved Samba Mahsuri (Negative Check)	2333	
5816	30235	2800	1
5817	29558	2533	5
5818	29546	2267	
5819	Pusa 44 (RP)	2200	
5820	30760	2533	5
5821	WGL 32100 (RP)	2533	5
Exp. Mean		**2244**	
F Value		**1.20(p=0.3013)NS**	
CD		944	
CV%		**25.48**	
D/S		23-06-2022	
D/P		11-08-2022	
Local Check Name			

Table No. 8.3: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 & 1 – LPT 0%, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN			ZONE VI – WESTERN			ZONE VII – SOUTHERN								
		Odisha (1)			Maharashtra (1)			Andhra Pradesh (1)			Telangana (1)			Karnataka		
		ICAR-NRRI (Cuttack)			Karjat			Maruteru			ICAR-IIRR, Hyderabad			Mandya		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5801	28821	105	103	333	84	106	232	112	114	330	102	86	240	103	84	240
5802	30233	104	101	253	75	124	216	111	121	297	115	99	290	105	87	240
5803	30230	98	105	305	102	124	184	88	134	319	96	83	304	105	88	273
5804	30241	105	104	368	109	97	241	111	119	330	119	77	236	106	88	253
5805	Swarna (Positive Check)	106	86	372	107	117	214	113	115	308	107	81	216	107	81	277
5806	29549	106	123	307	103	100	202	105	151	297	117	98	180	101	103	253
5807	30240	108	97	276	100	100	210	113	133	308	117	83	232	104	83	250
5808	30245	108	104	324	102	101	202	118	116	275	110	82	260	104	86	243
5809	Rasi (Positive Check)	99	82	311	110	118	204	77	85	264	92	71	254	104	94	227
5810	30252	98	106	281	86	110	260	103	142	286	103	91	264	104	106	250
5811	30247	106	97	246	98	100	244	105	103	264	116	97	172	101	93	260
5812	30242	102	96	330	82	121	218	93	106	275	104	72	170	101	106	237
5813	Vandana (Positive Very Early Duration Check)	91	95	250	103	108	275	84	119	308	80	83	188	105	87	253
5814	30244	106	92	339	99	130	211	105	112	275	116	92	218	105	86	257
5815	Improved Samba Mahsuri (Negative Check)	111	90	341	81	101	225	113	115	275	106	74	254	104	75	287
5816	30235	107	90	234	86	90	202	113	128	330	117	94	234	103	102	283
5817	29558	97	86	346	100	123	244	100	102	264	103	67	184	105	81	267
5818	29546	107	87	220	98	91	212	104	104	275	105	91	212	111	84	283
5819	Pusa 44 (RP)	99	89	262	105	119	248	97	99	297	102	84	260	105	86	267
5820	30760	102	89	374	102	128	284	103	123	275	104	76	234	110	86	267
5821	WGL 32100 (RP)	106	86	333	98	99	207	104	109	264	118	83	226	104	83	277
Exp. Mean		**103**	**96**	**305**	**97**	**110**	**225**	**103**	**117**	**291**	**107**	**84**	**230**	**104**	**89**	**259**

Table No. 8.3(Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 & 1 – LPT 0%, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN									Overall Mean (6)		
		Karnataka			Karnataka (2)			Zone VII (4)					
		Gangavathi			Mean			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5801	28821	105	93	345	104	88	292	105	94	289	102	98	287
5802	30233	116	86	315	110	87	277	112	98	285	104	103	268
5803	30230	93	99	265	99	93	269	95	101	290	97	106	275
5804	30241	117	79	315	111	84	284	113	91	284	111	94	291
5805	Swarna (Positive Check)	122	71	291	114	76	284	112	87	273	110	92	280
5806	29549	105	113	299	103	108	276	107	116	257	106	115	256
5807	30240	112	94	315	108	88	282	112	98	276	109	98	265
5808	30245	114	80	305	109	83	274	112	91	271	109	95	268
5809	Rasi (Positive Check)	92	88	308	98	91	267	91	85	263	96	90	261
5810	30252	106	128	328	105	117	289	104	117	282	100	114	278
5811	30247	115	102	319	108	97	289	109	99	254	107	98	251
5812	30242	98	97	334	99	101	285	99	95	254	97	100	261
5813	Vandana (Positive Very Early Duration Check)	84	106	325	94	96	289	88	99	269	91	100	267
5814	30244	113	83	339	109	84	298	110	93	272	108	99	273
5815	Improved Samba Mahsuri (Negative Check)	115	68	303	109	71	295	109	83	280	105	87	281
5816	30235	110	92	276	106	97	279	111	104	281	106	99	260
5817	29558	104	87	330	105	84	298	103	84	261	102	91	272
5818	29546	109	86	284	110	85	283	107	91	263	106	91	248
5819	Pusa 44 (RP)	104	83	330	104	84	298	102	88	288	102	93	277
5820	30760	108	79	341	109	82	304	106	91	279	105	97	296
5821	WGL 32100 (RP)	112	83	345	108	83	311	110	90	278	107	91	275
Exp. Mean		**107**	**90**	**315**	**106**	**90**	**287**	**106**	**95**	**274**	**104**	**98**	**271**

Table No. 8.3: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 & 1 – LPT 50%, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN											
		Odisha (1)			Bihar (1)			Jharkhand (1)			Zone III (3)		
		ICAR-NRRI (Cuttack)			Pusa			Ranchi			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5801	28821	106	104	364	103	104	254	121			110	104	309
5802	30233	104	108	314	107	115	255	126			112	112	284
5803	30230	102	109	365	83	118	205	109			98	114	285
5804	30241	104	108	370	105	94	225	104			104	101	298
5805	Swarna (Positive Check)	104	88	373	111	79	194	121			112	83	283
5806	29549	104	129	367	104	118	235	123			110	123	301
5807	30240	109	101	369	112	100	204	127			116	101	286
5808	30245	105	107	385	104	100	191	125			112	104	288
5809	Rasi (Positive Check)	95	82	348	106	94	216	102			101	88	282
5810	30252	102	111	368	97	132	288	120			106	122	328
5811	30247	102	102	335	102	108	202	126			110	105	269
5812	30242	100	98	335	84	101	302	112			99	100	318
5813	Vandana (Positive Very Early Duration Check)	97	105	331	75	123	207	103			92	114	269
5814	30244	105	95	369	104	96	284	123			111	96	327
5815	Improved Samba Mahsuri (Negative Check)	107	91	347	108	80	256	125			113	85	301
5816	30235	105	99	325	108	102	221	126			113	100	273
5817	29558	104	94	348	99	94	210	120			108	94	279
5818	29546	100	93	295	100	97	256	122			107	95	275
5819	Pusa 44 (RP)	100	95	285	100	93	270	122			107	94	277
5820	30760	103	97	378	99	99	261	124			109	98	320
5821	WGL 32100 (RP)	101	94	373	98	96	233	124			108	95	303
Exp. Mean		**103**	**101**	**350**	**100**	**102**	**237**	**119**			**107**	**101**	**293**

Table No. 8.3(Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 & 1 – LPT 50%, Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN			ZONE VII – SOUTHERN								
		Maharashtra (1)			Andhra Pradesh (1)			Telangana (1)			Karnataka		
		Karjat			Maruteru			ICAR-IIRR, Hyderabad			Mandya		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5801	28821	82	111	272	111	126	407	103	100	268	104	93	283
5802	30233	105	128	238	110	122	363	112	94	315	107	72	293
5803	30230	99	128	213	87	134	363	100	99	266	105	77	287
5804	30241	108	104	262	110	132	407	110	105	282	103	70	253
5805	Swarna (Positive Check)	106	123	241	112	115	374	121	93	306	106	78	280
5806	29549	100	109	243	102	163	363	109	113	321	102	77	273
5807	30240	97	108	245	114	135	363	114	102	317	104	93	273
5808	30245	101	107	224	118	125	297	112	95	328	106	66	303
5809	Rasi (Positive Check)	109	125	236	74	76	275	90	83	321	105	74	300
5810	30252	86	114	287	100	170	341	105	109	341	109	86	263
5811	30247	97	106	264	101	137	330	115	102	334	97	89	287
5812	30242	77	127	257	87	111	308	103	77	286	101	228	293
5813	Vandana (Positive Very Early Duration Check)	102	115	291	80	125	341	81	87	284	108	120	270
5814	30244	98	151	251	107	112	330	110	92	304	106	92	287
5815	Improved Samba Mahsuri (Negative Check)	77	109	262	112	118	297	106	82	321	107	89	287
5816	30235	86	94	234	114	129	363	113	102	339	106	96	273
5817	29558	99	135	266	98	110	297	104	83	310	103	111	283
5818	29546	68	98	245	102	113	341	105	86	284	110	72	317
5819	Pusa 44 (RP)	104	123	264	95	104	308	102	85	277	106	93	267
5820	30760	101	131	299	102	123	308	106	88	334	109	90	310
5821	WGL 32100 (RP)	97	105	226	102	110	363	109	90	326	108	85	270
Exp. Mean		**95**	**117**	**253**	**102**	**123**	**340**	**106**	**94**	**308**	**105**	**93**	**283**

Table No. 8.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 & 1 – LPT 50%, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN									Overall Mean (8)		
		Karnataka			Karnataka (2)			Zone VII (4)					
		Gangavathi			Mean			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5801	28821	105	93	339	105	93	311	106	103	324	104	104	312
5802	30233	116	84	285	111	78	289	111	93	314	111	103	295
5803	30230	94	99	305	100	88	296	97	102	305	97	109	286
5804	30241	116	81	327	110	76	290	110	97	317	108	99	304
5805	Swarna (Positive Check)	123	68	315	114	73	297	115	88	319	113	92	297
5806	29549	109	121	347	105	99	310	105	118	326	107	118	307
5807	30240	115	101	327	109	97	300	112	108	320	111	106	300
5808	30245	116	83	312	111	74	308	113	92	310	111	98	291
5809	Rasi (Positive Check)	93	89	330	99	81	315	91	80	307	97	89	290
5810	30252	107	124	339	108	105	301	105	122	321	103	121	318
5811	30247	116	99	336	106	94	311	107	107	322	107	106	298
5812	30242	98	92	328	100	160	310	97	127	304	95	119	301
5813	Vandana (Positive Very Early Duration Check)	84	112	348	96	116	309	88	111	311	91	112	296
5814	30244	111	78	331	109	85	309	109	93	313	108	102	308
5815	Improved Samba Mahsuri (Negative Check)	112	71	314	110	80	300	109	90	305	107	91	297
5816	30235	113	92	315	109	94	294	111	105	323	109	102	296
5817	29558	108	79	339	105	95	311	103	96	307	104	101	293
5818	29546	109	81	361	109	77	339	106	88	326	102	91	300
5819	Pusa 44 (RP)	105	79	305	105	86	286	102	90	289	104	96	282
5820	30760	108	78	358	109	84	334	106	95	327	106	101	321
5821	WGL 32100 (RP)	111	82	330	109	84	300	107	92	322	106	95	303
Exp. Mean		**108**	**90**	**328**	**107**	**91**	**306**	**105**	**100**	**315**	**105**	**103**	**300**

Table No. 8.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 2 & 1 – LPT 0%, Kharif 2022 (Trial Not Considered)

ENTRY NO	IET NO	TRIAL NOT CONSIDERED		
		Jharkhand (0)		
		@Ranchi		
		DFF	PH	PAN
5801	28821	114		
5802	30233	128		
5803	30230	111		
5804	30241	128		
5805	Swarna (Positive Check)	128		
5806	29549	120		
5807	30240	128		
5808	30245	128		
5809	Rasi (Positive Check)	102		
5810	30252	120		
5811	30247	127		
5812	30242	112		
5813	Vandana (Positive Very Early Duration Check)	105		
5814	30244	120		
5815	Improved Samba Mahsuri (Negative Check)	128		
5816	30235	128		
5817	29558	120		
5818	29546	119		
5819	Pusa 44 (RP)	120		
5820	30760	120		
5821	WGL 32100 (RP)	120		
Exp. Mean		**120**		

Table No. 8.4: Grain quality characteristics of entries in AVT 2& 1-LPT, kharif 2022

Entry No.	IET No.	Hull	Mill	HRR	KL	KB	L/B	Grain Type	Grain Chalki	ASV	AC	GC
5801	IET-28821	77.9	68.6	62.5	6.16	2.24	2.75	LB	A	7	24.11	22
5802	30233	79.9	71.3	64.9	5.29	2.03	2.6	MS	A	4	19.97	22
5803	30230	79.2	69.6	67.9	5.39	2.16	2.49	SB	VOC	4	24.14	22
5804	30241	76.8	67.8	63.1	5.2	2.06	2.52	MS	A	4	21.58	24
5805	Swarna (P.Check)	78.3	69.1	66.4	5.03	2.23	2.25	SB	VOC	4	24.25	22
5806	29549	78.3	69.7	68	4.95	2.14	2.31	SB	VOC	4	21.85	24
5807	30240	79.8	71.6	70.7	5.57	2.06	2.7	MS	A	5	23.14	26
5808	30245	79.3	70.7	58	5.61	2.1	2.67	MS	VOC	4	22.46	22
5809	RASI(P.Check)	79.4	70	58.2	4.86	2.28	2.13	SB	A	7	25.93	26
5810	30252	78	59.3	67.9	5.23	2.29	2.28	SB	VOC	7	23.81	22
5811	30247	75.2	66.6	65.5	5.7	2.1	2.71	MS	F	4	14.81	56
5812	30242	79	69.4	65.5	6.6	2.16	3.05	LS	VOC	4	23.32	22
5813	Vandana	78.3	67.7	55.3	5.48	2.16	2.53	MS	VOC	4	26.01	46
5814	30244	81.6	73.1	70.4	6.83	2.3	2.96	LB	VOC	5	25.08	42
5815	ISM (NC)	81.1	71.8	64.3	5.08	1.83	2.77	MS	VOC	7	22.11	22
5816	30235	79.1	67.6	64.7	5.6	2.02	2.77	MS	VOC	4	22.88	22
5817	29558	78.5	67.5	65.5	5.59	2.06	2.71	MS	A	7	23.37	28
5818	29546	76.4	66.9	65.3	5.7	2.17	2.62	MS	VOC	7	22.9	22
5819	Pusa-44(RP)	78.2	69	66.5	5.59	2.09	2.67	MS	VOC	7	22.88	33
5820	30760	80.5	71.1	67	4.62	1.77	2.61	MS	A	4	21.35	22
5821	WGL-3200	80.2	70	66.2	4.78	1.87	2.55	MS	A	5	24.4	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. 8.5: Composition of entries in Initial Variety Trial -Low Phosphorus Tolerance Trial (IVT-LPT), Kharif 2022

Entry No.	IET No.	Designation	Cross Combination	GT
1st year of testing				
5901	31096	RP 6459-C2-168-1	166S-Swarna / O.nivara // 14S-Swarna / O.nivara	LS
5902	31097	CR 4395-6-3-47	CR Dhan 310 / CR Dhan 801 // 2* CR Dhan 310	LB
5903	31098	CR 3562-2-1-1-3-1-1	Surendra / N 22	MS
5904	31099	RP 5975-RMS-2	Rasi / Improved Samba Mahsuri	SB
5905	31100	CR 4387-RGA-271	CR Dhan 202 / SR-72-1	MS
5906	31101	RP Bio 4918-B2-175K-2	Swarna / O. nivara	MS
5907	31102	RP 6690-MASC-12-46	WB 9 / BPT 5204	LS
5908	31103	RP 6252-BV/RIL-BV1024	BPT5204 / Vardhan	SB
5909	31104	CR 4392-RGA-130	C767-4-2-1-1 / IET27218 // N22	MS
5910	**Swarna (Positive Check)**			
5911	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
5912	31106	RP 6712-MS-SF-39-4-2-3-9-5-1	Samba Mahsuri Mutant-93*2 / BPT 5204	MS
5913	31107	CR 4397-4-6-27	Lalat MAS / CR Dhan 801 // 2* Lalat MAS	LB
5914	**Vandana (Positive Very Early Duration Check)**			
5915	31108	RP 6691-HWR 31	IR 69502-6-SRN-3-UBN-1-B / O. glaberrima (TOG 6216)	MS
5916	31109	RP 6713-MS-SS-114-11-4-7-3-6-2	Samba Mahsuri Mutant-114 / BPT 5204	MS
5917	31110	RP 5405-JBB-631 (B)-B-BB-1-1-1-1	Swarna / IRGC 4105 // Swarna	SB
5918	31111	RP 5594-103-4-1 (PSV-21)	MTU 1010 / RPHR 1005	MS
5919	31112	RP 6689-PyF 111-25	NH 686 / NH787	SB
5920	31113	RP 5975-RMS-20	Rasi / Improved Samba Mahsuri	MS
5921	31114	RP 6699-1536-70-4-2-1-3	IET 23647 / IET 25350	MS
5922	**Improved Samba Mahsuri (Negative Check)**			
5923	31115	RP 6689-PyF-111-23	NH 686 / NH 787	SB
5924	**Rasi (Positive Check)**			
5925	31116	RP 6238-BV/RIL-RV132	Rasi / Vibhava	SB

Table No. 8.6: Grain Yield (kg/ha) in IVT – LPT 0%, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN		ZONE VI – WESTERN		ZONE VII – SOUTHERN			
		Odisha (1)		Maharashtra (1)		Andhra Pradesh (1)		Telangana (1)	
		ICAR-NRRI (Cuttack)		Karjat		Maruteru		ICAR-IIRR, Hyderabad	
5901	31096	3381		4713	9	5237		2032	
5902	31097	3337		3907		6002	8	3144	4 *
5903	31098	3443	9	4926	3	7694	1 *	2537	
5904	31099	3275		3065		4624		3041	5 *
5905	31100	3532	5	5211	2	6444	3	2403	
5906	31101	3776	4	5343	1	6125	7	3022	6 *
5907	31102	3160		4046		6156	6	3366	3 *
5908	31103	3007		4806	5	6464	2	2816	8 *
5909	31104	2581		4713	9	6169	5	2463	
5910	Swarna (Positive Check)	3879	2	4731	8	5245		2510	
5911	31105	3071		4824	4	5096		2718	10
5912	31106	3778	3	4472		5448	9	2545	
5913	31107	2894		4602		3509		4069	1 *
5914	Vandana (Positive Very Early Duration Check)	3505	6	2194		3763		986	
5915	31108	3067		4019		5333		2715	
5916	31109	3268		4111		3901		2069	
5917	31110	3493	7	4741	6	5295		3753	2 *
5918	31111	4039	1	4213		3775		1121	
5919	31112	3399	10	2315		5436	10	1337	
5920	31113	3062		4028		3142		2780	9 *
5921	31114	2732		4685		4205		1915	
5922	Improved Samba Mahsuri (Negative Check)	3101		4426		6232	4	1477	
5923	31115	3273		2389		3126		2031	
5924	Rasi (Positive Check)			4741	6	3600			
5925	31116	3447	8	3120		3687		2972	7 *
Exp. Mean		**3312**		**4174**		**5028**		**2492**	
F Value		**2.45(p=0.0041)S**		**8.13(p<0.0001)S**		**16.42(p<0.0001)S**		**93.13(p<0.0001)S**	
CD		622		859		834		220	
CV%		**11.42**		**12.53**		**10.10**		**5.36**	
D/S		14-07-2022		24-06-2022		25-06-2022			
D/P		29-08-2022		20-07-2022		29-07-2022			
Local Check Name									

Table No. 8.6(Contd): Grain Yield (kg/ha) in IVT – LPT 0%, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN								Overall Mean (5)	
		Karnataka				Karnataka (2)		Zone VII (4)			
		Mandya		Gangavathi		Mean		Mean			
5901	31096	3852	10	5144	6	4498	8	4066		4060	
5902	31097	3810		3694		3752		4163	9	3982	
5903	31098	3651		5905	4	4778	5 *	4947	2 *	4693	1 *
5904	31099	4212	4	4351		4282		4057		3761	
5905	31100	4106	5	4591	10	4349	10	4386	8 *	4381	5
5906	31101	4275	3	4567		4421	9	4497	4 *	4518	3
5907	31102	3534		4768	8	4151		4456	5 *	4172	
5908	31103	4677	1	6154	2	5416	1 *	5028	1 *	4654	2 *
5909	31104	3968	7	3574		3771		4044		3911	
5910	Swarna (Positive Check)	3672		4223		3948		3913		4043	
5911	31105	3704		6074	3	4889	3 *	4398	6 *	4248	6
5912	31106	3799		4720	9	4260		4128		4127	
5913	31107	4042	6	4279		4161		3975		3899	
5914	Vandana (Positive Very Early Duration Check)			2260		2260		2336		2542	
5915	31108	4561	2	4944	7	4753	6 *	4388	7 *	4107	10
5916	31109			4583		4583	7	3518		3586	
5917	31110	3873	9	5849	5	4861	4 *	4693	3 *	4501	4
5918	31111	3942	8	6330	1	5136	2 *	3792		3903	
5919	31112	3365		2412		2889		3138		3044	
5920	31113	3693		3109		3401		3181		3302	
5921	31114	3831		3918		3875		3467		3548	
5922	Improved Samba Mahsuri (Negative Check)	3481		2933		3207		3531		3608	
5923	31115	3323		2099		2711		2645		2707	
5924	Rasi (Positive Check)							3600		4171	8
5925	31116	3153		1787		2470		2900		3028	
Exp. Mean		**3842**		**4261**		**4034**		**3846**		**3831**	
F Value		**2.21(p=0.0125)S**		**8.63(p<0.0001)S**		**7.63(p<0.0001)S**		**15.02(p<0.0001)S**		**16.81(p<0.0001)S**	
CD		733		1313		717		**461**		**366**	
CV%		**11.57**		**14.89**		**11.04**		**7.31**		**5.81**	
D/S		30-07-2022		14-07-2022							
D/P		25-08-2022		12-08-2022		16-01-1911					
Local Check Name											

Table No.8.6: Grain Yield (kg/ha) in IVT – LPT 50%, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN							
		Odisha (1)		Bihar (1)		Jharkhand (1)		Zone 3(3)	
		ICAR-NRRI (Cuttack)		Pusa		Ranchi		Mean	
5901	31096	3842	8	3409		2200		3150	
5902	31097	3768	10	3944		2800	10	3504	
5903	31098	3987	6	3877		2800	10	3555	9
5904	31099	3488		5348	1 *	2400		3745	3
5905	31100	3731		4545	5	2600		3625	7
5906	31101	4295	1	3275		2933	6	3501	
5907	31102	3807	9	3944		2467		3406	
5908	31103	3055		4078	10	3933	1	3689	5
5909	31104	3115		4612	3 *	2800	10	3509	10
5910	Swarna (Positive Check)	4139	3	3476		2867	8	3494	
5911	31105	3222		3008		2733		2988	
5912	31106	4077	5	4345	6	3267	2	3896	1
5913	31107	3167		4612	3 *	2933	6	3571	8
5914	Vandana (Positive Very Early Duration Check)	3596		3476		2067		3046	
5915	31108	3652		3476		2733		3287	
5916	31109	3369		4679	2 *	2933	6	3660	6
5917	31110	4131	4	2540		2667		3113	
5918	31111	4166	2	4278	8	2733		3726	4
5919	31112	3740		4211	9	2267		3406	
5920	31113	3375		3743		2467		3195	
5921	31114	3049		1070		333		1484	
5922	Improved Samba Mahsuri (Negative Check)	3426		1872		1333		2210	
5923	31115	3620		3342		2200		3054	
5924	Rasi (Positive Check)			3543		3267	2	3405	
5925	31116	3975	7	4345	6	3067	4	3796	2
Exp. Mean		**3658**		**3722**		**2592**		**3257**	
F Value		**1.86(p=0.0343)S**		**6.53(p<0.0001)S**		**5.58(p<0.0001)S**		**7.66(p<0.0001)S**	
CD		882		1051		800		490	
CV%		**14.66**		**13.67**		**18.79**		**9.16**	
D/S		14-07-2022		06-07-2022		23-06-2022			
D/P		29-08-2022		28-08-2022		13-08-2022			
Local Check Name									

Table No.8.6(Contd): Grain Yield (kg/ha) in IVT – LPT 50%, Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN		ZONE VII – SOUTHERN					
		Maharashtra (1)		Andhra Pradesh (1)		Telangana (1)		Karnataka	
		Karjat		Maruteru		ICAR-IIRR, Hyderabad		Mandya	
5901	31096	4722		5783		3816		4341	
5902	31097	4000		6260	7	5562	6	5166	2
5903	31098	5056	8	7587	1	3946		5202	1
5904	31099	3148		4401		3938		4197	
5905	31100	6278	1 *	6926	3	3377		4699	5
5906	31101	5509	2	6332	6	5261	8	4520	8
5907	31102	4463		7312	2	5836	2	4078	
5908	31103	5278	5	5787	10	5466	7	4329	
5909	31104	4843		6177	8	2799		4604	6
5910	Swarna (Positive Check)	5435	3	5265		4886	9	3970	
5911	31105	4824		3795		5724	4	4508	9
5912	31106	4722		6412	4	3734		4903	3
5913	31107	4917	10	4877		5653	5	4891	4
5914	Vandana (Positive Very Early Duration Check)	2889		2290		1807			
5915	31108	4037		5558		5767	3	4532	7
5916	31109	4778		4552		4029			
5917	31110	5231	6	5317		6505	1	3695	
5918	31111	5019	9	4474		4079		4377	
5919	31112	2463		6045	9	4390		3767	
5920	31113	4435		3660		4045		3994	
5921	31114	4815		4568		4846		4484	10
5922	Improved Samba Mahsuri (Negative Check)	5074	7	6370	5	3481		3791	
5923	31115	3176		4109		4110		3731	
5924	Rasi (Positive Check)	5417	4	4755					
5925	31116	3259		3704		4860	10	3731	
Exp. Mean		**4551**		**5293**		**4497**		**4341**	
F Value		**9.73(p<0.0001)S**		**39.24(p<0.0001)S**		**29.17(p<0.0001)S**		**2.23(p=0.0118)S**	
CD		835		567		**561**		**881**	
CV%		**11.17**		**6.52**		7.60		**12.32**	
D/S		24-06-2022		25-06-2022				30-07-2022	
D/P		20-07-2022		29-07-2022				25-08-2022	
Local Check Name									

Table No.8.6(Contd): Grain Yield (kg/ha) in IVT – LPT 50%, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN						Overall Mean (8)	
		Karnataka		Karnataka (2)		Zone VII (4)			
		Gangavathi		Mean		Mean			
5901	31096	4431	10	4386		4593		4068	
5902	31097	4583	8	4875	6 *	5393	3 *	4510	6 *
5903	31098	5529	5	5366	1 *	5566	1 *	4748	2 *
5904	31099	3630		3914		4042		3819	
5905	31100	4639	7	4669	7	4910	10	4599	3 *
5906	31101	3886		4203		5000	8	4501	7 *
5907	31102	4335		4207		5390	4 *	4530	5 *
5908	31103	6338	1	5334	3 *	5480	2 *	4783	1 *
5909	31104	4239		4422	10	4455		4149	
5910	Swarna (Positive Check)	3494		3732		4404		4192	
5911	31105	6202	2	5355	2 *	5057	7	4252	
5912	31106	4952	6	4928	5 *	5000	8	4552	4 *
5913	31107	3950		4421		4843		4375	10
5914	Vandana (Positive Very Early Duration Check)	2989		2989		2362		2731	
5915	31108	4479	9	4506	9	5084	6	4279	
5916	31109	4386		4386		4322		4104	
5917	31110	5569	4	4632	8	5272	5 *	4457	8
5918	31111	5905	3	5141	4 *	4709		4379	9
5919	31112	2756		3262		4240		3705	
5920	31113	4163		4079		3966		3735	
5921	31114	3261		3873		4290		3303	
5922	Improved Samba Mahsuri (Negative Check)	2796		3294		4110		3518	
5923	31115	2901		3316		3713		3399	
5924	Rasi (Positive Check)					4755		4246	
5925	31116	2188		2960		3621		3641	
Exp. Mean		**4233**		**4260**		**4603**		**4107**	
F Value		**3.93(p=0.0008)S**		**3.20(p=0.0003)S**		**15.27(p<0.0001)S**		**33.32(p<0.0001)S**	
CD		**1684**		**979**		**508**		**242**	
CV%		**19.23**		**14.00**		**6.72**		**3.59**	
D/S		14-07-2022							
D/P		12-08-2022							
Local Check Name									

Table No.8.6 (Contd): Grain Yield (kg/ha) in IVT – LPT 0%, Kharif 2022 (Trial Not Considered)

ENTRY NO	IET NO	TRIAL NOT CONSIDERED	
		Jharkhand	
		@Ranchi	
5901	31096	2200	3
5902	31097	3000	1
5903	31098	2800	2
5904	31099	1800	
5905	31100	1600	
5906	31101	1800	
5907	31102	1800	
5908	31103	2000	8
5909	31104	2000	8
5910	Swarna (Positive Check)	2000	8
5911	31105	2000	8
5912	31106	1900	
5913	31107	1500	
5914	Vandana (Positive Very Early Duration Check)	1500	
5915	31108	2100	4
5916	31109	2000	8
5917	31110	1900	
5918	31111	2000	8
5919	31112	1700	
5920	31113	1800	
5921	31114	200	
5922	Improved Samba Mahsuri (Negative Check)	1300	
5923	31115	1800	
5924	Rasi (Positive Check)	2000	8
5925	31116	1900	
Exp. Mean		**1864**	
F Value		**6.98(p<0.0001)S**	
CD		518	
CV%		**16.93**	
D/S		23-06-2022	
D/P		13-08-2022	
Local Check Name			

Table No. 8.7: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – LPT 0%, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN			ZONE VI – WESTERN			ZONE VII – SOUTHERN								
		Odisha (1)			Maharashtra (1)			Andhra Pradesh (1)			Telangana (1)			Karnataka		
		ICAR-NRRI (Cuttack)			Karjat			Maruteru			ICAR-IIRR, Hyderabad			Mandya		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5901	31096	98	101	295	97	113	195	87	104	363	102	75	202	101	77	217
5902	31097	98	104	300	98	110	211	99	124	319	110	84	180	107	92	243
5903	31098	106	118	344	113	135	191	103	139	220	117	95	180	95	97	243
5904	31099	99	96	340	101	121	190	95	117	242	108	83	166	102	90	260
5905	31100	99	100	251	97	111	200	96	113	253	104	73	185	101	85	210
5906	31101	105	96	359	114	109	203	112	113	275	116	81	145	117	72	280
5907	31102	105	97	288	96	108	212	97	132	341	104	80	173	96	83	243
5908	31103	97	114	279	98	117	199	97	128	264	105	91	186	101	99	300
5909	31104	99	104	287	96	111	202	95	121	297	101	76	185	101	84	223
5910	Swarna (Positive Check)	106	87	372	107	104	206	111	117	341	114	74	195	115	69	280
5911	31105	105	104	268	113	119	200	113	120	308	117	79	168	118	88	233
5912	31106	98	100	323	118	129	216	106	151	341	104	81	214	96	96	277
5913	31107	103	99	313	94	118	241	112	119	297	104	94	204	99	88	230
5914	Vandana (Positive Very Early Duration Check)	98	99	260	86	99	184	84	132	297	83	72	186			
5915	31108	99	86	327	97	124	216	106	135	297	105	84	194	94	97	200
5916	31109	98	111	282	97	122	189	106	128	330	105	86	192			
5917	31110	107	107	340	115	118	213	112	117	330	124	80	233	108	92	253
5918	31111	99	93	322	97	99	205	95	113	275	102	77	190	93	82	240
5919	31112	97	91	304	90	103	216	82	110	275	90	78	161	90	87	243
5920	31113	99	97	271	98	99	208	97	110	341	105	76	165	104	90	250
5921	31114	105	105	268	116	112	225	133	115	264	129	80	214	91	86	270
5922	Improved Samba Mahsuri (Negative Check)	106	90	315	121	96	203	109	99	341	110	75	204	104	68	270
5923	31115	97	79	312	94	99	209	83	96	264	90	67	181	90	86	260
5924	Rasi (Positive Check)				98	119	200	85	101	275						
5925	31116	98	101	261	97	121	231	110	104	264	104	79	182	96	84	213
Exp. Mean		**101**	**99**	**303**	**102**	**113**	**207**	**101**	**118**	**297**	**106**	**80**	**187**	**101**	**86**	**247**

Table No. 8.7(Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – LPT 0%, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN									Overall Mean (6)		
		Karnataka			Karnataka (2)			Zone VII (4)					
		Gangavathi			Mean			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5901	31096	101	85	314	101	81	265	98	85	274	98	92	264
5902	31097	112	88	348	109	90	296	107	97	272	104	100	267
5903	31098	100	109	282	98	103	262	104	110	231	106	116	243
5904	31099	102	93	322	102	91	291	102	96	247	101	100	253
5905	31100	107	88	303	104	86	256	102	90	238	101	95	234
5906	31101	118	78	300	118	75	290	116	86	250	114	91	260
5907	31102	99	90	351	97	86	297	99	96	277	99	98	268
5908	31103	104	100	324	103	99	312	102	104	268	100	108	258
5909	31104	107	88	305	104	86	264	101	92	252	100	97	250
5910	Swarna (Positive Check)	122	71	319	118	70	299	115	83	284	112	87	286
5911	31105	118	85	366	118	86	300	117	93	269	114	99	257
5912	31106	94	102	322	95	99	299	100	108	288	103	110	282
5913	31107	102	90	295	101	89	262	104	98	256	102	101	263
5914	Vandana (Positive Very Early Duration Check)	74	103	317	74	103	317	80	102	266	85	101	249
5915	31108	94	104	336	94	101	268	100	105	257	99	105	262
5916	31109	97	87	320	97	87	320	103	100	281	100	107	262
5917	31110	117	92	366	112	92	310	115	95	296	114	101	289
5918	31111	94	95	302	93	88	271	96	92	252	97	93	256
5919	31112	93	88	306	91	87	274	88	91	246	90	93	251
5920	31113	107	86	295	105	88	272	103	90	263	101	93	255
5921	31114	109	81	342	100	83	306	115	90	272	114	96	264
5922	Improved Samba Mahsuri (Negative Check)	107	72	332	106	70	301	108	78	287	110	83	277
5923	31115	93	83	342	91	85	301	89	83	262	91	85	261
5924	Rasi (Positive Check)							85	101	275	91	110	237
5925	31116	103	83	330	100	83	271	103	87	247	101	95	247
Exp. Mean		**103**	**89**	**322**	**101**	**88**	**288**	**102**	**94**	**264**	**102**	**98**	**260**

Table No. 8.7: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – LPT 50%, Kharif 2022

ENTRY NO	IET NO	ZONE III-EASTERN											
		Odisha (1)			Bihar (1)			Jharkhand (1)			Zone 3(3)		
		ICAR-NRRI (Cuttack)			Pusa			Ranchi			Mean		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5901	31096	98	104	337	86	102	238	114			99	103	287
5902	31097	98	108	311	92	108	223	120			103	108	267
5903	31098	108	121	346	101	124	221	123			111	122	283
5904	31099	98	100	350	88	109	211	114			100	104	280
5905	31100	99	102		86	101	173	113			99	101	173
5906	31101	106	97	381	107	86	223	126			113	91	302
5907	31102	102	104	341	90	114	298	110			101	109	319
5908	31103	98	117	290	88	118	220	112			99	118	255
5909	31104	98	109	308	87	106	227	112			99	107	268
5910	Swarna (Positive Check)	108	90	398	112	79	260	126			115	84	329
5911	31105	102	109	316	112	101	222	126			113	105	269
5912	31106	96	100	344	105	118	219	113			105	109	282
5913	31107	100	109	333	99	118	233	126			108	114	283
5914	Vandana (Positive Very Early Duration Check)	97	105	295	71	124	218	105			91	114	257
5915	31108	98	96	329	105	107	198	112			105	102	264
5916	31109	99	114	285	85	122	237	112			99	118	261
5917	31110	105	107	385	119	99	235	115			113	103	310
5918	31111	99	96	338	87	98	184	112			99	97	261
5919	31112	94	100	314	73	94	233	102			90	97	273
5920	31113	98	101	324	87	103	199	112			99	102	261
5921	31114	110	107	291	124	94	186	110			115	100	238
5922	Improved Samba Mahsuri (Negative Check)	106	93	373	107	86	170	126			113	90	271
5923	31115	93	83	315	75	104	159	102			90	93	237
5924	Rasi (Positive Check)				110	101	245	120			115	101	245
5925	31116	92	108	312	101	87	207	110			101	97	259
Exp. Mean		**100**	**103**	**331**	**96**	**104**	**217**	**115**			**104**	**104**	**269**

Table No. 8.7(Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – LPT 50%, Kharif 2022

ENTRY NO	IET NO	ZONE VI – WESTERN			ZONE VII – SOUTHERN								
		Maharashtra (1)			Andhra Pradesh (1)			Telangana (1)			Karnataka		
		Karjat			Maruteru			ICAR-IIRR, Hyderabad			Mandya		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5901	31096	97	114	220	84	111	297	104	83	291	106	79	310
5902	31097	98	113	236	96	115	308	101	84	278	106	95	283
5903	31098	113	137	217	101	133	253	105	100	275	95	102	253
5904	31099	102	119	157	91	110	275	103	91	304	103	92	310
5905	31100	97	107	228	94	113	253	105	83	253	101	87	243
5906	31101	115	111	232	110	109	352	109	98	312	118	78	267
5907	31102	97	111	240	94	126	275	103	88	375	98	83	273
5908	31103	98	115	177	95	135	330	102	86	270	101	102	227
5909	31104	97	114	227	93	116	264	104	80	242	102	89	257
5910	Swarna (Positive Check)	109	100	191	112	110	330	114	79	297	114	68	263
5911	31105	113	119	200	113	110	297	106	102	281	116	85	263
5912	31106	120	131	233	108	140	231	105	92	273	96	103	263
5913	31107	95	115	174	111	121	330	102	97	288	99	94	277
5914	Vandana (Positive Very Early Duration Check)	86	102	222	80	120	330	80	95	277			
5915	31108	97	125	255	108	141	264	105	97	255	92	100	233
5916	31109	97	125	213	95	130	341	102	93	224			
5917	31110	116	119	224	112	116	297	115	83	281	109	93	267
5918	31111	97	103	235	93	109	264	95	75	248	97	85	240
5919	31112	90	100	191	78	111	297	91	81	355	91	88	240
5920	31113	98	101	218	95	106	286	102	91	358	107	89	287
5921	31114	116	109	201	131	117	264	122	87	296	90	93	260
5922	Improved Samba Mahsuri (Negative Check)	121	100	229	111	105	341	105	79	284	104	66	287
5923	31115	94	101	233	79	96	297	92	73	308	92	82	257
5924	Rasi (Positive Check)	98	123	226	83	101	308						
5925	31116	97	118	200	110	121	297	100	100	279	97	89	270
Exp. Mean		**102**	**113**	**215**	**99**	**117**	**295**	**103**	**88**	**288**	**101**	**88**	**265**

Table No. 8.7(Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – LPT 50%, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN									Overall Mean (8)		
		Karnataka			Karnataka (2)			Zone VII (4)					
		Gangavathi			Mean			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
5901	31096	102	86	317	104	82	313	99	89	304	99	97	287
5902	31097	113	83	272	110	89	277	104	94	285	103	101	273
5903	31098	100	108	340	97	105	296	100	111	280	106	118	272
5904	31099	105	88	289	104	90	299	100	95	294	100	101	271
5905	31100	107	84	306	104	85	275	102	91	264	100	96	243
5906	31101	118	74	290	118	76	278	114	89	305	114	93	294
5907	31102	100	83	319	99	83	296	99	95	311	99	101	303
5908	31103	101	94	354	101	98	290	100	104	295	99	110	267
5909	31104	107	88	319	105	89	288	102	93	270	100	100	263
5910	Swarna (Positive Check)	121	72	334	118	70	298	115	82	306	114	85	296
5911	31105	117	89	291	117	87	277	113	96	283	113	102	267
5912	31106	97	104	333	97	103	298	102	110	275	105	113	271
5913	31107	104	88	322	101	91	299	104	100	304	104	106	279
5914	Vandana (Positive Very Early Duration Check)	79	105	304	79	105	304	80	106	303	86	108	274
5915	31108	97	99	285	94	99	259	100	109	259	102	109	260
5916	31109	101	88	336	101	88	336	99	104	300	99	112	273
5917	31110	118	82	315	114	88	291	114	93	290	114	100	286
5918	31111	97	89	372	97	87	306	95	89	281	97	93	269
5919	31112	92	82	266	91	85	253	88	90	289	89	94	271
5920	31113	105	84	330	106	86	308	102	92	315	100	96	286
5921	31114	120	88	305	105	90	282	116	96	281	115	99	257
5922	Improved Samba Mahsuri (Negative Check)	113	69	310	108	67	298	108	79	305	111	85	285
5923	31115	93	82	304	92	82	280	89	83	291	90	89	267
5924	Rasi (Positive Check)							83	101	308	103	108	260
5925	31116	103	77	290	100	83	280	103	97	284	101	100	265
Exp. Mean		**104**	**87**	**312**	**102**	**88**	**291**	**101**	**96**	**291**	**103**	**101**	**274**

Table No. 8.7 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – LPT 0%, Kharif 2022 (Trial Not Considered)

ENTRY NO	IET NO	TRIAL NOT CONSIDERED		
		Jharkhand		
		@Ranchi		
		DFF	PH	PAN
5901	31096	85		
5902	31097	92		
5903	31098	92		
5904	31099	95		
5905	31100	87		
5906	31101	125		
5907	31102	120		
5908	31103	112		
5909	31104	114		
5910	Swarna (Positive Check)	127		
5911	31105	126		
5912	31106	114		
5913	31107	122		
5914	Vandana (Positive Very Early Duration Check)	105		
5915	31108	113		
5916	31109	112		
5917	31110	113		
5918	31111	112		
5919	31112	102		
5920	31113	112		
5921	31114	115		
5922	Improved Samba Mahsuri (Negative Check)	125		
5923	31115	102		
5924	Rasi (Positive Check)	120		
5925	31116	115		
Exp. Mean		**110**		

ADVANCE VARIETY TRIAL -1 LOW NITROGEN TOLERANCE (AVT 1-LNT)

Locations: 8 **Test Entries: 12**

Checks: Positive –Swarna, Varadhan, Rasi (Early) and Tella Hamsa; Susceptible - Improved Samba Mahsuri **Table:8.8**

AVT 1 Low Nitrogen Tolerance trial (AVT 1 - LNT) was constituted with 12 test entries, four positive checks Viz., Swarna, Varadhan, Rasi (early) and Tella Hamsa and one susceptible check (Improved Samba Mahsuri. All 12 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 13 locations but the data was not received from 5 locations viz., Ludhiana, Pusa, Varanasi, Raipur and Vadagaon. The data from remaining 8 locations viz., Kaul, ICAR-NRRI, Ranchi, Karjat, Maruteru, ICAR-IIRR, Mandya and Gangavati were received. In all eight locations, the trial was conducted under both N 50 % and N 0. The data from Ranchi centre was not considered due to high CV (29.92%) under N 0 condition. Similarly under N 50 condition, the data from Ranchi (high CV =22.99%) and ICAR IIRR (Low CV = 4.02%) were not considered. 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. The data pertaining to yield, days to 50% flowering, plant height, panicles/m^2 and quality are presented in tables 8.9, 8.10 and 8.11 respectively

Performance of promising entries in AVT1-LNT trial at 0% and 50% recommended dose of nitrogen during Kharif 2022

IET No.	Grain yield (Kg/ha)/DFF						
	N 0			N 50			Quality parameters (HRR, ASV, AC,G C)
	Z-2	Z-7	Overall	Z-2	Z-7	Overall	
29578	3467 92	-	-	3967 92	-	-	64.6, 5.0, 19.71, 22
29577	3900 92	-	-	4033 95	-	-	59.3,5.0, 23.73, 25
30270	3900 92	4476 107	3891 103	3933 96	-	-	67.4, 4.0, 22.61, 61
30261	-	4740 108	3949 103	-	5778 107	4806 102	64.9, 4.0, 23.58, 43
29581	3067 87	-	-	-	-	-	65.8, 4.0, 22.64, 22
30273	3467 91	-	-	-	-	-	70.1, 4.0, 21.38, 25
Improved Samba Mahsuri	1800 85	3442 100	2906 100	1867 89	3605 104	3289 103	
Varadhan	**2900 94 #**	2979 107	2689 105	**3200 98#**	3356 105	3506 105	
TellaHamsa	**2000 69***	2820 93	2366 94	**2500 72 ***	**3215 90***	3162 93	
Swarna	2733 77	**3734 119 #**	**3526 108 #**	2933 83	**4199 121#**	**4123 108#**	
Rasi	1800 77	**2935 92***	**2443 92#**	2067 81	2767 94	2822 93	
CD	441	398	251	500	879	479	

*early best check, # late best check

Based on the performance of entries in different zones and overall basis, a total of 6 entries viz., 29578, 29577, 30270, 30261, 29581 and 30273 are promoted to third year of testing in AVT 2 LNT.

INITIAL VARIETY TRIAL LOW NITROGEN TOLERANCE (IVT-LNT)

Locations: 12 **Test Entries: 19**

Checks: Positive –Swarna, Varadhan, Rasi (Early) and Tella Hamsa; Susceptible - Improved Samba Mahsuri **Table:8.12**

IVT-LNT was constituted with 19 test entries in the first year of testing, three positive checks (Varadhan, Swarna, Tella Hamsa, Rasi) and one sensitive check (Improved Samba Mahsuri). The trial was sent to 12 locations and data was received from eight locations only. The data was not received from Varanasi, Raipur, Vadagaon and Mandya, the experiments were conducted at two level of nitrogen fertilizer application viz., 0% and 50% recommended dose of nitrogen fertilizer. Data received from Ranchi was not considered for analysis under both 0% and 50% N due to low experimental yield. While data of IIRR Hyderabad was not considered for analysis under 50%N due to low CV (4.43%). The data pertaining to yield, days to 50% flowering, plant height and panicles/m^2 are presented in tables 8.13 and 8.14 respectively.

Late duration test entries (>100 days to 50% flowering) were compared with Swarna while early test entries (<100 days to 50% flowering) were compared with highest yielding early checks (Rasi, Varadhan and Tella Hamsa) for identification of promising test entries.

Performance under 0% recommended dose of nitrogen

Data from seven locations were considered for analysis under 0% recommended dose of nitrogen. Promising entries are identified based on zone wise as well as overall basis.

Zone II

Under 0% recommended dose of nitrogen, data from one location (Kaul) was considered for analysis**.** Late duration check Swarna did not record yield in Zone II hence all the test entries were compared with highest yielding check (Varadhan; 2400 kg/ha;76 days).

Among the test entries, **IETs 31117, 31118, 31119, 31120, 31128, 31130, 31134 and 31135** recorded significant yield advantage over the best check in Zone II under 0% recommended dose of nitrogen.

Zone III

Under 0% recommended dose of nitrogen, data from one location (NRRI Cuttack) was considered for analysis**.** Among the checks, Swarna (4060 kg/ha; 119 days) and Varadhan (2913 kg/ha;103 days) were found to be the best check for late and early duration respectively. However, none of the test entries showed significant yield advantage over the

best checks (both early and late duration) under 0% recommended dose of nitrogen in Zone III.

Zone VI

Under 0% recommended dose of nitrogen, data from one location (Karjat) was considered for analysis. However, among the checks, the highest yielding low nitrogen tolerant check, Swarna (5169 kg/ha; 112 days) and the low nitrogen sensitive check, Improved Samba Mahsuri (4824 kg/ha; 107 days) recorded on par yield (based on CD:614 kg/ha) indicating low level nitrogen stress. Hence, Karjat location data was not considered for analysis in Zone VI under 0% recommended dose of nitrogen.

Zone VII

Under 0% recommended dose of nitrogen, data from four locations (Maruteru, IIRR Hyderabad, Mandya and Gangavathi) was considered for analysis**.** Among the checks, Swarna (3685 kg/ha; 112 days) and Rasi (3458 kg/ha;93 days) were found to be the best check for late and early duration respectively.

Among the late entries, **IETs 31126** (4395 kg/ha; 106 days) and **31135** (4940 kg/ha; 102 days) recorded significant yield advantage over the late best check. While none of the early entries recorded significant yield advantage over the early best check under 0% recommended dose of nitrogen in Zone VII.

Overall

On overall basis under under 0% recommended dose of nitrogen, totally seven locations were considered for analysis. Among the checks, Swarna (3995 kg/ha; 113 days) and Varadhan (3261 kg/ha;92 days) were found to be the best check for late and early duration respectively.

Among the late entries, **IET 31135** (4472 kg/ha; 102 days) recorded significant yield advantage over the late best check, while among the early test entries, IETs **31117** (3600 kg/ha; 100 days) and **31124** (3714kg/ha; 98 days) recorded significant yield advantage over the early best check under 0% recommended dose of nitrogen in overall basis.

Performance of promising entries in IVT-LNT trial at 0% and 50% recommended dose of nitrogen during Kharif 2022

IET No.	Grain yield (Kg/ha)/DFF									
	0% recommended dose of N					50% recommended dose of N				
	Z- II (1)	Z-III (1)	Z-VI (1)	Z-VII (4)	Overall (7)	Z-II (1)	Z-III (1)	Z-VI (1)	Z-VII (3)	Overall (6)
IET 31117	2967 86	-	-	-	3600 100	3200 89	-	-	-	-
IET 31118	2933 77	-	-	-	-	3400 84	-	-	-	-
IET 31119	2833 95	-	-	-	-	3333 97	-	-	-	-
IET 31120	3600 101	-	-	-	-	3667 103	-	-	-	-
IET 31124	-	-	-	-	3714 98	-	-	-	4611 99	-

IET No.	Grain yield (Kg/ha)/DFF									
	0% recommended dose of N					50% recommended dose of N				
	Z- II (1)	Z-III (1)	Z-VI (1)	Z-VII (4)	Overall (7)	Z-II (1)	Z-III (1)	Z-VI (1)	Z-VII (3)	Overall (6)
IET 31126	-	-	-	4395 106	-	-	-	-	5051 102	4627 100
IET 31127	-	-	-	-	-	-	-	-	4158 97	-
IET 31128	3067 95	-	-	-	-	4200 99	-	-	5143 105	-
IET 31129	-	-	-	-	-	3400 100	-	-	-	-
IET 31130	3267 98	-	-	-	-	3667 100	-	-	-	-
IET 31131	-	-	-	-	-	-	-	-	4173 97	-
IET 31132	-	-	-	-	-	-	-	-	4316 93	-
IET 31134	3433 98	-	-	-		3600 100	-	-	-	-
IET 31135	3567 102	-	-	4940 102	4472 102	3967 99	-	-	5565 103	-
Varadhan (PC)	**2400 76 (BC)**	2913 103 **(BC)***	4770 89	3186 95	3261 92 **(BC)***	**2667 78 (BC)**	3467 101 **(BC)***	4972 89	3383 96	3543 92
Swarna (PC)	-	**4060 119 (BC)#**	**5169 112**	**3685 112 (BC)#**	**3995 113 (BC)#**	-	**5013 117 (BC)#**	**5898 112**	**4419 117 (BC)#**	**4833 116 (BC)#**
Tella Hamsa (PC)	2067 73	1653 105	2620 86	2993 89	2616 88	2267 76	2713 104	2870 86	3053 89	2835 89
Rasi (PC)	-	-	2252 84	**3458 93 (BC)***	2855 89	-	-	4500 84	3521 90 **(BC)***	4011 90 **(BC)***
Improved Samba Mahsuri (SC)	1367 101	2613 114	**4824 107**	2831 111	2875 109	1533 103	3703 111	**5065 107**	3366 108	3400 107
CD	426	628	614	549	316	416	601	919	629	364

PC-positive check; SC-sensitive check; BC-Best check
*early best check, # late best check

Performance under 50% recommended dose of nitrogen

Data from seven locations were considered for analysis under 50% recommended dose of nitrogen. Promising entries are identified zone wise as well as overall basis.

Zone II

Under 50% recommended dose of nitrogen, data from one location (Kaul) was considered for analysis**.** Late duration check Swarna did not record any yield in Zone II hence all the test entries were compared with highest yielding check (Varadhan; 2667 kg/ha;78 days).

Among the test entries, **IETs 31117, 31118, 31119, 31120, 31128, 31129, 31130, 31134 and 31135** recorded significant yield advantage over the best check in Zone II under 50% recommended dose of nitrogen.

Zone III

Under 50% recommended dose of nitrogen, data from one location (NRRI Cuttack) was considered for analysis**.** Among the checks, Swarna (5013 kg/ha; 117 days) and Varadhan (3467 kg/ha;101 days) were found to be the best check for late and early duration respectively. However, none of the test entries showed significant yield advantage over the best checks (both early and late duration) under 50% recommended dose of nitrogen in Zone III.

Zone VI

Under 50% recommended dose of nitrogen, data from one location (Karjat) was considered for analysis. However, among the checks, the highest yielding low nitrogen tolerant check, Swarna (5898 kg/ha;112 days) and the low nitrogen sensitive check, Improved Samba Mahsuri (5065 kg/ha;107 days) recorded on par yield (based on CD:919 kg/ha) indicating low level nitrogen stress. Hence, Karjat location data was not considered for analysis in Zone VI under 50% recommended dose of nitrogen.

Zone VII

Under 50% recommended dose of nitrogen, data from three locations (Maruteru, Mandya and Gangavathi) was considered for analysis**.** Among the checks, Swarna (4419 kg/ha; 117 days) and Rasi (3521 kg/ha;90 days) were found to be the best check for late and early duration respectively.

Among the late entries, **IETs 31126** (5051 kg/ha; 102 days), **31128** (5143 kg/ha; 105 days), and **31135** (5565 kg/ha; 103 days) recorded significant yield advantage over the late best check. While among early test entries, IETS **31124** (4611kg/ha; 99days), **31127** (4158 kg/ha 97 days), **31131** (4173 kg/ha; 97 days), and **31132** (4316 kg/ha; 93 days) recorded significant yield advantage over the early best check under 50% recommended dose of nitrogen in Zone VII.

Overall

On overall basis under under 50% recommended dose of nitrogen, totally six locations were considered for analysis. Among the checks, Swarna (4833 kg/ha;116 days) and Rasi (4011 kg/ha;90 days) were found to be the best check for late and early duration respectively.

Among the test entries, none of the late entries recorded significant yield advantage over the late best check, while among the early test entries, IETs **31126** (4627 kg/ha; 100 days) and recorded significant yield advantage over the early best check under 50% recommended dose of nitrogen in overall basis.

In IVT low nitrogen trial, 14 test entries namely IETs 31117, 31118, 31119, 31120, 31124, 31126, 31127, 31128, 31129, 31130, 31131, 31132, 31134 and 31135 recorded significant yield advantage over the best check, hence these test entries were promoted to second year of testing.

Table No.8.8: Composition of entries in Advance Variety Trial 1 -Low Nitrogen Tolerance Trial (AVT 1-LNT), Kharif 2022

Entry No.	IET No.	Designation	Cross Combination	GT
2nd year of testing				
6001	29564	CR 3511-7-1-1-1-1-2	IR 36 / Surendra	SB
6002	29584	RP 6112-MS-M-13-22-9-11-4-6-3	BPT 5204 Mutant	LS
6003	29578	CR 3756-2-4-2-1-1-1	Salivahana / Krishnaveni	MS
6004	29574	RP 6462-C5	Swarna / O. nivara 166-2 // Swarna	MS
6005	**Varadhan (Positive Check)**			
6006	29576	MTU 1368 (MTU 2613-33-1-1)	MTU 1075 / CR 3598-1-4-2-1	MS
6007	29577	RP 5594-71-14-2-1	MTU 1010 / RPHR 1005	SB
6008	**Tella Hamsa (Positive Check)**			
6009	30270	CR 4358-3-3-1-2-1	CR 3543-6-3-1-2-1-1 / CR 3510 -12-1-1-2-1-1	SB
6010	30269	RP 6252-BV / RIL-BV202	BPT 5204 / Varadhan	SB
6011	**Swarna (Positive Check)**			
6012	30261	RP 6317-RMS-S35-BC2F4-49-25-12-18	MTU 1121 * 2 / Swarna	SB
6013	29573	CR 3553-1-5-2-1-1-1	ADT 43 / Ananga	SB
6014	29581	RP 6255-BV / RIL / BPT / Varadhan / 1696	BPT 5204 / Varadhan	SB
6015	**Rasi (Positive Check)**			
6016	30273	CR 3516 -1-1-1-1-1-1	Birupa / Pusa 44	SB
6017	**Improved Samba Mahsuri (Susceptible Check)**			

Table No. 8.9: Grain Yield (kg/ha) in AVT 1 - LNT 0%, Kharif 2022

ENTRY NO	IET NO	ZONE II-NORTHERN Haryana (1) Kaul		ZONE III-EASTERN Odisha (1) ICAR-NRRI (Cuttack)		ZONE VI – WESTERN Maharashtra (1) Karjat		ZONE VII – SOUTHERN Andhra Pradesh (1) Maruteru		ZONE VII – SOUTHERN Telangana (1) ICAR-IIRR, Hyderabad	
6001	29564	2767	10	3847	3	3101	2	3230		3883	2 *
6002	29584	3167	6	3053	8	3240	1	3494		4038	1 *
6003	29578	3467	3 *	3587	4	2460	7	3386		3279	9
6004	29574	1900		2720	10	1965	10	3241		2929	
6005	Varadhan (Positive Check)	2900	9	2353		1658		3410		3263	10
6006	29576	2433		3267	7	2324	8	4261	5	3623	6 *
6007	29577	3900	1 *	3380	6	2612	5	4111	6	3742	3 *
6008	Tella Hamsa (Positive Check)	2000		1353		1931		3500		1679	
6009	30270	3900	1 *	3387	5	2048	9	4821	4	3708	5 *
6010	30269	2600		2753	9	2985	3	3549		3138	
6011	Swarna (Positive Check)	2733		4280	1	2733	4	4935	3	3321	8
6012	30261	2967	8	4200	2	1515		5454	1	3725	4 *
6013	29573	3200	5	2474		1942		3686	10	2792	
6014	29581	3067	7	1860		1769		4051	7	3421	7
6015	Rasi (Positive Check)	1800		2048		1514		3799	9	2042	
6016	30273	3467	3 *	2410		1871		3997	8	2683	
6017	Improved Samba Mahsuri (Susceptible Check)	1800		2247		2527	6	5102	2	3246	
Exp. Mean		2827		2895		2247		4002		3207	
F Value		17.74(p<0.0001)S		11.14(p<0.0001)S		7.55(p<0.0001)S		17.11(p<0.0001)S		33.48(p<0.0001)S	
CD		441		677		545		614		297	
CV%		9.38		14.05		14.59		9.23		5.58	
D/S		28-06-2022		21-07-2022		23-06-2022		25-06-2022		27-06-2022	
D/P		01-08-2022		24-09-2022		25-07-2022		28-07-2022		01-08-2022	
Local Check Name											

Table No. 8.9(Contd): Grain Yield (kg/ha) in AVT 1 - LNT 0%, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN								Overall Mean (7)	
		Karnataka				Karnataka (2)		Zone VII (4)			
		Mandya		Gangavathi		Mean		Mean			
6001	29564	2154		4712	10	3433	10	3495		3385	7
6002	29584	2641	10	5801	4	4221	6 *	3994	3	3633	4
6003	29578	3402	1	5729	5	4566	4 *	3949	5	3616	5
6004	29574	1959		2660		2310		2697		2482	
6005	Varadhan (Positive Check)	1901		3341		2621		2979		2689	
6006	29576	2466		5072	7	3769	9	3856	7	3349	9
6007	29577	2904	8	5056	8	3980	8	3953	4	3672	3
6008	Tella Hamsa (Positive Check)	2680	9	3421		3051		2820		2366	
6009	30270	3275	5	6098	2	4687	2 *	4476	2 *	3891	2 *
6010	30269	3216	6	5329	6	4273	5 *	3808	8	3367	8
6011	Swarna (Positive Check)	2456		4223		3340		3734	10	3526	6
6012	30261	3402	1	6378	1	4890	1 *	4740	1 *	3949	1 *
6013	29573	3333	3	5946	3	4640	3 *	3939	6	3339	10
6014	29581	2359		4407		3383		3560		2991	
6015	Rasi (Positive Check)	3109	7	2788		2949		2935		2443	
6016	30273	3333	3	4928	9	4131	7	3735	9	3241	
6017	Improved Samba Mahsuri (Susceptible Check)	2037		3381		2709		3442		2906	
Exp. Mean		**2743**		**4663**		**3413**		**3527**		**3142**	
F Value		**6.80(p<0.0001)S**		**5.10(p=0.0010)S**		**6.60(p<0.0001)S**		**15.68(p<0.0001)S**		**30.32(p<0.0001)S**	
CD		588		1533		828		398		251	
CV%		**12.89**		**15.5**		**14.59**		**6.79**		**4.81**	
D/S		30-07-2022		12-07-2022							
D/P		25-08-2022		13-08-2022							
Local Check Name											

Table No. 8.9: Grain Yield (kg/ha) in AVT 1 - LNT 50%, Kharif 2022

ENTRY NO	IET NO	ZONE II-NORTHERN		ZONE III-EASTERN		ZONE VI – WESTERN		ZONE VII – SOUTHERN			
		Haryana (1)		Odihsa (1)		Maharashtra (1)		Andhra Pradesh (1)		Karnataka	
		Kaul		ICAR-NRRI (Cuttack)		Karjat		Maruteru		Mandya	
6001	29564	3133	10	4455	6	3852	6	3449		2086	
6002	29584	3333	7	4086	8	4220	1	3753		3041	
6003	29578	3967	2 *	4808	4	3766	9	3569		4074	3
6004	29574	2400		3145		2300		3449		2222	
6005	Varadhan (Positive Check)	3200	9	3920	9	3848	7	3844		2242	
6006	29576	2533		4630	5	4121	2	4534	5	2485	
6007	29577	4033	1 *	4393	7	3816	8	4408	6	3441	8
6008	Tella Hamsa (Positive Check)	2500		3152		3671		3712		3226	10
6009	30270	3933	3 *	4888	3	3446		5086	3	3918	5
6010	30269	2833		3730		3981	3	3787		4552	1
6011	Swarna (Positive Check)	2933		5272	1	3932	5	5049	4	3246	9
6012	30261	3233	8	4892	2	3373		5617	1	3938	4
6013	29573	3533	5	3846	10	1615		4009	9	4220	2
6014	29581	3367	6	2464		3551		4346	7	2778	
6015	Rasi (Positive Check)	2067		3412		3148		3995	10	3450	7
6016	30273	3600	4	3056		3749	10	4194	8	3791	6
6017	Improved Samba Mahsuri (Susceptible Check)	1867		3080		3968	4	5284	2	2271	
Exp. Mean		**3086**		**3955**		**3550**		**4240**		**3234**	
F Value		**12.62(p<0.0001)S**		**8.85(p<0.0001)S**		**9.48(p<0.0001)S**		**3.00(p=0.0033)S**		**10.13(p<0.0001)S**	
CD		500		744		590		1239		669	
CV%		**9.75**		**11.31**		**9.99**		**17.57**		**12.44**	
D/S		28-06-2022		21-07-2022		24-06-2022		25-06-2022		30-07-2022	
D/P		28-07-2022		24-09-2022		20-07-2022		28-07-2022		27-08-2022	
Local Check Name											

Table No. 8.9(Contd): Grain Yield (kg/ha) in AVT 1 - LNT 50%, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN						Overall Mean (6)	
		Karnataka		Karnataka (2)		Zone VII (3)			
		Gangavathi		Mean		Mean			
6001	29564	4030		3058		3188		3501	
6002	29584	4263		3652		3686		3783	10
6003	29578	5946	6	5010	4 *	4530	7	4355	3
6004	29574	3766		2994		3146		2880	
6005	Varadhan (Positive Check)	3982		3112		3356		3506	
6006	29576	6675	4	4580	7	4565	5	4163	6
6007	29577	6290	5	4866	5 *	4713	4	4397	2
6008	Tella Hamsa (Positive Check)	2708		2967		3215		3162	
6009	30270	4511	9	4215	8	4505	8	4297	4
6010	30269	6803	3	5678	2 *	5047	3	4281	5
6011	Swarna (Positive Check)	4303	10	3775	10	4199	9	4123	7
6012	30261	7780	1	5859	1 *	5778	1 *	4806	1 *
6013	29573	7003	2	5612	3 *	5077	2	4038	8
6014	29581	4976	8	3877	9	4033	10	3580	
6015	Rasi (Positive Check)	857		2154		2767		2822	
6016	30273	5689	7	4740	6 *	4558	6	4013	9
6017	Improved Samba Mahsuri (Susceptible Check)	3261		2766		3605		3289	
Exp. Mean		**4873**		**3784**		**3963**		**3748**	
F Value		**6.96(p=0.0002)S**		**8.56(p<0.0001)S**		**5.69(p<0.0001)S**		**9.16(p<0.0001)S**	
CD		1995		951		879		479	
CV%		**19.31**		**15.12**		**13.33**		**7.69**	
D/S		12-07-2022							
D/P		13-08-2022							
Local Check Name									

Table No. 8.9(Contd): Grain Yield (kg/ha) in AVT 1 - LNT 0%, Kharif 2022 (Trial Not Considered)

ENTRY NO	IET NO	TRIAL NOT CONSIDERED	
		Jharkhand (0)	
		@Ranchi	
6001	29564	1200	
6002	29584	2133	8
6003	29578	2000	
6004	29574	2133	8
6005	Varadhan (Positive Check)	1867	
6006	29576	2133	8
6007	29577	2400	3
6008	Tella Hamsa (Positive Check)	1533	
6009	30270	2400	3
6010	30269	1867	
6011	Swarna (Positive Check)	2800	1
6012	30261	2333	5
6013	29573	2733	2
6014	29581	2333	5
6015	Rasi (Positive Check)	2133	8
6016	30273	2067	
6017	Improved Samba Mahsuri (Susceptible Check)	1733	
Exp. Mean		**2106**	
F Value		**1.32(p=0.2419)NS**	
CD		1048	
CV%		**29.92**	
D/S		23-06-2022	
D/P		19-08-2022	
Local Check Name			

Table No. 8.9 (Contd): Grain Yield (kg/ha) in AVT 1 - LNT 50%, Kharif 2022 (Trial Not Considered)

ENTRY NO	IET NO	TRIALS NOT CONSIDERED			
		Jharkhand		Telangana	
		@Ranchi		@ICAR-IIRR, Hyderabad	
6001	29564	3067	9	4461	5
6002	29584	3000	10	5287	2
6003	29578	3267	6	4459	6
6004	29574	2533		3986	
6005	Varadhan (Positive Check)	2800		3485	
6006	29576	2533		5810	1
6007	29577	3600	4	4039	10
6008	Tella Hamsa (Positive Check)	1800		2734	
6009	30270	3800	1	4271	8
6010	30269	2800		3576	
6011	Swarna (Positive Check)	3133	7	4381	7
6012	30261	3800	1	4108	9
6013	29573	3733	3	4607	4
6014	29581	3000	10	4836	3
6015	Rasi (Positive Check)	2467		2743	
6016	30273	3600	4	3022	
6017	Improved Samba Mahsuri (Susceptible Check)	3133	7	3634	
Exp. Mean		**3063**		**4085**	
F Value		**1.81(p=0.0694)NS**		**70.15(p<0.0001)S**	
CD		1171		273	
CV%		**22.99**		**4.02**	
D/S		23-06-2022		27-06-2022	
D/P		19-08-2022		01-08-2022	
Local Check Name					

Table No. 8.10: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 1 – LNT 0%, Kharif 2022

ENTRY NO	IET NO	ZONE II-NORTHERN			ZONE III-EASTERN			ZONE VI – WESTERN			ZONE VII – SOUTHERN					
		Haryana (1)			Odisha (1)			Maharashtra (1)			Andhra Pradesh (1)			Telangana (1)		
		Kaul			ICAR-NRRI (Cuttack)			Karjat			Maruteru			ICAR-IIRR, Hyderabad		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
6001	29564	97	67	269	117	80	313	108	103	145	106	143	10	104	85	219
6002	29584	93	78	292	106	68	322	96	121	209	96	132	10	110	91	199
6003	29578	92	101	285	114	77	273	99	112	141	98	144	10	111	74	179
6004	29574	78	82	297	123	57	295	77	100	205	107	118	10	113	71	195
6005	Varadhan (Positive Check)	94	98	284	106	79	270	109	94	130	97	138	9	106	83	199
6006	29576	100	96	270	123	68	191	114	111	174	113	138	10	122	90	193
6007	29577	92	77	320	117	70	243	99	122	150	99	122	10	107	102	207
6008	Tella Hamsa (Positive Check)	69	74	255	106	72	264	109	95	152	79	115	9	103	87	182
6009	30270	92	95	309	107	75	282	91	111	147	107	126	9	105	89	182
6010	30269	93	91	266	104	69	257	103	120	150	96	130	10	105	86	177
6011	Swarna (Positive Check)	77	94	255	107	64	281	97	109	156	110	100	9	113	68	168
6012	30261	93	80	276	106	74	202	92	124	196	99	113	9	114	84	176
6013	29573	91	99	300	104	63	237	81	106	150	100	130	10	107	91	180
6014	29581	87	102	279	107	63	234	109	94	163	94	129	10	125	91	191
6015	Rasi (Positive Check)	77	78	221	107	62	334	93	128	172	80	101	9	89	68	195
6016	30273	91	97	309	104	64	293	92	120	195	98	127	10	96	92	205
6017	Improved Samba Mahsuri (Susceptible Check)	85	84	332	106	66	294	110	122	147	113	109	11	89	81	176
Exp. Mean		**88**	**88**	**283**	**110**	**69**	**270**	**99**	**111**	**163**	**100**	**124**	**10**	**107**	**84**	**190**

Table No. 8.10(Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 1 – LNT 0%, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN												Overall Mean (7)		
		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
6001	29564	120	81	267	112	90	352	116	86	309	110	86	212	109	93	225
6002	29584	101	78	243	101	89	278	101	83	261	102	83	183	100	94	222
6003	29578	104	83	243	104	91	308	104	87	276	104	87	185	103	97	206
6004	29574	110	62	263	117	67	295	113	64	279	112	64	191	103	80	223
6005	Varadhan (Positive Check)	108	95	267	115	94	319	112	94	293	107	94	198	105	97	211
6006	29576	113	84	237	120	83	349	116	83	293	117	83	197	115	96	203
6007	29577	115	81	220	116	80	372	115	80	296	109	80	202	106	93	217
6008	Tella Hamsa (Positive Check)	96	84	277	94	88	307	95	86	292	93	86	194	94	88	206
6009	30270	105	85	253	112	89	275	108	87	264	107	87	180	103	96	208
6010	30269	111	80	253	108	90	290	109	85	272	105	85	183	103	95	200
6011	Swarna (Positive Check)	128	65	260	126	70	325	127	67	292	119	67	190	108	81	208
6012	30261	104	81	240	116	88	310	110	84	275	108	84	184	103	92	201
6013	29573	107	82	240	104	94	384	106	88	312	105	88	203	99	95	214
6014	29581	107	85	243	107	78	345	107	81	294	108	81	197	105	92	209
6015	Rasi (Positive Check)	105	76	267	93	86	323	99	81	295	92	81	198	92	86	217
6016	30273	105	72	253	108	93	320	106	83	286	102	83	197	99	95	227
6017	Improved Samba Mahsuri (Susceptible Check)	82	59	247	118	77	374	100	68	310	100	68	202	100	85	226
Exp. Mean		**107**	**78**	**251**	**110**	**85**	**325**	**108**	**82**	**288**	**106**	**82**	**194**	**103**	**91**	**213**

Table No. 8.10 : Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 1 – LNT 50%, Kharif 2022

ENTRY NO	IET NO	ZONE II-NORTHERN			ZONE III-EASTERN			ZONE VI – WESTERN			ZONE VII – SOUTHERN					
		Haryana (1)			Odihsa (1)			Maharashtra (1)			Andhra Pradesh (1)			Karnataka		
		Kaul			ICAR-NRRI (Cuttack)			Karjat			Maruteru			Mandya		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
6001	29564	99	94	306	116	87	362	108	110	200	103	138	317	120	83	310
6002	29584	95	93	314	105	75	363	97	128	286	98	143	306	101	84	280
6003	29578	92	120	326	112	82	359	99	117	233	98	120	293	104	94	287
6004	29574	88	96	376	121	64	348	77	104	243	107	120	330	110	63	257
6005	Varadhan (Positive Check)	98	114	312	105	82	337	110	104	282	96	132	323	108	92	280
6006	29576	103	108	278	121	77	286	116	117	251	113	135	332	113	79	270
6007	29577	95	95	331	115	77	294	99	128	273	104	122	308	115	83	257
6008	Tella Hamsa (Positive Check)	72	94	317	104	79	377	109	100	232	80	108	312	96	86	273
6009	30270	96	111	318	105	83	378	90	118	236	107	141	359	105	78	290
6010	30269	94	112	299	102	75	326	104	128	283	92	117	317	111	86	273
6011	Swarna (Positive Check)	83	113	275	105	72	334	98	115	238	109	104	304	128	69	327
6012	30261	95	94	301	105	82	261	90	127	224	101	117	337	104	82	230
6013	29573	94	109	334	102	71	396	80	108	221	98	130	330	107	79	270
6014	29581	94	111	308	106	69	330	109	104	230	94	140	400	107	87	227
6015	Rasi (Positive Check)	81	90	251	105	69	385	90	133	234	81	100	290	105	84	233
6016	30273	95	112	318	102	72	437	90	123	222	102	125	330	105	75	283
6017	Improved Samba Mahsuri (Susceptible Check)	89	95	336	104	69	481	111	130	225	113	109	330	82	63	327
Exp. Mean		**92**	**104**	**312**	**108**	**76**	**356**	**99**	**117**	**242**	**100**	**124**	**325**	**107**	**80**	**275**

Table No. 8.10(Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 1 – LNT 50%, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN									Overall Mean (6)		
		Karnataka			Karnataka (2)			Zone VII (3)					
		Gangavathi			Mean			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
6001	29564	110	88	313	115	85	311	111	103	313	109	100	301
6002	29584	100	98	341	100	91	310	100	108	309	99	103	315
6003	29578	105	96	257	104	95	272	102	103	279	102	105	292
6004	29574	114	70	325	112	66	291	110	84	304	103	86	313
6005	Varadhan (Positive Check)	112	107	351	110	99	315	105	110	318	105	105	314
6006	29576	119	98	333	116	89	301	115	104	312	114	102	292
6007	29577	115	96	310	115	89	283	111	100	291	107	100	295
6008	Tella Hamsa (Positive Check)	94	97	322	95	91	297	90	97	302	93	94	306
6009	30270	109	98	340	107	88	315	107	106	330	102	105	320
6010	30269	108	97	347	109	92	310	104	100	312	102	102	307
6011	Swarna (Positive Check)	127	70	348	127	69	337	121	81	326	108	90	304
6012	30261	116	94	319	110	88	274	107	98	295	102	99	279
6013	29573	106	98	325	106	88	297	104	102	308	98	99	313
6014	29581	107	95	334	107	91	280	103	107	320	103	101	305
6015	Rasi (Positive Check)	96	91	335	100	87	284	94	92	286	93	94	288
6016	30273	109	92	340	107	83	311	105	97	318	100	100	322
6017	Improved Samba Mahsuri (Susceptible Check)	119	90	348	100	76	337	104	87	335	103	93	341
Exp. Mean		**109**	**92**	**329**	**108**	**86**	**302**	**105**	**99**	**309**	**102**	**99**	**306**

Table No. 8.10 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 1 – LNT 0%, Kharif 2022 (Trial Not Considered)

ENTRY NO	IET NO	TRIAL NOT CONSIDERED		
		Jharkhand (0)		
		@Ranchi		
		DFF	PH	PAN
6001	29564	130		
6002	29584	112		
6003	29578	120		
6004	29574	128		
6005	Varadhan (Positive Check)	112		
6006	29576	128		
6007	29577	124		
6008	Tella Hamsa (Positive Check)	102		
6009	30270	124		
6010	30269	108		
6011	Swarna (Positive Check)	128		
6012	30261	124		
6013	29573	120		
6014	29581	112		
6015	Rasi (Positive Check)	101		
6016	30273	120		
6017	Improved Samba Mahsuri (Susceptible Check)	128		
Exp. Mean		**119**		

Table No. 8.10 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in AVT 1 – LNT 50%, Kharif 2022 (Trial Not Considered)

ENTRY NO	IET NO	TRIALS NOT CONSIDERED					
		Jharkhand @Ranchi			Telangana @ICAR-IIRR, Hyderabad		
		DFF	PH	PAN	DFF	PH	PAN
6001	29564	129			122	107	297
6002	29584	112			97	99	282
6003	29578	120			102	84	250
6004	29574	128			112	83	237
6005	Varadhan (Positive Check)	112			101	102	273
6006	29576	130			122	89	192
6007	29577	125			111	106	244
6008	Tella Hamsa (Positive Check)	101			88	94	242
6009	30270	124			108	102	218
6010	30269	111			106	102	248
6011	Swarna (Positive Check)	128			124	76	250
6012	30261	125			115	107	209
6013	29573	120			104	102	220
6014	29581	112			106	103	233
6015	Rasi (Positive Check)	101			86	88	232
6016	30273	122			109	102	237
6017	Improved Samba Mahsuri (Susceptible Check)	128			114	91	256
Exp. Mean		**119**			**107**	**96**	**242**

Table No.8.11 :Grain quality characteristics of entries in AVT 1-LNT, kharif 2022

Entry No.	IET No.	Hull	Mill	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
6001	29564	77.9	69.6	67.0	5.18	2.11	2.45	SB	VOC	5.0	23.64	22
6002	29584	76.9	67.7	65.1	6.87	1.90	3.61	LS	A	5.0	23.84	22
6003	29578	75.9	67.0	64.6	5.22	1.96	2.66	MS	A	5.0	19.71	22
6004	29574	74.5	67.4	63.4	4.82	1.79	2.69	MS	A	4.0	20.65	22
6005	Varadhan (P.Check)	78.0	69.7	66.5	5.00	2.26	2.21	SB	VOC	4.0	25.69	65
6006	29576	79.0	70.8	69.2	5.22	1.95	2.67	MS	A	5.0	21.47	41
6007	29577	79.9	68.6	59.3	4.87	2.00	2.43	SB	A	5.0	23.73	25
6008	Tella Hamsa (P.Check)	81.5	71.6	69.5	6.21	1.94	3.20	LS	VOC	7.0	27.10	25
6009	30270	79.2	69.1	67.4	4.98	2.04	2.44	SB	A	4.0	22.61	61
6010	30269	78.5	69.3	67.0	5.25	2.31	2.27	SB	VOC	4.0	24.46	22
6011	Swarna (P.Check)	79.0	69.2	66.1	4.87	2.19	2.22	SB	VOC	4.0	23.99	29
6012	30261	80.3	69.4	64.9	4.89	2.04	2.39	SB	VOC	4.0	23.58	43
6013	29573	81.0	72.4	68.0	4.99	2.49	2.00	SB	OC	4.0	22.38	22
6014	29581	77.6	68.0	65.9	5.44	2.18	2.49	SB	A	4.0	22.64	22
6015	Rasi (P.Check)	78.8	70.1	63.9	4.89	2.28	2.14	SB	A	7.0	26.07	22
6016	30273	80.7	71.4	70.1	4.63	2.51	1.84	SB	VOC	4.0	21.38	25
6017	Improved Samba Mahsuri	77.5	68.7	64.9	4.94	1.81	2.72	MS	A	5.0	23.46	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.8.12: Composition of entries in Initial Variety Trial -Low Nitrogen Tolerance Trial (IVT-LNT), Kharif 2022

Entry No.	IET No.	Designation	Cross Combination	GT
1st year of testing				
6101	31117	CR 4340-6-1-GSR IR2-1-R6-N3-N4-N68-N35	WTR / Haoannong	LS
6102	31118	RP 6420-C10-21	MTU1010 /Tualsi	MS
6103	31119	RP 6252-BV/RIL-BV181	BPT5204 / Vardhan	SB
6104	31120	CR 3549-3-5-2-1-1-1	ADT 43 / Annapurna	MS
6105	31121	RP 6426-C9-29-2	DRR Dhan44 / Rasi	SB
6106	31122	CR 3505-1-7-2-2-1-1	IR 36 / Vijetha	MS
6107	**Varadhan (Positive Check)**			
6108	31123	RP 6698-1654-14-2-3-1-2	IET 25469 / Samba Mahsuri	MS
6109	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
6110	**Swarna (Positive Check)**			
6111	31125	CR 4387-RGA-216	CR Dhan 202 / SR-72-1	MS
6112	31126	RP 6714-MS-SS-8-4-7-2-11-5-3	Samba Mahsuri Mutant-8 / BPT 5204	LS
6113	31127	RP 6328-218-B-29-1 (PSV 1103)	APMS 6B / FL 478	MB
6114	31128	RP 6252-BV/RIL-BV38	BPT 5204 / Vardhan	MB
6115	31129	RP 6529-RMS-1757-3-47-84	MTU 1010*2 / Improved Samba Mahsuri (Xa21+pi54)	LS
6116	31130	CR 4383-RGA-35	C 745-3-1-1-1-1 / IET 27218 // Annada	LS
6117	**Tella Hamsa (Positive Check)**			
6118	31131	RP 6529- RMS-1708-65-97-14	MTU 1010*2 / Improved Samba Mahsuri (Xa21+pi54)	LS
6119	31132	RP 6715-MS-SS-999-11-6-2-5-4-2	Samba Mahsuri Mutant-SS 999 / BPT 5204	MS
6120	31133	RP 6528-RMS-15-66-54-93	Improved Samba Mahsuri *2 // Habataki / ST 12	LS
6121	**Rasi (Positive Check)**			
6122	31134	CR 4392-RGA-16	C 767-4-2-1-1 / IET 27218 // N22	MS
6123	31135	RP 6252-BV/RIL-BV24	BPT 5204 / Vardhan	SB
6124	**Improved Samba Mahsuri (Susceptible Check)**			

Table No. 8.13: Grain Yield (kg/ha) in IVT - LNT 0%, Kharif 2022

ENTRY NO	IET NO	ZONE II-NORTHERN		ZONE III-EASTERN		ZONE VI – WESTERN		ZONE VII – SOUTHERN			
		Haryana (1)		Odisha (1)		Maharashtra (1)		Andhra Pradesh (1)		Telangana (1)	
		Kaul		ICAR-NRRI (Cuttack)		Karjat		Maruteru		ICAR-IIRR, Hyderabad	
6101	31117	2967	6 *	1427		5852	1 *	4821	8	2925	
6102	31118	2933	7 *	1343		4278		3186		3796	5
6103	31119	2833	8 *	1900		4472		4555		3638	10
6104	31120	3600	1 *	3860	3	5806	2 *	4941	6	4775	1 *
6105	31121	2400		2173		2467		3398		3467	
6106	31122			3420	5	4870	8	3339		2725	
6107	Varadhan (Positive Check)	2400		2913	9	4770		2986		3675	9
6108	31123	1800		1843		2713		3137		2083	
6109	31124	2600		2873	10	5565	3	4709	9	2508	
6110	Swarna (Positive Check)			4060	2	5169	4	4586		3696	8
6111	31125	2400		2993	8	4806	10	3130		2908	
6112	31126	2400		3373	6	4963	5	5540	4	3858	4
6113	31127	2033		2507		3620		4889	7	2875	
6114	31128	3067	5 *	1593		4907	7	5795	2 *	2975	
6115	31129	2600		2420		3037		4198		2913	
6116	31130	3267	4 *	4067	1	4963	5	4960	5	3300	
6117	Tella Hamsa (Positive Check)	2067		1653		2620		3225		2625	
6118	31131	2633	10	2760		3935		3069		3442	
6119	31132			1167		3491		3550		3746	6
6120	31133	2667	9	1900		3698		5548	3	4054	3
6121	Rasi (Positive Check)					2252		3458			
6122	31134	3433	3 *	3570	4	3806		4667	10	3700	7
6123	31135	3567	2 *	3267	7	4713		6528	1 *	4550	2 *
6124	Improved Samba Mahsuri (Susceptible Check)	1367		2613		4824	9	3593		2413	
Exp. Mean		**2652**		**2596**		**4233**		**4242**		**3332**	
F Value		**14.01(p<0.0001)S**		**15.18(p<0.0001)S**		**22.29(p<0.0001)S**		**6.03(p<0.0001)S**		**13.57(p<0.0001)S**	
CD		426		628		614		1144		502	
CV%		**9.71**		**14.70**		**8.82**		**16.41**		**9.16**	
D/S		28-06-2022		21-07-2022		24-06-2022		25-06-2022		44739	
D/P		28-07-2022		24-09-2022		20-07-2022		28-07-2022		44774	
Local Check Name											

Table No. 8.13 (Contd): Grain Yield (kg/ha) in IVT - LNT 0%, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN								Overall Mean (7)	
		Karnataka				Karnataka (2)		Zone VII (4)			
		Mandya		Gangavathi		Mean		Mean			
6101	31117	3285	2	3926		3606	10	3739		3600	
6102	31118	2485		3566		3026		3258		3084	
6103	31119	3031	10	4872	4	3952	4 *	4024	6	3614	10
6104	31120	2885		4183	10	3534		4196	3	4293	2
6105	31121	2554		2155		2355		2894		2659	
6106	31122	2973		4671	6	3822	7	3427		3666	9
6107	Varadhan (Positive Check)	2427		3654		3041		3186		3261	
6108	31123	1696		1426		1561		2086		2100	
6109	31124	3265	3	4479	9	3872	5	3740	10	3714	8
6110	Swarna (Positive Check)	3099	7	3357		3228		3685		3995	4
6111	31125	2710		3550		3130		3075		3214	
6112	31126	3197	5	4984	3	4091	3 *	4395	2 *	4045	3
6113	31127	3070	9	3694		3382		3632		3241	
6114	31128	2865		4840	5	3853	6	4119	5	3720	7
6115	31129	2768		4583	8	3676	9	3616		3217	
6116	31130	2729		3998		3364		3747	9	3898	5
6117	Tella Hamsa (Positive Check)	3187	6	2933		3060		2993		2616	
6118	31131	3080	8	5593	1	4337	2 *	3796	8	3502	
6119	31132	2885		3518		3202		3425		3060	
6120	31133	3216	4	3910		3563		4182	4	3570	
6121	Rasi (Positive Check)							3458		2855	
6122	31134	2710		4647	7	3679	8	3931	7	3790	6
6123	31135	3528	1	5152	2	4340	1 *	4940	1 *	4472	1 *
6124	Improved Samba Mahsuri (Susceptible Check)	2417		2901		2659		2831		2875	
Exp. Mean		**2872**		**3939**		**3216**		**3556**		**3391**	
F Value		**3.55(p=0.0001)S**		**3.94(p=0.0010)S**		**5.39(p<0.0001)S**		**8.48(p<0.0001)S**		**22.92(p<0.0001)S**	
CD		592		1424		722		549		316	
CV%		**12.53**		**17.43**		**13.63**		**9.39**		**5.68**	
D/S		30-07-2022		12-07-2022							
D/P		27-08-2022		13-08-2022							
Local Check Name											

Table No. 8.13 (Contd): Grain Yield (kg/ha) in IVT - LNT 50%, Kharif 2022

ENTRY NO	IET NO	ZONE II-NORTHERN		ZONE III-EASTERN		ZONE VI – WESTERN		ZONE VII – SOUTHERN			
		Haryana (1)		Odisha (1)		Maharashtra (1)		Andhra Pradesh (1)		Karnataka	
		Kaul		ICAR-NRRI (Cuttack)		Karjat		Maruteru		Mandya	
6101	31117	3200	9 *	2173		6074	4	5208	7	3645	8
6102	31118	3400	6 *	2013		5306		3404		3131	
6103	31119	3333	8 *	2630		6398	2	5193	8	3742	2
6104	31120	3667	3 *	5000	2	7620	1 *	5410	5	3442	10
6105	31121	2733		4257	9	4824		3599		3131	
6106	31122			4720	3	5870	7	3467		3635	7
6107	Varadhan (Positive Check)	2667		3467		4972		3050		2444	
6108	31123	1900		2900		3222		3161		1908	
6109	31124	2800		3530		5870	7	4826		3645	5
6110	Swarna (Positive Check)			5013	1	5898	5	4913	10	3752	1
6111	31125	2767		4380	7	5046		3220		2905	
6112	31126	2533		4333	8	5741	9	6077	2 *	3259	
6113	31127	2667		3690		3722		5068	9	3420	
6114	31128	4200	1 *	2837		4944		5888	3 *	3731	3
6115	31129	3400	6 *	3300		4463		4585		3088	
6116	31130	3667	3 *	4673	4	6241	3	5246	6	2841	
6117	Tella Hamsa (Positive Check)	2267		2713		2870		3302		3356	
6118	31131	3033	10	3787	10	4602		3309		3538	9
6119	31132			2153		5324		3713		3249	
6120	31133	2733		2927		5676	10	5716	4	3592	8
6121	Rasi (Positive Check)					4500		3521			
6122	31134	3600	5 *	4647	5	5130		4798		3302	
6123	31135	3967	2 *	4507	6	5898	5	6667	1 *	3699	4
6124	Improved Samba Mahsuri (Susceptible Check)	1533		3703		5065		3721		2755	
Exp. Mean		**3003**		**3624**		**5220**		**4461**		**3270**	
F Value		**19.94(p<0.0001)S**		**19.08(p<0.0001)S**		**9.68(p<0.0001)S**		**14.68(p<0.0001)S**		**4.42(p<0.0001)S**	
CD		416		601		919		841		618	
CV%		**8.37**		**10.08**		**10.71**		**11.47**		**11.48**	
D/S		28-06-2022		21-07-2022		24-06-2022		25-06-2022		30-07-2022	
D/P		28-07-2022		24-09-2022		20-07-2022		28-07-2022		27-08-2022	
Local Check Name											

Table No. 8.13 (Contd): Grain Yield (kg/ha) in IVT - LNT 50%, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN						Overall Mean (6)	
		Karnataka		Karnataka (2)		Zone VII (3)			
		Gangavathi		Mean		Mean			
6101	31117	4399		4022		4417	10	4117	
6102	31118	3990		3561		3508		3541	
6103	31119	4143		3943		4359		4240	
6104	31120	4263		3853		4372		4900	2
6105	31121	2652		2892		3127		3533	
6106	31122	5913	4	4774	2	4338		4721	4
6107	Varadhan (Positive Check)	4655		3550		3383		3543	
6108	31123	3341		2625		2803		2739	
6109	31124	5361	10	4503	10	4611	6	4339	10
6110	Swarna (Positive Check)	4591		4172		4419	9	4833	3
6111	31125	4471		3688		3532		3798	
6112	31126	5817	5	4538	9	5051	3 *	4627	6
6113	31127	5785	7	4603	6	4758	5	4059	
6114	31128	5809	6	4770	3	5143	2 *	4568	7
6115	31129	6018	2	4553	7	4564	7	4142	
6116	31130	5248		4045		4445	8	4653	5
6117	Tella Hamsa (Positive Check)	2500		2928		3053		2835	
6118	31131	5673	8	4606	5	4173		3990	
6119	31132	5986	3	4618	4	4316		4085	
6120	31133	5497	9	4545	8	4935	4	4357	9
6121	Rasi (Positive Check)					3521		4011	
6122	31134	5016		4159		4372		4416	8
6123	31135	6330	1	5015	1 *	5565	1 *	5178	1
6124	Improved Samba Mahsuri (Susceptible Check)	3622		3189		3366		3400	
Exp. Mean		**4830**		**3783**		**4042**		**4055**	
F Value		**3.48(p=0.0024)S**		**5.89(p<0.0001)S**		**11.36(p<0.0001)S**		**22.41(p<0.0001)S**	
CD		1687		776		629		364	
CV%		**16.84**		**12.47**		**9.47**		**5.47**	
D/S		12-07-2022							
D/P		13-08-2022							
Local Check Name									

Table No. _8.13 (Contd): Grain Yield (kg/ha) in IVT - LNT 0%, Kharif 2022 (Trial Not Considered)

ENTRY NO	IET NO	TRIAL NOT CONSIDERED	
		Jharkhand (0)	
		@Ranchi	
6101	31117	1933	1
6102	31118	1667	
6103	31119	1733	7
6104	31120	1867	3
6105	31121	1400	
6106	31122	867	
6107	Varadhan (Positive Check)	1533	
6108	31123	1867	3
6109	31124	1667	
6110	Swarna (Positive Check)	1267	
6111	31125	1200	
6112	31126	1200	
6113	31127	1667	
6114	31128	1933	1
6115	31129	1800	5
6116	31130	1200	
6117	Tella Hamsa (Positive Check)	1400	
6118	31131	1733	7
6119	31132	1667	
6120	31133	1733	7
6121	Rasi (Positive Check)	1067	
6122	31134	1733	7
6123	31135	1600	
6124	Improved Samba Mahsuri (Susceptible Check)	1400	
Exp. Mean		**1547**	
F Value		**2.59(p=0.0025)S**	
CD		507	
CV%		**19.95**	
D/S		23-06-2022	
D/P		11-08-2022	
Local Check Name			

Table No.8.13 (Contd): Grain Yield (kg/ha) in IVT - LNT 50%, Kharif 2022 (Trial Not Considered)

ENTRY NO	IET NO	TRIALS NOT CONSIDERED			
		Jharkhand (0)		Telangana (0)	
		@Ranchi		@ICAR-IIRR, Hyderabad	
6101	31117	2800	6	4147	6
6102	31118	2600	10	4402	4
6103	31119	2800	6	4352	5
6104	31120	2800	6	5491	1
6105	31121	2333		3787	10
6106	31122	1933		3666	
6107	Varadhan (Positive Check)	2267		3692	
6108	31123	2267		2136	
6109	31124	2333		2927	
6110	Swarna (Positive Check)	1333		3750	
6111	31125	1467		3090	
6112	31126	1667		3972	8
6113	31127	2067		3142	
6114	31128	3000	2	3272	
6115	31129	2667	9	3090	
6116	31130	2867	4	3546	
6117	Tella Hamsa (Positive Check)	1267		2868	
6118	31131	2467		3546	
6119	31132	2800	6	3844	9
6120	31133	2933	3	4070	7
6121	Rasi (Positive Check)	2333			
6122	31134	2400		4417	3
6123	31135	3267	1	4613	2
6124	Improved Samba Mahsuri (Susceptible Check)	2533		2816	
Exp. Mean		**2383**		**3680**	
F Value		**3.64(p<0.0001)S**		**55.13(p<0.0001)S**	
CD		874		268	
CV%		**22.31**		**4.43**	
D/S		23-06-2022		27-06-2022	
D/P		11-08-2022		01-08-2022	
Local Check Name					

Table No. 8.14: Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – LNT 0%, Kharif 2022

ENTRY NO	IET NO	ZONE II-NORTHERN			ZONE III-EASTERN			ZONE VI – WESTERN			ZONE VII – SOUTHERN					
		Haryana (1)			Odisha (1)			Maharashtra (1)			Andhra Pradesh (1)			Telangana (1)		
		Kaul			ICAR-NRRI (Cuttack)			Karjat			Maruteru			ICAR-IIRR, Hyderabad		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
6101	31117	86	99	271	104	61	255	96	114	218	94	114	323	102	89	172
6102	31118	77	94	248	103	70	245	94	115	194	97	124	337	92	109	182
6103	31119	95	102	270	102	66	211	98	117	203	95	133	363	104	98	181
6104	31120	101	121	285	109	84	292	105	127	188	105	144	323	107	117	198
6105	31121	83	111	229	114	81	243	92	124	197	95	135	321	91	115	190
6106	31122				117	78	239	84	127	200	91	131	337	91	91	179
6107	Varadhan (Positive Check)	76	107	241	103	72	260	89	111	230	84	133	279	93	96	194
6108	31123	76	84	254	113	62	204	84	86	194	81	103	321	98	68	167
6109	31124	91	103	294	106	68	279	98	111	203	95	122	328	98	88	176
6110	Swarna (Positive Check)				119	64	325	112	107	206	105	107	297	101	78	177
6111	31125	93	86	263	115	70	245	94	101	234	97	114	350	97	81	177
6112	31126	104	91	261	108	65	246	86	132	198	103	116	348	111	91	171
6113	31127	85	91	216	101	71	257	86	111	192	92	111	293	104	84	179
6114	31128	95	99	239	116	60	241	97	117	194	96	133	301	104	90	186
6115	31129	96	101	241	106	75	216	96	234	180	98	129	310	110	99	182
6116	31130	98	84	269	104	68	245	97	105	173	95	115	304	105	86	179
6117	Tella Hamsa (Positive Check)	73	93	262	105	73	318	86	116	199	80	112	310	90	82	181
6118	31131	91	91	251	104	69	260	92	108	185	93	117	310	91	87	177
6119	31132				108	66	256	102	119	202	100	142	374	97	100	198
6120	31133	96	88	260	106	63	183	97	106	191	97	124	319	102	97	191
6121	Rasi (Positive Check)							84	104	198	93	112	323			
6122	31134	98	94	290	105	74	243	92	104	209	97	127	370	112	88	191
6123	31135	102	105	261	108	73	249	93	121	215	96	129	323	102	97	180
6124	Improved Samba Mahsuri (Susceptible Check)	101	75	254	114	60	291	107	102	237	104	110	348	123	75	177
Exp. Mean		**91**	**96**	**258**	**108**	**69**	**252**	**94**	**117**	**202**	**95**	**122**	**326**	**101**	**92**	**182**

Table No. 8.14(Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – LNT 0%, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN												Overall Mean (7)		
		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
6101	31117	109	76	250	111	89	305	110	83	277	104	92	263	100	92	256
6102	31118	104	93	233	98	88	309	101	90	271	98	103	265	95	99	250
6103	31119	111	94	223	112	85	295	111	89	259	105	102	266	102	99	249
6104	31120	118	107	277	118	103	304	118	105	290	112	118	276	109	115	267
6105	31121	104	105	323	105	93	269	104	99	296	99	112	276	98	109	253
6106	31122	109	86	273	114	89	323	112	87	298	101	99	278	101	100	259
6107	Varadhan (Positive Check)	102	93	280	101	98	303	102	96	291	95	105	264	92	101	255
6108	31123	99	70	327	95	80	297	97	75	312	93	80	278	92	79	252
6109	31124	100	79	297	100	87	319	100	83	308	98	94	280	98	94	271
6110	Swarna (Positive Check)	121	69	323	121	69	308	121	69	316	112	81	276	113	82	273
6111	31125	106	72	240	109	87	285	107	79	262	102	88	263	101	87	256
6112	31126	105	82	273	106	94	310	105	88	292	106	96	275	103	96	258
6113	31127	104	85	223	97	97	280	100	91	252	99	94	244	95	93	234
6114	31128	109	87	280	109	93	305	109	90	292	105	101	268	104	97	249
6115	31129	108	90	233	111	92	300	110	91	266	107	102	256	104	117	237
6116	31130	119	76	263	117	73	325	118	74	294	109	87	268	105	87	251
6117	Tella Hamsa (Positive Check)	96	92	263	89	84	322	92	88	293	89	92	269	88	93	265
6118	31131	102	88	280	98	93	295	100	90	287	96	96	266	96	93	251
6119	31132	80	91	267	97	85	311	89	88	289	94	104	287	98	100	268
6120	31133	110	87	247	111	78	289	110	82	268	105	96	261	103	92	240
6121	Rasi (Positive Check)										93	112	323	89	108	261
6122	31134	108	80	270	108	86	336	108	83	303	106	95	292	103	93	273
6123	31135	105	94	240	106	93	325	106	93	282	102	103	267	102	102	256
6124	Improved Samba Mahsuri (Susceptible Check)	108	63	273	109	69	313	109	66	293	111	79	278	109	79	271
Exp. Mean		**106**	**85**	**268**	**106**	**87**	**305**	**106**	**86**	**287**	**102**	**97**	**272**	**100**	**96**	**256**

Table No. 8.14 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – LNT 50%, Kharif 2022

ENTRY NO	IET NO	ZONE II-NORTHERN			ZONE III-EASTERN			ZONE VI – WESTERN			ZONE VII – SOUTHERN					
		Haryana (1)			Odisha (1)			Maharashtra (1)			Andhra Pradesh (1)			Karnataka		
		Kaul			ICAR-NRRI (Cuttack)			Karjat			Maruteru			Mandya		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
6101	31117	89	108	290	102		287	96	107	243	94	110	308	109	79	280
6102	31118	84	104	297	100		280	94	117	237	95	117	301	104	92	267
6103	31119	97	112	305	99		258	98	120	236	96	122	306	111	92	220
6104	31120	103	130	291	107		316	105	129	230	105	145	381	119	108	267
6105	31121	87	118	262	112		291	92	126	229	95	141	356	104	102	233
6106	31122				115		293	84	128	220	89	132	361	109	84	233
6107	Varadhan (Positive Check)	78	119	268	101		326	89	108	213	86	123	323	102	96	233
6108	31123	87	94	270	111		317	84	91	197	80	91	286	99	74	247
6109	31124	95	113	317	105		312	98	113	223	96	124	323	100	79	267
6110	Swarna (Positive Check)				117		399	112	109	237	105	111	319	121	65	247
6111	31125	96	98	305	113		271	94	96	203	95	103	315	106	70	227
6112	31126	105	106	277	106		298	86	134	227	99	119	326	104	91	273
6113	31127	89	98	284	99		310	86	103	223	88	108	350	104	88	227
6114	31128	99	105	310	114		286	97	120	216	95	137	321	109	91	200
6115	31129	100	110	314	104		268	96	120	213	98	124	337	108	87	213
6116	31130	100	96	302	102		286	97	102	204	97	111	370	118	74	200
6117	Tella Hamsa (Positive Check)	76	105	288	104		367	86	108	229	81	103	308	96	89	223
6118	31131	93	104	279	102		304	92	111	214	90	110	326	102	86	267
6119	31132				106		307	103	122	235	101	152	323	80	92	200
6120	31133	99	98	265	104		286	97	109	219	96	118	288	110	85	200
6121	Rasi (Positive Check)							84	109	220	90	108	315			
6122	31134	100	101	306	104		290	92	107	230	99	118	304	108	83	247
6123	31135	99	116	290	106		301	93	124	247	96	125	310	105	94	247
6124	Improved Samba Mahsuri (Susceptible Check)	103	86	285	111		367	107	97	195	105	103	297	108	65	287
Exp. Mean		**94**	**106**	**290**	**106**		**305**	**94**	**113**	**223**	**95**	**119**	**323**	**106**	**85**	**239**

Table No. 8.14 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – LNT 50%, Kharif 2022

ENTRY NO	IET NO	ZONE VII – SOUTHERN									Overall Mean (6)		
		Karnataka			Karnataka (2)			Zone VII (3)					
		Gangavathi			Mean			Mean					
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
6101	31117	111	99	339	110	89	309	105	96	309	100	101	291
6102	31118	97	94	360	100	93	313	98	101	309	96	105	290
6103	31119	112	100	324	112	96	272	106	104	283	102	109	275
6104	31120	118	117	311	118	112	289	114	123	319	109	126	299
6105	31121	101	108	299	103	105	266	100	117	296	99	119	278
6106	31122	113	111	305	111	98	269	104	109	300	102	114	283
6107	Varadhan (Positive Check)	99	115	367	101	105	300	96	111	308	92	112	288
6108	31123	95	78	302	97	76	274	91	81	278	93	85	270
6109	31124	102	97	319	101	88	293	99	100	303	99	105	293
6110	Swarna (Positive Check)	124	70	304	122	68	275	117	82	290	116	89	301
6111	31125	108	83	315	107	77	271	103	85	285	102	90	272
6112	31126	103	94	328	103	92	301	102	101	309	100	109	288
6113	31127	99	94	308	101	91	267	97	97	295	94	98	284
6114	31128	112	96	294	110	93	247	105	108	272	104	110	271
6115	31129	112	104	313	110	95	263	106	105	288	103	109	276
6116	31130	115	81	316	116	77	258	110	89	295	105	93	280
6117	Tella Hamsa (Positive Check)	91	94	305	93	91	264	89	95	279	89	100	287
6118	31131	98	103	341	100	94	304	97	99	311	96	103	288
6119	31132	98	108	333	89	100	266	93	117	285	98	119	280
6120	31133	108	87	304	109	86	252	105	97	264	102	99	260
6121	Rasi (Positive Check)							90	108	315	87	109	267
6122	31134	112	94	321	110	88	284	106	98	290	102	101	283
6123	31135	108	98	329	106	96	288	103	106	295	101	111	287
6124	Improved Samba Mahsuri (Susceptible Check)	111	82	323	109	74	305	108	83	302	107	87	292
Exp. Mean		**106**	**96**	**320**	**106**	**91**	**280**	**102**	**101**	**295**	**100**	**104**	**283**

Table No.8.14 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – LNT 0%, Kharif 2022 (Trials Not Considered)

ENTRY NO	IET NO	TRIAL NOT CONSIDERED		
		Jharkhand (0)		
		@Ranchi		
		DFF	PH	PAN
6101	31117	114		
6102	31118	112		
6103	31119	116		
6104	31120	124		
6105	31121	113		
6106	31122	119		
6107	Varadhan (Positive Check)	112		
6108	31123	112		
6109	31124	126		
6110	Swarna (Positive Check)	127		
6111	31125	125		
6112	31126	114		
6113	31127	113		
6114	31128	123		
6115	31129	114		
6116	31130	122		
6117	Tella Hamsa (Positive Check)	106		
6118	31131	114		
6119	31132	114		
6120	31133	115		
6121	Rasi (Positive Check)	114		
6122	31134	126		
6123	31135	114		
6124	Improved Samba Mahsuri (Susceptible Check)	116		
Exp. Mean		**117**		

Table No. 8.14 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in IVT – LNT 50%, Kharif 2022 (Trials Not Considered)

ENTRY NO	IET NO	TRIALS NOT CONSIDERED					
		Jharkhand (0)			Telangana (0)		
		@Ranchi			@ICAR-IIRR, Hyderabad		
		DFF	PH	PAN	DFF	PH	PAN
6101	31117	114			104	98	217
6102	31118	113			89	114	206
6103	31119	113			123	103	200
6104	31120	126			103	118	229
6105	31121	115			89	116	206
6106	31122	130			99	98	221
6107	Varadhan (Positive Check)	111			89	104	221
6108	31123	112			88	82	208
6109	31124	125			105	96	209
6110	Swarna (Positive Check)	128			125	87	219
6111	31125	124			108	93	188
6112	31126	113			107	99	194
6113	31127	113			90	98	186
6114	31128	124			106	100	194
6115	31129	125			106	103	199
6116	31130	125			105	96	210
6117	Tella Hamsa (Positive Check)	105			86	93	217
6118	31131	113			88	97	217
6119	31132	114			103	99	210
6120	31133	114			104	97	188
6121	Rasi (Positive Check)	121					
6122	31134	124			97	97	200
6123	31135	114			100	96	198
6124	Improved Samba Mahsuri (Susceptible Check)	123			111	92	200
Exp. Mean		**118**			**101**	**99**	**206**

COLOURED RICES PILOT TRIAL (CRPT)

Locations: **10** **Test Entries: 19**

Checks: **Chakho Poireiton (Manipur Black Rice: National check and Recurrent parent), Sahyadri Kempumukthi: Red rice, Observational check) and Local check.** **Table: 9.1**

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.

A pilot trial consisting of a total of 21 test entries, including three checks, Chakho Poireiton, black rice variety from Manipur as national check,Sahyadri Kempumukthi, red rice variety from Karnataka as observational check anda local check, and three Near Isogenic lines in the genetic background of Chakho Poireiton as well as 15 other colored varietal entries from various regions of India, was initiated. All of the test entries were in their first year of testing. The pilot trial was sent to ten locations, and data from six locations, namely Malan (HP), IARI-New Delhi, ICAR-NRRI (Cuttack), Titabar, Navasari, and Pattambi, was received. However, data from three locations, Malan, Titabar, 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 tables 9.2 and 9.3 The performance of the entries in various locations is discussed below.

Overall mean grain yield was ranged from 1906 (IET 31144) to 5468 kg/ha (Sahyadri Kempumukthi: Observational check), while days to 50% flowering ranged from 85 (IET 31147) to 118 days (IET 31136). Plant height ranged from 92 cm (IET 31146 and IET 31149) to 158 cm (IET 31153) and panicles/m^2 ranged from 221 (IET 31138) to 359(IET 31141). The observational check entry Sahyadri Kempumukthi recorded highest grain yield of 5468 kg/ha compared to all other test entries in overall trial basis.

During the Kharif season of 2022, three near-isogenic lines and the recurrent parent, Chakho Poireiton, a black rice variety from Manipur, were sent for testing in Manipur state. Unfortunately, a lack of data prevented the performance evaluation of the three near-isogenic lines. For the zonal analysis, only three locations were considered, with each zone having only one location: IARI-New Delhi (Zone-II), ICAR-NRRI (Zone-III), and Gujarat (Zone-VI). In Zone II and Zone III, none of the entries displayed a significant performance advantage over the check Chakho Poireiton. In Zone VI, six entries viz., IET's 31139, 31141, 31142, 31145, 31150 and 31151 showed significant yield superiority over the check Chakho Poireiton. ***Hence these entries are promoted to next year of testing.***

Performance of promising entries in coloured rice pilot trial, Kharif-2022

Zone VI (Western Zone)			
Rank	**IET No. / Designation / Cross combination**	**GY (kg/ha)/ days to 50% flowering/ grain type**	**Remarks**
1	31142 BPT 3269 RP Bio 226/IRGC 23385//Nidhi/MTU 1081	6386 92 LS	Promoted
2	31150 BPT 3136 RP Bio 226*1/IRGC 48493	6032 85 LB	Promoted
3	31141 RP 6166-NPV 37-23 MTU 1010/*Oryza rufipogan*	5867 97 MS	Promoted
4	31151 BPT 3344 Cult. 01120305/Cult. 0910025-7	5669 92 LB	Promoted
5	31145 BPT 2841 MTU 7029/IRGC 18195/MTU 1081	5240 87 MS	Promoted
6	31139 BPT 3263 MTU 7029/IRGC 18195/MTU 1081	5226 88 SB	Promoted
	Chakho Poireiton	3408 102 LB	
	Sahyadri Kempumukthi	5655 100	
	CD	802	

Table No. 9.1: Composition of entries in Coloured Rice Pilot Trial (CRPT), Kharif 2022

Entry No.	IET No.	Designation	Cross Combination	GT
1st year of testing				
6201	31136	BPT 3278	RP Bio 226*1 / IRGC 48493	LS
6202	31137	Pusa 3075-3-2-3-D2-21	Chakho Poireiton*2 / Pusa 1652	LS
6203	31138	HPR 4001	Selection from Local Material	MS
6204	31139	BPT 3263	MTU 7029 / IRGC 18195 / MTU 1081	SB
6205	31140	BPT 3145	RP Bio 226*1 / IRGC 48493	LB
6206	**Chakho Poireiton (manipur black rice) Check- Recurrent Parent**			LB
6207	31141	RP 6166-NPV 37-23	MTU 1010 / O.rufipogon	MS
6208	31142	BPT 3269	RP Bio 226 / IRGC 23385 // Nidhi / MTU 1081	LS
6209	31143	BPT 3182	MTU 7029 / IRGC 18195 / MTU 1081	LS
6210	31144	HPR 4003	Selection from Local Material	MS
6211	31145	BPT 2841	Swarna / IRRGC 18195 // MTU 1081	MS
6212	31146	Pusa 3075-3-2-3-D2-31	Chakho Poireiton*2 / Pusa 1652	LB
6213	31147	HPR 4004	Selection from Local Material	MS
6214	31148	BPT 3178	Cult.01120305 / cult.0910025-7	SB
6215	31149	Pusa 3075-3-2-3D2-22	Chakhao Poireiton*2 / Pusa 1652	LB
6216	31150	BPT 3136	RP Bio 226*1 / IRGC 48493	LB
6217	31151	BPT 3344	Cult.01120305 / cult.0910025-7	LB
6218	31152	BPT 3111	MTU 7029 / IRGC 18195 / MTU 1081	MS
6219	**Sahydri Kempmukhi (Red Rice) Check**			
6220	31153	HPR 4000	Selection from Local Material	MS
6221	**Local Check (LC)**			

Table No.9.2: Grain Yield (kg/ha) of entries in Coloured Rice, Kharif 2022

ENTRY NO	IET NO	ZONE II-NORTHERN New Delhi (1) ICAR-IARI New Delhi		ZONE III-EASTERN Odisha (1) ICAR-NRRI (Cuttack)		ZONE VI – WESTERN (1) Guiarat (1) Navasari		Overall Mean (3)	
6201	31136	858		4653	8	3051		2854	
6202	31137	4393	2	4653	8	3848		4298	9
6203	31138	2277		2958		3073		2769	
6204	31139	3972	7	5133	5	5226	7 *	4777	5
6205	31140	3107		4092		4400	9	3866	
6206	Chakho Poireiton (manipur black rice) Check	4011	6	4463		3408		3961	
6207	31141	4129	5	4675	7	5867	3 *	4890	3
6208	31142	3587	10	4385		6386	1 *	4786	4
6209	31143	3121		3445		4285		3617	
6210	31144	1175		1458		3084		1906	
6211	31145	3533		3107		5240	6 *	3960	
6212	31146	3809	8	4325		4422	8	4185	10
6213	31147	1880		4587	10	3646		3371	
6214	31148	1940		6591	1	2372		3634	
6215	31149	4144	4	4751	6	4198		4364	8
6216	31150	4276	3	5194	4	6032	2 *	5167	2
6217	31151	3288		4310		5669	4 *	4422	7
6218	31152	2790		3905		2257		2984	
6219	Sahydri Kempmukhi (Red Rice) Check	4648	1	6100	2	5655	5	5468	1
6220	31153	1277		2095		2874		2082	
6221	Local Check (LC)	3755	9	5637	3	4326	10	4573	6
Exp. Mean		**3141**		**4310**		**4253**		**3902**	
F Value		**45.55(p<.0001)S**		**4.75(p<.0005)S**		**20.08(p<.0001)S**		**15.51(p<.0001)S**	
CD		488		1690		802		715	
CV%		**7.45**		**18.8**		**9.04**		**8.78**	
D/S		04-07-2022		02-07-2022		04-07-2022			
D/P		05-08-2022		09-08-2022		27-07-2022			
Local Check Name				CR Dhan 910					

For Promotion of entries:
***For Varietal entries: Yield of entry should be superior over yield of BVC+CD (at 5%level of significance).**
#For hybrid entries: Yield of entry should be superior over yield of BVC+CD and over yield of BHC+CD (at 5% level of significance)
In locations where the F variance ratio between treatments is non-significant, data from such locations was not considered in analysis.

Table No.9.2 (Contd): Grain Yield (kg/ha) of entries in Coloured Rice, Kharif 2022 (Trial Not Considered)

ENTRY NO	IET NO	TRIALS NOT CONSIDERED Himachal Pradesh (0) @Malan		AssaM (0) @Titabar		Kerala (0) @Pattambi	
6201	31136			4286		3573	6
6202	31137			5115	1	3127	
6203	31138	518	3	3496		3997	3
6204	31139			4641	8	3723	5
6205	31140	238	8	4582	9	3867	4
6206	Chakho Poireiton (manipur black rice) Check			4491	10	4023	2
6207	31141			4487		4080	1
6208	31142	111	10	5076	3	3510	8
6209	31143			4448		3553	7
6210	31144	515	4	1837		3070	
6211	31145	766	2	4049		3020	
6212	31146			5068	4	3353	
6213	31147	259	7	4392		3423	10
6214	31148			4171		2927	
6215	31149			3496		3453	9
6216	31150	386	6	4775	7	3323	
6217	31151	189	9	5084	2	3127	
6218	31152			3527		3027	
6219	Sahydri Kempmukhi (Red Rice) Check			4799	6	3260	
6220	31153	444	5	2670		3400	
6221	Local Check (LC)	1282	1	4937	5	3217	
Exp. Mean		**471**		**4258**		**3431**	
F Value		**7.13(p=.0034)S**		**112.66(p<.0001)S**		**0.94(p=0.5573)NS**	
CD		401.26		229		1149	
CV%		**37.66**		**2.58**		**16.057**	
D/S		09-07-2022		09-07-2022		20-06-2022	
D/P		01-08-2022		06-08-2022		16-07-2022	
Local Check Name		HPR-2720		Labnya			

Table No. 9.3 : Days to 50% flowering, Plant Height (cm) & Panicles/m2 in Coloured Rice, Kharif 2022

ENTRY NO	IET NO	ZONE II-NORTHERN New Delhi (1) ICAR-IARI New Delhi			ZONE III-EASTERN Odisha (1) ICAR-NRRI (Cuttack)			ZONE VI – WESTERN Gujarat Navasari			Overall Mean (3)		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
6201	31136	123	98	356	116	125	302	115	108	183	118	110	280
6202	31137	116	81	393	107	94	299	99	108	197	107	94	296
6203	31138	92	157	234	96	133	322	77	154	108	88	148	221
6204	31139	101	127	337	103	110	342	88	153	239	97	130	306
6205	31140	105	106	274	105	152	284	89	121	206	100	126	254
6206	Chakho Poireiton (manipur black rice) Check	111	157	224	102	111	287	102	183	210	105	150	240
6207	31141	105	100	508	99	105	317	97	121	253	100	109	359
6208	31142	105	101	333	103	107	304	92	119	191	100	109	276
6209	31143	105	93	323	107	105	302	91	102	219	101	100	281
6210	31144	93	166	317	96	132	309	76	162	206	88	153	277
6211	31145	99	115	257	100	110	300	87	121	193	95	115	250
6212	31146	116	81	264	108	100	322	100	97	201	108	92	262
6213	31147	85	142	446	92	127	297	78	157	194	85	142	312
6214	31148	123	89	290	111	112	312	88	108	202	107	103	268
6215	31149	115	84	314	110	95	292	92	96	192	105	92	266
6216	31150	103	103	320	103	107	309	85	117	150	97	109	259
6217	31151	104	108	281	106	106	290	92	109	163	100	108	245
6218	31152	116	109	413	114	115	314	99	109	263	109	111	330
6219	Sahydri Kempmukhi (Red Rice) Check	111	96	340	105	109	294	100	132	232	105	112	289
6220	31153	93	158	294	94	154	310	74	163	199	87	158	268
6221	Local Check (LC)	110	157	277	108	112	314	101	102	213	106	124	268
Exp. Mean		**106**	**116**	**324**	**104**	**115**	**306**	**91**	**126**	**200**	**100**	**119**	**277**

Table No.9.3 (Contd): Days to 50% flowering, Plant Height (cm) & Panicles/m2 in Coloured Rice, Kharif 2022 (Trial Not Considered)

ENTRY NO	IET NO	ZONE I – HILLY REGION Himachal Pradesh (0) @Malan			ZONE IV- NORTH EASTERN Assam (0) @Titabar			ZONE VII – SOUTHERN Kerala (0) @Pattambi		
		DFF	PH	PAN	DFF	PH	PAN	DFF	PH	PAN
6201	31136				120	120	190	97	86	443
6202	31137				101	104	210	98	97	378
6203	31138	88	120	146	93	119	190	97	96	370
6204	31139				95	118	197	97	92	345
6205	31140	104	74	123	100	112	189	99	97	297
6206	Chakho Poireiton (manipur black rice) Check				101	137	193	96	89	483
6207	31141				100	105	269	97	96	371
6208	31142	114	80	118	104	107	217	98	85	339
6209	31143				110	107	185	97	92	378
6210	31144	86	74	128	94	104	159	97	88	343
6211	31145	96	85	133	103	102	213	98	92	442
6212	31146				107	100	191	96	101	366
6213	31147	94	107	93	90	129	189	95	88	364
6214	31148				112	102	189	98	103	455
6215	31149				104	102	247	96	80	401
6216	31150	104	75	125	109	110	216	96	88	438
6217	31151	111	85	110	108	116	243	95	80	443
6218	31152				119	115	206	96	82	476
6219	Sahydri Kempmukhi (Red Rice) Check				113	119	209	98	88	401
6220	31153	91	106	133	91	114	182	98	95	434
6221	Local Check (LC)	86	83	148	119	121	251	98	96	339
Exp. Mean		**97**	**89**	**125**	**104**	**112**	**206**	**97**	**91**	**395**

PROGRESS REPORT

KHARIF 2022

VARIETAL IMPROVEMENT

AICRP on Rice

RAINFED TRIALS

ICAR-NRRI, Cuttack

RAINFED UPLAND

Rainfed upland rice is basically grown as a directed seeded crop in a typical upland situation under *rainfed* condition with limited input use. The varieties grown under this ecology are usually shorter in duration with 80-85 days to 50% flowering and 105-110 days to maturity. The areas under *rainfed* upland ecology are spreads throughout the country but more areas are concentrated in the eastern plateau regions of the country. Around 5-6millionhectare rice area of the country is under this ecology, however due to low productivity, uncertainty and other biotic and abiotic stresses problem the areas is reducing in recent years. The upland rice is grown by resource poor farmers in marginal soil which are inherently poor in fertility. The success of the crop primarily depends on the quantity of rainfall it receives during the crop growth and its distribution. Most often it encounters moisture stress at various stages of crop growth starting from sowing, early to late vegetative, primordial initiation, flowering and maturity stage. Not only that, it also faces other abiotic stress like iron deficiency and poor supply of major nutrients whereas biotic stresses like termite, nematode and weed and some other disease pest problem like brown spot, blast etc. Therefore, for this ecology variety should be developed with shorter duration (105 -110 days), drought tolerance for both vegetative and reproductive stage, weed competitive ability to have better stand establishment, adaptive to low input and high nutrient use efficient with fair degree of biotic stress tolerance. Hence, the promoted genotypes should have short duration of 105 -110 days, drought tolerance and yield advantage over the check varieties. During *kharif* 2022 two experiments were conducted i.e. AVT 1-EDSand IVT – EDS to identify superior genotypes at specified locations for which results are presented below.

ADVANCE VARIETY TRIAL 1 – EARLY DIRECT SEEDED (AVT 1 – E DS)

Locations:	**16**	**Test Entries: 17**
Checks:	**Sahbhagidhan (RP) and Vandana - National, Govind (Northern), Narendra 97 (Eastern), Samaleswari (Central), Varalu (Western), Tulasi (Southern), Anjali (RP and All zones), IR 64 (Sensitive) and Local Check**	**Table:10.1**

Seventeen test entries constituted the trial, where all entries were varietal entries including 4 NILs. Among those, nine were repeat entries and eight were new entries promoted from IVT –E DS trial. Further, among the repeat entries 2 were NILs with drought QTLs in the background of RP Anjali and rest 7 were varietal entries. The other two NILs in the background of RP Sahabhagidhan were introgressed with herbicide tolerant gene from the donor Robin against post emergence herbicide Imazethapyr. All the entries were in second year of testing including the repeats. There were two national checks Sahbhagidhan and Vandana, while Sahbhagidhan was also the recurrent parent in two of the NILs for herbicide tolerance; IR 64 as a drought susceptible check at national level and Anjali was a zonal check across the zones and the recurrent parent of two NILs. The zonal checks were Govind (Northern), Narendra 97 (Eastern), Samaleswari (Central), Varalu (Western) and Tulasi (Southern)A total of twenty-three genotypes were evaluated along with six checks in each

location that differ only on local check and zonal check based on the trial locations in various zones. The trial was sent to 18 different locations of all zones except zone II, but the trial was not conducted at Hazaribag and data was not received from Jabalpur. The trial was conducted at Bikramganj (Dhangain), Hathwara, Jeypore , NRRI, Cuttack, Ranchi, Pusa and Sabour in zone III; Titabar in Zone IV, Raipur, Jagdalpur and Rewa in zone V, Parbhani, Vyara and Derol in zone VI and Kampasagar and Coimbatore in zone VII spread over the states of Bihar, Jharkhand, Odisha, West Bengal, Assam, Chattisgarh, M.P., Gujrat, Maharastra, Telangana and Tamilnadu. In most of the trial locations sowing was done during last week of June that started from 20.6.2022 at Rewa to 17.08.2022 at Jeypore and in few locations it was during July like Derol on 5.7.2022, at Rewa on 17.7.2022 and at Kampasagar on 22.7.2022.

Based on the amount of rainfall received during various stages of crop growth and its distribution, the testing centres were classified as severe drought, moderate drought and normalrainfall locations and accordingly data were analysed. Jeypore in Odisha (Z 3), Rewa in M.P. (Z 5) and Derol in Gujrat (Z 6) were in severe drought locations; Cuttack in Odisha, Hatwara in West Bengal, Pusa in Bihar, Ranchi in Jharkhand under zone 3 and Parbhani in Maharastra (Z 6) were classified as moderate drought locations; while Bikramganj (Dhangain) and Sabour in Bihar (Z 3), Titabar in Assam (Z 4), Jagdalpur and Raipur in Chattisgarh (Z 5), Vyara in Gujrat (Z 6), Kampasagar in Telangana and Coimbatore in Tamilnadu (Z 7) were classified as normal rainfall**.**

General information on drought situation at different locations

Location	**Drought situation**	**Expt. yield (kg/ha)**	**C.V. (%)**	**Remarks**
Bikramganj	Normal rainfall	4852	9.01	
Sabour	Normal rainfall	4097	15.13	
Titabar	Normal rainfall	3372	4.13	
Jagdalpur	Normal rainfall	3433	19.11	
Raipur	Normal rainfall	3323	16.69	
Vyara	Normal rainfall	3026	17.38	
Kampasagar	Normal rainfall	4943	9.85	
Coimbatore	Normal rainfall	3458	24.8	
Cuttack	***Moderate drought***	2359	11.15	2 dry spell of 18 days at late vegetative and long dry spell at maturity
Hatwara	***Moderate drought***	2636	11.75	
Pusa	***Moderate drought***	2703	12.46	
Ranchi	***Moderate drought***	2474	11.60	
Parbhani	***Moderate drought***	2654	9.66	15days at late vegetative stage
Jeypore	**Severe drought**	702	13.21	20days
Rewa	**Severe drought**	772	15.73	2 dry spell, 10days at early vegetative and 10days at flowering and miking stage
Derol	**Severe drought**	385	80.34	
Jabalpur	Data not received			
Hazaribag	Trial not conducted			

Performance of entries under severe drought situation

Seventeen entries including 4 NILs were evaluated at sixteen different locations across six zones and as indicated earlier, only Jeypore in Odisha (Z 3), Rewa in M.P. (Z 5).and Derol in Gujrat (Z 6) comes under severe drought. However, the experimental mean of Derol was very low of 385.0 kg/ha with very high C.V. % of 80.34 with many missing values, therefore this location data was not included in analysis for severe drought situation. Only Jeypore and Rewa data were analysed under severe drought situations and those were single locations, respectively in Zone 3 and zone 5. The location mean grain yield was 702 kg/ha at Jeypore with C.V. of 13.21 and at Rewa the mean grain yield was 772 kg/ha with C.V. of 15.73. However, at Rewa many entries like IET 29039(R), IET 29039(R), IET 28835(R) and national check and RP Sabhagidhan and local check were missing and the overall data for these entries were only one location data. The performance of NILs under drought is discussed separately since NILs are to be compared with their respective recurrent parent for the trait of interest. The data pertaining to grain yield, days to 50% flowering, plant height and no. of panicles and grain quality characters are given in Tables 10.2 to 10.6.

Overall performance of entries under severe drought situation for grain yield varied from286 kg/ha [IET 29052 (R)] to 1792 kg/ha with an overall mean grain yield of 731kg/ha, days to 50% flowering duration from 81[IET 29038 (R) and IET 28834(R)] to 109 days(IET 30332) with overall mean 50% flowering duration of 92 days, plant height from 51 cm (Vandana, NC) to 77 cm [IET 29036(R)] with an overall mean of 64cm and panicles/m^2varied from 168 [IET 28834(R)] to 278 (IET 20351) with an overall mean of 218 panicles/m^2 under severe drought condition.

The highest yielder was IET 29036(R) with grain yield of 1792 kg/ha followed by IET 30351with 1681 kg/ha, IET 30328 with 1577 kg/ha and IET 30438,an herbicide tolerant NIL with 1098 kg/ha. These entries showed significantly higher yield than the best check Sahabhagidhan that had a grain yield of 908 kg/ha when CD $_{(0.05)}$ was considered. The other checks Anjali yielded 518 kg/ha, Vandana 291kg/ha, local check 737 kg/ha and sensitive check IR 64 yielded 341kg/ha. **Hence, these three entries IET 29036(R), IET 30351 and IET 30328 were found promising under severe drought stress condition. These entries also possess the desirable grain quality parameters and therefore, are promoted for 3rd year of testing on overall basis.**

29036 (R) [RCPR-68-IR-83929-B-B-291-2-1-1-2], a cross derivatives of IR78878-53-2-2-2 / CT6510-24-1-2 ranked 1st among the entries with a grain yield of 1792 kg/ha has long bold grain. It registered yield advantage of 97.36% over the best check i.e. national check Sahbhagidhan. It also had yield advantage of 244.62% over the zonal check, 143.15% over the local check and 425.62% over the sensitive check IR 64. It took 92 days for 50% flowering. This entry had hulling (75%), milling 63%, HRR (56%), amylose content of 22.42% and GC of 45mm with very occasionally chalkiness was found, hence promoted for 3rd year of testing.

IET 30351(R 2341-142-1-122-1) a line developed from the cross between Mahamaya/ IR BL-5 ranked 2nd on overall basis under severe drought condition with a grain yield of 1618 kg/ha and had yield advantage of 78.19 % over the best check i.e. Shabhagidhan. It registered yield advantage over other checks i.e. by 211.15% over the zonal check, 119.54% over local check and 374.47% over the sensitive check IR 64. It attained 50% flowering in 91 days. Ithas long slender grain.This entry possesses desirable grain quality characteristics with 75%,

hulling, 66% milling, 58% HRR, amylose content of 22.20% with moderate GC of 49 mm and very occasional chalkiness, hence promoted for 3rd year of testing

IET 30328 (CR 4059-1312-1-1-4) a line developed from the cross between parent IET 22729 and PR 118 yielded 1577 kg/ha under severe drought condition on overall basis and had a yield advantage over the best check i.e. national check Shabhagidhan by 73.68% and over zonal check by 203.27%over the local check by 113.98% and over the sensitive check IR 64 by 362.47 %. It has long bold grain and took 88 days to attain 50% flowering. This entry is having desirable grain quality characteristics with hulling of 72%, milling of 68%. HRR (61%), AC of 22.27% and soft GC of 48 mm without any chakiness, hence promoted for 3ryear of testing.

Grain Yield (Kg/ha) of entries in AVT-1 E DS under Severe Drought Condition on overall basis, Kharif 2022

IET No./ Designation/ Cross combination	GY/ FD/ GT	Yield adv. (%) over NC ZC LC SC	% increase over best check				
			OD		MP		% BC
			Yield	Rank	Yield	Rank	
29036 (R) RCPR-68-IR-83929-B-B-291-2-1-1-2 IR78878-53-2-2-2 / CT6510-24-1-2	1792 92 LB	97.36 244.62 143.15 274.90	872	7	2713	1	97.36
30351 R 2341-142-1-122-1 Mahamaya/ IR BL-5	1618 91 LS	78.19 211.15 119.54 238.49	1855	1	1380	4	78.19
30328 CR 4059-1312-1-1-4 IET 22729 / PR 118	1577 88 LB	73.68 203.27 113.98 229.92	567	-	2587	2	73.68
Shabhagidhan (NC)	908 85						
Zonal check	518 82						
Local check	737 88						
IR 64 (Sensitive check)	341 99						

Zone III

In this zone only one location i.e. Jeypore in Odisha qualifies for analysis under severe drought situation and therefore, the grain yield, days to 50% flowering, plant height and no. of panicles / m2 presented represent one location data. The mean grain yield of entries ranged from 405 kg/ha [IET29047(R)] to 1855 kg/ha (IET30351) with an experimental mean of 702 kg/ha; days to 50% flowering varied from 75 [(IET 28834(R) to106 (IET30332) with a mean of 91 days, plant height from 39.33 cm (IET 30336) to

74.80cm (Local check Mandakini) with mean of 56cm and no. of panicles / m2 from 180 [IET 28834(R)] to 359 in Zonal check & RP Anjali.

In this zone, only two entries outyielded the best check i.e. Anjali, the zonal checks for all zones &RP, when the yield of best check and CD value at 5% was considered. The top yielding entries were IET 30351 (R 2341-142-1-122-1) with grain yield of 1855 kg/ha, followed by IET 28834 (R) [CRR 809-11-1-9-B] with 1351 kg/ha, a drought NIL entry. Among the checks, Anjali was highest yielder with 964 kg/ha, followed by national checks Shabhagidhan with 908 kg/ha, Vandana with 434 kg/ha, zonal check in this zone (Narendra 97) with520 kg/ha, drought sensitive check IR 64 yielded 478 kg/ha, whereas local check Mandakini registered a grain yield of 737 kg/ha.

Performance of promising entries of AVT 1 –E DS under severe drought condition in Zone III during *Kharif*2022

IET No./ Designation/ Cross combination	GY/ FD/ GT	Yield adv. (%) over NC ZC LC SC	% increase over best check		
			State	Rank	Yield	% BC
30351 R 2341-142-1-122-1 Mahamaya / IR BL -5	1855 86 LS	104.29 91.83 151.69 288.07	OD	1	1855	91.83
Sahbhagidhan NC	908 92					
Zonal check	***967*** **78**					
Local check	737 88					
IR 64 (Sensitive check)	478 101					

IET 30351(R 2341-142-1-122-1) developed from the cross between Mahamaya / IR BL -5 has long slender grain, yielded 1855 kg/ha and ranked first in Z III under severe drought condition and registered yield advantage of 91.83% over the best check (zonal check & RP Anjali), It also showed yield advantages over the other checks by 104.29%, 151.69% and 288.07 % respectively,over the national check Shabhagidhan, local check Mandakini and sensitive check IR 64.It took 86 days to attains 50% flowering. It showed desirable grain quality characteristics as indicated earlier, hence promoted for 3rd year of testing.

Zone V

There was only one location, Rewa in M.P. that experienced severe drought condition of this zone. Further, many of the missing datawere there including national check Shabhagidhan, local check, IET 29039 (R), IET 29048(R) and IET 28835(R), hence the analyzed data calculated for higher statistics like mean, CD and CV had considered only available data of the entries. The data on grain yield, days to 50% flowering, plant height and no. of panicles / m2 presented represent one location data. This zone has mean grain yield of 772 kg/ha with a C.V. of 15.71 %. In this zone under severe drought situation, mean grain yield of entries ranged from 56kg/ha IET 29052(R) to 2713 kg/ha[IET 29036(R)] with experimental mean of 201.58 kg/ha; days to 50% varied from 83 [(IET 29038(R)] to 112

(IET 30332 and Vandana, NC) with a mean of 94 days, plant height from 54cm (Vandana, NC) to 105cm [IET 29036(R)] with a mean of 73 cmand no. of panicles / m2 from 77 [IET 28835(R)] to 266(IET 30351) with mean of 159.

As many as seven entries registered yield advantage over the best check i.e. zonal check Samaleshwari and sensitive check IR 64 when the yield of best check and CD value at 5% over the best check was considered and found promising.. Those are **IET 29036(R), IET 30238, IET 30351, IET 30330, IET 30334, IET 29038(R)and IET 30336**.All the entries meet the desirable quality characteristics feature, hence are promoted.

The top three entries wereIET 29036(R)[RCPR-68-IR-83929-B-B-291-2-1-1-2] with a yield of 2713 kg/ha followed by IET 30238 (CR 4059-1312-1-1-4) with 2587 kg/ha and IET 30438 (CR 4333-35-2-2-1) with grain yield of 1775 kg/ha. The information on other promising entries isdepicted in the table presented below. Among the checks, zonal check Samaleshwari and sensitive check IR 64 werethe highest yielderwith grain yield of 204 kg/ha in both the cases, followed by national check Vandana with 148 kg/ha, and Anjali, zonal check for all zones &RP with 69 kg/ha,

Performance of promising entries of AVT 1 –E DS under severe drought condition in Zone V during *Kharif*2022

IET No./ Designation/ Cross combination	GY/ FD/ GT	Yield adv. (%) over NC, ZC, SC	% increase over best check				
			State	Rank	Yield	% BC	Grain quality characters
29036(R) RCPR-68-IR-83929-B-B-291-2-1-1-2 IR78878-53-2-2-2 / CT6510-24-1-2	2713 92 LB	1733.1 1229.9 1229.9	MH	1	2713	1229.9	Hulling – 75% Milling -63% HRR-56% AC -22.42% CG -45 mm Chalkiness -VOC
30328 CR 4059-1312-1-1-4 IET 22729 / PR 118	2587 96 LB	1647.9 1168.1 1168.1	MH	2	2587	1168.1	Hulling – 72% Milling -66% HRR-61% AC -22.27% CG -62 mm Chalkiness -A
30351 R 2341-142-1-122-1 Mahamaya/ IR BL-5	1380 96 LS	832.4 576.5 576.5	MH	4	1380	576.55	Hulling – 72% Milling -66% HRR- 58% AC -22.80% CG -49 mm Chalkiness -VOC
30330 RCPR 84-IR14L 155 IR 81039-B-173-U 3-3/IR 81063-B-94-U 3-1	1233 96 LS	733.1 504.4 504.4	MH	5	1233	504.4	Hulling – 72% Milling -65% HRR- 60% AC -23.02% CG -49 mm Chalkiness -VOC
30334 CR-2889-208-1 Apo/CR 143-2-2	1003 100 SB	577.7 391.7 391.7	MH	6	1003	391.7	Hulling – 74% Milling -69% HRR- 60% AC -25.87% CG - 62 mm Chalkiness -VOC

IET No./ Designation/ Cross combination	GY/ FD/ GT	Yield adv. (%) over NC, ZC, SC	% increase over best check			
			State	Rank	Yield	% BC	Grain quality characters
29038(R) CRR523-2-2-1-3 Kalinga III/Bhupen	634 81 LS	328.4 210.8 210.8	MH	7	634	210.8	Hulling – 70% Milling -66% HRR- 60% AC -26.85% CG - 62 mm Chalkiness -VOC
30336 ORJ-1356 Sampada/IRGC 25966//RP Bio 226	490 94 LB	231.1 140.2 140.2	MH	8	490	140.2	Hulling – 72% Milling -62% HRR- 58% AC -25% CG - 56 mm Chalkiness -VOC
Vandana NC	148 112						
Samaleshwari Zonal check	***204*** **110**						
IR 64 (Sensitive check)	**204** 97						

The description about 3 top entries of this zone is presented below and other promising entries are depicted in the table.

IET 29036(R) [RCPR-68-IR-83929-B-B-291-2-1-1-2], a cross derivative of IR78878-53-2-2-2 / CT6510-24-1-2 ranked first among the test entries in Z - V under severe drought condition with a grain yield of 2713 kg/ha with a yield advantage of 1229.9 % both over zonal check Samaleshwari and sensitive check IR 64. It also registered yield superiority over national check Vandana by 1733.1%. It attained 50% flowering on 92 days and has long bold grain. It has desirable grain quality features as indicated earlier.

IET 30328 (CR 4059-1312-1-1-4),a crossed derivative of the parents IET 22729 / PR 118 stood second with a grain yield of 2587 kg/ha and registered yield advantage of 1168.1% both over zonal check Samaleshwari and sensitive check IR 64. It also had yield superiority of 1647.9 % over national check Vandana. The 50% flowering duration was 96days and has long bold grain.It has desirable grain quality features as indicated earlier.

IET 30351(R 2341-142-1-122-1),a line developed from the cross betweenMahamaya/ IR BL-5 ranked 3rd in zone V under severe drought condition with a grain yield of 1380 kg/ha and had yield advantage of 832.4 % over the best check i.e. zonal check Samaleshwari. It registered yield advantage of 504.4% over both national check Vandana and sensitive check IR 64. It attained 50% flowering in 96 days and has long slender grain.This entry possesses desirable grain quality characteristics with 75% hulling, 66% milling, 58% HRR, amylose content of 22.20% with moderate GC of 49 mm and very occasional chalkiness, hence promoted for 3rd year of testing.

Performance of entries under moderate drought situation

Overall basis

Moderate drought was experienced in 5 locations that were NRRI, Cuttack in Odisha, Hatwara in W.B., Pusa in Bihar, Ranchi in Jharkhand in Zone III and Parbhani in Maharastra

in Zone VI. The mean grain yield of entries were 2359 kg/ha, 2636 kg/ha, 2703 kg/ha, 2474 kg/haand 2654 kg/ha, respectively at NRRI, Cuttack; Hatwara ,Pusa, Ranchi and Parbhani with a C.V. of 11.15%, 11.75%, 12.46 %, 11.60 % and 9.66 % respectively. The mean grain yield of entries on overall basis under drought situation ranged from 1771kg/ha [IET 28835(R)] to 3230kg/ha; days to 50% flowering from 74 [IET 28835(R)] to 92 days (IET30438); plant height varied from 76cm (zonal check) to 96 cm [IET29052 (R)] and no. of panicles/m2 ranged from 184 [IET 29039(R) to 242 [IET 29036(R)]. Based on yield advantage over the best check i.e. national check Shabhagidhan (2685kg/ha), two entries registered significant yield advantage when CD value at 5% is considered over the best check viz., **IETs 29036 (R) and 29052(R), hence are promoted to 3rd year of testing under moderate drought situation on overall basis.**

IET 29036(R) [RCPR-68-IR-83929-B-B-291-2-1-1-2], a cross derivative of IR78878-53-2-2-2 / CT6510-24-1-2 ranked 1st among the test entries in an overall basis under severe drought condition with a grain yield of 3230 kg/ha with a yield advantage of 20.330 % over the national check & RP Shabhagidhan, by 38.87% over zonal check, by 25.29 over the local check and by 44.26%over the sensitive check IR 64. It attained 50% flowering on 83 days and has long bold grain.It has desirable grain quality features as mentioned earlier.

IET 29052 (R) [CR-2889-208-1],a derivative line from the cross Apo/CR 143-2-2 ranked 2nd among the test entries in an overall basis in a moderate drought condition and recorded a yield of 3014 kg/ha with a yield advantage of 12.25 % over the national check & RP Shabhagidhan, by 29.58 % over the zonal check, by 16.91 % over the local check and by 34.61 % over the sensitive check IR 64.It took 91 days to attains 50% flowering and has medium slender grain. It posses all desirable grain quality features as mentioned earlier.

Zone III

In zone III, **four locations** experienced moderate drought conditions based on the amount of rainfall received during the crop season at various stage of crop growth. Those test locations were NRRI, Cuttack in Odisha, Hatwara in W.B., Pusa in Bihar and Ranchi in Jharkhand; where the locationmean grain yield of entries were 2359 kg/ha, 2636 kg/ha, 2703 kg/ha and 2474 kg/ha, respectively with a C.V. of 11.15%, 11.75%, 12.46 % and 11.60 respectively. The grain yield of entries under moderate drought condition in this zone was ranged from 1869 kg/ha [IET 28835(R)] to 3445 kg/ha [IET29052(R)]; 50% flowering duration ranged from 75 [IET28835(R)] to 91 days [IET 29060 (R), IET 29052(R) and IET 30348]; plant height from 81 (IET 30334) to 100cm [IET29047 (R)]; and no. of panicles/m2 ranged from 133 (Zonal check Narendra 97) to 207 [IET 29036(R)]. Grain yield of checks were 2461 kg/ha (National check, &RP Sahabhagidhan), 2353kg/ha (National check, Vandana), 2180 kg/ha (Zonal check, Narendra 97), 2020kg/ha (zonal check &RP Anjali), 2293 kg/ha (Sensitive check IR 64) and 2506 kg/ha (Local check).

Under moderate drought condition in zone III, seven entries (six varietal entries + 1 NIL entry) outyielded the best check i.e. Local check when CD value at 5% over the best check is considered. Six varietal entries are IETs 29052(R), 29036(R), 30334, 30336, 30332and 30328).**All the entries have desirable grain quality characters.**

The three top yielding entries are described as under while information on other entries is depicted in the table.

IET 29052 (R) [CR-2889-208-1] a derivative line of the cross Apo/CR 143-2-2 ranked 1st among the test entries in zone III under moderate drought condition and recorded a yield of 3445 kg/ha with a yield advantage of 37.55 % over the best check i.e. Local check. It registered yield advantage of 39.98% over the national check & RP Shabhagidhan, over the zonal check by 58.07 %, and by 50.37 % over the sensitive check IR 64.It took 91 days to attain 50% flowering and has medium slender grain.**It has all desirable grain quality features.**

IET 29036(R) [RCPR-68-IR-83929-B-B-291-2-1-1-2], a cross derivative ofparent IR78878-53-2-2-2 / CT6510-24-1-2 ranked 2ndamong the test entries in zone III under moderate drought condition with a grain yield of 3204 kg/ha. It registered a yield advantage of 27.85 % over the best check i.e. Local check. It also had yield advantage over other checks i.e. by30.19% over the national check& RP Shabhagidhan, over the zonal check, by 46.97 %, and by 39.73 % over the sensitive check IR 64.It has long bold grain and took 91 days to attain 50% flowering.It posses all desirable grain quality features as mentioned earlier.

IET 30334 (CR-2889-208-1) a cross derivative of popular variety Apo and CR 143-2-2 ranked 3rd among the test entries in zone III under moderate drought condition yielded 2882 kg/ha that was 17.11%, 32.20%, 15.0% and 25.69 % yield advantage respectively over the national check, zonal check, local check and susceptible check respectively. It 50% flowering duration is 86 days with medium bold grain. It posses all desirable grain quality features as mentioned earlier.

Zone VI

In zone VI, only one location i.e. Parbhani in Maharashtra experienced moderate drought conditions based on the amount of rainfall received during the crop season at various stage of crop growth. In this test location the mean grain yield of entries was 2654 kg/ha, with a C.V. of 9.66%. The mean grain yield of entries under moderate drought in this zone was ranged from 1289 kg/ha [IET29052(R)] to 3778 kg/ha (IET 30330); mean 50% flowering duration ranged from 70 [IET28834(R) and ZC Anjali] to 97 days (IET 30348); plant height from 51 (IET 30336 and ZC Varalu) to 81.3 cm (IET 30332); and no. of panicles/m2 ranged from 249[IET 29039 (R)] to 393 [IET 29047(R)]. Grain yield of checks were 3356 kg/ha (National check, & RP Sahabhagidhan), 2689 kg/ha (National check, Vandana), 2911 kg/ha (Zonal check,Varalu), 2356 kg/ha (zonal check &RP Anjali), 2022 kg/ha (Sensitive check IR 64) and 2867 kg/ha (Local check).

In zone VI, only one entry i.e. IET 30330 found promising with desired yield superiority over the best check Shabhagidhan & RP by 12.57 %while other entries didn't register any yield advantage over the best check with desirable grain quality characters, hence it is promoted.

IET 30330 (RCPR 84-IR14L 155) a cross derivative of the parents IR 81039-B-173-U 3-3/IR 81063-B-94-U 3-1 ranked 1st with a grain yield of 3778 kg/ha and had registered 12.57 % yield advantage over the national check & RP Shabhagidhan under moderate drought condition in Zone VI. It also registered yield advantage of 29.78 % over the zonal check Varalu, 31.78% over the local check Avishkar and 84.86%, over the sensitive check IR 64. It has long slender grain and took 85 days to attain 50% flowering duration. The grain quality characters are presented earlier.

Performance of entries under normal rainfall situation

Out of 16 trial locations 8 locations experienced normal rainfall situation spread over different zone. Those locations were Bikramganj and Sabour in Bihar in zone III; Titabar in Assam in zone IV, Jagadalpur and Raipur in Chattisgarh in zone V, Vyara in Gujrat in zone VI and Kampasagar in A.P. and Coimbatore in T.N. in zone VII. However, the data from Titabar is not considered for analysis due to low CV of 4.13%.The trial mean grain yield of entries at different locations were 4852 kg/ha, 4097 kg/ha, 3433 kg/ha,3323 kg/ha,3026 kg/ha, 4943 kg/ha and 3458 kg/ha, respectively at Bikramganj, Sabour, Jagdalpur, Raipur, Vyara, Kampasagar and Coimbatore with a C.V. of 9.01 %, 15.13 %, 19.11 %, 16.69 %, 17.38%, 9.85 % and 24.80 % respectively.

Based on grain yield performance on **overall normal condition** two entries out yielded the best check Vandana (4124 kg/ha) those were IETs 29052(R) and 30332 respectively with grain yield of 4772 kg/ha and 4690 kg/ha.In zone III, no entry was found superior statistically to the best check i.e. Local check (4687 kg/ha) when CD value was considered.Single location Titabar data was not considered due to low CV of 4.13 in zone IV.In zone V, 3 entries registered required yield advantage over the best check i.e. National check Vandana (3415 kg/ha). Those are IETs 29052 (R)with 4334 kg/ha yield followed by IET 30332 with 4271 kg/ha and IET 30351 with grain yield of 4199 kg/ha.In zone VI, 2 varietal entries i.e. IET 29047 (R) with 3876 kg/ha yield and IET 29036(R) with grain yield of 3862 kg/ha showed desired yield advantage over the best check Vandana (NC) with yield of 2978 kg/ha.In zone VII, the only entry registered desired yield advantage was IET 29052(R) with 5929 kg/ha over the best check Vandana (NC) with 5131 kg/ha.

Performance of promising entries of AVT 1 –E DS under Moderate drought condition on overall basis during *Kharif*2022

IET No./ Designation/ Cross combination	GY/ FD/ GT	Yield adv. (%) over NC ZC LC SC	% increase over best check										
			OD		WB		BI		JH		MH		% BC
			Yield	Rank	Yield	Rank	Yield	Rank	Yield	Rank	Yield	Rank	
29036 (R) RCPR-68-IR-83929-B-B-291-2-1-1-2 IR78878-53-2-2-2 / CT6510-24-1-2	323083 LB	20.30 38.87 25.29 44.26	2679	7	2826	8	3867	1	3447	3	3333	5	20.30
29052 (R) CR-2889-208-1 Apo/CR 143-2-2	301491 MS	12.25 29.58 16.91 34.61	2673	8	4451	1	2600	-	4058	1	1289	-	12.25
Shabhagidhan (NC)	268580												
Zonal check	232682												
Local check	257889												
IR 64 (Sensitive check)	223982												

Performance of promising entries of AVT 1 –E DS under Moderate drought condition in Zone III during *Kharif*2022

IET No./ Designation/ Cross combination	GY/ FD/ GT	Yield adv. (%) over NC ZC LC SC	% increase over best check state wise								% BC
			OD		WB		BI		JH		
			Yield	Rank	Yield	Rank	Yield	Rank	Yield	Rank	
29052 (R) CR-2889-208-1 Apo/CR 143-2-2	3445 91 MS	39.98 58.07 37.55 50.37	2670	8	4451	1	2600	-	4058	1	37.55
29036 (R) RCPR-68-IR-83929-B-B-291-2-1-1-2 IR78878-53-2-2-2 / CT6510-24-1-2	3204 90 LB	30.19 46.97 27.85 39.73	2679	7	2826	8	3867	1	3447	3	27.85
30334 ORJ-1347 IR 10L128/IR 09N520	2882 86 MB	17.11 32.20 15.00 25.69	2793	4	3489	3	2727	7	2518	-	15.00
30336 ORJ-1356 Sampada/IRGC 25966//RP Bio 226	2843 90 LB	15.52 30.41 13.45 23.99	2620	-	2704	9	3653	4	2396	-	13.45
30332 BRR0163 SWARNA/AD 09379	2830 90 LS	14.99 29.82 12.93 23.42	2840	3	3250	4	2640	-	2591	10	12.93
30328 CR 4059-1312-1-1-4 IET 22729 /PR 118	2809 83 LB	14.14 28.85 12.09 22.50	3087	2	3066	5	2200	-	2884	6	12.09
Shabhagidhan (NC)	2461 80										
Zonal check	2180 81										
Local check	2506 90										
IR 64 (Sensitive check)	2293 80										

Performance of promising entries of AVT 1 –E DS under Moderate drought condition in Zone VI during *Kharif*2022

IET No./ Designation/ Cross combination	GY/ FD/ GT	Yield adv. (%) over NC ZC LC SC	% increase over best check		
			MH		% BC
			Yield	Rank	
30330 RCPR 84-IR14L 155 IR 81039-B-173-U 3-3/IR 81063-B-94-U 3-1	3778 85 LS	12.57 29.78 31.78 86.84	3778	1	12.57
Shabhagidhan (NC)	3356 81				
Zonal check	2911 88				
Local check	2867 83				
IR 64 (Sensitive check)	2022 91				

Promotion of entries under severe drought conditions in AVT 1 Kharif 2022 based on CD value at 5% over the BVC.

- On overall basis (2 locations), 3 entries IET29036(R), IET 30351 and IET 30328 had registered desired yield superiority over BVC Shabhagidhan and therefore are promoted for 3rd year of testing.
- In zone III (1 1ocation), IET 30351 is promoted for 3rd year of testing.
- In zone V (1 location), 7 entries viz., IET 29036(R), IET 30238, IET 30351, IET 30330, IET 30334, IET 30336 and IET 29038(R) are promoted for 3rd year of testing.

Promotion of entries under moderate drought conditions in AVT 1 –EDS Kharif 2022 based on CD value at 5% over the BVC.

- Twoentries i.e. IETs 29036 (R) and 29052(R) are promoted for 3rd year of testing on overall basis (5 locations).
- In zone III (4 locations), 6 entries viz. 29036(R), 29052(R), 30334, 30336, 30332 and 30328 are promoted for 3rd year of testing.
- In zone VI (1 location), only one entry i.e. IET 30330 is promoted for 3rd year of testing.

NILs Promotion

- **NIL Drt: IET 28834 (R) and IET 28835 (R),** NIL with drought tolerance is promising for the states of **Jharkhand and Bihar**.
- **NIL HT: IET 30438found promising for Odisha (for both the years 2021 and 2022).**
- **NIL HT: IET 30437 and IET 30438are promising for Jharkhand only in 2nd year (2022).**

Promotion/Deletion of entries in AVT 1-EDS, Kharif 2022 based on yield superiority under drought (both/ either severe & moderate) conditions

Entry No.	Designation	Z III	Z-V	Z-VI	Z -VII	Overall	Remarks
101	29036 (R)	Y	Y			Y	Promoted
103	29039 (R)						Dropped
104	29048 (R)						Dropped
106	29047 (R)		Y				Promoted
107	30330		Y	Y			Promoted
108	29060 (R)						Dropped
109	30336	Y	Y				Promoted
110	29038 (R)		Y				Promoted
112	29052 (R)	Y				Y	Promoted
113	30334	Y	Y				Promoted
114	30328	Y	Y			Y	Promoted
115	30332	Y					Promoted
116	30351	Y	Y			Y	Promoted
NILs							
118	28835 (R)	Y (Bi, JH)					Promoted
119	30437	Y(OD-1st&2nd yrs, JH- 2nd Yr)					Promoted
121	28834 (R)	Y (Bi, JH)					Promoted
122	30438	Y(JH- 2nd Yr)					Promoted

Near Isogenic Lines (NILs)

Four Near Isogenic Lines were evaluated in AVT 1 -E DS trial during Kharif 2022. Out of those NILs, two NILs (IET 28834 and 28835) were introgressed with drought QTLs, in the background of Anjali and a popular drought tolerant cultivar released for many states (Bihar, Jharkhand, Assam, Tripura and Odisha).These two NILs were repeat entries as it didn't perform better than RP Anjali in AVT 1–EDS trial during kharif 2021, although qualified for trait verification under rain-out shelter at Hazaribagh; Whereas, another two NILs (IET 30437 and 30438) were introgressed with herbicide tolerant gene from Robin, a mutant line of N 22 showing herbicide tolerant against Imazethapyr into the background of Sahbhagidhan, also a popular variety of this ecology.

For trait verification of drought, AVT 1-NIL (Drt) was conducted at five locations viz. NRRI Cuttack, Jeypore, Rewa, Ranchi and Coimbatore, however only data from NRRI, Cuttack that was conducted in rainout shelter (RoS) has qualified as evident from moderate yield, uniformity in yield among the entries and more pronounced effect of drought symptoms like leaf rolling, leaf tip burning etc. due to proper imposition of drought. As per the AVT 1 –NIL (Drt) report Kharif 2022, the other centre didn't qualify due to very high mean grain yield of the trial, high yield level of sensitive check IR 64 with resistant drought score etc. These two drought NILs performed better than their RP Anjali that didn't flower. Similarly, another popular variety of this ecology Vandana also didn't flower because of proper manifestation drought as severe stress was imposed following strict drought screening protocol by not allowing watering after 55 days of sowing. But, the NILs IET 28834(R) and IET 28835(R) yielded 1202 kg/ha and 1399 kg/ha that were on par with tolerant national check Sahbhagidhan that yielded 1366 kg/ha. In previous year also in AVT 1 –NIL drought trial at Hazaribag in rainout shelter these two NILs entries performed better than the recurrent parent Anjali.

Performance under severe drought stress conditions (rainout shelter)
(Trait verification)

Entry/RP/ TC/CD	**2021 Hazaribagh (1)**					**2022, NRRI cuttack (1)**			
	Grain yield (kg/ha)	% incease over RP	% incease over TC	% increase over SC		**Grain yield (kg/ha)**	% incease over RP	% incease over TC	% increase over SC
IET 28834(R)	2157*@	**39.47**	**-7.03**	**35.7**		1202*@	Absolute	-12.05	28.14
IET 28835(R)	2157*@	39.47	**-7.03**	**35.7**		1399*@	Absolute	2.4	49.14
Anjali (RP)	1547					-			
Shabhagidhan (TC)	2320					1366			
BSC	1590					938			
CD	318.64								

RP –recurrent parent , TC - tolerant check and BSC –Best susceptible check @- on par with TC

- Significant when CD is considered over RP, # CD over TC and @- on par with TC

In Kharif 2019, the drought tolerant NILs IET 28834 and IET 28835 were tested for the first time in AVT 1-E DS trial along with their recurrent parent Anjali, and sensitive check

GNV Ageti. On the basis of their performance over the recurrent parent Anjali under drought condition in zone III, **IET 28834 and IET 28835 were promoted to second year of testing where they** recorded grain yield of 1903 kg/ha and 1693 kg/ha respectively, by exhibiting 71.59% and 52.66% % increase over the recurrent parent Anjali.

Zone III under severe drought conditions

The grain yield of NIL drought IET 28834(R) was 1351 kg/ha followed by IET 28835 (R) with 1033 kg/ha, whereas herbicide tolerant NIL IET 30437 yielded 602 kg/ha and IET 30438 yielded 420 kg/ha. The recurrent parent Anjali of drought NILs recorded a yield of 967 kg/ha and was also the best check under severe drought condition. The other recurrent parent of herbicide tolerant NILs Sahbhagidhan yielded 908 kg/ha while the sensitive check IR 64 yielded only 478 kg/ha. The days to 50% flowering duration of NILs, recurrent parents and sensitive check viz., IETs 28834(R), 28835(R), 30437, 30438, Anjali, Sahbhagidhan and IR 64 were 75, 76, 103, 103, 78, 79 and 101 respectively.

Since the RP Anjali was released & notified for Bihar, Jharkhand and Odisha in zone III and Assam and Tripura in zone IV, the of drought tolerant NILs of RP Anjali are considered only in those zones and states. Therefore, the discussion of drought NILs for other zone and states are not relevant therefore not done.

The trait verification data presented earlier in the table indicates that both the NILs were qualified for the trait under severe stress situations in rainout shelter. As per the set norms, the qualified entry in trait verification trial and performance in respective ecology trial over the respective recurrent parent is required to promote the NILs.

Performance of NILs drought entries in AVT-1 –E DS under severe drought condition kharif 2022

Severe droght				**Remarks**
Zone III (1) /OD(1) JEYPORE				
NILs/RPs/TC/SC	**Grain yield (kg/ha)**	**DFF**	**% increase over RP**	
IET 28834(R)	**1351***	**75**	**39.71**	**Promising**
IET 28835(R)	**1033@**	**76**	**6.82**	**Promising**
Anjali RP& ZC	**967**	**78**		
Sahbhagidhan NC	**908**	**78**		
Sensitive check IR 64	**478**	**101**		
CD(0.05)	**152.69**	**2.44**		

- significant than RP Anjali at CD 5%, @ with the RP Anjali at CD 5 %

Performance of NILs drought entries in AVT1 –E DS under moderate drought condition Kharif 2022

	Moderate Drought												Remarks
	Zone III (4)			OD(1) (NRRI, CTK)			BI(1) PUSA			JH(1) RANCHI			
NILs/RPs/TC/SC	Grain yield (kg/ha)	DFF	% increase over RP	Grain yield (kg/ha)	DFF	% increase over RP	Grain yield (kg/ha)	DFF	% increase over RP	Grain yield (kg/ha)	DFF	% increase over RP	
IET 28834(R)	**2412***	**78**	**19.4**	**1721**	**102**	**-25.8**	**3747***	76	65.3	2102*	63	36.5	Promisingin JH & BI
IET 28835(R)	**1869@**	**75**	**-7.47**	**1487**	**97**	**-35.9**	**2067@**	67	-8.8	1784@	65	15.8	Promising in JH & BI
Anjali RP& ZC	**2020**	**77**		**2321**	**84**		**2267**	80		1540	71		
Sahbhagidhan NC	**2461**	**80**		**2749**	**82**		**2533**	75		2102	82		
Sensitive check IR 64	**2293**	**80**		**3179**	**82**		**2133**	75		2053	82		
CD(0.05)	**264.43**	**1.63**		**432.89**	**1.65**		**554.4**	5.98		472.41	2.7		

*Superior over RP Anjali @ On par with RP Anjali

The results under severe drought stress situation in zone III indicates that IET 28834(R) registered desired yield advantage over the RP Anjali when CD is considered. However, it **qualified for promotion** only one state i.e, Odisha under severe drought**.**

Moreover, IET 28834also registered yield advantage over the RP under moderate drought conditions again in zone III based on 4 locations data. The advantages were shown over the state of **Bihar and Jharkhand** under moderate drought situation which is depicted in the table. Considering, severe drought and moderate drought, it showed desired yield advantage in the states viz., Odisha, Bihar and Jharkhand. Additional, it yielded at per with RP Anjali under normal rainfall condition. The other NIL i.e. IET 28835 (R) didn't show desired yield superiority over the RP Anjali but was at par with the RP Anjali, when compared at CD 5% in severe drought situation of zone III having one location i.e. Jeypore in Odisha, therefore it is promoted in Odisha.

Under moderate drought situation in zone III with 4 locations, it didn't register any yield advantage over its RP Anjali, rather it was at par with RP Anjali when CD at 5% was considered. **However, IET 28835 was on par in the state of Bihar and Jharkhand, hence, promoted for these two states. Hence, it is also promoted for the states of Odisha, Bihar and Jharkhand when severe drought or moderate drought is considered.**

However, since these entries (IET 28834 and IET 28835) were promoted in zone III only for Jharkhand and Bihar as no drought location was available in Odisha for AVT 1 EDS trial in 2019, it is promising only for Jharkhand and Bihar.

Since IET 28834 (R) has completed 4 years of trial in AVT 1 –EDS and as per the norms of NIL, if any NIL found promising for 2 years qualify for identification by the VIC. This NIL was found promising in 1st(Kharif 2019)andin 2nd(Kharif 2022) year and promoted

in zone III under drought condition, hence this NIL is found promising in zone III based on 2 year data. In previous years i.e. Kharif 2020 and Kharif 2021, it was repeated.

Two years performance of IET 28834 (R), a NIL (Drt) is summarized below

In AVT 1 EDS Kharif 2022, the drought tolerant NIL **IET 28835** showed on par performance when compared with RP Anjali under severe drought in Zone III particularly in Odisha which was the single location. IET 28835 also showed on par performance with RP Anjali under moderate drought situation in zone III consisting of 4 locations when compared with RP Anjali at CD 5% However, when the released state of recurrent parent Anjali was taken into consideration, only it exhibited on par performance in the state of Jharkhand and Bihar. Therefore, it had on par performance in the state of Odisha, Jharkhand and Bihar either under severe or moderate drought and qualified for promotion as per the guideline.

Since the NIL entry IET 28835 has completed 2 years in AVT 1 –E DS (2019 and 2022) was found promising for the state of **Jharkhand and Bihar** as it showed on par performance with RP Anjali under drought situation in 2019 and 2022. However, no drought locations were available in Odisha in the year 2019. Hence, promising for **Jharkhand and Bihar.**

Performance of NIL (Drt) IET 28834 over two years is discussed below under drought situation in zone III

IET 28834(R) [CRR 809-11-1-9-B], a drought tolerant NIL in the background of Anjali with cross combination of IR 84984-83-15-481-B / 3*Anjali // IR 81896-B-B-195 / 3* Anjali had entered the AVT 1-EDS trial in Kharif 2019. During 2019, it yielded 1903 kg/ha and stood 2nd in the trial under drought condition in zone III. It out yielded the best check i.e. Local check (1558 kg/ha) by 22%, national check Sahbhagidhan (1459 kg/ha) by 30.4%. It also outperformed its recurrent parent Anjali (1109 kg/a) by 71.59%. It was the top yielder in the state of Jharkhand over two locations with a grain yield of 2255 kg/ha with 37% yield advantage over the local check, 46.04% yield advantage over the national check Sahbhagidhan(1544 kg/ha) and 91.91 % yield advantage recurrent parent Anjali(1175 kg/ha). It also registered 22.69% yield advantage over the recurrent parent Anjali (978 kg/ha) by yielding 1200 kg/ha) under drought condition in the state of Bihar. In kharif 2022, it performed very well in Odisha in zone III under severe drought condition with a grain yield of 1351 kg/ha and stood 2nd among the entries with a yield advantage of 22.69%over the best check and recurrent parent Anjali and also over national check Sahbhagidhan(908 kg/ha) by 48.78%.Under moderate drought condition in Zone III, it yielded 2412 kg/ha on overall basis that was 19.4% yield advantage over the RP Anjali (2020 kg/ha). In Odisha under moderate drought, it didn't show any yield advantage over the recurrent parent Anjali and national check Sahbhagidhan. But in Bihar it out yielded (3747 kg/ha) both the recurrent parent Anjali(2267 kg/ha) and national check Sahbhagidhan (2533 kg/ha) by 65.3% and 47.9% respectively. Also in Jharkhand, IET 28834 yielded 2102 kg/ha that is statistically superior to its RP Anjali (1540 kg/ha) by 36.5%. So, in the year 2019, **it registered yield advantage over its RP Anjali both in Bihar and Jharkhand state only**, while in 2nd year i.e. 2022 it showed required yield superiority over the recurrent parent Anjali in Odisha under severe drought and in Jharkhand and Bihar under moderate drought. In normal condition in Odisha (Z III), IET 28834 (2694 kg/ha) could not perform better than its RP Anjali (5509 kg/ha). It took 75 days to attain 50% flowering and has short bold grain. **Hence, it is promising for Bihar and Jharkhand.**

Two years performance of IET 28834 (R), a NIL (Drt) under drought condition in Zone III

NIL/RP/ NC/SC/ IET No	Year/ Trial	Drought Zone III mean (3)	% yield over RP/NC	Drought Zone III (3)					
				Bihar (1)		JH(2)			
				Yield (kg/ha)	% increase over RP and NC	Yield (kg/ha)	% increase over RP and NC		
28834	**2019 AVT 1-EDS**	1903*#	71.59 30.4	1200@	22.69 -6.90	2255*#	91.91 46.04		
Anjali & RP, ZC		1109		978		1175			
Sahbhagidhan, NC		1459		1289		1544			
Sensitive Check		666		933		532			
CD		156.45		279.65		192.44			
	Severe drought - Zone III (1)/ Odisha (1)								
28834	**2022 AVT 1-E DS**	1351*#	39.71 48.78						
Anjali & RP, ZC		967							
Sahbhagidhan, NC		908							
Sensitive Check		666							
CD	152.69								
	Moderate drought - Zone III (4) Od(1) + WB (1)+JH(1)+BI (1)			**OD (1)**		**JH (1)**		**BI (1)**	
	2022 AVT 1-E DS	**Zonal mean (4)**		**Yield (kg/ha)**	% increase over RP and NC	**Yield (kg/ha)**	% increase over RP and NC	**Yield (kg/ha)**	% increase over RP and NC
28834		2412*	19.4 -2.03	1721	-25.8 -37.4	2102*	36.5 0.0	3747*#	65.3 47.9
Anjali & RP, ZC		2020		2321		1540		2267	
Sahbhagidhan, NC		2461		2749		2102		2533	
Sensitive Check		2293		3179		2053		2133	
CD		264.43		432.89		472.41		554.40	

*Superior over RP Anjali % Superior over RP Anjali @ On par with RP

#Superior over NC Sahbhagidhan % Superior over NC Sahbhagidhan

Performance of NIL (Drt) IET 28835 over two years is discussed below under drought situation in zone III

IET 28835(CRR 752-3-1-B), a NIL entry for drought is a cross derivative of Anjali*3/IR 81896-B-195 in the background of Anjali entered the AVT 1-E DS trial in 2019. During 2019, IET was tested in 3 drought locations in zone III i.e. Pusa in Bihar, Ranchi and Hazaribagh in Jharkhand. On zonal basis it performed very well and stood 3rd with grain yield of 1693 kg/ha where RP Anjali yielded 1109 kg/ha and NC Sahbhagidhan yielded 1459 kg/ha and that was 52.6 and 16.0 % yield advantage respectively over the RP Anjali and NC Sahbhagidhan. Further, it recorded a yield advantage of 9% over the best check. i.e. local

check(1558 kg/ha) in zone III The grain yield of IET 28835 was 711 kg/ha that was on par with RP Anjali (789 kg/ha) in Bihar. In Jharkhand IET 28835 (2184 kg/ha) out yielded the RP Anjali (2184 kg/ha) by 85.9%, it also outyielded the best check that was Local check (1648 kg/ha) by 33%, over Sahbhagidhan (NC) (1544 kg/ha) by 41.4%.

In the year 2022 in AVT 1-EDS trial, IET 28835 performed on par with RP Anjali under severe drought in zone III i.e. at only one location in Odisha. IET 28835 yielded 1033 kg/ha and that was 6.8%over the RP Anjali, where RP Anjali recorded a yield of 967 kg/ha. Similarly, IET 28835 yielded better over Sahbhagidhan NC (908 kg/ha) by13.8%. When it extended to the released state of Jharkhand and Bihar, it showed on par performance but not in Odisha under moderate drought condition. In Jharkhand, the yield of NIL IET 28835 was 1784 kg/ha and RP Anjali was 1540 kg/ha and IET28835 exhibited a yield advantage of 15.8% over the RP Anjali. In Bihar IET 28835 showed at par performance in comparison to the RP Anjali where yield was 2067 kg/ha and 2267 kg/ha, respectively**. Considering the guideline for promotion of NIL, IET 28835 found promising for the state of Bihar and Jharkhand based on 2 years' data.** This entry took 65 days and 67 days respectively in Jharkhand and Bihar for 50% flowering in 2019; while it showed a 50% flowering duration 64 and 66 days respectively for Bihar and Jharkhand. It has short bold grain.

Two years' performance of drought NIL IT28835 under drought condition in Zone III

NIL/ RP/ NC/SC/ IET No	**Year/ Trial**	**Drought Zone III mean (3)**	**% yield over RP/NC**	Drought Zone III (3)				
				Bihar (1)		**JH(2)**		
				Yield (kg/ha)	% increase over RP and NC	**Yield (kg/ha)**	% increase over RP and NC	
28835	**2019 AVT 1-EDS**	1693*#	52.6 16.0	711@	-27.3 -44.8	2184*#	85.9 41.4	
Anjali & RP, ZC		1109		978		1175		
Sahbhagidhan,NC		1459		1289		1544		
Sensitive Check		666		933		532		
CD		156.45		279.65		192.44		
	Severe drought - Zone III (1)/ Odisha (1)							
28835	**2022 AVT 1-E DS**	1033@	6.8 13.8					
Anjali & RP, ZC		967						
Sahbhagidhan, NC		908						
Sensitive Check		666						
CD	152.69							

NIL/ RP/ NC/SC/ IET No	Moderate drought - Zone III (4) Od(1) + WB (1)+JH(1)+BI (1)			OD (1)		JH (1)		BI (1)	
	2022 AVT 1-E DS	Zonal mean (4)		Yield (kg/ha)	% increase over RP and NC	Yield (kg/ha)	% increase over RP and NC	Yield (kg/ha)	% increase over RP and NC
28835		1869@	-7.5 -24.0	1487	-35.9 45.9	1784@	15.8 -15.1	2067@	-8.8 -18.4
Anjali & RP, ZC		2020		2321		1540		2267	
Sahbhagidhan, NC		2461		2749		2102		2533	
Sensitive Check		2293		3179		2053		2133	
CD		264.43		432.89		472.41		554.40	

Superiority over RP Anjali **@ On par with RP Anjali**
 # Superiority over NC Sahbhagidhan

NILs for HT

Similarly, from **trait verification** trial of AVT 1 –NIL (NMT AVT-1 NIL - HT (Herbicide Tolerant trials) (AVT 1 NIL HT 2021), it was evident that IET 30437 and IET 30438 both of RP Sahbhagidhan completely survived the spray of Imazethapyr, while RP Sahbhagidhan died completely; whereas tolerant check Robin showed significant yield reduction as compared to Sahbhagidhan NIL (HT). The weed free plot produced higher yield (4.22.t/ha) followed by imazethapyr treated plot (4.01 t/ha) followed by bispyribac-sodium treated plot (3.62 t/ha). This indicated that both the HT-NILs performed convincingly.

Again in *Kharif* 2022, NMT AVT-1 NIL - HT (Herbicide Tolerant trial), the genotypes IET30437 and IET30438 along with their recurrent parent Sahbhagidhan were evaluated at Chiplima, Cuttack, Nagina, New Delhi and Ranchi. However, data from Cuttack and New Delhi was only considered for analysis. In the rest of the locations, lack of mortality of one or more susceptible checks was recorded. At both Delhi and Cuttack, the two entries IET30437 and IET30438 completely survived the treatment of Imazethapyr in all replications whereas complete mortality of the recurrent parent Sahbhagidhan was recorded in both replications. Hence introgression of herbicide (Imazethapyr) tolerance was validated in both the near isogenic lines (IET30437 and IET30438) of Sahbhagidhan.

Comparison was made with recurrent parent Sahbhagidhan in AVT 1 - E DS for their performance in the state where it was released i.e. Odisha and Jharkhand.

Performance of NILs (HT) under moderate drought in AVT 1-EDS (2022) in Zone III (Odisha)

Moderate Drought				
NILs /RP/CD	**Z III /OD (1) CTK**		**%increase over RP**	
IET 30437	**2180**	**84**	**-20.7**	
IET 30438	**2662@**	**102**	**-3.2**	
SahbhagidhanRP& NC	**2749**	**82**		
CD (0.05)	**432.89**	**1.65**		

Performance of NILs (HT) under severe drought in AVT 1-EDS in Zone III (Odisha)

	Severe drought		
NILs /RP/CD	**Z III/ OD (1) JYP**	**DFF**	**%increase over RP**
IET 30437	**602^{ns}**	**103**	**-33.70044**
IET 30438	**420^{ns}**	**103**	**-53.74449**
SahbhagidhanRP& NC	**908**	**79**	
CD (0.05)	**152.69**	**2.44**	

ns – not significant

Mean performance of NILs (HT) under severe & moderate drought in AVT 1-EDS in Odisha in Zone III

	Severe drought + Moderate drought		
NILs /RP/CD	**Z III/ OD (2) JYP +CTK**	**DFF**	**%increase over RP**
IET 30437	**1692**	**93.5**	**-25.8**
IET 30438	**1751**	**102.5**	**-23.3**
SahbhagidhanRP& NC	**2282.5**	**80.5**	
CD (0.05)	**-**	**-**	

***Significant at 5 %**

Performance of NILs (HT) under moderate drought in AVT 1-EDS in Jharkhand in Zone III

Entry	**Moderate drought**		**%increase over RP**
	Z III (1)JH	**DFF**	
IET 30437	**2811***	**83**	**33.7**
IET 30438	**3691***	**92**	**75.6**
Sahbhagidhan RP & NC	**2102**	**82**	
CD (0.05)	**472.41**	**2.7**	

*Significantly superior over RP

From, AVT 1 -1 EDS trial it is evident that none of the NILs (IET30437 and IET 30438) registered yield superiority in severe drought condition or moderate condition in Odisha over the RP Sahbhagidhan.However, the IET 30438 showed on par performance with its RP Sahbhagidhan under moderate drought in Odisha. Further, both NILs ((IET30437 and IET 30438) registered significantly superior performance in Jharkhand under moderate drought condition. Therefore, these two entries are promoted for Jharkhand only during 2nd year of testing. During Kharif 2021, it was promoted for Odisha but this time it did not perform superior to RP. But IET 30438 showed at par with RP in Odisha. Hence, **IET 30438 is promising in Odisha based on two-year data**. Therefore, **IET 30438**is found promising in Odisha.

NIL	Grain Yield (Kg/ha) (OD)	% increase over RP	Grain yield (kg/ha) OD (2)	Trait verification in AVT 1 – NIL (HT) cultivars	Remarks
AVT 1 EDS 2021					
IET 30438 (RP-Sahbhagi Dhan	3646@	-		Qualified	promotedfor 2nd year for Odisha (As the yield is on par with RP)
Sahbhagi Dhan	3756				
AVT 1 EDS 2022					
IET 30438 (RP-Sahbhagi Dhan	2662@			Qualified	Promising for Odisha (As the yield is on par with RP)
Sahbhagi Dhan	2749				

Table No. 10.1: Composition of entries in Advance Variety Trial 1–Early Direct Seeded (AVT 1 - EDS), Kharif 2022

Entry No.	IET No.	Designation	Cross Combination	Grain Type
2nd year of testing:				
101	29036 (R)	RCPR-68-IR-83929-B-B-291-2-1-1-2	IR78878-53-2-2-2 / CT6510-24-1-2	LB
102	**Shabhagidhan (NC)**			
103	29039 (R)	CR 4115-2-5-3-2-1	CR 4042-1-2-1-1-1/ CR DHAN 201	LS
104	29048 (R)	CR 4121-1-2-1-1-1	CR DHAN203/CR 2706	LS
105	**Govind (Northern), Narendra dhan 97 (Eastern), Samaleshwari (Central), Varalu (Western) and Tulasi (Southern)—ZC**			
106	29047 (R)	CR 4114-2-4-1-1-2-1	CR 3848-1-1-2-1-1/VANDAN	MS
107	30330	RCPR 84-IR14L 155	IR 81039-B-173-U 3-3/IR 81063-B-94-U 3-1	LS
108	29060 (R)	CR 4032-2-4-2-1-1	CR DHAN 201/CR DHAN 203	LS
109	30336	ORJ-1356	Sampada/IRGC 25966//RP Bio 226	LB
110	29038 (R)	CRR523-2-2-1-3	Kalinga III/Bhupen	LS
111	**Anjali (ZC for all zones & RP)**			
112	29052 (R)	CR-2889-208-1	Apo/CR 143-2-2	MS
113	30334	ORJ-1347	IR 10L128/IR 09N520	MB
114	30328	CR 4059-1312-1-1-4	IET 22729 / PR 118	LB
115	30332	BRR0163	SWARNA/AD 09379	LS
116	30351	R 2341-142-1-122-1	Mahamaya/ IR BL-5	LS
117	**Vandana (NC & RP)**			
NIL entries				
2nd year of testing				
118	28835 (R)	CRR 752-3-1-B	Anjali*3 / IR 81896-B-195	SB
119	30437	CR 4333-181-1-2-1	Sahabhagidhan*3 / Robin	LB
120	**IR 64 (Sensitive check)**			
121	28834 (R)	CRR 809-11-1-9-B	IR 84984-83-15-481-B / 3*Anjali // IR 81896-B-B-195 / 3* Anjali	SB
122	30438	CR 4333-35-2-2-1	Sahabhagidhan*4 / Robin	LB
123	**Local Check**			

Table No. 10.2: Grain Yield (Kg/ha) of entries in AVT-1 E DS under Severe Drought Condition Kharif 2022

Entry No	IET No	Severe drought							
		Zone III		Zone V		Zone VI		Overall (severe) (2)	
		OD		MP		GU			
		JYP		REW		DRL@		mean	
101	29036 (R)	872	7	2713	1*	391	4	1792	1*
102	**Shabhagidhan (NC)**	908	5					908	8
103	29039 (R)	421				526	3	421	
104	29048 (R)	479						479	
105	**ZC**	520		204		329	7	362	
106	29047 (R)	405		391	10	295	8	398	
107	30330	636	9	1233	5*	370	5	934	7
108	29060 (R)	474		308				391	
109	30336	467		490	8*			479	
110	29038 (R)	587		634	7*	249	9	610	
111	**Anjali (ZC for all zones & RP)**	967	4	69				518	
112	29052 (R)	515		56				286	
113	30334	873	6	1003	6*	125	12	938	6
114	30328	567		2587	2*			1577	3*
115	30332	551		95		180	11	323	
116	30351	1855	1*	1380	4*	556	2	1618	2*
117	**Vandana (NC & RP)**	434		148		242	10	291	
118	28835 (R)	1033	3					1033	5
119	30437	602	10	451	9*	329	6	527	
120	**IR 64 (Sensitive check)**	478		204				341	
121	28834 (R)	1351	2*	156				754	9
122	30438	420		1775	3*			1098	4*
123	**Local Check**	737	8			1026	1	737	10
	Exp. mean	702		772		385		731	
	CD	152.69		201.58		265.42		137.74	
	CV%	13.21		15.73		80.34		11.45	
	D/S	17.08.22		7/17/2022		7/5/2022			
	Local Check Name	Mandakini		Rewa 16-1		GR 9			

Table No.10.2 (Contd): Grain Yield (Kg/ha) of entries in AVT-1 E DS under moderate drought Condition Kharif 2022

Entry No	IET No	OD	WB			BI	JH			Zone III (4)	
		CTK	HTW			PSA	RCI			mean	
101	29036 (R)	2679	7	2826	8	3867	1	3447	3*	3204	2*
102	**Shabhagidhan (NC)**	2749	5			2533		2102		2461	
103	29039 (R)	1494		2699	10	2533		3007	4*	2433	
104	29048 (R)	1551		2879	6*	3760	2	2664	9*	2714	8
105	**ZC**	1880		2168		2667	9.5	2004		2180	
106	29047 (R)	2508		2208		2133		2909	5*	2439	
107	30330	2387		2348		2333		2371		2360	
108	29060 (R)	2412		2871	7*	2433		1638		2338	
109	30336	2620		2704	9	3653	4	2396		2843	5*
110	29038 (R)	1160		2303		2667	9.5	1980		2027	
111	**Anjali (ZC for all zones & RP)**	2321		1953		2267		1540		2020	
112	29052 (R)	2673	8	4451	1*	2600		4058	1*	3445	1*
113	30334	2793	4	3489	3*	2727	7	2518		2882	4*
114	30328	3087	2	3066	5*	2200		2884	6*	2809	7*
115	30332	2840	3	3250	4*	2640		2591	10*	2830	6*
116	30351	2653	10	2401		2133		2713	8*	2475	10
117	**Vandana (NC & RP)**	2739	6	1916		2800	6	1956		2353	
118	28835 (R)	1487		2139		2067		1784		1869	
119	30437	2180		2396		2067		2811	7*	2363	
120	**IR 64 (Sensitive check)**	3179	1	1806		2133	20	2053		2293	
121	28834 (R)	1721		2077		3747	3	2102		2412	
122	30438	2662	9	3688	2*	2720	8	3691	2*	3190	3*
123	**Local Check**	2487		2349		3500	5	1687		2506	9
	Exp. mean	2359		2636		2703		2474		2541	
	CD	432.89		510.23		554.40		472.41		264.43	
	CV%	11.15		11.75		12.46		11.60		6.32	
	D/S	30.06.2022	29.06.2022			02.07.2022	20.06.2022				
	Local Check Name	CR DHAN 205	Sahbhagi-dhan			Rajendra Nilam (123)	BVD-110				

Table No.10.2 (Contd.): Grain Yield (Kg/ha) of entries in AVT-1 E DS under moderate drought Condition Kharif 2022

Entry No	IET No	Zone VI		Overall (moderate) (5)	
		MH			
		PBN		Mean	
101	29036 (R)	3333	5	3230	1*
102	**Shabhagidhan (NC)**	3356	4	2685	8
103	29039 (R)	2467		2440	
104	29048 (R)	2911	7	2753	7
105	**ZC**	2911	8	2326	
106	29047 (R)	3378	3	2627	
107	30330	3778	1*	2643	10
108	29060 (R)	2844	10	2440	
109	30336	2778		2830	6
110	29038 (R)	2067		2035	
111	**Anjali (ZC for all zones & RP)**	2356		2087	
112	29052 (R)	1289		3014	2*
113	30334	2689		2843	5
114	30328	3133	6	2874	4
115	30332	2000		2664	9
116	30351	2733		2527	
117	**Vandana (NC & RP)**	2689		2420	
118	28835 (R)	1378		1771	
119	30437	3422	2	2575	
120	**IR 64 (Sensitive check)**	2022		2239	
121	28834 (R)	2422		2414	
122	30438	2222		2997	3*
123	**Local Check**	2867	9	2578	
	Exp. mean	2654		2566	
	CD	421.77		204.19	
	CV%	9.66		4.84	
	D/S	6/29/2022			
	Local Check Name	Avishkar			

Table No. 10.2 (Contd): Grain Yield (Kg/ha) of entries in AVT-1 E DS under Normal Condition Kharif 2022

Entry No	IET No	Normal		Overall (Normal) (7)									
		Zone III		Zone III				Zone IV		Zone V		Zone V	
		BI				BI (2)		AS		CG		CG	
		BKG		SBR		Mean		TTB@		JDP		RPR	
101	29036 (R)	4965		5372	1	5169	2	3327		3717	6	3792	10
102	**Shabhagidhan (NC)**	5128	8	3300		4214		4567	5	3033		1636	
103	29039 (R)	4814		4521	7	4667		2170		3857	5	3809	9
104	29048 (R)	5440	3	3996		4718	8	1953		3458		3889	7
105	**ZC**	4652		3228		3940		4123	8.5	3496		2627	
106	29047 (R)	5606	2	3823		4714	9	2003		3512	9	4086	6
107	30330	5086	9	4228	10	4657		4817	3*	3620	8	3840	8
108	29060 (R)	4774		4132		4453		4657	4	3674	7	3428	
109	30336	5335	5	4640	4	4988	4	5017	2*	4304	2	3754	
110	29038 (R)	4539		3575		4057		4327	7	2598		2330	
111	**Anjali (ZC for all zones & RP)**	4098		3189		3643		1713		2427		1562	
112	29052 (R)	4626		5026	3	4826	5	1847		4555	1	4113	5
113	30334	5193	7	4439	9	4816	6	4123	8.5	3300		4545	2*
114	30328	6042	1*	4586	5	5314	1	3730		3206		3380	
115	30332	4988	10	5059	2	5024	3	4373	6	3503	10	5039	1*
116	30351	4962		3944		4453		3447		4045	4	4353	3*
117	**Vandana (NC & RP)**	5197	6	3600		4398		3820	10	3409		3420	
118	28835 (R)	3565		3564		3564		2110		2491		1808	
119	30437	4928		4543	6	4735	7	1797		3442		4353	4*
120	**IR 64 (Sensitive check)**	4110		3212		3661		2540		2925		3060	
121	28834 (R)	3257		3845		3551		2023		2945		1507	
122	30438	5407	4	3918		4663		5483	1*	3160		3755	
123	**Local Check**	4886		4487	8	4687	10	3587		4282	3	2354	
	Exp. mean	4852		4097		4474		3372		3433		3323	
	CD	719.58		1020.31		672.57		229.33		1079.42		912.60	
	CV%	9.01		15.13		9.13		4.13		19.11		16.69	
	D/S	6/28/2022		6/24/2022				8/24/2022		18.06.2022		6/28/2022	
	Local Check Name	Sabour Harshit		Sabour Harshit Dhan				Disang		Danteswari		Indira Aerobic	

Table No. 10.2 (Contd.): Grain Yield (Kg/ha) of entries in AVT-1 E DS under Normal Condition Kharif 2022

Entry No	IET No	Zone V		Zone VI		Zone VII		Zone VII		Zone VII (2)		Overall(Normal) (7)	
		CG (2)		GU		AP		TN					
		Mean		VYR		KMP		CBT		Mean		mean	
101	29036 (R)	3754	9	3862	3*	4023		5036	2	4530		4395	4
102	**Shabhagidhan (NC)**	2335		2592		3789		2630		3210		3158	
103	29039 (R)	3833	7	3334		7127	2*	3084		5105	5	4364	7
104	29048 (R)	3673		3350	9	5560	5	3904	9	4732	7	4228	
105	**ZC**	3062		2039		4188		3794		3991		3432	
106	29047 (R)	3799	8	3876	2*	4905		3561		4233		4196	
107	30330	3730	10	3426	7	5503	6	4273	5	4888	6	4282	8
108	29060 (R)	3551		2679		5126		3631		4378		3920	
109	30336	4029	4	3352	8	5412	7	3890	10	4651	9	4384	5
110	29038 (R)	2464		1944		3520		2966		3243		3067	
111	**Anjali (ZC for all zones & RP)**	1994		2091		3077		2826		2951		2753	
112	29052 (R)	4334	1*	3223		7834	1*	4025	7	5929	1*	4772	1*
113	30334	3922	5	3739	5	5399	9	3958	8	4678	8	4368	6
114	30328	3293		3528	6	5942	4	4860	3	5401	4	4506	3
115	30332	4271	2*	3277		6241	3*	4726	4	5484	3	4690	2*
116	30351	4199	3*	2599		4944		4231	6	4587		4154	
117	**Vandana (NC & RP)**	3415		2978		4714		5548	1	5131	2	4124	10
118	28835 (R)	2149		2423		3147		1585		2366		2654	
119	30437	3897	6	4168	1*	4653		3630		4142		4245	9
120	**IR 64 (Sensitive check)**	2992		2376		4484		2717		3600		3269	
121	28834 (R)	2226		2208		3303		2334		2819		2771	
122	30438	3457		3848	4*	5391	10	3018		4204		4071	
123	**Local Check**	3318		2693		5404	8	3844		4624	10	3993	
	Exp. mean	3378		3026		4943		3458		4200		3876	
	CD	739.08		865.51		801.19		1411.05		528.70		398.08	
	CV%	13.30		17.38		9.85		24.80		7.47		6.20	
	D/S			6/22/2022		7/22/2022		01.08.2022					
	Local Check Name			GR-16 (Tapi)		KNM-118		CO 53					

Table No.10.3: Days to 50%flowering of entries in AVT-1 E DS under Severe Drought Condition, *Kharif* 2022

Entry No	IET No	Severe drought			Overall (severe) (2)
		Zone III	Zone V	Zone VI	
		OD	MP	GU	
		JYP	REW	DRL@	mean
101	29036 (R)	92	92	80	92
102	**Shabhagidhan (NC)**	79	91		85
103	29039 (R)	99	101	94	100
104	29048 (R)	88	104		96
105	**ZC**	79	110	77	95
106	29047 (R)	101	110	88	106
107	30330	85	96	78	91
108	29060 (R)	86	98		92
109	30336	103	94		99
110	29038 (R)	78	83	78	81
111	**Anjali (ZC for all zones & RP)**	78	86		82
112	29052 (R)	103	105		104
113	30334	89	100	97	95
114	30328	79	96		88
115	30332	106	112	98	109
116	30351	86	96	82	91
117	**Vandana (NC & RP)**	104	112	79	108
118	28835 (R)	76	91		83
119	30437	103	94	80	99
120	**IR 64 (Sensitive check)**	101	97		99
121	28834 (R)	75	88		81
122	30438	103	97		100
123	**Local Check**	88	0	70	88
	Exp. mean	**91**	**94**	**43**	**92**
	CD	2.44	7.49	2.77	3.77
	CV%	1.63	4.86	3.87	2.44

Table No 10.3 (Contd): Days to 50%flowering of entries in AVT-1 E DS under Moderate Drought Condition, *Kharif* 2022

Entry No	IET No	Moderate drought						Overall (moderate) (5)
		Zone III				Zone III (4)	Zone VI	
		OD	WB	BI	JH		MH	
		CTK	HTW	PSA	RCI	mean	PBN	Mean
101	29036 (R)	76	88	81	84	82	84	83
102	**Shabhagidhan (NC)**	82		75	82	80	81	80
103	29039 (R)	82	92	87	85	86	91	87
104	29048 (R)	84	90	81	83	85	91	86
105	**ZC**	84	84	78	78	81	88	82
106	29047 (R)	82	97	86	85	88	94	89
107	30330	92	88	81	84	86	85	86
108	29060 (R)	97	92	88	85	91	89	90
109	30336	99	92	85	86	90	90	90
110	29038 (R)	84	86	83	76	82	75	81
111	**Anjali (ZC for all zones & RP)**	84	73	80	71	77	70	76
112	29052 (R)	89	97	73	103	91	93	91
113	30334	89	86	85	84	86	86	86
114	30328	89	81	80	82	83	83	83
115	30332	97	90	86	85	90	97	91
116	30351	99	92	81	84	89	87	89
117	**Vandana (NC & RP)**	99	90	78	82	87	90	88
118	28835 (R)	97	70	67	65	75	72	74
119	30437	84	88	80	83	84	86	84
120	**IR 64 (Sensitive check)**	82	82	75	82	80	91	82
121	28834 (R)	102	69	76	63	78	70	76
122	30438	102	86	82	92	91	97	92
123	**Local Check**	122	85	82	72	90	83	89
	Exp. mean	**91**	**83**	**80**	**82**	**85**	**86**	**85**
	CD	1.65	1.16	5.98	2.70	1.63	1.25	1.25
	CV%	1.10	0.85	4.52	2.01	1.17	0.88	0.89

Table No. 10.3 (Contd): Days to 50%flowering of entries in AVT-1 E DS under Normal Condition, *Kharif* 2022

Entry No	IET No	Normal							
		Zone III		Zone III/BI (2)	Zone IV	Zone V		Zone V /CG (2)	Zone VI
		BI			AS	CG			GU
		BKG	SBR	Mean	TTB@	JDP	RPR	Mean	VYR
101	29036 (R)	79	91	85	77	82	84	83	79
102	**Shabhagidhan (NC)**	76	88	82	65	80	84	82	78
103	29039 (R)	87	97	92	85	93	93	93	84
104	29048 (R)	85	94	89	89	93	91	92	79
105	**ZC**	80	82	81	74	88	89	89	82
106	29047 (R)	84	99	92	95	96	93	95	86
107	30330	80	92	86	79	85	84	85	78
108	29060 (R)	82	91	87	82	89	93	91	79
109	30336	83	92	88	65	89	90	90	84
110	29038 (R)	70	83	77	74	72	77	75	73
111	**Anjali (ZC for all zones & RP)**	73	75	74	67	71	69	70	62
112	29052 (R)	97	111	104	85	90	102	96	94
113	30334	82	94	88	79	87	83	85	79
114	30328	82	88	85	71	88	84	86	78
115	30332	85	98	92	80	71	93	82	88
116	30351	84	90	87	71	83	82	83	79
117	**Vandana (NC & RP)**	81	84	83	81	87	87	87	77
118	28835 (R)	60	74	67	52	69	68	69	62
119	30437	82	87	85	73	82	82	82	78
120	**IR 64 (Sensitive check)**	75	90	83	77	83	83	83	77
121	28834 (R)	60	73	67	86	69	69	69	62
122	30438	87	95	91	76	93	88	91	82
123	**Local Check**	82	86	84	75	72	78	75	66
	Exp. mean	**80**	**89**	**85**	**76**	**83**	**85**	**84**	**78**
	CD	0.80	1.82	1.07	5.60	0.00	4.72	2.36	2.38
	CV%	0.61	1.24	0.77	4.45	0.00	3.39	1.71	1.86

Table No. 10.3 (Contd): Days to 50%flowering of entries in AVT-1 E DS under Normal Condition and on overall normal and drought conditions, *Kharif* 2022

Entry No	IET No	Normal			
		Zone VII		Zone VII (2)	Overall (Normal) (7)
		AP	TN		
		KMP	CBT	Mean	mean
101	29036 (R)	79	82	81	82
102	**Shabhagidhan (NC)**	80	82	81	81
103	29039 (R)	99	96	98	93
104	29048 (R)	85	89	87	88
105	**ZC**	107	97	102	89
106	29047 (R)	99	95	97	93
107	30330	81	84	83	83
108	29060 (R)	79	86	82	86
109	30336	79	87	83	86
110	29038 (R)	72	76	74	75
111	**Anjali (ZC for all zones & RP)**	72	79	76	71
112	29052 (R)	99	90	95	98
113	30334	72	90	81	84
114	30328	77	81	79	82
115	30332	88	94	91	88
116	30351	77	81	79	82
117	**Vandana (NC & RP)**	83	94	89	85
118	28835 (R)	71	69	70	67
119	30437	78	81	80	81
120	**IR 64 (Sensitive check)**	80	87	84	82
121	28834 (R)	70	67	68	67
122	30438	82	86	84	87
123	**Local Check**	74	84	79	77
	Exp. mean	**81.93**	**85**	**83**	**83**
	CD	2.14	2.33	1.55	0.90
	CV%	1.59	1.67	1.13	0.66

Table No. 10.4: Plant Height (cm) of entries in AVT-1 E DS under Severe Drought Condition, Zone III, V & VI *Kharif* 2022

Entry No	IET No	Severe drought			Overall (severe) (2)
		Zone III	Zone V	Zone VI	
		OD	MP	GU	
		JYP	REW	DRL@	mean
101	29036 (R)	48.67	105	61.0	77
102	**Shabhagidhan (NC)**	52.47	75		64
103	29039 (R)	47.93	70	72.8	59
104	29048 (R)	52.53	73		63
105	**ZC**	51.13	61	74.6	56
106	29047 (R)	50.60	70	63.0	60
107	30330	53.07	84	66.8	68
108	29060 (R)	52.53	72		62
109	30336	39.33	74		57
110	29038 (R)	52.53	93	77.4	73
111	**Anjali (ZC for all zones & RP)**	67.33	70		69
112	29052 (R)	60.60	65		63
113	30334	64.07	76	62.6	70
114	30328	54.80	82		68
115	30332	65.20	78	70.8	72
116	30351	55.00	73	66.8	64
117	**Vandana (NC & RP)**	47.40	54	66.4	51
118	28835 (R)	46.60	66		56
119	30437	48.27	64	62.4	56
120	**IR 64 (Sensitive check)**	67.40	56		62
121	28834 (R)	62.87	67		65
122	30438	64.60	75		70
123	**Local Check**	74.80		104.2	75
	Exp. mean	**56**	**73**	**71**	**64**

Table No. 10.4 (Contd): Plant Height (cm) of entries in AVT-1 E DS under Moderate Drought Condition, Zone III & VI, *Kharif* 2022

Entry No	IET No	Moderate drought						Overall (moderate) (5)
		Zone III				Zone III (4)	Zone VI	
		OD	WB	BI	JH		MH	
		CTK	HTW	PSA	RCI	mean	PBN	Mean
101	29036 (R)	97	93	81.00	111.0	96	87.3	94
102	**Shabhagidhan (NC)**	107		62.50	98.0	89	64.0	83
103	29039 (R)	99	97	74.00	116.0	96	70.3	91
104	29048 (R)	100	98	66.50	104.0	92	63.0	86
105	**ZC**	95	65	66.50	100.0	82	51.0	76
106	29047 (R)	108	93	89.00	109.0	100	75.0	95
107	30330	100	84	68.50	111.0	91	74.0	88
108	29060 (R)	100	93	87.50	94.0	94	61.0	87
109	30336	97	87	60.00	98.0	86	51.0	79
110	29038 (R)	87	69	71.00	119.0	86	72.0	84
111	**Anjali (ZC for all zones & RP)**	82	75	99.00	98.0	89	79.0	87
112	29052 (R)	103	89	98.50	116.0	102	75.3	96
113	30334	93	67	80.50	83	81	61.0	77
114	30328	102	90	76.50	106	94	52.0	85
115	30332	99	84	71.50	101	89	81.3	87
116	30351	99	85	82.00	100	92	67.3	87
117	**Vandana (NC & RP)**	123	68	77.50	92	90	61.0	84
118	28835 (R)	91	87	67.50	120	91	80.0	89
119	30437	76	79	73.50	103	83	65.0	79
120	**IR 64 (Sensitive check)**	108	79	72.00	82	85	54.6	79
121	28834 (R)	89	88	63.50	111	88	74.0	85
122	30438	107	77	73.00	104	90	71.3	86
123	**Local Check**	101	79	80.50	103	91	68.3	86
	Exp. mean	**98**	**83**	**76**	**103**	**90**	**68**	**86**

Table No. 10.4 (Contd): Plant Height (cm) of entries in AVT-1 E DS under Normal Condition, Zone III, IV &V*Kharif*2022

Entry No	IET No	Normal						
		Zone III		Zone III/BI (2)	Zone IV	Zone V		Zone V /CG (2)
		BI			AS	CG		
		BKG	SBR	Mean	TTB@	JDP	RPR	Mean
101	29036 (R)	123	128	125	104.87	101.8	115.21	109
102	**Shabhagidhan (NC)**	124	107	115	100.97	95.6	107.84	102
103	29039 (R)	121	118	119	87.30	113.0	117.07	115
104	29048 (R)	114	118	116	79.37	102.6	117.62	110
105	**ZC**	94	87	90	86.40	97.0	101.45	99
106	29047 (R)	139	120	129	96.40	119.4	183.63	152
107	30330	119	107	113	100.08	106.0	114.81	110
108	29060 (R)	107	115	111	99.47	107.0	114.87	111
109	30336	105	112	109	79.57	101.2	108.43	105
110	29038 (R)	126	118	122	93.47	141.0	111.73	126
111	**Anjali (ZC for all zones & RP)**	126	112	119	98.33	97.8	113.67	106
112	29052 (R)	108	129	118	95.47	107.0	138.92	123
113	30334	119	111	115	77.42	101	121.35	111
114	30328	122	105	114	87.80	94.6	105.08	100
115	30332	122	116	119	96.73	102.8	119.17	111
116	30351	115	110	112	74.20	106	105.08	106
117	**Vandana (NC & RP)**	99	91	95	88.10	83.8	95.35	90
118	28835 (R)	109	115	112	85.90	112.4	99.11	106
119	30437	117	110	114	92.30	92.8	103.76	98
120	**IR 64 (Sensitive check)**	105	92	99	68.07	93	92.53	93
121	28834 (R)	118	109	114	103.70	109.2	102.91	106
122	30438	101	114	108	99.73	89.2	107.67	98
123	**Local Check**	131	123	127	90.13	101.2	113.59	107
	Exp. mean	**116**	**112**	**114**	**91**	**103**	**114**	**108**

Table No. 10.4 (Cond.): Plant Height (cm) of entries in AVT-1 E DS under Normal Condition, Zone VI &Zone VII and Overall trial locations in normal and drought conditions, *Kharif* 2022

Entry No	IET No	Normal				
		Zone VI	Zone VII		Zone VII (2)	Overall (Normal) (7)
		GU	AP	TN		
		VYR	KMP	CBT	Mean	Mean
101	29036 (R)	120	104.0	103.7	104	114
102	**Shabhagidhan (NC)**	117	91.1	92.9	92	105
103	29039 (R)	122	96.9	105.9	101	113
104	29048 (R)	124	99.7	105.9	103	112
105	**ZC**	119	100.2	102.3	101	100
106	29047 (R)	128	97.3	107.4	102	128
107	30330	124	96.6	95.7	96	109
108	29060 (R)	115	96.6	101.9	99	108
109	30336	113	93.7	91.9	93	104
110	29038 (R)	121	97.2	120.0	109	119
111	**Anjali (ZC for all zones & RP)**	101	99.9	112.2	106	109
112	29052 (R)	123	104.1	105.3	105	117
113	30334	120	91.9	93.3	93	108
114	30328	113	88.9	95.0	92	103
115	30332	123	98.5	100.3	99	112
116	30351	109	92.1	98.8	95	105
117	**Vandana (NC & RP)**	98	79.7	92.1	86	91
118	28835 (R)	111	97.7	112.7	105	108
119	30437	115	96.8	90.8	94	104
120	**IR 64 (Sensitive check)**	92	79.1	81.8	80	91
121	28834 (R)	112	92.5	110.2	101	108
122	30438	60	92.5	98.9	96	95
123	**Local Check**	66	85.0	113.1	99	105
	Exp. mean	**111**	**94**	**101**	**98**	107

Table No.10.5: No. of Panicles/m2 of entries in AVT-1 E DS under Severe Drought Condition, Zone III, V & VI, *Kharif* 2022

Entry No	IET No	Severe drought			Overall (severe) (2)
		Zone III	Zone V	Zone VI	
		OD	MP	GU	
		JYP	REW	DRL@	mean
101	29036 (R)	246	207	320	227
102	**Shabhagidhan (NC)**	298	83		190
103	29039 (R)	318	87	268	202
104	29048 (R)	251	110		227
105	**ZC**	290	152	299	221
106	29047 (R)	253	177	295	215
107	30330	233	200	213	216
108	29060 (R)	264	210		237
109	30336	308	194		251
110	29038 (R)	304	196	264	250
111	**Anjali (ZC for all zones & RP)**	359	125		242
112	29052 (R)	266	107		187
113	30334	264	205	231	235
114	30328	222	247		235
115	30332	233	123	236	178
116	30351	291	266	308	278
117	**Vandana (NC & RP)**	262	132	255	197
118	28835 (R)	244	77		202
119	30437	289	163	244	226
120	**IR 64 (Sensitive check)**	191	188		190
121	28834 (R)	180	156		168
122	30438	213	247		230
123	**Local Check**	219		279	219
	Exp. mean	**261**	**159**	**140**	**218**
	CD	51.67	74.25	38.07	46.35
	CV%	12.04	28.41	16.57	12.90

Table No.10.5 (Contd): No. of Panicles/m2 of entries in AVT-1 E DS under Moderate Drought Condition, Zone III, V & VI, *Kharif* 2022

Entry No	IET No	Moderate drought					Overall (moderate) (4)
		Zone III			Zone III (3)	Zone VI	
		OD	BI	JH		MH	
		CTK	PSA	RCI	mean	PBN	Mean
101	29036 (R)	251	207	162	207	347	242
102	**Shabhagidhan (NC)**	185	123	163	157	381	213
103	29039 (R)	185	160	142	163	249	184
104	29048 (R)	169	129	148	149	358	201
105	**ZC**	127	158	115	133	382	195
106	29047 (R)	210	151	104	155	393	214
107	30330	226	197	130	184	376	232
108	29060 (R)	226	159	127	171	381	223
109	30336	239	122	133	165	372	216
110	29038 (R)	223	147	152	174	387	228
111	**Anjali (ZC for all zones & RP)**	186	180	115	160	382	216
112	29052 (R)	215	148	164	176	257	196
113	30334	243	51	153	149	384	208
114	30328	248	151	141	180	384	231
115	30332	234	153	130	172	308	206
116	30351	245	147	176	189	390	239
117	**Vandana (NC & RP)**	225	124	89	146	381	205
118	28835 (R)	169	182	153	168	354	214
119	30437	268	125	149	181	388	233
120	**IR 64 (Sensitive check)**	195	168	113	159	378	214
121	28834 (R)	147	174	129	150	384	209
122	30438	249	187	147	194	345	232
123	**Local Check**	190	179	171	180	370	228
	Exp. mean	**211**	**153**	**139**	**168**	**362**	**216**
	CD	63.96	29.54	48.84	22.25	24.20	18.64
	CV%	18.42	11.73	21.28	8.06	4.06	5.23

Table No.10.5 (Contd): No. of Panicles/m2 of entries in AVT-1 E DS under Normal Condition, Zone III, IV & V, *Kharif* 2022

Entry No	IET No	Zone III	Zone IV	Zone V		Zone V /CG (2)
		BI	AS	CG		
		SBR	TTB@	JDP	RPR	Mean
101	29036 (R)	268	248	212	149	181
102	**Shabhagidhan (NC)**	236	198	178	111	145
103	29039 (R)	247	198	149	151	150
104	29048 (R)	238	201	201	149	175
105	**ZC**	238	234	129	107	118
106	29047 (R)	231	258	175	134	155
107	30330	244	267	217	148	183
108	29060 (R)	303	215	252	139	196
109	30336	263	279	213	112	163
110	29038 (R)	228	206	225	123	174
111	**Anjali (ZC for all zones & RP)**	197	225	206	71	138
112	29052 (R)	235	254	233	144	189
113	30334	298	235	221	159	190
114	30328	322	182	191	153	172
115	30332	235	209	182	161	172
116	30351	276	215	253	154	204
117	**Vandana (NC & RP)**	248	192	222	141	182
118	28835 (R)	259	220	182	121	151
119	30437	372	227	186	143	165
120	**IR 64 (Sensitive check)**	258	225	178	150	164
121	28834 (R)	263	208	224	128	176
122	30438	260	217	193	142	168
123	**Local Check**	324	251	247	139	193
	Exp. mean	**263**	**225**	**203**	**136**	**170**
	CD	69.02	10.26	83.50	36.85	49.31
	CV%	15.96	2.78	24.99	16.46	17.67

Table No.10.5 (Contd): No. of Panicles/m2 of entries in AVT-1 E DS under Normal Condition, Zone VI & VII , and overall over all the qualified normal trials locations of, Kharif 2022

Entry No	IET No	Zone VI	Zone VII		Zone VII (2)	Overall (Normal) (6)
		GU	AP	TN		
		VYR	KMP	CBT	Mean	Mean
101	29036 (R)	222	400	461	431	233
102	**Shabhagidhan (NC)**	142	517	490	503	221
103	29039 (R)	272	533	502	518	247
104	29048 (R)	249	583	504	544	258
105	**ZC**	252	400	439	420	213
106	29047 (R)	242	500	481	490	235
107	30330	280	617	526	571	268
108	29060 (R)	218	433	470	452	244
109	30336	264	533	495	514	251
110	29038 (R)	229	517	488	502	244
111	**Anjali (ZC for all zones & RP)**	146	533	542	538	221
112	29052 (R)	176	450	482	466	233
113	30334	249	567	471	519	268
114	30328	233	617	503	560	273
115	30332	170	417	444	430	217
116	30351	187	450	484	467	242
117	**Vandana (NC & RP)**	232	633	546	590	253
118	28835 (R)	180	383	416	400	200
119	30437	272	533	571	552	262
120	**IR 64 (Sensitive check)**	208	650	620	635	254
121	28834 (R)	168	500	437	469	221
122	30438	179	633	513	573	244
123	**Local Check**	249	633	593	613	277
	Exp. mean	**218**	**523.19**	**499**	**511**	**307**
	CD	80.62	152.46	95.65	106.01	36.94
	CV%	22.45	17.71	11.65	12.60	9.25

Note: No.of Panicle / M ^{2} of BKG & HTW are not available

Table 10.6: Grain Quality characteristics of entries in AVT 1-E DS, kharif 2022 done at NRRI, Cuttack

Entry No	IET No	Hull %	Mill %	HRR %	Chalkiness	KL /mm	KB /mm	L/B	ASV	WU ml/100g	VER	ER	KLAC /mm	AC %	GC (mm)
101	29036 (R)	75	63	56	VOC	5.53	1.85	2.99	5	150	3.75	1.81	10	22.42	45
102	Shabhagidhan (NC)	70	66	57	VOC	5.91	1.77	3.34	3	110	4	1.69	10	25.12	51
103	29039 (R)	74	65	58	VOC	5.92	1.51	3.92	3	75	3.75	1.52	9	26.17	59
104	29048 (R)	70	62	54	VOC	5.95	1.52	3.91	3	80	3.75	1.51	9	24.97	52
105	Narendra dhan 97(ZC)	72	67	61	A	5.35	1.74	3.07	6	175	3.75	1.50	8	25.57	58
106	29047 (R)	75	69	60	OC	5.8	1.42	4.08	3	60	3.75	1.72	10	23.32	48
107	30330	72	65	60	OC	5.86	1.55	3.78	4	160	3.75	1.54	9	23.02	49
108	29060 (R)	72	64	59	OC	5.88	1.55	3.79	3	105	4	1.70	10	22.12	48
109	30336	72	62	58	OC	5.89	1.52	3.88	5	200	3.75	1.53	9	25.20	56
110	29038 (R)	70	66	60	VOC	5.53	1.51	3.66	3	85	3.75	1.63	9	26.85	62
111	Anjali	74	69	66	VOC	4.6	2.03	2.27	4	65	3.75	1.74	8	24.75	53
112	29052 (R)	77	71	62	VOC	5.11	2.04	2.50	4	90	3.75	1.76	9	27.00	68
113	30334	74	69	60	VOC	5.74	1.75	3.28	5	190	3.75	1.39	8	25.87	62
114	30328	72	68	61	A	5.79	1.54	3.76	4	65	3.75	1.38	8	22.27	48
115	30332	75	64	58	OC	6.04	1.7	3.55	3	70	3.75	1.49	9	19.20	38
116	30351	72	66	58	OC	5.12	1.61	3.18	5	105	3.75	1.56	8	22.20	49
117	Vandana	74	63	57	OC	5.73	1.65	3.47	6	85	3.75	1.40	8	21.37	42
118	28835 (R)	81	72	52	OC	4.93	1.93	2.55	3	50	3.75	1.42	7	23.17	46
119	30437	72	65	58	VOC	5.42	1.67	3.25	4	80	3.75	1.29	7	24.22	52
120	IR 64	70	63	57	VOC	5.66	1.5	3.77	4	55	3.75	1.59	9	23.25	48
121	28834 (R)	84	69	62	VOC	4.77	1.9	2.51	4	115	3.75	1.47	7	21.22	42
122	30438	74	65	56	VOC	5.73	1.7	3.37	5	155	3.75	1.57	9	19.35	40
123	CR Dhan 205	75	64	54	VOC	5.53	1.79	3.09	4	70	3.75	1.45	8	21.37	43

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-EARLY DIRECT SEEDED (IVT-EDS)

Locations: **18** **Test Entries: 50**

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** **Table:10.7**

The trial was constituted with 50 test entries and 7 checks including national checks (Sahabhagidhan and Vandana), zonal checks (Govind, Narendra 97, Samaleshwari, Varalu and Tulasi– Early), all zone check (Anjali), hybrid check (US 314), sensitive check (IR64) and local check. The trial was sent to 18 locations but data from three locations (Hazaribag, Jabalpur and Jagadalpur) were not received. The trial was evaluated at 15 locations under rainfed direct seeded condition covering different drought conditions. Hatwara (West Bengal), Bikramganj (Bihar), Sabour (Bihar), Raipur (Chhattisgarh), Parbhani (Maharashtra), Kampasagar (Andhra Pradesh) and Coimbatore (Tamil Nādu) covering Zone III, Zone V, Zone VI and Zone VII did not face drought and hence characterized as normal condition. The locations viz., Cuttack (Odisha), Pusa (Bihar), Ranchi (Jharkhand), Titabar (Assam) Rewa (Madhya Pradesh) and Vyara (Gujrat) covering Zone III, Zone IV, Zone V and Zone VI were under the moderate drought conditions. Only Jeypore (Odisha) experienced severe drought. The trial was rejected at Derol (Gujrat) centre by the monitoring team. So, in total 14 centres data were used for analysis. All the 14 centres were classified for drought condition. If the trial mean yield is >3000 kg/haand rainfall is normal then the centre isconsidered as normal environment. Centre with mean grain yield between1000 Kg/ha to 3000 Kg/ha is considered as moderate drought environmentsituation; mean grain yield < 1000 Kg/ha is considered as severe drought environment. An entry is considered as promoted if it has (1) significant yield advantage (CD at 5%) over the BVC, similarly for hybrid entries, hybrid checks is compared, (2) flowering criteria:the flowering duration should be80 $\pm$10 days orless than flowering duration of the best check in respective zone.Grain yield, plant height, days to 50% flowering of entries under different drought condition is presented in Tables 10.7 to 10.11. 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 (%)	Best check	Best check Yield (Kg/ha)	Drought Situation
Hatwara	Normal	3352.89	12.08	Sahabhagidhan	3058	-
Bikramganj	Normal	4701.43	11.34	Vandana (NC)	5749	-
Sabour	Normal	4764.24	11.24	Vandana (NC)	5440	-
Raipur	Normal	3085.72	14.78	Indira Aerobic -1 (LC)	4577	-
Parbhani	Normal	3362.28	5.41	Avishkar (LC)	5200	-
Kampasagar	Normal	6193.13	14.91	KNM-118 (LC)	7509	-
Coimbatore	Normal	3327.00	22.15	Hybrid Check US-314 (H)	4032	-
Cuttack	Moderate	2139.49	10.93	Vandana (NC)	3060	Vegetative and Grain filling, maturity
Pusa	Moderate	2987.50	11.45	CR Dhan 202 (LC)	3625	Germination and Tillering
Ranchi	Moderate	2686.84	10.14	US-314 (H)	3575	-
Titabar	Moderate	2666.67	7.85	US-314 (H)	3943	-
Rewa	Moderate	1015.00	16.59	Zonal Check	1953	Flowering and Grain filling
Vyara	Moderate	1396.31	19.20	US-314 (H)	1672	Not mentioned
Jeypore	Severe	948.83	13.83	Anjali	1432	Flowering and Grain development

The promising entries under severe drought and moderate drought condition compared to the BVC in Zone-III

Sl. No.	Entries with significant yield advantage (CD at 5%) over the BVC under Severe Drought condition		Entries with significant yield advantage (CD at 5%) over the BVC under Moderate Drought condition			
	Zone III (1) (Jeypore)		Zone III (3)		Overall Moderate Drought (6)	
	Entry no./ Designation/ Cross combination	Yield (kg/ha)/FD/GT	Entry no./ Designation/ Cross combination	Yield (kg/ha)/FD/GT	Entry no./ Designation/ Cross combination	Yield (kg/ha)/FD/GT
1	IET 31201 RCRR-3-UPR-2992-17-3-1-3 Single plant selection from UPR-2992-17-3-1	2567 89 LB	IET 31177 IIABR-12/IIAB-271/IRRI 132 UPL RI 5/ IR 12979-24-1 (Brown)	3711 87 MB	IET 31177 IIABR-12/IIAB-271/IRRI 132 UPL RI 5/ IR 12979-24-1 (Brown)	3095 87 MB
2	IET 31203 CGR 5 Samba Mahsuri*2/O. rufipogon-VN90-1032-58(3)	2420 84 MS	IET 31161 CR 4384-RGA-55 C745-3-1-1-1-1 x IET 27218/N22	3591 88 MS		
3	IET 31170 CB 17561 CO 41/CB 08504	2393 86 MS				
4	IET 31165 CR 4389-RGA-176 CR Dhan 202 x SR-36-2-1 // Shatabdi	2342 90 MS				
5	IET 31164 BRR-0199-IRSAH-07 IR 04N114/IR 01N144//IR 72102-4-159-1-3-3-3 (NSIC RC 112)	2300 86 LS				
6	IET 31202 CRR667-19-2 Poornima/Salumpikit	2082 74 LS				
BVC	**Anjali**	**1432** **73**	**Local Check**	**3115** **82**	**Local Check**	**2800** **76**
	CD (5%): 262.86		**CD (5%): 343.12**		**CD (5%): 255.60**	

The promising entries under moderate drought condition compared to the BVC in Zones-IV, V and VI

Sl. No.	Entries with significant yield advantage (CD at 5%) over the BVC under Moderate Drought					
	Zone IV (TTB) (1)		Zone V (REW) (1)		Zone VI (VYR) (1)	
	Entry no.	Yield (kg/ha)/FD/GT	Entry no.	Yield (kg/ha)/FD/GT	Entry no. (IET)	Yield (kg/ha)/FD/GT
1	IET 31165 CR 4389-RGA-176 CR Dhan 202 x SR-36-2-1 // Shatabdi	4416 83 MS	IET 31193 KAVERI 7117 Hybrid (KR20SA050/KR20SR054)	2311 86 LS	IET 31185 CRR514-6-1-1-1-12 Brown gora/ N22//CR143-2-2	2295.4 73 LS
2			IET 31163 CR 4392-RGA-40 C767-4-2-1-1/IET 27218//N22	2279 96 MS	IET 31157 IIABR-11/IIAB-315/IR 14T107 IR05F102/2*CSR 36	2088 73 MS
3					IET 31193 KAVERI 7117 Hybrid (KR20SA050/KR20SR054)	2078.8 71 LS
4					IET 31192 CR 4362-9-35-4-71 N 22*2/Way Raren/CRMAS 2620-1	2044.3 85 LS
BVC	**Sahabhagidhan (NC)**	**3884** **67**	**US-314 (H)** **Vandana (NC)**	**814** **85** **521** **97**	**Local Check** **US-314 (H)**	**1462.8** **65.5** **1672** **72**
		CD (5%): 419.47		**CD (5%): 338.09**		**CD (5%): 546.89**

Performance of entries under severe drought situation

Jeypore (Zone III) experienced severe drought situation. The trial experienced severe moisture stress during flowering and grain development stage. The experimental mean grain yield for severe drought condition was 948.83 kg/ha and CV was 13.83%. The mean grain yield in severe drought locations ranged from 393 kg/ha (IET 31195) to 2567 kg/ha (IET 31201), the mean flowering duration ranged from 72 days (Anjali, all zones) to 94 days (IET 31171) andplant height ranged from 40 cm (IET 27529 and IET 31194) to 71 cm (IET 31160) and number of panicles per m^2 ranged from 176 (IET 31173) to 370 (IET 31199).

Six entries IET 31201(2576 kg/ha, flowering duration 89 days), IET 31203 (2420 kg/ha, flowering duration 84 days), IET 31170 (2393 kg/ha flowering duration 86 days), IET 31165 (2342 kg/ha, flowering duration 90 days), IET 31164 (2300 kg/ha, flowering duration 86 days) and IET 31202 (2082 kg/ha, flowering duration 74 days) outperformed the best check (Anjali, all zone=1432 kg/ha, flowering duration 73 days) by 44%, 40%, 40%, 38%, 37% and31% respectively.

Six entries IET 31201, IET 31202,IET 31203, IET 31164, IET 31165 and IET 31170are promoted to AVT 1 E DS for2ndyear of testing.

Performance of entries under moderate drought condition

Moderate drought was experienced at Cuttack, Pusa, Ranchi (Zone III), Titabar (Zone IV), Rewa (Zone V) andVyara (Zone VI). The experimental mean grain yield at Cuttack, Pusa, Ranchi, Titabar, Rewa and Vyara was 2139.49 kg/ha, 2987.50 kg/ha, 2686.84 kg/ha, 2666.67 kg/ha, 908.03 kg/ha, 1396.31 kg/ha and CV was 10.93 %, 11.45 %, 10.14 %, 7.85 %, 16.59 % and 19.20 % respectively. Overall grain yield under moderate drought ranged from 1596 kg/ha (IET 31180) to 3095 kg/ha (IET 31177);days to 50%flowering ranged from 74 days (IET 31202) to 103 (IET 31164); plant height ranged from 78cm (IET 31199) to 112 cm (IET 31186) and number of panicles per m^2 ranged from 134 (Anjali all zones) to 264 (IET 31155).

On the basis of overall mean, one entry viz., IET 31177 outperformed the best check (Local check), hence the entry is promoted to 2nd year of testing, AVT 1 E DS on overall mean basis.

Zone III

IET 31177 and IET 31161 were found significantly superior than the best check.

IET 31177 has medium bold grains, ranked first in overall mean and outperformed the best check (Local check) by 16%and registered grain yield of 3711 kg/ha and took 87 days for 50% flowering. It out-yielded the national check and zonal check by 27 % and 32%, respectively.

IET 31161has medium slender grains, ranked second in overall mean and outperformed the best check (Local check) by 13%and registered grain yield of 3591 kg/ha and took 88 days for 50% flowering. It out-yielded the national check and zonal check by 25% and 30%, respectively.

Zone IV

IET 31165 was found significantly superior than the best check. It possesses medium bold grains and outperformed the best check (Sahabhagidhan(NC)) by 12 %and registered grain yield of 4416 kg/ha and took 83 days for 50% flowering. It out yielded the national check and zonal check by 12% and 60%, respectively.

Zone V

IET 31165 (KAVERI 7117 Hybrid) and IET 31163 (CR 4392-RGA-40) were found significantly superior than the best check. IET 31193 (KAVERI 7117 Hybrid) has long slender grains and outperformed the best check (Hybrid) by 10 %and registered grain yield of 2311 kg/ha and took 86 days for 50% flowering. It out yielded the national check and zonal check by 77% and 90%, respectively.

IET 31163 (CR 4392-RGA-40) has medium slender grains and outperformed the best check (Vandana (NC)) by 77 %and registered grain yield of 2279 kg/ha and took 96 days for 50% flowering (flowering duration of best check Vandana is 97 days). It out yielded the national check and zonal check by 77% and 89%, respectively.

Zone VI

IET 31185, IET 31157, IET 31192, IET 31193 were found significantly superior than the best check.

IET 31185 (CRR514-6-1-1-1-12) has long slender grains and outperformed the best check [GR 16 (Tapi)LC] by 36 %and registered grain yield of 2295.4 kg/ha and took 73days for 50% flowering. It out-yielded the national check and zonal check by 36% and 76%, respectively.

IET 31157 (IIABR-11/IIAB-315/IR 14T107) has medium slender grains and outperformed the best check [GR 16 (Tapi) LC] by 30 %and registered grain yield of 2088 kg/ha and took 73 days for 50% flowering. It out-yielded the national check and zonal check by 30% and 73%, respectively.

IET 31192 (CR 4362-9-35-4-71) has long slender grains and outperformed the best check [GR 16 (Tapi) LC] by 28 %and registered grain yield of 2044.3 kg/ha and took 85 days for 50% flowering. It out-yielded the national check and zonal check by 29% and 72%, respectively.

IET 31193 (KAVERI 7117 hybrid) has long slender grains and outperformed the best check (Hybrid) by 19 %and registered grain yield of 2078.8 kg/ha andtook 71 days for 50% flowering. It out-yielded the national check and zonal check by 30% and 73%, respectively.

PERFORMANCE OF ENTRIES UNDER NORMAL CONDITION

The data pertaining to yield (kg/ha), days to 50% flowering, plant height (cm) and number of panicles/m^2under normal rainfall conditions are presented in Tables 10.8 to 10.11. The overall performance of entries under normal condition is discussed below.

Overall Performance of entries under normal condition

On over all mean yield, three entries IET 31155 (5500 kg/ha), IET 31178 (5170 kg/ha) and IET 31177 (5059 kg/ha) outperformed the best check (Local Check=4576 kg/ha) by 17%, 11% and 20% respectively.

Performance and promotion

Promoted to AVT-1-EDS

Under drought across zones: IET 31177

On Zonal mean basis

Severe drought condition

Zone-III

- **IET 31164, IET 31165, IET 31170, IET 31201, IET 31202 and IET 31203**

Moderate drought condition

Zone-III

- **IET 31177 and IET 31161**

Zone IV:

- **IET 31165**

Zone V:

- **IET 31193 and IET 31163**

Zone VI:

- **IET 31185, IET 31157, IET 31192 and IET 31193**

Promotion and deletion of the Entries in IVT E DS trials

Entry no of Inbreed	Severe Drought	Moderate Drought	Normal	Remark
31161		✓		Promoted to AVT 1-E DS Zone III
31164	✓			Promoted to AVT 1-E DS, Zone III
31170	✓			Promoted to AVT 1-E DS, Zone III
31177		✓		Promoted to AVT 1-E DS, Zone III
31201	✓			Promoted to AVT 1-E DS, Zone III
31202	✓			Promoted to AVT 1-E DS, Zone III
31203	✓			Promoted to AVT 1-E DS Zone III
31165	✓	✓		Promoted to AVT 1-E DS, Zone III& IV
31163		✓		Promoted to AVT 1-E DS Zone V
31193		✓		Promoted to AVT 1-E DS, Zone V & VI
31157		✓		Promoted to AVT 1-E DS, Zone VI
31185		✓		Promoted to AVT 1-E DS, Zone VI
31192		✓		Promoted to AVT 1-E DS, Zone VI

Table No. 10.7: Composition of entries in Initial Variety Trial 1–Early Direct Seeded (IVT-E DS), *Kharif* 2022

Entry No.	IET No.	Designation	Cross combination	GT
201	31154	NVSR 3488	Vandana x Taichun	SB
202	31155	NWGD -1805	Gurjari*NWGR-4005/4-1-2-3-3	MB
203	31156	CR 3562-23-3-2-1-1-1	Surendra/N22	MB
204	31157	IIABR-11/IIAB-315/IR 14T107	IR05F102/2*CSR 36	MS
205	31158	CRR559-5-1-1-1	RR 354-1/ Azucena	LS
206	31159	NWGD -1825	NWGR-5060*NWGR-10007/4-1-1-2-1	MS
207	31160	CR 3426-115-55-25	Apo/O.Nivara	MS
208	Shabhagidhan (NC)			
209	31161	CR 4384-RGA-55	C745-3-1-1-1-1 x IET 27218/N22	MS
210	31162	NWGD -1804	Gurjari*NWGR-4005/4-1-2-3-2	MB
211	31163	CR 4392-RGA-40	C767-4-2-1-1/IET 27218//N22	MS
212	31164	BRR-0199-IRSAH-07	IR 04N114/IR 01N144//IR 72102-4-159-1-3-3-3 (NSIC RC 112)	LS
213	31165	CR 4389-RGA-176	CR Dhan 202 x SR-36-2-1 // Shatabdi	MS
214	31166	NVSR 3033	GR 7 x GR 5	LS
215	31167	CR 3843-10-2-2-1-1-1	GontraVidhan/CR Dhan 202	MS
216	31168	CRR759-B-12-B-1	Sahbhagidhan/IR 87707-446-B-B	LS
217	31169	RCPR 96-IR95793-5-2-2-3	IR09L179/IR 10L105	LS
218	31170	CB 17561	CO 41/CB 08504	MS
219	Anjali (all zones)			
220	31171	ORJ 1310 (RP-5388-B-12-1)	Sampada/IRGC 25966//RP Bio 226	LB
221	31172	CR 4437-8-3-1	IR 64 Sub1/MER 20	LS
222	31173	ORJ 1338 (TP-30039)	IIRON 42 Ent.19	MB
223	31174	BRR-0195-IRSAH-37	Swarna/IR 05N113	LS
224	31175	CRR797-71-2-1-1	Vandana/ IR 93835-123-B	LS
225	31176	CR 3553-2-2-1-1-1-1	ADT 43/Ananga	MB
226	31177	IIABR-12/IIAB-271/IRRI 132	UPL RI 5/ IR 12979-24-1 (Brown)	MB
227	31178	NWGD -1803	Gurjari*NWGR-4005/4-1-2-3-1	MB
228	Vandana (NC)			
229	31179	CR 4369-3-IR-143508-21-20-12-1-1-B	NAVEEN*2/IR 96321-1447-561-B1//NAVEEN/IR 87707-445- BB //// NAVEEN/IRBL9 //NAVEEN/AGANNI/6// NAVEEN/IRBB 60	
230	31180	CRR449-5-1-2-2	Black Gora/IR64	LB
231	31181	CR 4437-7-3-9	IR 64 Sub1/MER 20	SB
232	31182	NWGD -1806	Gurjari*NWGR-4005/4-1-2-4-1	MB
233	31183	AAU-TTB-Dhan 45	Kolong/IR 64 drt	LS

Entry No.	IET No.	Designation	Cross combination	GT
234	31184	BRR 2019	Sita / Pusa Basmati-1	LS
235	31185	CRR514-6-1-1-1-12	Brown gora/ N22//CR143-2-2	LS
236	31186	CR 3426-112-25-1	Apo/O.Nivara	MS
237	31187	BRR 2184	HHZ 14-SAL-10-DT-1-DT-1-Sel. (Huang-Hua-Zhan*2/IR 64)	MS
238	Govind (Northern-II), Narendra 97 (Eastern-III and IV), Samaleshwari (Central- V), Varalu (western-VI) and Tulasi (Southern-VII)—ZC			
239	31188	RAU 142-15-3-2-5-3-7	Sujata*C 14	MS
240	31189	BKR 420	BPT 5204 X Karhaini	
241	31190	CRR530-5-1-1	RR354-1/Vanaprabha//N22/IR 64	LS
242	31191	BRR-0192-IRSAH-13	Swarna/AD 09379	
243	31192	CR 4362-9-35-4-71	N 22*2/Way Raren/CRMAS 2620-1	LS
244	31193	KAVERI 7117	Hybrid (KR20SA050/KR20SR054)	LS
245	IR 64 – Sensitive Check			
246	31194	CR 2889-208-15-3	Apo/CR 143-2-2	MS
247	31195	BRR-0204	RYC 230 X MT 4822	LS
248	31196	CR 4391-RGA-19	CR Dhan 202 x Annada	MS
249	31197	CRR635-254-1	Vandana/Poornima	LS
250	31198	BRR-2106	BP 11820-5F-KN-10-2-Sel	LS
251	31199	CR 4437-7-4-5	IR 64 Sub1/MER 20	LS
252	31200	BRR 2176	IR97443-11-2-1-1-1-1-B * HUR1304	MS
253	31201	RCRR-3-UPR-2992-17-3-1-3	Single plant selection from UPR-2992-17-3-1	LB
254	31202	CRR667-19-2	Poornima/Salumpikit	LS
255	US-314 (Hybrid check)			
256	31203	CGR 5	Samba Mahsuri*^{2}/*O. rufipogon*-VN90-1032-58(3)	MS
257	Local check			

Table No. 10.8:.Grain yield (Kg/ha) of entries in IVT-EDS Drought, *Kharif* 2021

Entry No	IET No	Moderate drought														Overall (moderate) (6)		Severe drought				Overall (severe) (1)		Overall (14)	
		Zone III						Zone III (3)		Zone IV		Zone V		Zone VI				Zone III		Zone VI					
		OD		BI		JH				AS		MP		GU				OD		GU					
		CTK		PSA		RCI		mean		TTB		REW		VYR		Mean		JYP		DRL@#		mean		Mean	
201	31154	1890		2238		2365		2164		3660	7	1042		1534.2		2121		1400	9	879		1400	9	2577	
202	31155	1560		2250		2915		2242		2577				928		2046		602		558		602		3795	2
203	31156	2419		2375		1815		2203		2552		202		1760.6		1854		518		611		518		3197	
204	31157	2130		2875		2640		2548		2520		521		2088	2*	2129		608				608		2848	
205	31158	1800		3750	8	3080		2877	9	2634		1953	6.5	1624.6		2474		537		409		537		3070	
206	31159	2540		2875		3080		2832		2688		560		1276.3		2170		400		615		400		3275	
207	31160	1600		3000		3135	10	2578		2037		814		1477.5		2011		750		649		750		3337	
208	Shabhagidhan (NC)	1738		3000		3300	6	2679		3884	4	488		1448.8		2310		1402	8	855		1402	8	2858	
209	31161	2743	7	4125	4	3905	2*	3591	2#*	1600		1302		1921.2	7	2599	4	675		1037	8	675		3141	
210	31162	2510		3000		2365		2625		2030		488		1057.2		1908		470		1006	9	470		3181	
211	31163	1667		4250	3	3245	8	3054	5	1868		2279	2#*	1688		2499	9	733		531		733		3148	
212	31164	2115		3250		3025		2797		3096		1882	9	1660.3		2505	8	2300	5#*			2300	5#*	3703	3
213	31165	2120		3125		2915		2720		4416	1#*	1107		1456		2523	7	2342	4#*	380		2342	4#*	2974	
214	31166	2270		2875		2475		2540		3552		2083	5	1371.1		2438		650		1321	4	650		2717	
215	31167	1820		3500		3245	9	2855		3072		345		1430.8		2235		1108		1191	5	1108		3248	
216	31168	2390		3063		2365		2606		2808		1823	10	1633.8		2347		1395	10			1395	10	3269	
217	31169	1631		4500	2#*	2805		2979	6	3888	3	1563		1672.6		2676	3	642				642		3493	9
218	31170	1850		2125		2970		2315		2280		1413		1896	9	2089		2393	3#*			2393	3#*	3085	
219	Anjali (all zones)	2348		2875		2310		2511		1744		228		545.64		1675		1432	7	269		1432	7	2166	
220	31171	2300		2625		2970		2632		1944		1628		1902.2	8	2228		633		206		633		3247	
221	31172	2860	3	3038		2255		2718		2227				1297.8		2335		473		168		473		3146	
222	31173	2110		2375		2200		2228		1818		781		1129.2		1736		628		252		628		2995	
223	31174	2126		2500		1760		2129		3144		462		1570.9		1927		795				795		2965	
224	31175	2200		4063	5	2090		2784		3840	5	1172		1360.2		2454		623		1101	6	623		3038	
225	31176	2796	5	1875		2145		2272		3634	8			1713.8		2433		917		473		917		3562	6
226	31177	2312		4750	1#*	4070	1*	3711	1#*	3576	10	1888	8	1973.5	5	3095	1#*	785				785		3912	1#*
227	31178	1953		3000		3300	7	2751		2684		358		1191.4		2081		697		1074	7	697		3527	7
228	Vandana (NC)	3060	1	2625		2530		2738		1700		521		1388.3		1971		525		1424	3	525		2906	
229	31179	1953		2125		2475		2184		2068		1237		1223.8		1847		642		780		642		3058	
230	31180	1398		3188		1925		2170		1152		1432		480.62		1596		757		264		757		1842	
231	31181	2550		3125		1760		2478		3315		85		824.62		1943		710				710		2556	
232	31182	2727	8	4000	6	3520	4	3416	3	2502		1380		1454.2		2597	5	1033		529		1033		3681	4
233	31183	2636		3000		2695		2777		2712		358		1414.8		2136		1000		230		1000		2931	
234	31184	1290		2875		3520	5	2562		2376		130		1393.2		1931		720				720		3111	

Entry No	IET No	Moderate drought														Overall (moderate) (6)		Severe drought				Overall (severe) (1)		Overall (14)	
		Zone III						Zone III (3)		Zone IV		Zone V		Zone VI				Zone III		Zone VI					
		OD		BI		JH				AS		MP		GU				OD		GU					
		CTK		PSA		RCI		mean		TTB		REW		VYR		Mean		JYP		DRL@#		mean		Mean	
235	31185	2600		3000		3025		2875	10	1128		2214	3	2295.4	1#*	2377		1022		731		1022		3260	
236	31186	1850		2125		2585		2187		3576	10	1120		1592		2141		707		545		707		3370	10
237	31187	1201		2875		2915		2330		3442		1758		1217.8		2235		633		790		633		3131	
238	ZC	2290		2625		2805		2573		3672	6	1953	6.5	562		2318		717		609		717		3027	
239	31188	1730		3125		2200		2352		2562		879		1291.1		1964		622		573		622		2820	
240	31189	1730		2750		2090		2190		2539		293		1000.6		1734		848		463		848		2171	
241	31190	1613		2875		2640		2376		1680		1628		1820.3	10	2043		817		595		817		2974	
242	31191	2780	6	3125		2090		2665		2088				1153.2		2247		755				755		3069	
243	31192	2170		2500		2035		2235		3096		163		2044.3	4*	2001		823				823		3057	
244	31193	1792		3125		2420		2446		1552		2311	1#*	2078.8	3*	2213		667		1477	2	667		3325	
245	IR 64 – Sensitive Check	1165		2875		2585		2208		3504		163		934.77		1871		585				585		2404	
246	31194	2690	10	2750		2750		2730		3240				1345.8		2555	6	790				790		3525	8
247	31195	2920	2	2375		2585		2627		2600		72		1334.2		1981		393				393		3187	
248	31196	2660		3000		3080		2913	7	1680		2148	4	1061.5		2272		817		743		817		3175	
249	31197	1770		2888		2640		2433		2784		553		1273.4		1985		1197				1197		3021	
250	31198	2210		2625		2970		2602		1552		1107		1716.3		2030		858		976	10	858		3103	
251	31199	1344		3125		2310		2260		2376		98		1122.7		1729		807				807		2468	
252	31200	2840	4	3500		2310		2883	8	2378		391		1953.8	6	2229		693		515		693		3286	
253	31201	2050		3938	7	2255		2748		1696		846		1231.4		2003		2567	1#*			2567	1#*	2891	
254	31202	1613		2625		2530		2256		3048		781		635.69		1872		2082	6#*			2082	6#*	2443	
255	US-314 (Hybrid check)	2540		2375		3575	3	2830		3943	2	814		1672		2486	10	753		490		753		3023	
256	31203	2260		2250		2585		2365		3076		944				2223		2420	2#*			2420	2#*	2884	
257	Local check	2720	9	3625	9	3000		3115	4	3190				1462.8		2800	2	1217		1672	1	1217		3634	5
	Exp. mean	2139.49		2987.50		2686.84		2604.61		2666.67		1015.00		1421.00		2179.46		948.83		710.00		948.83		3067.00	
	CD	468.41		685.18		545.88		343.12		419.47		338.09		546.89		255.60		262.86		277.75		262.86		246.13	
	CV%	10.93		11.45		10.14		6.58		7.85		16.59		19.20		5.85		13.83		19.29		13.83		4.01	
	D/S	30.06.2022		02.07.2022		23.06.2022				24-08-2022		17-07-2022		22-06-2022				17.08.22		05-07-2022					
	Local Check Name	CR DHAN 205		RajendraNilam		BVD-111				Disang				GR-16 (Tapi)				Mandakini		GR 9					

Table No. 10.9:Days to 50% flowering of entries in IVT-EDS Drought, *Kharif* 2021

Entry No	IET No	Moderate drought							Overall (moderate) (6)	Severe drought		Overall (severe) (2)
		Zone III			Zone III (3)	Zone IV	Zone V	Zone VI		Zone III	Zone VI	
		OD	BI	JH		AS	MP	GU		OD	GU	
		CTK	PSA	RCI	mean	TTB	REW	VYR	Mean	JYP	DRL	mean
201	31154	74	86	79	80	72	85	71	78	79	80	80
202	31155	79	101	94	90	83	113	86	93	88	89	88
203	31156	82	108	104	96	90	109	92	97	86	92	89
204	31157	76	85	83	81	76	87	73	80	82		82
205	31158	81	92	80	85	51	83	77.5	77	84	86	85
206	31159	82	100	95	91	78	103	85.5	90	87	96	91
207	31160	79	95	99	89	92	99	85.5	92	88	95	91
208	Shabhagidhan (NC)	84	86	83	84	67	88	72	80	78	80	79
209	31161	87	89	91	88	80	100	82.5	88	86	85	86
210	31162	82	100	97	92	77	105	84	91	75	89	82
211	31163	79	89	93	85	82	96	81	87	78	89	83
212	31164	89	136	105	109	84	108	94	103	86		86
213	31165	89	89	92	90	83	96	75.5	87	90	85	87
214	31166	87	86	84	86	74	82	76.5	81	83	80	81
215	31167	78	92	93	86	90	104	78	89	88	83	86
216	31168	79	85	84	82	72	80	72	79	80		80
217	31169	89	86	82	87	75	89	73.5	82	81		81
218	31170	92	83	78	86	78	86	71.5	81	86		86
219	Anjali (all zones)	84	82	72	82	83	90	65.5	79	73	70	72
220	31171	77	99	90	88	88	102	87.5	91	92	97	94
221	31172	87	101	103	95	88	115	80.5	96	86	91	89
222	31173	84	90	93	88	83	101	92	90	89	89	89
223	31174	84	104	101	95	87	106	68	92	88		88
224	31175	81	76	74	78	65	87	91.5	79	79	73	76
225	31176	89	107	106	99	87	104	78.5	95	86	96	91
226	31177	84	89	91	87	82	91	85	87	85		85
227	31178	84	95	97	91	87	106	76	91	83	87	85
228	Vandana (NC)	84	87	86	85	78	97	71	84	85	81	83
229	31179	84	83	76	82	78	88	88	83	81	81	81
230	31180	79	75	68	76	73	86	66.5	75	81	74	77
231	31181	82	104	99	94	71	106	86	91	84		84
232	31182	87	100	97	94	77	104	84.5	92	81	94	87
233	31183	82	78	79	80	69	85	72	77	84	73	79
234	31184	79	94	83	86	87	104	81	88	81		81
235	31185	87	82	79	84	69	84	73	79	87	78	83
236	31186	92	102	98	96	92	105	84	95	83	95	89
237	31187	79	88	84	83	83	93	77	84	84	81	83
238	ZC	81	84	75	81	69	101	81	82	87	92	90
239	31188	88	88	85	87	75	83	73.5	82	80	75	77
240	31189	82	82	80	82	73	108	73.5	83	86	78	82
241	31190	87	91	83	88	64	91	80.5	83	84	78	81
242	31191	82	107	105	96	90	106	90.5	97	84		84
243	31192	87	93	104	91	90	113	85	95	86		86
244	31193	82	78	79	80	80	86	71	79	82	73	78
245	IR 64 – Sensitive Check	78	90	93	85	78	89	77.5	84	86		86
246	31194	87	110	105	99	87	115	87.5	98	88		88
247	31195	87	102	100	95	85	113	91.5	96	91		91
248	31196	82	89	89	86	83	95	84	87	90	86	88
249	31197	78	84	69	79	73	82	65	75	83		83
250	31198	82	88	89	86	80	85	78.5	84	82	83	82
251	31199	79	89	87	84	81	102	77.5	86	86		86
252	31200	87	87	83	86	76	95	76.5	84	85	84	85
253	31201	84	81	80	82	72	87	64	78	89		89
254	31202	87	78	72	81	60	83	62	74	74		74
255	US-314 (Hybrid check)	79	86	80	82	74	85	72	79	80	82	81
256	31203	79	118	110	100	81	93		96	84		84
257	Local check	82	83		82	75		65.5	76	84	71	78
	Exp. mean	83	92	87	87	78	94	77.096	86	84	56	84
	CD	2.88	12.86	2.41	6.63	4.27	6	3.559	2.76	2.78	2.45	2.29
	CV%	1.73	7.01	1.39	3.79	2.72	3	2.3044	1.60	1.66	2.19	1.36

Table No. 10.10:Plant height (cm) of entries in IVT-EDS Drought, *Kharif* 2021

Entry No	IET No	Moderate drought							Overall (moderate) (6)	Severe drought		Overall (severe) (2)
		Zone III			Zone III (3)	Zone IV	Zone V	Zone VI		Zone III	Zone VI	
		OD	BI	JH		AS	MP	GU		OD	GU	
		CTK	PSA	RCI	mean	TTB	REW	VYR	Mean	JYP	DRL	mean
201	31154	98	104.00	90	97	79	74	81.5	88	48	66	57
202	31155	97	105.50	98	100	88	66	108.6	94	57	72	64
203	31156	109	105.50	103	106	97	90	99.2	101	51	84	67
204	31157	96	88.00	93	92	74	68	99.7	86	67		67
205	31158	103	99.50	120	107	103	115	116.8	110	69	92	81
206	31159	107	106.00	89	101	97	82	97.65	96	47	69	58
207	31160	85	75.00	150	103	115	104	114.2	107	68	99	84
208	Shabhagidhan (NC)	96	92.00	106	98	100	78	79.18	92	59	77	68
209	31161	116	105.00	91	104	89	81	108.5	98	46	92	69
210	31162	107	89.00	94	97	94	74	122.55	97	71	79	75
211	31163	94	93.50	91	93	93	84	103.95	93	44	67	55
212	31164	91	114.00	99	101	75	63	100.6	90	46		46
213	31165	103	111.00	91	102	78	88	101.1	95	60	73	66
214	31166	103	97.50	119	106	116	112	104.5	109	63	98	80
215	31167	84	87.50	110	94	96	103	114.8	99	57	92	74
216	31168	89	112.50	111	104	106	99	112.15	105	63		63
217	31169	92	69.50	99	87	99	88	96.7	91	68		68
218	31170	92	86.50	99	93	83	76	91.8	88	52		52
219	Anjali (all zones)	97	98.00	85	93	100	84	98.2	94	62	74	68
220	31171	98	91.50	101	97	84	84	100.7	93	46	62	54
221	31172	115	110.00	94	106	80	66	81.4	91	53	52	53
222	31173	88	87.50	98	91	90	74	78.7	86	43	64	54
223	31174	87	89.00	98	91	72	63	106.65	86	62		62
224	31175	97	64.00	106	89	112	81	108.1	95	67	81	74
225	31176	106	88.50	100	98	87	75	105.6	94	48	76	62
226	31177	96	89.50	110	98	96	79	103.05	96	61		61
227	31178	100	90.00	107	99	98	66	104.35	94	69	80	74
228	Vandana (NC)	99	122.00	95	105	92	65	87.25	93	67	76	71
229	31179	97	86.50	110	98	108	87	83.8	95	70	75	73
230	31180	101	76.50	98	92	120	112	119.75	105	40	73	56
231	31181	97	106.00	86	96	87	68	75.65	87	48		48
232	31182	96	101.50	103	100	98	82	115.3	99	59	75	67
233	31183	114	95.50	99	103	74	68	103.55	92	50	59	55
234	31184	97	92.00	110	100	96	68	115.4	96	65		65
235	31185	109	91.00	114	105	100	106	113.8	105	50	78	64
236	31186	89	115.00	118	107	101	99	150.8	112	42	99	70
237	31187	85	78.00	94	86	82	77	87.1	84	49	73	61
238	ZC	91	72.50	95	86	83	83	106	88	57	83	70
239	31188	88	116.00	96	100	63	86	85.9	89	67	62	64
240	31189	99	102.50	115	106	102	72	106.1	99	71	84	77
241	31190	95	122.00	119	112	101	98	117.5	109	49	85	67
242	31191	114	81.00	98	98	80	63	89.1	88	47		47
243	31192	114	97.00	104	105	76	61	111.15	94	46		46
244	31193	102	112.00	100	105	77	86	88.5	94	47	81	64
245	IR 64 – Sensitive Check	112	106.50	89	103	81	75	79.6	91	51		51
246	31194	105	92.00	104	100	91	25	101.1	86	43		43
247	31195	101	85.50	113	100	84	71	104.4	93	61		61
248	31196	104	104.00	104	104	87	88	51.95	90	58	80	69
249	31197	110	110.50	108	110	103	78	94.4	101	49		49
250	31198	104	95.00	103	101	83	76	109.15	95	45	79	62
251	31199	78	93.50	90	87	77	61	68.65	78	48		48
252	31200	100	102.00	97	100	64	74	94.25	88	45	70	58
253	31201	97	96.50	100	98	86	72	70.3	87	50		50
254	31202	95	85.00	103	94	109	95	112.35	100	66		66
255	US-314 (Hybrid check)	111	81.00	100	97	94	78	99.85	94	46	65	56
256	31203	103	83.50	101	96	88	79		91	58		58
257	Local check	103	79.50		91	94		81.6	90	40	103	72
	Exp. mean	99	95	102	99	91	80	99	94	55	78	63

Table No. 10.11: Panicles/m^2 of entries in IVT-EDS Drought, *Kharif* 2021

Entry No	IET No	Moderate drought							Overall (moderate) (6)	Severe drought		Overall (severe) (2)
		Zone III			Zone III (3)	Zone IV	Zone V	Zone VI		Zone III	Zone VI	
		OD	BI	JH		AS	MP	GU		OD	GU	
		CTK	PSA	RCI	mean	TTB	REW	VYR	Mean	JYP	DRL	mean
201	31154	222	175	364	253	218	224	230	239	226	218	222
202	31155	190	180	496	288	232		225	264	202	228	215
203	31156	194	183	213	197	246	135	205	196	280	372	326
204	31157	163	147	213	174	218	137	212	181	310		310
205	31158	139	128	244	170	233	218	285	208	293	228	261
206	31159	194	143	273	203	196	207	230	207	216	297	257
207	31160	205	188	226	206	212	101	220	192	366	282	324
208	Shabhagidhan (NC)	204	201	199	201	210	122	105	173	190	232	211
209	31161	228	132	288	216	185	167	235.5	206	223	246	235
210	31162	180	215	187	194	206	191	281	210	313	382	348
211	31163	190	238	321	249	202	208	190	225	256	232	244
212	31164	240	123	252	205	215	263	169	210	263		263
213	31165	235	115	370	240	229	236	192	229	226	218	222
214	31166	259	192	233	228	194	232	191.5	217	233	230	232
215	31167	239	223	200	220	208	141	227	206	306	266	286
216	31168	205	174	408	262	225	195	241.5	241	200		200
217	31169	191	221	240	217	219	230	127	204	320		320
218	31170	191	203	302	232	222	250	238	234	290		290
219	Anjali (all zones)	188	152	52	131	220	97	95.5	134	228	196	212
220	31171	255	122	259	212	206	216	182.5	207	203	346	275
221	31172	246	112	293	217	220		277	229	320	174	247
222	31173	252	200	286	246	189	219	215	227	210	82	146
223	31174	284	182	142	202	213	102	239.5	194	196		196
224	31175	197	213	213	207	241	112	298	212	283	254	269
225	31176	213	148	295	219	206		201	213	327	214	271
226	31177	226	220	314	253	219	212	240	238	176		176
227	31178	174	207	298	226	241	211	211	224	224	270	247
228	Vandana (NC)	217	219	219	218	194	224	194.5	211	240	276	258
229	31179	212	193	248	218	230	197	265	224	186	258	222
230	31180	229	201	159	196	229	254	213.5	214	204	170	187
231	31181	194	198	316	236	200	130	243	213	266		266
232	31182	213	231	300	248	223	225	221.5	235	260	314	287
233	31183	202	219	220	214	225	233	181	213	316	138	227
234	31184	182	150	256	196	192	124	185.5	182	217		217
235	31185	227	191	203	207	187	184	210	200	336	216	276
236	31186	229	215	229	224	220	210	246	225	206	266	236
237	31187	241	143	224	203	194	195	256.5	209	291	260	275
238	ZC	223	110	248	194	208	204	203	199	345	178	262
239	31188	173	115	277	188	188	135	217	184	260	274	267
240	31189	165	173	129	155	198	198	198.5	177	356	224	290
241	31190	204	67	208	160	215	225	257	196	209	198	204
242	31191	259	201	256	239	215		245.5	235	240		240
243	31192	204	219	278	234	214	197	215.5	221	330		330
244	31193	202	154	294	217	237	246	248	230	326	268	297
245	IR 64 – Sensitive Check	251	114	272	212	232	220	229.5	220	276		276
246	31194	270	160	312	247	225		177.5	229	284		284
247	31195	168	177	243	196	211	111	211	187	226		226
248	31196	292	115	274	227	227	194	211	219	193	202	198
249	31197	192	115	171	159	208	130	289.5	184	354		354
250	31198	186	137	262	195	228	168	237	203	216	280	248
251	31199	210	117	333	220	212	164	199.5	206	370		370
252	31200	198	116	331	215	214	199	200.5	210	303	246	274
253	31201	195	91	282	189	218	128	280	199	333		333
254	31202	170	187	283	213	227	214	236.5	219	256		256
255	US-314 (Hybrid check)	217	156	442	271	218	130	209.5	229	216	188	202
256	31203	239	140	315	231	224	121		208	263		263
257	Local check	268	175		221	234		233.5	227	233	342	288
	Exp. mean	213	167	259	214	215	164	215.439	211	263	163	258
	CD	79.04	17.92	45.90	29.45	13.62	51	60.4979	19.47	88.46	66.95	82.11
	CV%	18.56	5.36	8.85	6.87	3.16	15	14.0179	4.61	16.79	20.56	15.88

Table No. 10.8 (Contd):Grain yield of entries in IVT-EDS Normal, *Kharif* 2021

Entry No	IET No	Normal																				Overall (Normal) (7)	
		Zone III								Zone III (3)		Zone V		Zone VI		Zone VII				Zone VII (2)			
		WB		BI				BI (2)				CG		MH		AP		TN					
		HTW		BKG		SBR		Mean		mean		RPR		PBN		KMP		CBT		Mean		mean	
201	31154	2546		3846		4344		4095		3579		1145		2950		3273		3847		3560		3136	
202	31155	6653	1#*	6606	1#	5926	4	6266	1	6395	1#*	3395		5250	5	7700	6	2973		5336		5500	1#*
203	31156	5993	5#*	4098		5711	7	4905		5268	5#*	3377		3000		8550	4	2389		5470		4731	9
204	31157	1887		4388		4597		4492		3624		1780		2450		7127		4263	7	5695	5	3784	
205	31158	3493		3998		4861		4430		4117		4121		2750		5703		2679		4191		3944	
206	31159	3543		5688	7	5368		5528	7	4866		4157		2600		6806		4269	6	5537	8	4633	
207	31160	6125	3#*	3739		5003		4371		4956	10	4358	10	5150	8	6814		2720		4767		4844	6
208	Shabhagidhan (NC)	3058		5398		3528		4463		3995		1848		2200		4227		4497		4362		3537	
209	31161	2338		4954		5216		5085		4169		4043		2750		5877		2518		4197		3957	
210	31162	4984	9#*	4870		5381		5125		5078	6	3409		2550		8785	1	2628		5707	4	4658	
211	31163	2552		5145		4634		4889		4110		3190		2500		7014		3315		5164		4050	
212	31164	5492	6#*	5474		5033		5253		5333	4#*	4536	9	3150		7014		3810		5412		4930	5
213	31165	792		5038		4489		4763		3440		4810	6	2400		3889		2736		3313		3451	
214	31166	2363		3050		5045		4048		3486		1511		2600		5764		2422		4093		3251	
215	31167	4604	10#*	5046		4963		5004		4871		3678		3200		6715		2745		4730		4422	
216	31168	2280		5703	6	4805		5254		4263		1501		5300	4	7292		3406		5349		4327	
217	31169	3482		4740		4981		4861		4401		3477		4700		6875		3944		5410		4600	
218	31170	3088		4809		5095		4952		4331		1255		4200		5877		3933		4905		4037	
219	Anjali (all zones)	2231		2760		2682		2721		2558		739		3300		4019		3117		3568		2693	
220	31171	4525		4908		5683	8	5296		5039	9	4185		2700		6007		3447		4727		4494	
221	31172	3202		4908		5493		5201		4534		3012		2600		7439	9	2089		4764		4106	
222	31173	5340	8#*	6002	2#	3892		4947		5078	7	2966		2900		5408		4376	4	4892		4412	
223	31174	3621		4862		4553		4708		4346		3117		2650		6762		3592		5177		4165	
224	31175	3014		4755		5335		5045		4368		1853		5100	9	4601		2527		3564		3884	
225	31176	4018		4564		5602	9	5083		4728		4125		3900		8446	5	2570		5508		4747	8
226	31177	5460	7#*	5749	5	5733	6	5741	3	5647	3#*	3774		3000		7179		4518	2	5848	3	5059	3#*
227	31178	6328	2#*	5573	8	5409		5491	8	5770	2#*	3988		2500		8663	2	3731		6197	2	5170	2#*
228	Vandana (NC)	2746		5749	5	5440		5595	6	4645		1926		3250		5955		3276		4615		4049	
229	31179	2815		5061		5525	10	5293		4467		2186		5150	8	6311		4034	10	5172		4440	
230	31180	2463		2531		2795		2663		2596		945		2750		3151		823		1987		2208	
231	31181	2443		4121		4759		4440		3774		2177		2500		5391		2023		3707		3345	
232	31182	3093		5550	10	5745	5	5648	5	4796		4929	4	5050		7387		3160		5274		4988	4
233	31183	3501		5558	9	4649		5103		4569		1031		4200		4705		3580		4143		3889	
234	31184	2001		4205		5223		4714		3809		5417	1	3050		7543	7	3805		5674	6	4463	
235	31185	3153		4794		4859		4826		4268		3578		2900		6970		4101	8	5536	9	4336	

Entry No	IET No	Normal																				Overall (Normal) (7)	
		Zone III								Zone III (3)		Zone V		Zone VI		Zone VII				Zone VII (2)			
		WB		BI				BI (2)				CG		MH		AP		TN					
		HTW		BKG		SBR		Mean		mean		RPR		PBN		KMP		CBT		Mean		mean	
236	31186	5999	4#*	3976		4648		4312		4874		4705	7	5050		6641		2607		4624		4804	7
237	31187	3634		5046		4274		4660		4318		3240		2450		7422	10	3722		5572	7	4255	
238	ZC	2465		5168		3658		4413		3764		3382		2750		6302		4032		5167		3965	
239	31188	4216		5008		4745		4877		4656		3231		2100		5139		2627		3883		3867	
240	31189	1295		4304		3011		3658		2870		1050		1550		4653		3277		3965		2734	
241	31190	1940		4763		4591		4677		3765		5285	2	3300		5243		3436		4340		4080	
242	31191	3550		3318		4832		4075		3900		3340		2900		7318		2646		4982		3986	
243	31192	3230		4992		4966		4979		4396		4322		2750		6970		2742		4856		4282	
244	31193	2238		5076		6402	1	5739	4	4572		3751		5050		5200		4880	1	5040		4657	
245	IR 64 – Sensitive Check	1790		5313		2930		4122		3344		1720		2600		4514		2972		3743		3120	
246	31194	3319		4732		6075	2	5404	9	4709		5107	3	3150		6259		3612		4935		4608	
247	31195	2451		5015		5040		5028		4169		4331		2950		8594	3	3964		6279	1	4621	
248	31196	2563		5375		4588		4981		4175		4906	5	2700		6658		3207		4933		4285	
249	31197	3559		3899		5370		4635		4276		1825		5700	1#*	5625		3208		4417		4170	
250	31198	3372		5879	3	5975	3	5927	2	5075	8	2829		2550		5747		4055	9	4901		4344	
251	31199	1776		4365		3914		4140		3352		1497		2700		5408		3713		4560		3339	
252	31200	4058		5145		4724		4935		4642		2346		5550	2	5790		4323	5	5056		4562	
253	31201	3608		3670		4055		3862		3778		1451		5450	3	4609		3043		3826		3698	
254	31202	3524		3219		3967		3593		3570		1898		2600		4089		1591		2840		2984	
255	US-314 (Hybrid check)	2773		4824		3835		4330		3811		2492		2500		6198		4032		5115		3808	
256	31203	1741		2668		3189		2928		2533		3062		2900		5885		4508	3	5197		3422	
257	Local check	2790		3983		4415		4199		3729		4577	8	5200	6	7509	8	3558		5534	10	4576	
	Exp. mean	3352.89		4701.43		4764.24		4732.84		4272.86		3085.72		3362.28		6193.13		3327.00		4760.00		4112.00	
	CD	811.35		1067.82		1073.20		823.98		599.23		913.40		364.22		1850.02		1472.19		1030.30		461.22	
	CV%	12.08		11.34		11.24		8.69		7.00		14.78		5.41		14.91		22.15		10.80		5.60	
	D/S	06-07-2022		03-07-2022		24-06-2022						27/06/2022		30-06-2022		22-07-2022		26.07.2022					
	Local Check Name	Sahbhagidhan		SabourArdhjal		SabourHarshitDhan						INDIRA AEROBIC -1		Avishkar		KNM-118		CO 53					

Table 10.9 (Contd):.Days to 50% flowering of entries in IVT-EDS Normal, *Kharif* 2021

Entry No	IET No	Normal										Overall (Normal) (7)
		Zone III				Zone III (3)	Zone V	Zone VI	Zone VII		Zone VII (2)	
		WB	BI		BI (2)		CG	MH	AP	TN		
		HTW	BKG	SBR	Mean	mean	RPR	PBN	KMP	CBT	Mean	mean
201	31154	73	64	79	71	72	76	73	75	78	76	74
202	31155	86	87	96	91	90	96	91	101	91	96	92
203	31156	86	94	103	98	94	97	103	91	92	91	95
204	31157	77	75	87	81	79	78	89	77	82	79	80
205	31158	66	75	94	85	78	85	72	72	67	69	76
206	31159	81	91	102	96	91	86	91	87	87	87	89
207	31160	81	89	97	93	89	95	97	85	95	87	91
208	Shabhagidhan (NC)	81	75	89	82	81	78	82	75	81	76	80
209	31161	82	82	99	90	87	86	89	80	88	84	86
210	31162	85	87	98	92	90	94	95	85	92	88	91
211	31163	81	87	90	89	86	84	91	81	86	83	86
212	31164	91	99	113	106	101	103	105	106	87	96	100
213	31165	81	86	92	89	86	84	89	79	86	82	85
214	31166	82	80	89	84	83	79	82	74	80	77	81
215	31167	78	87	92	89	86	86	89	78	87	82	85
216	31168	67	72	82	77	73	73	78	69	75	72	73
217	31169	75	86	85	85	82	76	88	72	80	76	80
218	31170	74	67	79	73	73	72	79	74	79	77	75
219	Anjali (all zones)	61	65	76	70	67	70	72	67	75	70	69
220	31171	84	90	101	96	92	93	91	83	87	85	90
221	31172	83	88	97	92	89	104	92	106	96	101	95
222	31173	81	78	90	84	83	83	85	82	85	83	83
223	31174	90	97	110	103	99	101	94	86	91	88	95
224	31175	68	70	76	73	71	71	72	68	68	68	70
225	31176	86	91	104	98	94	96	97	85	88	87	92
226	31177	84	78	93	85	85	83	90	80	86	83	85
227	31178	84	86	98	92	89	92	95	85	90	88	90
228	Vandana (NC)	80	81	87	84	83	77	89	80	94	87	84
229	31179	77	71	81	76	76	74	86	74	83	78	78
230	31180	75	67	74	71	72	69	71	67	73	70	71
231	31181	85	94	102	98	93	98	91	104	95	99	95
232	31182	84	88	97	92	89	92	97	84	91	87	90
233	31183	74	65	76	70	71	71	82	72	77	74	74
234	31184	82	87	97	92	88	90	89	83	87	85	88
235	31185	75	71	79	75	75	74	82	72	78	75	76
236	31186	84	86	98	92	89	90	92	104	88	96	91
237	31187	80	85	91	88	85	79	87	84	87	85	84
238	ZC	73	65	85	75	74	95	86	85	92	88	83
239	31188	78	66	88	77	77	75	78	72	75	73	76
240	31189	80	76	84	80	80	74	81	74	76	75	78
241	31190	79	79	93	86	84	78	80	72	70	71	79
242	31191	85	99	102	100	95	102	93	87	88	88	94
243	31192	84	87	98	92	89	92	97	86	94	90	91
244	31193	79	65	77	71	74	71	72	72	77	75	73
245	IR 64 – Sensitive Check	80	70	89	79	80	77	86	76	82	79	80
246	31194	91	95	109	102	98	105	101	99	90	94	98
247	31195	86	91	103	97	93	98	97	81	87	84	92
248	31196	82	86	92	89	86	83	91	81	87	84	86
249	31197	67	70	81	75	72	71	74	71	71	71	72
250	31198	80	75	85	80	80	79	83	75	82	78	80
251	31199	82	60	90	75	77	79	87	77	84	81	80
252	31200	79	70	85	77	78	79	84	74	79	76	78
253	31201	78	71	82	77	77	73	81	68	80	74	76
254	31202	63	75	76	75	71	69	73	69	73	71	71
255	US-314 (Hybrid check)	81	75	86	80	80	76	85	73	78	75	79
256	31203	91	102	124	113	105	110	83	84	78	81	96
257	Local check	75	81	92	86	82	80	82	74	83	78	81
	Exp. mean	**79**	80	91	86	84	84	86	80	81	82	83
	CD	**2**	2	2	1	1	4.26	2.88	3	27.53	2.14	0.93
	CV%	**1**	1	1	1	0	2.54	1.67	2	16.95	1.31	0.55

Table No.10.10 (Contd):Plant height (cm) of entries in IVT-EDS Normal, *Kharif* 2021

Entry No	IET No	Normal										Overall (Normal) (7)
		Zone III				Zone III (3)	Zone V	Zone VI	Zone VII		Zone VII (2)	
		WB	BI		BI (2)		CG	MH	AP	TN		
		HTW	BKG	SBR	Mean	mean	RPR	PBN	KMP	CBT	Mean	mean
201	31154	85	103	91	97	93	87.6	52.5	90.5	93.2	92	86
202	31155	78	117	114	115	103	97.0	71.8	97.5	97.3	97	96
203	31156	96	114	122	118	111	102.7	68.2	102.5	109.5	106	102
204	31157	69	106	102	104	92	92.0	53.0	99.0	103.5	101	89
205	31158	108	141	125	133	125	119.2	70.5	112.0	121.4	117	114
206	31159	79	120	105	113	101	101.8	43.3	98.0	89.8	94	91
207	31160	106	116	144	130	122	121.0	73.8	116.5	129.1	123	115
208	Shabhagidhan (NC)	85	105	106	105	99	96.8	57.2	93.0	112.0	103	94
209	31161	94	105	105	105	101	96.7	60.7	95.5	94.6	95	93
210	31162	66	98	112	105	92	101.7	61.7	101.5	100.0	101	92
211	31163	74	104	100	102	93	89.2	50.2	90.0	94.7	92	86
212	31164	67	110	112	111	96	104.2	60.7	95.0	92.0	94	91
213	31165	82	103	100	101	95	84.2	49.2	83.0	96.4	90	85
214	31166	101	126	125	126	117	102.8	67.7	114.0	119.3	117	108
215	31167	105	121	128	124	118	111.3	78.3	110.0	124.0	117	111
216	31168	87	120	119	119	109	101.8	71.2	104.0	105.8	105	101
217	31169	88	116	108	112	104	96.8	59.3	95.5	105.3	100	96
218	31170	94	105	105	105	101	90.2	54.2	87.5	102.3	95	91
219	Anjali (all zones)	92	117	105	111	105	88.5	73.5	103.5	131.7	118	102
220	31171	88	107	110	109	102	94.0	52.7	88.5	97.5	93	91
221	31172	82	99	95	97	92	78.3	49.0	81.5	77.0	79	80
222	31173	98	142	104	123	115	78.3	49.2	91.0	84.6	88	92
223	31174	106	103	122	112	110	103.3	76.8	83.5	92.2	88	98
224	31175	83	117	108	113	103	95.9	65.8	88.0	103.9	96	95
225	31176	95	106	112	109	104	107.9	77.0	99.5	103.1	101	100
226	31177	101	113	115	114	110	97.3	78.7	101.5	119.1	110	104
227	31178	99	116	119	118	111	102.2	61.2	92.5	106.6	100	99
228	Vandana (NC)	72	98	93	96	88	79.8	58.2	92.0	100.7	96	85
229	31179	94	123	128	126	115	105.3	76.8	106.0	113.0	110	107
230	31180	89	122	126	124	112	88.0	80.0	116.0	140.3	128	109
231	31181	63	95	90	92	83	78.5	44.2	77.5	69.8	74	74
232	31182	92	108	115	111	105	96.9	60.3	99.0	97.5	98	96
233	31183	105	102	108	105	105	85.5	60.3	96.0	117.9	107	96
234	31184	95	117	122	119	111	106.9	75.3	95.0	110.8	103	103
235	31185	98	127	120	123	115	103.6	71.0	105.5	129.7	118	108
236	31186	112	113	131	122	119	122.6	86.7	115.0	116.4	116	114
237	31187	82	110	100	105	97	87.3	50.7	92.5	93.2	93	88
238	ZC	70	105	84	95	86	77.2	56.7	103.0	112.2	108	87
239	31188	110	107	106	106	108	98.4	50.7	91.0	87.6	89	93
240	31189	103	121	120	121	115	89.8	59.3	101.0	116.6	109	102
241	31190	100	127	121	124	116	124.5	84.5	117.0	117.5	117	113
242	31191	81	112	119	116	104	105.7	62.3	88.5	97.9	93	95
243	31192	107	97	112	105	105	105.5	52.5	92.0	94.9	93	94
244	31193	76	103	105	104	95	80.6	54.3	89.0	101.4	95	87
245	IR 64 – Sensitive Check	88	108	91	99	96	78.5	48.7	83.0	90.4	87	84
246	31194	111	128	125	127	121	117.8	76.5	111.0	112.9	112	112
247	31195	92	120	118	119	110	103.0	68.0	104.0	100.0	102	101
248	31196	86	131	108	119	108	95.8	37.8	92.0	101.8	97	93
249	31197	89	111	95	103	98	94.9	74.7	108.0	115.7	112	98
250	31198	96	107	101	104	101	95.7	55.2	81.0	98.7	90	91
251	31199	62	112	87	100	87	76.0	41.8	77.5	82.9	80	77
252	31200	92	104	105	104	100	82.4	62.5	95.0	99.4	97	91
253	31201	82	107	90	98	93	74.1	60.8	81.0	97.2	89	85
254	31202	88	132	124	128	115	94.7	79.7	107.0	140.6	124	109
255	US-314 (Hybrid check)	94	110	119	115	108	87.6	50.3	95.5	99.3	97	94
256	31203	94	113	119	116	109	100.7	74.7	93.0	104.2	99	100
257	Local check	99	111	122	117	111	95.6	84.2	87.0	107.7	97	101
	Exp. mean	90	113	111	112	105	96	63	97	105	101	96

Table No. 10.11 (Contd): Panicles/m^2 of entries in IVT-EDS Normal, *Kharif* 2021

Entry No	IET No	Normal								Overall (Normal) (6)
		Zone III		Zone III/BI (2)	Zone V	Zone VI	Zone VII		Zone VII (2)	
		BI			CG	MH	AP	TN		
		BKG	SBR	Mean	RPR	PBN	KMP	CBT	Mean	mean
201	31154	376	314	345	139	273	675	499	587	379
202	31155	385	336	360	173	340	525	488	506	374
203	31156	344	307	326	175	298	650	409	530	364
204	31157	382	245	314	132	208	500	417	459	314
205	31158	373	180	277	160	268	625	465	545	345
206	31159	383	246	315	126	253	525	430	477	327
207	31160	294	268	281	155	306	700	421	561	357
208	Shabhagidhan (NC)	302	202	252	71	200	400	211	305	231
209	31161	381	284	332	173	270	675	416	545	366
210	31162	331	241	286	179	243	575	460	518	338
211	31163	289	239	264	142	210	725	377	551	330
212	31164	371	274	322	207	275	575	454	514	359
213	31165	381	291	336	174	223	600	411	506	346
214	31166	393	298	345	132	250	625	440	533	356
215	31167	390	235	312	158	277	525	397	461	330
216	31168	387	260	324	103	355	550	412	481	344
217	31169	386	230	308	128	324	600	417	509	347
218	31170	341	355	348	132	311	850	427	638	403
219	Anjali (all zones)	319	223	271	33	271	400	170	285	236
220	31171	394	303	348	170	253	675	409	542	367
221	31172	373	283	328	154	238	600	461	530	351
222	31173	388	233	310	140	265	550	386	468	327
223	31174	387	296	342	127	249	625	437	531	353
224	31175	391	262	326	189	310	675	420	547	374
225	31176	394	243	318	169	278	675	354	515	352
226	31177	363	337	350	160	298	550	441	496	358
227	31178	388	288	338	199	234	525	433	479	344
228	Vandana (NC)	377	278	328	142	298	475	416	445	331
229	31179	392	319	355	147	365	550	442	496	369
230	31180	387	216	301	47	238	625	418	522	322
231	31181	387	302	344	131	180	675	439	557	352
232	31182	301	279	290	152	320	600	421	511	345
233	31183	387	356	372	28	320	575	444	510	352
234	31184	389	373	381	177	265	400	451	426	342
235	31185	374	218	296	154	258	625	405	515	339
236	31186	385	241	313	201	313	475	429	452	340
237	31187	329	274	301	167	231	500	442	471	324
238	ZC	391	297	344	105	268	625	422	523	351
239	31188	388	268	328	63	200	575	436	505	321
240	31189	344	202	273	109	110	500	467	483	289
241	31190	388	272	330	162	298	500	482	491	350
242	31191	380	272	326	180	275	688	458	573	375
243	31192	388	243	315	153	255	700	471	586	368
244	31193	386	346	366	92	363	550	437	493	362
245	IR 64 – Sensitive Check	385	250	318	98	203	600	450	525	331
246	31194	390	317	353	176	273	625	415	520	366
247	31195	380	238	309	149	255	450	413	432	314
248	31196	389	260	324	170	242	525	430	478	336
249	31197	381	319	350	105	383	700	419	560	384
250	31198	372	310	341	132	239	600	428	514	347
251	31199	381	258	319	154	243	775	460	618	378
252	31200	382	281	332	143	378	525	367	446	346
253	31201	386	264	325	54	365	625	434	530	355
254	31202	386	267	326	110	250	625	431	528	345
255	US-314 (Hybrid check)	386	311	348	146	225	550	446	498	344
256	31203	388	221	304	157	270	500	423	462	326
257	Local check	377	283	330	182	365	600	491	545	383
	Exp. mean	372	274	323	140	272	588	423	506	345
	CD	26	85	46	19.53	27.77	116	127.99	91.86	36.14
	CV%	3	16	7	6.97	5.09	10	15.09	9.07	5.23

ADVANCE VARIETY TRIAL 1 -RAINFED SHALLOW LOWLAND (AVT1-RSL)

Locations: **19** **Test Entries: 13**

Checks: **Swarna-*Sub1* (National), Zonal checks: Pooja (Eastern), Bahadur (North Eastern), Savitri (Southern); CR Dhan 801 (yield check) and Local Check** **Table:11.1**

Advanced Variety Trial-Rainfed Shallow Lowland (AVT1-RSL) was constituted with 13 test entries (three inbred and three NIL entries, three recipient parents of corresponding NILs and four 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 13 test entries, one was in the third year of testing *i.e.*, IET 27538.Four entries, including two inbreds and two NILs were in second year of testing and one NIL entry was in first year of testing. The trial was sent to 20 locations and data were received from 19 locations. In Arundhatinagar the trial was washed out. Data from two locations (Malda and Karimganj) were not considered for analysis due to low CV.

Experimental mean yield ranged from 2025 Kg/ha at Ghaghraghat to 7099 Kg/ha at Bikramganj. CV % ranged from 1.53 (Malda) to 20.86 (Jagadalpur). The data pertaining to yield, days to 50% flowering, plant height, no. of panicles/$m^2$and quality are presented in Tales 11.2 to 11.6.

On the basis of overall mean, only one entry IET 30367 showed better performance though not significantly superior over best varietal check (CR Dhan 801).

Zone wise performance of entries during *Kharif*, 2022

Eastern zone (Zone III)

In Zone III, the trial was conducted at 12 locations namely Cuttack, Jeypore (Odisha), Bhubaneswar, Bankura, Chinsurah, Malda, Pundibari, Sabour, Pusa, Bikramganj (Patna), Ghaghraghat and Masodha. However, one location Malda showed low CV, thus rejected. The data from 11 locations were considered for analysis and their CV ranged between 1.53% (Malda) and 16.99% (Sabour).

The mean yield of the entries ranged from 3459 kg/ha (IET 30410) to 5283 kg/ha (IET 30367), days to 50% flowering ranged from 112 days (CR Dhan 801) to 127 days (IET 30410); plant height ranged from 94 cm (Swarna Sub1) to 120 cm (IET 30410) and mean panicles/m^2varied from 255(IET 30410) to 292 (Zonal check Pooja). Among all the entries, only one entry IET 30367 was significantly superior over the best check CR Dhan 801 (yield check) with respect to grain yield.

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. The mean yield

of the entries ranged from 3754 kg/ha (Sarala) to 5470 kg/ha (CR Dhan 411 (RP), days to 50% flowering ranged from 103 days (IET 31288) to 120 days (Sarala); plant height ranged from 96 cm (Swarna *Sub1* and IET 31288) to 125 cm (Zonal check Bahadur) and mean panicles/m^2varied from 248(Sarala) to 332 (Swarna *Sub1*, IET 30367, IET30409 and CR Dhan 411). Among all the entries, none of the entries recorded significantly superior yield over the best check CR Dhan 801 (YC).

Central Zone (Zone V)

In Zone V, the trial was conducted at two locations Jagadalpur and Raipur. Mean yield of the entries in Zone V ranged from3674 kg/ha (IET 30409) to 6149 kg/ha (Swarna *Sub1*); days to 50% flowering ranged from 100days (Local Check) to 120 days (Sarala); plant height ranged from 84cm (CR Dhan 411) to 120 cm (local check) and mean panicles/m^2varied from 222 (CR Dhan 411) to 278 (IET 30367). Among all the entries, none of the entries registered/recorded significantly superior grain yield over the best check Swarna *Sub1* (NC).

Southern zone (Zone VII)

In Zone VII, the trial was conducted at two locations Maruteru, and Ponnampet. Mean yield of the entries in Zone VII ranged from 2847 kg/ha (Zonal check Savitri) to 4881 kg/ha (IET 30409); days to 50% flowering ranged from 112 days (IET 31288 and CR Dhan 801) to 124 days (Zonal Check Savitri, Sarala and Local Check); plant height ranged from 85cm (CR Dhan 801) to 105 cm (Local Check) and mean panicles/m^2varied from 304 (Sarala) to 388 (Zonal Check Savitri). Only two entries, recurrent parent Sarala and its NIL (IET 30409) gave significantly superior grain yield than the best check Swarna *Sub1* (NC).

Performance of entry in third year of testing:

IET 27538 (BRR 2110) was in the third year of testing as a repeat entry for Zone-VII in 2022. it didn't record yield superiority in any zone including Zone-VII in 2022. It was tested in IVT in 2018 and AVT1 in 2019. It had required yield advantage in 2019 but was not promoted to AVT-2 in 2019 on the basis of inferiority in quality performance. However, it was repeated in 2020 in 2nd year of testing and promoted to AVT-2 and tested in 2021.It did not show required yield superiority over BVC in Zone-VII during 2021 also. **Hence, the entry is discontinued.**

Performance of entries in second year of testing:

There were two entries, IET30367 and IET30356 in the second year of testing. IET30356 didn't show superiority over the best check in any zone hence the entry is dropped.

IET30367 (BRR 2010) showed significant yield superiority over the best check in Zone-III. Grain quality parameters were also as per the standard requirements (64.10% HRR and 22.93% AC). **Hence the entry IET30367 is promoted to third year of testing (AVT 2-RSL)**

Performance of NIL entries during *Kharif*, 2022

Two NILs for submergence tolerance (IET 30409 and IET 30410) were in second year of testing and one NIL entry IET 31288 with bacterial blight resistance was in first year of testing. For trait verification, NILs with submergence tolerance were tested in Advance variety trial 1- NIL (Submergence) (AVT 1-NIL-Sub). The NIL with BB resistance was tested in NSN1. As the recurrent parents of all the NILs were released for the Odisha state only, yield data was compared for Odisha only. However, for trait verification purpose, data from all the centres were considered.

Performance of NIL of Gayatri (IET 30409)

IET 30409 (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, which is a popular variety released for the Odisha state. Under normal condition, the NIL yielded similar to the recurrent parent over both the years (statistically at par). The NIL performed significantly better than the recurrent parent in 2021 for yield under submergence. In 2022, yield under submergence stress was higher though not significant over the recurrent parent. Seedling survival percentage under submergence condition of IET 30409 (82.59%) was higher than its recurrent parent Gayatri (53.64%) in 2022. In 2021, the seedling survival percentage under submergence condition of IET 30409 (80.05%) was also higher when compared to the recurrent parent (51.90%). **Due to such contrast of performance in two different years, the entry may be repeated in 2023.**

Performance of NIL of Sarala (IET 30410)

IET 30410 (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 similar to the recurrent parent in 2021(statistically at par) but not in 2022. The NIL performed significantly better than the recurrent parent in 2021 for yield under submergence stress. However, in 2022, 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 (65.27%) was higher than its recurrent parent Sarala (54.3%)in 2022. In 2021, the seedling survival percentage under submergence condition of IET 30410 (65.10%)was also slightly higher when compared to the recurrent parent (58.90%). **Due to such contrast of performance in two different years, the entry may be repeated in 2023.**

Performance of NIL of CR Dhan 411 (IET31288) during *kharif*, 2022

IET 31288 (CR 4169-200-52-1) was derived from the cross of CR Dhan 411*2/ CR Dhan 800. The NIL was developed for bacterial blight resistance in the background of recurrent parent CR Dhan 411, which was released for Odisha. Under normal condition, the NIL yielded at parwith the recurrent parent. However, no difference in bacterial blight disease response was recorded between the NIL and the recurrent parent at any centre. Therefore, **the entry may be dropped.**

Performance of NILs for submergence tolerance (IET 30409 and IET 30410)

Genotype	Yield Trials		Trait verification			
	Yield (kg/ha) under normal growing conditions in Odisha		Yield (kg/ha) under submergence stress		Seedling survival (%)	
	2021	2022	2021 (CTC, MTU)	2022 (CTC, KRK)	2021 (CTC, MTU)	2022 (CTC, KRK)
Gayatri NIL (IET 30409)	3572	4428	5617*	2758	80.05	82.59
Gayatri (RP)	3794	4172	4483	2640	51.90	53.64
Sarala NIL (IET30410)	3224	4025	5209*	2713	65.10	65.27
Sarala (RP)	3483	4610	4528	2489	58.90	54.3
Susceptible check (Swarna)			2525	1758.00		35.07
CD	293.94	369.84	610.76	443.74		

Performance of NIL (IET31288) of CR Dhan 411

Genotype	Yield Trial (2022)	Trait verification (2022)				
	Yield (kg/ha) under normal growing conditions in Odisha	Disease score for BB				
		Cuttack	Titabar	Gerua	IGKV	SI
CR Dhan 411 NIL (IET 31288)	4671	5	5	3	5	4.5
CR Dhan 411 (RP)	4390	5	5	3	5	4.5
CD	369.84					

Performance and promotion

Promoted to AVT-2

- IET30367 for Zone III

Repeated in AVT-1-NIL trial

- IET 30409 and IET 30410

Table No. 11.1: Composition of entries in Advance Variety Trial 1–Rainfed Shallow Lowland (AVT 1-RSL), *Kharif* 2022

Entry No.	IET No.	Designation	Cross combination	Grain Type
3rd year of testing				
301	27538	BRR 2110 (R)	AD 12173-Sel	MS
302	**Swarna Sub 1 (NC)**			
2nd year of testing				
303	30367	BRR 2010	RAU-724-48-23-Sel	MS
304	30356	CR 3428-18-2-1-1	Tapaswini/Kalachampa	SB
305	**Pooja (Eastern), Bahadur (North Eastern), Savitri (Southern)-- ZC**			
NIL entries				
2nd Year of testing:				
306	30409	CR2531-72-6-19-3	Gayatri*3/IR49830-7	SB
307	**Sarala (RP)**			
308	30410	CR 2532-9-21-35-3	Sarala*3/IR49830-7	MS
309	**Gayatri (RP)**			
1st Year of testing:				
310	**CR Dhan 411 (RP)**			
311	31288	CR 4169-200-52-1	CR Dhan 411*2/ CR Dhan 800	SB
312	**CR Dhan 801 (Yield check)**			
313	**Local Check**			

Table No. 11.2: Grain Yield (kg/ha) of entries in AVT1-RSL *Kharif*, 2022

Entry No.	IET No.	Zone III																					
		OD						OD(3)		WB								WB(3)		BI			
		CTK		JYP		BBN		mean		BNK		CHN		MLD@		PNB		mean		SBR		BKG	
301	27538	3892	8	5037	3	3084		4004		6969	1	5126	5	7239	1*	4056	3	5384	3	7092	2	9382	1*
302	**Swarna Sub 1 (NC)**	3734		5772	1	4355	10	4620	2	5382		5278	3	5100	5	4000	4	4887	9	6261	7	8544	3
303	30367	4585	4	4160	6	4665	5	4470	4	6887	2	4711		5239	4*	3778	7	5125	6	7141	1	8884	2
304	30356	5161	1	3235		4881	3	4426	6	5967	9	4833		4867	8	2611		4471		6843	3	8236	5
305	Zonal Check	4381	6	3448		4383	9	4070		6305	8	5104	6	3550		3944	5	5118	7	6236	9	6157	10
306	30409	5077	2	3961	8	4246		4428	5	6539	6	5000	9	4728		3917	6	5152	5	4587		5498	
307	**Sarala (RP)**	4555	5	3183		6093	1*	4610	3	6326	7	5196	4	4717		4500	1	5341	4	3595		6308	9
308	30410	3740	10	3852	10	4484	7	4025		5423	10	4856		4967	6	2278		4186		2668		4581	
309	**Gayatri (RP)**	3635		3909	9	4972	2	4172	10	5093		4896	10	6272	2*	3444	9	4478	10	6341	6	5030	
310	**CR Dhan 411 (RP)**	3814	9	4963	4	4393	8	4390	7	5374		5037	8	4772	10	2861		4424		6354	5	7032	7
311	31288	4835	3	4500	5	4677	4	4671	1	6653	4	5093	7	5911	3*	2944	10	4897	8	5683	10	7752	6
312	**CR Dhan 801 (Yield check)**	3661		5117	2	4273		4350	8	6738	3	5748	1	4911	7	3694	8	5393	2	6258	8	8352	4
313	**Local Check**	3986	7	4141	7	4650	6	4259	9	6642	5	5326	2	4861	9	4278	2	5415	1	6387	4	6528	8
	Exp. mean	4235		4252		4550		4345		6176		5092		5164		3562		4944		5804		7099	
	CD	916.18		813.07		680.25		369.84		586.84		722.84		133.03		545.51		401.32		1661.18		780.16	
	CV%	12.85		11.35		8.87		5.05		5.64		8.42		1.53		9.09		4.82		16.99		6.52	
	D/S	**05.07.2022**		**27.06.22**		**13.07.22**				**20.07.2022**		**30.06.22**		**17/06/22**		**30.06.2022**				**06/10/22**		**17/06/22**	
	D/P	**30.08.2022**		**27.07.22**		**14.08.22**				**22.08.2022**		**05.07.22**		**29/07/22**		**29.07.2022**				**18/07/22**		**22/07/22**	
	Local Check Name	**CRDHAN 508**		**Kalinga Dhan 1501**		**Hasanta**				**Sampriti**		**Sujala(IET20235)**		**Kanak**		**Swarna Sub-1**				**Rajendra M-1**		**Sabour Shree**	

Table No. 11.2 (Contd): Grain Yield (Kg/ha) of entries in AVT1-RSL *Kharif*,2022

Entry No.	IET No.	Zone III										Zone III(11)		Zone IV								Zone IV (2)	
		BI		BI(3)		UP				UP(2)				AS				AS(1)		TP			
		PSA		mean		GGT		MSD		mean		mean		TTB		KMJ@		mean		LMB		mean	
301	27538	3160	8	6545	3	2905	2*	3983	2	3444	2*	4971	2	5558	6	3752		5558	6	4286	5	4922	3
302	**Swarna Sub 1 (NC)**	3377	6.5	6061	7	1937	6	3873	4	2905	6	4774	5	4299		5383		4299		4639	4	4469	8
303	30367	6104	1	7376	1	3342	1*	3860	5	3601	1*	5283	1*	5627	5	4068		5627	5	3284	10	4456	9
304	30356	3117	10	6065	6	2646	4*	3759	6	3202	5*	4663	8	5858	1	5014		5858	1	3915	7	4886	4
305	Zonal Check	3377	6.5	5257	9	1841	7	2810	9	2325	8	4362	9	5700	3	4611		5700	3	2709		4205	11
306	30409	3117	10	4400		1364	10	2973	8	2169	10	4207		4428		4150		4428		5029	3	4728	5
307	**Sarala (RP)**	3074		4326		1241		2237		1739		4210	10	4169		4218		4169		3340	9	3754	13
308	30410	3117	10	3455		1255		1800		1528		3459		5783	2	3959		5783	2	3043		4413	10
309	**Gayatri (RP)**	3030		4800	#	1227		2019		1623		3963		4920	9	4541		4920	9	3043		3982	12
310	**CR Dhan 411 (RP)**	5887	3	6425	4	2319	5	4228	1*	3273	4*	4751	7	5633	4	4840		5633	4	5307	1	5470	1
311	31288	3680	5	5705	8	2755	3*	3914	3	3335	3*	4772	6	4920	10	4171		4920	10	4138	6	4529	7
312	**CR Dhan 801 (Yield check)**	6061	2	6890	2	1814	8	2796	10	2305	9	4956	3	5191	8	4507		5191	8	5196	2	5193	2
313	**Local Check**	5584	4	6167	5	1691	9	3519	7	2605	7	4794	4	5499	7	5359		5499	7	3600	8	4549	6
	Exp. mean	4052		5651		2025		3213		2619		4551		5199		4505		5199		3964		4582	
	CD	469.74		565.38		396.52		302.17		258.41		180.04		549.88		302.80		549.88		372.97		339.50	
	CV%	6.88		5.94		11.61		5.58		5.85		2.35		6.28		3.99		6.28		5.58		4.40	
	D/S	02.07.2022				30/06/22		20.06.2022						18/06/22		2.07.2022				10/07/22			
	D/P	28.07.2022						26.07.2022						04/07/22		11.08.2022				01/08/22			
	Local Check Name	Rajendra Sweta (313)				Sambha sub-1		Sambha Mahsuri-Sub 1						Ranjit Sub 1		Surma Dhan				KHOWAI			

Table No. 11.2 (Contd) Grain Yield (Kg/ha) of entries in AVT1-RSL *Kharif*, 2022

Entry No.	IET No.	Zone V						Zone VII							
		CG				Zone V (2)		AP		KA		Zone VII (2)		Overall (17)	
		JDP		RPR		mean		MTU		PNP		mean		mean	
301	27538	7412	4	4041	5	5726	3	4861	7	2651	2	3756	4	4911	3
302	Swarna Sub 1 (NC)	7636	2	4662	1	6149	1	5478	4	2035	10	3756	6	4780	4
303	30367	7436	3	4276	3	5856	2	4012		2151	6.5	3082	10	4994	1
304	30356	6884	6	3843	7	5363	6	6292	3*	1483		3888	3	4680	6
305	Zonal Check	7756	1	3360	9	5558	5	3970		1725		2847		4306	9
306	30409	6283	10	1065	13	3674		7199	1*	2562	3	4881	1	4285	10
307	Sarala (RP)	5142		3682	8	4412		6512	2*	2246	4	4379	2	4200	
308	30410	6012		3283	10	4648	10	4248	9	2089	9	3168		3677	
309	Gayatri (RP)	6542	8	2190	12	4366		5289	6	2125	8	3707	7	3983	
310	CR Dhan 411 (RP)	6648	7	3930	6	5289	7	3870		2204	5	3037		4697	5
311	31288	6008		4441	2	5224	8	4838	8	1965		3401	8	4635	7
312	CR Dhan 801 (Yield check)	7126	5	4114	4	5620	4	5330	5	2151	6.5	3741	5	4919	2
313	Local Check	6405	9	3188	11	4796	9	4155	10	2663	1	3409	9	4602	8
	Exp. mean	6714		3544		5129		5081		2157		3619		4512.9	
	CD	2360.33		725.32		1178.03		745.41		906.86		615.63		199.43	
	CV%	20.86		12.14		13.63		8.71		19.29		7.75		2.75	
	D/S	**23.06.22**		**29/06/22**				**25.06.2022**		**21/07/22**		**21/07/22**			
	D/P	**14.07.22**		**23/07/22**				**26.07.2022**		**07/09/22**		**07/09/22**			
	Local Check Name	**CG 1919**		**CG Dhan 1919**				**MTU 1223**		**Tunga**		**Tunga**			

Table No. 11.3: Days to 50 % flowering of entries in AVT-1 RSL *Kharif*, 2022

Entry No	IET No	Zone III																Zone III(11)
		OD			OD(3)	WB				WB(3)	BI			BI(3)	UP		UP(2)	
		CTK	JYP	BBN	mean	BNK	CHN	MLD@	PNB	mean	SBR	BKG	PSA	mean	GGT	MSD	mean	mean
301	27538	133	131	117	127	110	125	110	122	119	139	121	113	124	115	117	116	122
302	Swarna Sub 1 (NC)	122	113	109	115	111	121	106	121	118	131	118	113	120	112	111	112	117
303	30367	128	126	118	124	110	126	110	125	120	132	122	112	122	114	111	112	120
304	30356	126	117	119	120	112	126	112	124	121	138	129	112	126	108	108	108	120
305	Zonal Check	121	102	126	116	110	121	116	122	118	145	127	118	130	126	126	126	122
306	30409	128	111	118	119	110	126	112	128	121	134	132	121	129	109	110	110	121
307	Sarala (RP)	128	112	124	121	113	126	109	131	123	137	130	122	130	132	128	130	126
308	30410	132	117	124	125	119	126	113	130	125	140	129	122	131	130	127	129	127
309	Gayatri (RP)	133	129	121	128	112	125	115	126	121	141	132	120	131	125	120	123	126
310	CR Dhan 411 (RP)	132	126	108	122	105	125	120	116	115	126	117	110	118	107	104	105	116
311	31288	132	125	110	123	105	126	105	121	117	126	115	109	117	103	106	105	116
312	CR Dhan 801 (Yield check)	129	115	104	116	102	125	111	107	111	123	112	103	113	105	105	105	112
313	Local Check	130	115	122	122	123	120	111	122	122	130	115	105	117	107	113	110	118
	Exp. mean	129	118	117	121	111	124	111	122	119	134	123	113	113	114	114	114	119.91
	CD	2.30	5.23	1.53	1.89	0	1.74	2.47	0.96	0.69	1.36	1.17	2.08	1.14	1.89	1.91	1.49	0.52
	CV%	1.06	2.62	0.78	0.92	0.00	0.83	1.31	0.47	0.35	0.60	0.56	1.09	0.55	0.98	0.99	0.77	0.28

Table No. 11.3 (Contd): Days to 50 % Flowering of entries in AVT-1 RSL *Kharif*, 2022

Entry No.	IET No.	Zone IV				Zone IV (2)	Zone V		Zone V (2)	Zone VII		Zone VII(2)	Overall (17)
		AS		AS (1)	TP		CG			AP	KA		
		TTB	KMJ@	mean	LMB	mean	JDP	RPR	mean	MTU	PNP	mean	mean
301	27538	132	133	132	93	113	106	122	114	116	118	117	119
302	Swarna Sub 1 (NC)	128	127	128	93	111	104	113	109	109.3	119	114	115
303	30367	129	121	129	93	111	105	123	114	117.7	123	120	118
304	30356	133	128	133	99	116	102	119	111	117.7	121	119	118
305	Zonal Check	131	132	131	91	111	105	123	114	125.3	122	124	120
306	30409	143	126	143	95	119	107	126	117	114	120	117	120
307	Sarala (RP)	141	126	141	98	120	108	131	120	129.3	118	124	124
308	30410	140	127	140	95	118	103	124	113	123.7	114	119	123
309	Gayatri (RP)	140	134	140	95	117	106	127	117	124.3	106	115	122
310	CR Dhan 411 (RP)	126	125	126	83	105	99	110	105	107.3	120	114	113
311	31288	126	123	126	79	103	100	110	105	107.7	117	112	113
312	CR Dhan 801 (Yield check)	125	125	125	84	105	97	108	102	102.7	121	112	110
313	Local Check	128	121	128	90	109	97	103	100	128.3	120	124	116
	Exp. mean	132	126	132	91	111.5	103	118	111	117	118	118	117.53
	CD	2.52	3.65	2.52	6.53	2.60	0.00	1.47	0.73	1.20	3.03	1.62	0.74
	CV%	1.13	1.71	1.13	4.24	1.32	0.00	0.74	0.39	0.61	1.18	0.63	0.37

Table No. 11.4. Plant Height of entries in AVT-1 RSL *Kharif*, 2022

Entry No	IET No	Zone III																Zone III(11)
		OD			OD(3)	WB				WB(3)	BI			BI(3)	UP		UP(2)	
		CTK	JYP	BBN	mean	BNK	CHN	MLD@	PNB	mean	SBR	BKG	PSA	mean	GGT	MSD	mean	mean
301	27538	94	96	104	98	100	114	116	100	105	107	113	89	103	110	115	113	104
302	Swarna Sub 1 (NC)	80	91	97	89	80	101	100	91	91	104	108	82	98	98	103	101	94
303	30367	90	85	107	94	100	89	114	100	96	113	115	91	106	112	115	114	102
304	30356	105	85	111	100	95	84	122	102	94	111	123	92	109	114	120	117	104
305	Zonal Check	96	85	101	94	100	96	122	98	98	102	112	84	99	104	110	107	99
306	30409	98	100	112	103	100	116	118	100	105	102	104	93	100	104	110	107	103
307	Sarala (RP)	104	90	105	100	100	100	126	98	99	110	113	92	105	103	105	104	102
308	30410	99	92	113	101	120	102	130	226	149	116	134	94	115	112	115	114	120
309	Gayatri (RP)	88	92	110	97	100	90	123	106	99	108	115	93	105	106	109	108	102
310	CR Dhan 411 (RP)	88	91	99	93	80	92	115	98	90	109	114	80	101	107	109	108	97
311	31288	93	85	100	93	85	105	100	86	92	102	104	90	99	103	106	105	96
312	CR Dhan 801 (Yield check)	94	88	102	95	80	94	103	105	93	107	109	90	102	108	110	109	99
313	Local Check	111	105	111	109	100	105	116	96	100	117	107	83	102	105	120	113	106
	Exp. mean	95	91	106	97	95	99	116	108	101	108	113	89	103	107	111	109	102

Table No. 11.4 (Contd): Plant Height of entries in AVT-1 RSL Kharif 2022

Entry No	IET No	Zone IV				Zone IV (2)	Zone V		Zone V (2)	Zone VII		Zone VII(2)	Overall (17)
		AS		AS (1)	TP		CG			AP	KA		
		TTB	KMJ@	mean	LMB	mean	JDP	RPR	mean	MTU	PNP	mean	mean
301	27538	118	83	118	102	110	86	103	95	114	65	90	102
302	Swarna Sub 1 (NC)	105	84	105	86	96	72	108	90	111	62	86	93
303	30367	123	94	123	89	106	86	107	96	119	65	92	100
304	30356	130	110	130	99	115	91	109	100	133	63	98	104
305	Zonal Check	138	124	138	112	125	72	108	90	136	54	95	100
306	30409	125	87	125	116	120	80	109	94	132	64	98	104
307	Sarala (RP)	121	102	121	96	109	86	109	98	133	72	103	102
308	30410	136	115	136	111	123	92	107	100	138	64	101	116
309	Gayatri (RP)	125	85	125	121	123	86	100	93	134	64	99	103
310	CR Dhan 411 (RP)	116	100	116	99	107	72	96	84	117	62	89	96
311	31288	111	81	111	82	96	82	106	94	121	57	89	95
312	CR Dhan 801 (Yield check)	118	95	118	86	102	87	93	90	112	59	85	97
313	Local Check	139	122	139	107	123	75	166	120	124	87	105	109
	Exp. mean	123	99	123	100	112	82	109	96	125	64	95	102

Table No. 11.5: No. of Panicles/m2 of entries in AVT-1 RSL *Kharif*, 2022

Entry No	IET No	Zone III																	Zone III (11)
		OD			OD(3)	WB				WB (3)	BI			BI (3)	UP		UP (2)		
		CTK	JYP	BBN	mean	BNK	CHN	MLD@	PNB	mean	SBR	BKG	PSA	mean	GGT	MSD	mean		mean
301	27538	227	261	263	250	357	330	333	207	298	352	362	155	290	170	201	186		262
302	**Swarna Sub 1 (NC)**	171	354	293	273	390	242	333	237	290	360	376	149	295	109	197	153		262
303	30367	232	312	235	260	326	385	328	211	307	328	390	201	306	205	214	210		276
304	30356	226	372	260	286	357	407	345	274	346	315	349	136	267	179	233	206		283
305	Zonal Check	215	323	349	295	295	440	333	253	329	347	377	201	308	198	218	208		292
306	30409	300	270	250	273	264	253	361	323	280	372	405	152	310	170	219	195		271
307	**Sarala (RP)**	283	359	353	332	390	352	346	197	313	269	396	153	273	131	205	168		281
308	30410	285	239	401	308	243	264	339	262	256	307	388	116	270	110	187	149		255
309	**Gayatri (RP)**	262	288	226	258	295	275	315	307	292	338	391	136	288	154	151	153		257
310	**CR Dhan 411 (RP)**	247	370	241	286	211	341	327	246	266	344	397	195	312	205	215	210		274
311	31288	265	351	264	293	326	308	332	243	293	327	373	175	292	185	225	205		277
312	**CR Dhan 801 (Yield check)**	203	265	285	251	336	374	327	273	328	279	404	187	290	157	216	187		271
313	**Local Check**	231	365	200	266	211	319	331	234	255	315	383	196	298	160	243	201		260
	Exp. mean	242	317	278	279	308	330	335	251	296	327	384	165	292	164	210	187		271
	CD	41.65	51.79	14.28	19.71	29.092	64.78	17.83	29.27	19.29	81.55	23.63	15.85	27.95	18.14	16.40	12.56		10.28
	CV%	10.21	9.68	3.04	4.19	5.61	11.65	3.16	6.91	3.74	14.79	3.65	5.69	5.68	6.56	4.64	3.99		2.23

Table No. 11.5(Contd): No. of Panicles/m2 of entries in AVT-1 RSL *Kharif*, 2022

Entry No.	IET No.	Zone IV				Zone IV (2)	Zone V		Zone V (2)	Zone VII		Zone VII(2)	Overall (17)
		AS		AS (1)	TP		CG			AP	KA		
		TTB	KMJ@	mean	LMB	mean	JDP	RPR	mean	MTU	PNP	mean	mean
301	27538	193	263	193	333	263	269	200	235	310	305	307	264
302	Swarna Sub 1 (NC)	248	297	248	417	332	280	209	245	290	407	349	278
303	30367	263	263	263	400	332	313	242	278	307	348	328	289
304	30356	271	275	271	300	285	290	165	227	319	312	316	280
305	Zonal Check	258	290	258	342	300	331	223	277	327	450	388	303
306	30409	246	200	246	417	332	283	179	231	336	392	364	284
307	Sarala (RP)	212	263	212	283	248	325	224	275	317	290	304	279
308	30410	265	269	265	375	320	312	212	262	310	341	326	272
309	Gayatri (RP)	260	261	260	350	305	312	153	233	308	421	365	272
310	CR Dhan 411 (RP)	264	265	264	400	332	292	153	222	303	450	376	287
311	31288	264	254	264	392	328	278	169	223	312	370	341	284
312	CR Dhan 801 (Yield check)	269	264	269	250	259	303	162	233	297	378	337	273
313	Local Check	267	289	267	342	305	326	153	239	312	414	363	275
	Exp. mean	252	266	252	354	303	301	188	245	311	375	343	280
	CD	9.63	15.42	9.63	51.85	14.63	55.71	46.68	34.20	25.53	72.00	40.67	10.32
	CV%	2.26	3.44	2.26	8.70	3.07	10.98	14.74	8.30	4.87	8.81	7.25	2.20

Table No.11.6: Grain Quality characteristics of entries in AVT 1-RSL, *kharif*, 2022 done at IIRR, Hyderabad

Entry No.	IET No	Hull	Mill	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
301	27538	78.3	61.4	56.5	5.48	2.18	2.51	MS	VOC	4.0	22.96	22
302	Swarna Sub 1 (NC)	79.6	70.7	67.8	5.80	2.15	2.69	MS	A	4.0	22.67	22
303	30367	80.1	69.3	65.2	5.27	2.07	2.54	MS	A	4.0	23.29	22
304	30356	81.1	71.9	63.6	5.36	2.51	2.13	SB	VOC	4.0	22.26	22
305	Pooja	78.2	64.2	55.6	5.06	2.12	2.38	SB	VOC	4.0	26.31	39
306	30409	80.4	68.3	59.2	5.16	2.50	2.06	SB	VOC	4.0	26.51	41
307	Sarala (RP)	78.6	70.1	65.9	5.59	1.83	3.05	SS	A	4.0	24.17	99
308	30410	77.9	68.9	65.1	5.99	1.95	3.07	SS	A	4.0	24.22	23
309	Gayatri (RP)	80.9	70.8	64.8	5.30	2.46	2.15	SB	VOC	4.0	24.52	22
310	CR Dhan 411 (RP)	80.2	71.2	68.1	5.39	2.07	2.06	MS	A	4.0	24.61	83
311	31288	77.7	66.7	60.8	5.26	1.97	2.67	MS	A	4.0	24.05	22
312	CR Dhan 801 (Yield check)	78.1	67.2	60.3	5.23	2.12	2.51	MS	A	4.0	22.96	22
313	CR Dhan 508	80.3	66.5	59.2	6.31	2.67	2.36	LB	VOC	4.0	24.55	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. 11.6 (Contd): Grain Quality characteristics of entries in AVT 1-RSL, *kharif*, 2022 done at NRRI, Cuttack

Entry No	IET No	Hull	Mill	HRR	Chalkiness	KL	KB	L/B	ASV	WU	VER	ER	KLAC	AC	GC
301	27538	73	65	56	A	5.23	1.59	3.29	4	65	3.75	1.72	9	23.47	48
302	Swarna Sub 1 (NC)	75	65	63	A	4.7	1.67	2.81	4	75	3.75	1.70	8	23.62	46
303	30367	76	66	63	A	4.83	1.69	2.86	4	75	3.75	1.86	9	22.57	42
304	30356	79	68	66	VOC	4.64	1.88	2.47	5	105	3.75	1.94	9	23.05	49
305	Pooja	75	64	61	A	4.87	1.33	3.66	4	65	4	2.05	10	24.37	51
306	30409	77	66	62	A	4.73	2.1	2.25	4	55	3.75	1.69	8	25.20	53
307	Sarala (RP)	76	68	63	A	4.81	1.32	3.64	5	95	3.75	1.87	9	25.65	52
308	30410	76	66	62	A	5.11	1.31	3.90	5	95	4	1.96	10	23.02	48
309	Gayatri (RP)	77	68	65	VOC	4.63	2.13	2.17	6	85	3.75	1.94	9	23.47	49
310	CR Dhan 411 (RP)	78	68	66	A	4.72	1.46	3.23	4	85	3.75	1.69	8	24.22	47
311	31288	77	62	58	VOC	5.27	2.14	2.46	3	95	4	1.71	9	20.70	42
312	CR Dhan 801 (Yield check)	76	64	61	A	5.54	1.53	3.62	4	105	3.75	1.62	9	26.02	43
313	CR Dhan 508	76	69	67	A	4.72	1.43	3.30	6	65	3.75	1.91	9	22.80	48

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

Table No. 11.6 (Contd): Average Grain Quality characteristics of entries in AVT 1-RSL, kharif 2022

Entry No.	IET No	Hull	Mill	HRR	KL	KB	L/B	ASV	AC	GC
301	27538	75.65	63.20	56.25	5.36	1.89	2.90	4.00	23.22	35.00
302	Swarna Sub 1 (NC)	77.30	67.85	65.40	5.25	1.91	2.75	4.00	23.15	34.00
303	30367	78.05	67.65	64.10	5.05	1.88	2.70	4.00	22.93	32.00
304	30356	80.05	69.95	64.80	5.00	2.20	2.30	4.50	22.66	35.50
305	Pooja	76.60	64.10	58.30	4.97	1.73	3.02	4.00	25.34	45.00
306	30409	78.70	67.15	60.60	4.95	2.30	2.16	4.00	25.86	47.00
307	Sarala (RP)	77.30	69.05	64.45	5.20	1.58	3.35	4.50	24.91	75.50
308	30410	76.95	67.45	63.55	5.55	1.63	3.49	4.50	23.62	35.50
309	Gayatri (RP)	78.95	69.40	64.90	4.97	2.30	2.16	5.00	24.00	35.50
310	CR Dhan 411 (RP)	79.10	69.60	67.05	5.06	1.77	2.65	4.00	24.42	65.00
311	31288	77.35	64.35	59.40	5.27	2.06	2.57	3.50	22.38	32.00
312	CR Dhan 801 (Yield check)	77.05	65.60	60.65	5.39	1.83	3.07	4.00	24.49	32.50
313	CR Dhan 508	78.15	67.75	63.10	5.52	2.05	2.83	5.00	23.68	35.00

INITIAL VARIETY TRIAL-RAINFED SHALLOW LOWLAND (IVT-RSL)

Locations: **19** **Test Entries: 51**

Checks: **Swarna-*Sub1* (National), Zonal checks: Pooja (Eastern), Bahadur (North Eastern), Savitri (Southern) and Local Check** **Table:11.7**

The trial was constituted with 55 entries including four checks *viz.*, National (Swarna *Sub1*), Zonal (Pooja, Bahadur, Savitri), yield (CR Dhan 801) and local checks. The trial was sent to 20 locations; however, data was received from most of the locations except Arundhutinagar. 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 Malda (2.75) and Karimganj (3.08), hence data of these locations were not included in the analysis. Thus data from 17 locations were considered for analysis. The data pertaining to yield, days to 50% flowering, plant height and number of panicles/m^2 are presented in Tables 11.8 to 11.1. The experimental mean grain yield of the locations ranged from 2073 kg/ha (Ponnampet) to 6886 kg/ha (Bankura).

On overall basis, mean grain yield of the entries varied from 3673 kg/ha (IET 31216) to 5570 kg/ha (IET 31250), days to 50% flowering ranged from 100 days (IET 31230) to 124 days (IET 31216, IET 31232), plant height ranged from 93.40 cm (IET 31216) to 125.64 cm (IET 31233) and mean panicles/m^2 varied from 177 (IET 31204) to 280 (IET 31252). Among the checks, National check (Swarna *Sub 1*) recorded the highest mean grain yield of 5021 kg/ha with 115 days to 50% flowering. Among the test entries, IET 31250 (5570 kg/ha) with 113 days to 50% flowering, IET 31237 (5289 kg/ha) with 108 days to 50% flowering and IET 31246 (5274 kg/ha) with 112 days to 50% flowering recorded significant yield superiority over the best check (BVC + CD at 5%). **Therefore, these three entries** (**IET 31250, 31237 and IET 31246) are promoted to AVT-1.**

The **Eastern zone (Zone III)** was represented by eleven locations (Cuttack, Jeypore, Bhubaneswar, Bikramganj, Pusa, Bankura, Chinsurah, Pundibari, Sabour, Ghaghraghat and Masodha) spread across four states *viz.* Odisha (3), West Bengal (3), Bihar (3) and Uttar Pradesh (2). The mean grain yield of the entries in Zone III varied from 3726 kg/ha (IET 31249) to 5777 kg/ha (IET 31246), days to 50% flowering ranged from 104 days (IET 31230) to 127 days (IET 31232), plant height ranged from 96.04 cm (IET 31225) to 125 cm (IET 31234, IET 30423 (S)) and mean panicles/m^2 varied from 214 (IET 31204) to 292 (IET 31241). Among the checks, National check (Swarna *Sub1*) recorded the highest mean grain yield of 5206 kg/ha with 117 days to 50% flowering. Among the test entries, IET 31246 (5777 kg/ha) with 117 days to 50% flowering, IET 31250 (5694 kg/ha) with 115 days to 50% flowering and IET 31237 (5642 kg/ha) with 111 days to 50% flowering recorded significant yield superiority over the best check (BVC + CD at 5%). **Therefore, these three entries (IET 31246, IET 31250 and IET 31237) are promoted to AVT-1 under Zone III.**

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 2141 kg/ha (IET 31216) to 6088 kg/ha (IET 31250), days to 50% flowering ranged from 98 days (IET 31209, IET 31219) to 130 days (IET 31216), plant height ranged from 86.77 cm (IET 31216) to 146.83 cm (IET 31233) and mean panicles/m^2

varied from 133 (IET 31205) to 330 (IET 31232). Among the checks, National check (Swarna *Sub1*) recorded highest grain yield of 5077 kg/ha with 111 days to 50% flowering. Among the test entries, IET 31250 (6088 kg/ha) with 105 days to 50% flowering, IET 31242 (5945 kg/ha) with 111 days to 50% flowering, IET 31207 (5860 kg/ha) with 111 days to 50% flowering, IET 31253 (5781 kg/ha) with 115 days to 50% flowering, IET 31244 (5650 kg/ha) with 112 days to 50% flowering, IET 30423 (S) (5595 kg/ha) with 112 days to 50% flowering and IET 31220 (5525 kg/ha) with 108 days to 50% flowering recorded significant yield superiority over the best check (BVC + CD at 5%). **Therefore, these seven entries (IET 31250, IET 31242, IET 31207, IET 31253, IET 31244, IET 30423 (S) and IET 31220) are promoted to AVT-1 under Zone IV.**

The **Central region (Zone V)** was represented by two locations (Jagdalpur and Raipur) in Chattisgarh. The mean grain yield of the entries in Zone V varied from 2253 kg/ha (IET 31245) to 6300 kg/ha (IET 31250), days to 50% flowering ranged from 81 days (IET 31230 to 121 days (IET 31249), plant height ranged from 72.45 cm (IET 31216) to 153.94 cm (IET 31208) and mean panicles/m^2 varied from 98 (IET 31204) to 299 (IET 31218). Among the checks, Local check (CG Dhan 1919) recorded highest grain yield of 5279 kg/ha with 100 days to 50% flowering. Among the test entries, IET 31250 (6300 kg/ha) with 105 days to 50% flowering recorded significant yield superiority over the best check (BVC + CD at 5%). **Therefore, the entry IET 31250 is promoted to AVT-1 under Zone V.**

The **Southern region (Zone VII)** was represented by two locations; Maruteru and Ponnampet which are spread across two states, Andhra Pradesh and Karnataka. The mean grain yield of the entries in Zone VII varied from 2401 kg/ha (IET 31228) to 6542 kg/ha (IET 31204), days to 50% flowering ranged from 82 days (IET 31204) to 133 days (IET 31216), plant height ranged from 73.83 cm (IET 31230) to 135.85 cm (IET 31233) and mean panicles/m^2 varied from 161 (IET 31204) to 387 (IET 31234). Among the checks, Zonal check (Savitri) recorded highest grain yield of 3793 kg/ha with 123 days to 50% flowering. Among the test entries, IET 31204 (6542 kg/ha) with 82 days to 50% flowering, IET 31245 (5482 kg/ha) with 124 days to 50% flowering and IET 31215 (4574 kg/ha) with 113 days to 50% flowering recorded significant yield superiority over the best check (BVC + CD at 5%). **Therefore, these three entries (IET 31204, IET 31245 and IET 31215) are promoted to AVT-1 under Zone VII.**

Overall and Zonal performance of promising entries in IVT-RSL, 2022

Entry No.	IET No. / Designation	Grain Yield (Kg/ha) FD					Remarks
		Overall	Zone III	Zone IV	Zone V	Zone VII	
450	**IET 31250** OR 2757-1	5570 113	5694 115	6088 105	6300 105		**Promoted on overall basis and for Z-III, Z-IV & Z-V**
437	**IET 31237** BRR-0222-IR93339:39-B-6-5-B-B-B-47	5289 108	5642 111				**Promoted on overall basis and for Z -III**
446	**IET 31246** BRR 2141	5274 112	5777 117				**Promoted on overall basis and for Z -III**
442	**IET 31242** CR 3967-51-2-1-1-1			5945 111			**Promoted for Z -IV**
404	**IET 31207** TRC-H2TS-77-B-B-09-6			5860 111			**Promoted for Z -IV**
453	**IET 31253** IR 85947-CR 1-TTB-1-1-1			5781 115			**Promoted for Z -IV**
444	**IET 31244** CR 3856-44-22-2-1-11-4-1-10			5650 112			**Promoted for Z- IV**
454	**IET 30423 (S)** GB-4			5595 112			**Promoted for Z- IV**
420	**IET 31220** BRR 2228			5525 108			**Promoted for Z- IV**
401	**IET 31204** CR 4419-3-1-1-1-1					6542 82	**Promoted for Z -VII**
445	**IET 31245** CR 4207-15-2-1-1					5482 124	**Promoted for Z -VII**
414	**IET 31215** PAN-847 (Pujarini)					4574 113	**Promoted for Z -VII**
Swarna *Sub 1* (NC)		**5021 115**	**5206 117**	**5077 111**	5222 105	3745 115	
Zonal check (ZC)		4434 120	4492 122	4587 115	4602 116	**3793 123**	
Local check (LC)		4943 115	5093 116	5001 114	**5279 100**	3718 125	
CD (at 5%)		**235**	**293**	**365**	**989**	**776**	

IET 31250 (OR 2757-1) derived from Upahar/CN 1231-11-7 possess medium bold grain type and recorded grain yield of 5570 kg/ha (overall), 5694 kg/ha (Zone III), 6088 kg/ha (Zone IV), 6300 kg/ha (Zone V) with 113, 115, 105 and 105 days to 50% flowering respectively. The entry recorded yield superiority over the best check in overall, Zone III, Zone IV and Zone V respectively. Hence, the test entry IET 31250 is promoted to AVT-1.

IET 31237 (BRR-0222-IR93339:39-B-6-5-B-B-B-47) derived from 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 possess long slender grain type and recorded grain yield of 5289 kg/ha (overall), 5642 kg/ha (Zone III) with 108 and 111 days to 50% flowering respectively. The entry recorded yield superiority over the best check in overall and Zone III respectively. Hence, the test entry IET 31237 is promoted to AVT-1.

IET 31246 (BRR 2141) derived from IR 74355-CN3/ CN-6-78 (TTB-680-Sel.) possess medium slender grain type and recorded grain yield of 5274 kg/ha (overall), 5777 kg/ha (Zone III) with 112 and 117 days to 50% flowering respectively. The entry recorded yield superiority over the best check in overall and Zone III respectively. Hence, the test entry IET 31246 is promoted to AVT-1.

Considering yield advantage with respect to best check, the following entries are promoted to next stage of evaluation in AVT- 1 RSL.

Promoted on overall mean basis:

- **IETs 31250, 31237 and 31246**

Promoted based on zonal mean basis:

- **Zone III- IETs 31246, 31250 and 31237**
- **Zone IV- IETs 31250, 31242, 31207, 31253, 31244, 30423 (S) and 31220**
- **Zone V- IET 31250**
- **Zone VII- IETs 31204, 31245 and 31215**

Therefore, 12 entries *viz.* IETs 31250, 31237, 31246, 31242, 31207, 31253, 31244, 30423 (S), 31220, 31204, 31245 and 31215 were promoted to AVT-1.

Table No.11.7: Composition of entries in the Initial Varietal Trial- Rainfed Shallow Lowland (IVT-RSL), *Kharif* 2022

Entry No.	IET No.	Designation	Cross combination	GT
401	31204	CR 4419-3-1-1-1-1	CR 3504-10-1-1-1-1/CR 3541-1-2-5-4-1	MB
402	31205	CN 1317-557-5-6-BNKR 42-2-5-2 (BNKR 129)	Vikramarya/Mahsuri	MS
403	31206	CR 3039-3-1-1-2-2	Varshadhan/AC 38687	MS
404	31207	TRC-H2TS-77-B-B-09-6	Hakuchuk2XTripura Sharat	LS
405	31208	CR 4433-4-1-1-1-1	CR3564-1-1-3-1-1/CR 3786-7-2-1-2-1-1	LB
406	31209	RCPR 97-TP30191	Selection from IR 14L259	MS
407	31210	CR 4410-6-3-1-1-1	CR 3580-7-3-1-2-1/CR 3759-1-1-2-1-1	LB
408	**Swarna Sub 1 (NC)**			
409	31211	CR 3549-8-1-1-1-1-1	ADT 43/Annapurna	MB
410	31212	CN1317-557-5-6-BNKR42-2-5 (BNKR 128)	Vikramarya/Mahsuri	MS
411	31213	CR 3993-13-58-3-1	CR 1009/O.brachyantha//CR 1009	SB
412	31214	CR 3752-2-1-1-1-2	Indravati/Swarna	MB
413	**CR Dhan 801 (check)**			
414	31215	PAN-847 (Pujarini)	PAN-804/AN 3236	SB
415	31216	CR 4346-18-2-2-1	Pooja/Jasmine 85	MS
416	31217	R 2348-201-1-91-1	R 1529-1183-1041-1 X Karma Mahsuri	LB
417	31218	CR 3984-13-9-2-1-1	CR 3624-2/CR MAS 2232-85	MS
418	31219	NPT 505-1-1	RP 5346/Swarna/IRGC 19922/RP Bio 226	MS
419	**Pooja (Eastern), Bahadur (North Eastern), Savitri (Southern)-- ZC**			

Entry No.	IET No.	Designation	Cross combination	GT
420	31220	BRR 2228	BRR2028 * S Shree	MB
421	31221	TRC H2TS-33-B-B-13-2	Hakuchuk2XTripura Sharat	LS
422	31222	CR 4360-2-1-1-3-1	CR 3561-14-1-1-1-1/CR 3543-6-3-1-2-1-1	LB
423	31223	MALI -3151	(MTU-7029/ESF4-2-5// Bangabandhu-1/Gontra Bidhan-1	SS
424	31224	CR 3816-7-5-3-2-1	Gayatri/AC 38999	SB
425	31225	CR 4050-121-28-13-5-2	Swarna Sub1*3/IRBB 60	MB
426	31226	RCPR 98-TP30193-1	Selection from IR 14L244	MS
427	31227	CR 3938-22-1-1-1-2	IR 73907-753-2-3/Pratikshya	LS
428	31228	NDR 2022-4	NDR 9730015/Swarna	SB
429	31229	CR 4435-4-1-2-1-4-1	CR 3553-9-2-1-1-1-1/CR 3510-12-1-1-2-1-1	MB
430	31230	TRC-GTS-81-B-B-24-7	Gomati X Tripura Sharat	LS
431	31231	CR 3856-44-22-2-1-11-4-1-4-1-2	IR 73963-86-1-5-2-2/CR 2324-1	SB
432	31232	OR 2434-13-1	Indravati / CR 780-1937	MB
433	31233	CR 3993-514-2-15-1	CR 1009/O.brachyantha//CR 1009	MS
434	31234	TCA 80-4-1	Selection from Rajashree	MS
435	31235	CR 4121-36-24-3-41	CR 3856-44-22-2-1-11*3/IRBB 60/Swarna Sub1	LB
436	31236	CR 3988-6-2-2-1-1	Pooja/Ac 38687	MS
437	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
438	31238	CR 4440-16-5-1-1-1	Reeta/ CR Dhan 305	B
439	31239	BRR-0162	Rajendra Mahsuri-1 X OR 2523-6	LS
440	31240	CR 4347-8-1-2-1-1	Swarna-Sub1/Vikramarya	MS
441	31241	BRR-0151	Rajendra Mahsuri-1 X AD 08142	MS
442	31242	CR 3967-51-2-1-1-1	IR 73895-33-1-3-2/Pratikshya	LS
443	31243	TTB 1272-1	Ranjit/Choilahi/IRGC 1797	MS
444	31244	CR 3856-44-22-2-1-11-4-1-10	IR 73963-86-1-5-2-2/CR 2324-1	SB
445	31245	CR 4207-15-2-1-1	Swarna-Sub1/Kedargouri//Swarna MAS	SB
446	31246	BRR 2141	IR 74355-CN3/ CN-6-78 (TTB-680-Sel.)	MS
447	31247	CR 4316-21-2-1-1	Pooja/IR 65482-7-216-1-2	SB
448	31248	BRR 2074	IR 11 A 257-Sel.	MS
449	31249	CR 4439-28-4-1-2-2	Pooja/CR Dhan 305	MS
450	31250	OR 2757-1	Upahar / CN 1231-11-7	MB
451	31251	CR 2916-78-2-1-1	Tapaswini/IET 16952	MS
452	31252	CR 4434-4-3-1-1-1	CR 3786-2-1-1-1-1-1/MTU 1010	MS
453	31253	IR 85947-CR 1-TTB-1-1-1	IR 05F 102/ IR 7225-26-3-2-3// BR 11	MS
454	30423 (S)	GB-4	Mutant of Sabita	LB
455	**Local check**			

Table No. 11.8: Grain Yield (kg/ha) of entries in IVT RSL, *Kharif* - 2022

Entry No	IET No	Zone III													
		OD						OD (3)		WB					
		CTK		JYP		BBN		mean		BNK		CHN		MLD@	
401	31204	1671		4233		4574		3493		6000		5339		7375	1*
402	31205	2166		3214		7526	7	4302		7829	8	4839		7067	2*
403	31206	3436	3	3783		5246		4155		6895		5095		4217	
404	31207	1923		5304		4051		3759		5752		5011		5317	
405	31208	1594		3974		6652		4073		7219		4678		4708	
406	31209	2515		6693	1*	3522		4243		7410		5901	2	4225	
407	31210	2409		3706		7275	10	4463		6771		5483		5550	
408	**Swarna *Sub 1* (NC)**	1779		5521	10	7841	1	5047	3	7800	9	4983		4900	
409	31211	1777		5124		6942		4614	9	7114		5378		5633	
410	31212	2274		5122		6928		4774	7	7657	10	5767	5	5933	9
411	31213	2077		5278		6058		4471		7105		6294	1	4467	
412	31214	2133		4942		5551		4209		7876	7	5650		4375	
413	**CR Dhan 801 (check)**	1960		3251		6594		3935		5905		5562		6133	5.5
414	31215	1971		3913		5362		3749		7095		5023		3817	
415	31216	2797		5802	5	4739		4446		6438		4861		5750	
416	31217	2504		3968		6797		4423		8581	2	5173		5733	
417	31218	1975		4119		6203		4099		6619		5334		4750	
418	31219	2184		5368		5420		4324		9095	1*	4956		4542	
419	**Zonal Check**	2151		3431		6246		3943		7000		5884	3	6342	3
420	31220	2659		3881		6797		4446		7333		5062		5092	
421	31221	1920		4339		6239		4166		5724		5112		5217	
422	31222	2267		3444		5420		3711		6419		5301		4358	
423	31223	2240		3857		7623	5	4573		6229		5178		6083	8
424	31224	2937	8	4952		7232		5040	4	6152		5001		5883	
425	31225	2471		4918		5623		4338		6790		4761		4358	
426	31226	1988		4519		6246		4251		5867		5328		4033	
427	31227	2235		5534	9	4290		4020		6790		4984		4342	
428	31228	3090	6	6079	2	5884		5018	5	7086		4884		3950	
429	31229	2462		3717		5377		3852		6200		5683	7	5900	10
430	31230	1645		5370		2971		3329		6267		5378		5158	
431	31231	3634	2*	5196		5319		4716	8	6648		5606		3692	
432	31232	1923		3238		7797	3	4319		7895	6	4694		3983	
433	31233	2823	10	4437		6551		4603	10	7267		4112		3900	
434	31234	3023	7	4296		4148		3823		6705		5806	4	5208	
435	31235	1811		5749	7	5116		4225		6448		5284		4817	
436	31236	2469		5656	8	5645		4590		5114		5056		4875	
437	31237	1719		3767		7822	2	4436		7971	5	5322		5075	
438	31238	2341		3754		5993		4029		6590		4801		5217	
439	31239	2377		3728		5645		3917		6505		5367		6092	7
440	31240	1795		4873		6930		4533		6410		5661	10	6267	4
441	31241	2190		4966		5258		4138		6971		5617		5733	
442	31242	2602		4503		6459		4521		5781		5562		5250	
443	31243	2842	9	4013		4626		3827		6971		4945		4783	
444	31244	3825	1*	3526		4928		4093		6352		5206		3875	
445	31245	2113		4101		5580		3931		6676		4851		4792	
446	31246	2602		4331		6420		4451		7571		5223		5233	
447	31247	2554		3484		5862		3967		7638		5312		3942	
448	31248	2274		5894	4	7507	8	5225	2	7438		4884		5133	
449	31249	2298		3249		7313	9	4286		5476		5045		6133	5.5
450	31250	2189		2976		7572	6	4246		8067	3	5667	8	5875	
451	31251	1565		5976	3	5591		4378		6810		5078		4492	
452	31252	3265	4*	3026		7004		4432		7410		5667	9	5242	
453	31253	2591		5772	6	7652	4	5338	1	5971		5062		4467	
454	30423 (S)	3248	5*	4937		6348		4844	6	8057	4	5701	6	4800	
455	**Local Check**	2113		4167		7064		4448		6952		5584		4092	
Exp. Mean		**2353**		**4490**		**6061**		**4301**		**6885.71**		**5254.4**		**5057.73**	
CD		1045		1094		1597		720		810.67		632.68		278.67	
CV%		22		12		13		8		5.87		6.01		2.75	
D/S		05.07.2022		26.07.2022		29.06.2022				20.07.2022		29.06.2022		17-06-2022	
D/P		30.08.2022		30.08.2022		08.08.2022				25.08.2022		05.07.2022		29-07-2022	
Local Check Name		CR Dhan 413		Hasanta		Mrunalini				Sampriti		Sujala (IET20235)		Kanak	

Table No. 11.8 (Contd): Grain Yield (kg/ha) of entries in IVT RSL, *Kharif*2022

Entry No	IET No	Zone III													
		WB		WB (3)		BI						BI (3)		UP	
		PNB		mean		SBR		BKG		PSA		mean		GGT	
401	31204	1667		4335		6136				3804		4970			
402	31205	2417		5028		7499		6274		3351		5708		2593	
403	31206	1500		4497				185		3351		1768			
404	31207	2042		4268		5995		5571		5707	10	5758		2460	
405	31208	2833		4910		7124		6458		3533		5705		2826	
406	31209	3125		5478	9	5724		5756		3986		5155		2161	
407	31210	2625		4960		7360		7083		5797	7.5	6747	7	2493	
408	**Swarna *Sub 1* (NC)**	2208		4997		8998	3	5696		4529		6408		3291	
409	31211	2208		4900		6950		5024		3170		5048		2161	
410	31212	2417		5280		6244		7262	8	3804		5770		2926	
411	31213	2583		5328		9028	2	7280	7	4438		6916	4	3125	
412	31214	3000		5509	7	7950	9	7333	5	3986		6423		2660	
413	**CR Dhan 801 (check)**	1000		4155		7623		6720		6008	4	6784	6	2926	
414	31215	2292		4803		8647	5	7923	2*	4348		6972	3		
415	31216	2292		4530				155		3442		1798			
416	31217	4042	4	5932	1	7467		6214		3804		5829		3125	
417	31218	3500	10	5151		6524		5119		3080		4908		3158	
418	31219	2250		5434	10	3999		6423		4620		5014		3258	
419	**Zonal Check**	2625		5170		6277		5792		3351		5140		2493	
420	31220	3042		5146		6928		7952	1*	5344		6742	8	3823	6.5
421	31221	2625		4487		4147		6470		5827	6	5481		2028	
422	31222	3875	6	5198		6930		4494		5978	5	5801		2826	
423	31223	1500		4302		9290	1	4518		2899		5569		3823	6.5
424	31224	3333		4829		6503		4560		3125		4729		1961	
425	31225	3417		4989		6380		7048		4801		6076		3723	8
426	31226	2708		4634		4357		6262		3714		4777			
427	31227	4125	2	5300		5369		5958		3895		5074		3258	
428	31228	3125		5032		6723		7060		5737	9	6506	10	2660	
429	31229	2458		4781		4555		6369		3986		4970		1995	
430	31230	2458		4701		4141		6077		3089		4436		2061	
431	31231	2208		4821		7903	10	5565		4529		5999		4488	3*
432	31232	2083		4891		7218		3137		3025		4460		2660	
433	31233	1625		4334		4970		3821		3297		4030			
434	31234	3417		5309		5366		3875		4529		4590		2327	
435	31235	3667	8	5133		5178		5530		4801		5170		2660	
436	31236	2333		4168		7005		6226		3080		5437		2926	
437	31237	4208	1	5834	2	8078	7	7280	7	5254		6871	5	5053	2*
438	31238	2750		4714		6382		5702		3986		5357		2992	
439	31239	1625		4499		5647		5619		4348		5204		3856	5
440	31240	2000		4690		6774		6143		4438		5785		2161	
441	31241	4083	3	5557	6	5998		3560		4620		4726		3092	
442	31242	2458		4600		6034		6601		6039	3	6225		3324	10
443	31243	2000		4639		6078		4982		3623		4894		2327	
444	31244	1750		4436		6389		5619		5797	7.5	5935		2161	
445	31245	2792		4773				3583		3071		3327			
446	31246	3250		5348		8989	4	7685	4	6105	2	7593	2*	5452	1*
447	31247	2167		5039		6708		6952		4529		6063		2726	
448	31248	2208		4843		7205		5649		4348		5734		1662	
449	31249	2792		4438		3390		3417		3089		3298		2261	
450	31250	3625	9	5786	3	8534	6	7685	4	9873	1*	8697	1*	3125	
451	31251	2875		4921		7885		7214	9	4801		6633	9	3491	9
452	31252	3708	7	5595	5	8069	8	5798		4710		6192		4122	4
453	31253	2208		4414		6993		5524		3804		5440		2892	
454	30423 (S)	3042		5600	4	6813		7167	10	3986		5988		2261	
455	**Local Check**	3917	5	5484	8	7781		6083		5254		6373		2726	
Exp. Mean		**2692.42**		**4944.19**		**6659**		**5731**		**4390**		**5593**		**2928**	
CD (5%)		1377.98		562.31		1686.24		1058.45		1128.08		565.05		847.11	
CV%		25.53		5.67		13.36		9.38		12.96		5.12		16.53	
D/S		07.07.2022				16-06-2022		25-06-2022		17.06.2022				01-07-2022	
D/P		03.08.2022				18-07-2022		03-08-2022		22.07.2022					
Local Check Name		Swarna *Sub 1*				Rajendra M-1		Sabour Shree		RajendraSweta (455)				Sambha sub1	

Table No. 11.8 (Contd).: Grain Yield (kg/ha) of entries in IVT RSL, *Kharif*2022

Entry No	IET No	Zone III				Zone III (11)		Zone IV								Zone IV (2)	
		UP		UP (2)				AS				AS(1)		TP			
		MSD		mean		mean		TTB		KMJ@		Mean		LMB		Mean	
401	31204	1729		1729		3906		5055		4061		5055		3830		4442	
402	31205	3324		2959		4639		3518		5072		3518		4551		4034	
403	31206	4056		4056	10	3727		4148		4818		4148		4773		4460	
404	31207	4189		3324		4364		5670	7	5060		5670	7	6050	7	5860	3*
405	31208	4156		3491		4641		4030		5131		4030		4274		4152	
406	31209	3491		2826		4571		3378		4413		3378		3774		3576	
407	31210	3291		2892		4936		3850		4516		3850		4496		4173	
408	**Swarna Sub 1 (NC)**	4621	10	3956		5206	6	4326		3328		4326		5828	10	5077	
409	31211	3491		2826		4485		4168		4734		4168		6133	4	5150	
410	31212	4322		3624		4975		2823		5415		2823		5939	9	4381	
411	31213	4455		3790		5247	5	3180		5968	3*	3180		4995		4088	
412	31214	4189		3424		5024		4840		4691		4840		5661		5251	
413	**CR Dhan 801 (check)**	4289		3607		4712		3753		4546		3753		5162		4457	
414	31215	4521		4521	7	5109	9	4403		6001	1*	4403		6050	7	5226	
415	31216	4654	8.5	4654	4*	3909		2173		5516		2173		2109		2141	
416	31217	3936		3531		5056		3775		4184		3775		4718		4246	
417	31218	4488		3823		4556		3553		4482		3553		5162		4357	
418	31219	4588		3923		4742		3555		5536		3555		5273		4414	
419	**Zonal Check**	4156		3324		4492		4345		5139		4345		4829		4587	
420	31220	5253	5*	4538	6	5280	4	4918		5972	2*	4918		6133	5	5525	7*
421	31221	3358		2693		4344		2455		4266		2455		4940		3697	
422	31222	4229		3527		4653		3910		4448		3910		4496		4203	
423	31223	5319	3.5*	4571	5	4770		4938		3239		4938		2831		3884	
424	31224	3059		2510		4438		4168		5732	6	4168		5162		4665	
425	31225	4654	8.5	4189	9	4962		4918		5456		4918		4052		4485	
426	31226	3524		3524		4451		2588		5085		2588		2720		2654	
427	31227	4787	6	4023		4657		5908	4*	5259		5908	4*	4829		5368	8
428	31228	3258		2959		5053		4208		4957		4208		5495		4851	
429	31229	3324		2660		4193		3853		5544		3853		5451		4652	
430	31230	3391		2726		3895		2035		4738		2035		2387		2211	
431	31231	5319	3.5*	4904	3*	5129	8	4168		5730	7	4168		5162		4665	
432	31232	4136		3398		4346		5118		4222		5118		3830		4474	
433	31233	3358		3358		4226		2983		4628		2983		2109		2546	
434	31234	3790		3059		4298		3733		4316		3733		4773		4253	
435	31235	3949		3305		4563		4960		5357		4960		5106		5033	
436	31236	4335		3630		4531		5155		5423		5155		5051		5103	
437	31237	5585	2*	5319	2*	5642	3*	4918		5695	8	4918		5495		5206	
438	31238	3923		3457		4474		4880		4285		4880		4274		4577	
439	31239	3989		3923		4428		4397		5665		4397		3941		4169	
440	31240	2726		2443		4537		4680		5756	5	4680		4107		4394	
441	31241	4422		3757		4616		4130		5186		4130		5051		4590	
442	31242	4721	7	4023		4917		5730	6	5598		5730	6	6161	3	5945	2*
443	31243	2926		2626		4121		5293	10	5111		5293	10	3830		4561	
444	31244	2972		2566		4411		6083	3*	5116		6083	3*	5217		5650	5*
445	31245	3324		3324		4010		3180		4451		3180		2942		3061	
446	31246	5918	1*	5685	1*	5777	1*	3380		4998		3380		5994	8	4687	
447	31247	4255		3491		4744		4435		4262		4435		4551		4493	
448	31248	2926		2294		4727		5510	8	4790		5510	8	5051		5280	9
449	31249	2660		2460		3726		4365		5676	9	4365		4940		4652	
450	31250	3324		3225		5694	2*	5905	5*	5917	4*	5905	5*	6272	1	6088	1*
451	31251	3723		3607		5001		4168		5102		4168		4385		4276	
452	31252	4388		4255	8	5197	7	4325		4885		4325		6216	2	5271	
453	31253	4255		3574		4793		6873	1*	5206		6873	1*	4690		5781	4*
454	30423 (S)	2859		2560		4947		6695	2*	4589		6695	2*	4496		5595	6*
455	**Local Check**	4388		3557		5093	10	5313	9	5584		5313	9	4690		5001	
Exp. Mean		**3969**		**3448**		**4674**		**4342**		**4997**		**4342**		**4735**		**4538**	
CD (5%)		607.7		664.9		292.59		549.7		308.9		549.7		524.3		365.4	
CV%		7.64		9.50		3.12		6.31		3.08		6.31		5.52		4.02	
D/S		24.06.2022						24-06-2022		13.07.2022				08-07-22			
D/P		29.07.2022						20-07-2022		20.08.2022				29-07-222			
Local Check Name		Sambha Mahsuri-Sub1						Ranjit Sub 1		SurmaDhan				Khowai			

Table No. 11.8 (Contd): Grain Yield (kg/ha) of entries in IVT RSL, *Kharif* – 2022

Entry No	IET No	Zone V				Zone V (2)		Zone VII				Zone VII (2)		Overall (17)	
		CG						AP		KA					
		JDP		RPR		mean		MTU		PNP		mean		Mean	
401	31204	5856		2029		3943		6542	5			6542	1*	4176	
402	31205	7181	3	4690	7	5936	3	5621		1910		3765		4618	
403	31206	4896				4896		5449		1006		3228		3844	
404	31207	6123		4622	9	5373		5351		1888		3619		4571	
405	31208	5358		3412		4385		5580		2608		4094		4489	
406	31209	4935		3943		4439		5862	8	2398		4130	10	4387	
407	31210	6602		2958		4780		4673		2392		3533		4663	
408	**Swarna *Sub 1* (NC)**	5889		4556	10	5222		6336	6	1155		3745		5021	6
409	31211	3411		3141		3276		5805	10	2364		4084		4374	
410	31212	6449		5133	3	5791	8	5433		3690	1*	4561	5	4952	
411	31213	4548		2501		3524		5605		2598		4101		4773	
412	31214	6966		3671		5319		6642	4	1615		4129		4980	8
413	**CR Dhan 801 (check)**	6240		3019		4629		6773	3	2383		4578	3*	4657	
414	31215	6862		5017	5	5940	2	7451	2	1697		4574	4*	5161	4
415	31216	4860				4860		5809	9	1298		3553		3673	
416	31217	6628		5156	2	5892	5	5335		2551		3943		4928	
417	31218	6484		4378		5431		5221		1805		3513		4513	
418	31219	5417		3668		4542		4935		1973		3454		4528	
419	**Zonal Check**	6592		2613		4602		5343		2243		3793		4434	
420	31220	7389	1	4469		5929	4	5539		628		3084		5127	5
421	31221	5244		3614		4429		5482		1447		3464		4175	
422	31222	5127		3339		4233		5229		3338	4	4283	6	4507	
423	31223	6123		4059		5091		5405		1662		3534		4558	
424	31224	7148	7	4154		5651	9	5592		1900		3746		4526	
425	31225	6445		4083		5264		4574		2386		3480		4767	
426	31226	4798		3762		4280		4044		2636		3340		4066	
427	31227	5973		4804	6	5389		4150		1707		2929		4623	
428	31228	6286		3422		4854		3688		1114		2401		4694	
429	31229	4564		4308		4436		4489		1777		3133		4151	
430	31230	4180		3654		3917		6275	7	2268		4272	7	3744	
431	31231	6966		3572		5269		5074		2874	6	3974		4955	10
432	31232	5723		3059		4391		4061		2532		3296		4243	
433	31233	3978		2030		3004		4608		1164		2886		3696	
434	31234	7135	8	4164		5650		3879		2043		2961		4295	
435	31235	6045		2580		4312		4414		2379		3397		4452	
436	31236	7158	5	3566		5362		4855		3601	2	4228	8	4661	
437	31237	6654		3487		5070		4632		2665	9	3649		5289	2*
438	31238	6377		4362		5369		5462		2957	5	4209	9	4560	
439	31239	5804		2620		4212		3730		1158		2444		4139	
440	31240	5700		4215		4958		4714		1015		2865		4373	
441	31241	6488		3397		4942		4538		2444		3491		4519	
442	31242	6693		5058	4	5876	6	4485		2551		3518		4986	7
443	31243	6048		4113		5080		4469		492		2480		4093	
444	31244	6234		4401		5317		4563		2265		3414		4546	
445	31245	3408		1098		2253		8178	1*	2786	8	5482	2*	3845	
446	31246	5016		4638	8	4827		4772		2319		3546		5274	3*
447	31247	5120		3787		4454		4281		1762		3022		4478	
448	31248	7148	7	3610		5379		4387		2119		3253		4695	
449	31249	5267		1596		3432		4307		3522	3	3914		3823	
450	31250	7162	4	5438	1	6300	1*	4701		2583		3642		5570	1*
451	31251	7269	2	4339		5804	7	4183		1009		2596		4727	
452	31252	5326		4401		4864		5261		1789		3525		4970	9
453	31253	6833		4160		5496		4884		330		2607		4735	
454	30423 (S)	5706		2960		4333		4146		2281		3214		4747	
455	**Local Check**	7064	9	3494		5279		4569		2868	7	3718		4943	
Exp. Mean		**5943.5**		**3605.78**		**4774.7**		**5116.10**		**2073.03**		**3575.7**		**4540.70**	
CD (5%)		1591.32		1166.64		988.71		1274.46		821.69		776.17		234.57	
CV%		13.35		16.14		10.33		12.43		20.14		10.65		2.57	
D/S		23-06-2022		29-06-2022				25.06.2022		21-07-2022					
D/P		14-07-2022		23-07-2022				26.07.2022		24-08-2022					
Local Check Name		CG 1919		CG Dhan 1919 (455)				MTU 1223		Tunga					

Table No. 11.9: Days to 50% flowering of entries in IVT RSL, *Kharif* 2022

Entry No	IET No.	Zone III													
		OD			OD (3)	WB				WB (3)	BI			BI (3)	UP
		CTK	JYP	BBN	mean	BNK	CHN	MLD@	PNB	mean	SBR	BKG	PSA	mean	GGT
401	31204	123	104	119	115	99	121	96	113	111	111	128		101	
402	31205	121	127	124	124	111	130	117	108	116	116	146	110	138	119
403	31206	132	112	126	123	130	126	108	118	124	124		156	109	
404	31207	134	109	126	123	104	119	115	104	109	109	164	138	130	120
405	31208	135	114	105	118	93	117	108	112	107	107	120	110	111	108
406	31209	127	113	104	115	99	122	106	105	109	109	117	104	110	105
407	31210	132	106	111	116	105	116	103	114	112	112	119	112	120	110
408	**Swarna *Sub 1* (NC)**	131	97	127	118	105	127	106	116	116	116	147	115	96	115
409	31211	132	101	102	112	96	116	110	100	104	104	118	107	109	102
410	31212	121	105	123	116	105	118	105	122	115	115	146	125	138	119
411	31213	122	107	106	111	89	116	106	99	101	101	119	105	116	104
412	31214	125	114	105	115	97	118	110	95	103	103	115	105	109	103
413	**CR Dhan 801 (check)**	130	114	115	120	99	126	105	113	113	113	118	111	112	105
414	31215	134	120	123	126	116	129	106	111	119	119	136	123	137	
415	31216	133	110	127	123	126	129	111	112	122	122		149	109	
416	31217	129	114	115	119	98	122	104	110	110	110	117	118	122	110
417	31218	132	108	126	122	106	125	104	116	115	115	147	123	131	113
418	31219	125	109	112	115	99	112	103	104	105	105	113	105	109	109
419	**Zonal Check**	129	111	123	121	100	119	117	93	104	104	145	129	141	126
420	31220	132	108	111	117	108	126	108	105	113	113	134	111	127	108
421	31221	125	110	105	113	105	120	104	105	110	110	113	105	103	92
422	31222	131	118	113	121	101	126	110	114	113	113	134	119	126	109
423	31223	131	118	125	125	126	128	107	108	121	121	142	133	137	120
424	31224	133	114	126	124	113	128	104	114	118	118	146	129	137	113
425	31225	132	108	115	118	105	124	108	112	114	114	119	115	90	115
426	31226	115	110	113	113	96	118	104	95	103	103	114	104	101	
427	31227	134	103	122	120	117	126	107	96	113	113	133	123	126	115
428	31228	125	113	110	116	102	119	121	94	105	105	118	107	116	109
429	31229	123	104	103	110	90	118	105	103	103	103	115	110	110	99
430	31230	115	112	107	111	92	117	118	113	107	107	103	98	93	96
431	31231	129	114	116	119	101	126	104	110	112	112	128	115	124	110
432	31232	133	125	108	122	126	127	119	112	122	122	145	123	143	127
433	31233	133	114	124	124	122	129	113	111	121	121	138	133	137	
434	31234	124	114	108	115	105	120	109	96	107	107	119	107	117	99
435	31235	132	113	113	119	105	122	104	114	114	114	120	123	115	110
436	31236	133	111	124	122	118	128	105	113	119	119	139	111	137	120
437	31237	119	107	111	112	105	116	108	107	109	109	117	111	115	105
438	31238	129	114	119	121	113	129	115	114	119	119	143	126	136	121
439	31239	125	111	112	116	99	121	104	113	111	111	116	110	112	108
440	31240	130	113	110	117	102	121	109	111	111	111	121	111	114	109
441	31241	125	115	110	117	99	116	112	115	110	110	123	141	119	108
442	31242	130	105	116	117	105	123	110	105	111	111	123	120	125	116
443	31243	131	111	125	122	126	128	106	104	119	119	147	123	137	125
444	31244	127	116	117	120	99	125	105	100	108	108	128	120	123	119
445	31245	134	112	126	124	130	130	104	106	122	122		120	137	
446	31246	132	113	108	117	104	124	112	108	112	112	130	121	126	109
447	31247	123	111	110	114	116	118	103	112	115	115	126	110	124	109
448	31248	129	112	112	117	105	122	102	112	113	113	123	129	123	115
449	31249	125	112	122	120	105	126	108	106	112	112	152	138	145	123
450	31250	134	108	121	121	117	126	103	104	116	116	129	116	121	95
451	31251	127	105	108	113	120	125	112	108	118	118	127	118	126	117
452	31252	129	121	126	125	101	118	105	100	106	106	125	128	113	106
453	31253	134	110	122	122	112	126	114	112	117	117	148	125	134	119
454	30423 (S)	124	113	126	121	106	123	108	115	115	115	146	125	139	121
455	**Local Check**	115	113	121	116	121	117	104	111	116	116	130	113	106	111
Exp. Mean		**128**	**111**	**116**	**118**	**107**	**122**	**108**	**108**	**112**	**129**	**118**	**121**	**123**	**111**
CD		6.10	3.29	2.66	2.44	0.00	1.79	3.23	4.37	1.41	2.05	1.69	4.54	1.96	1.77
CV%		2.38	1.48	1.14	1.03	0.00	0.73	1.50	2.02	0.63	0.84	0.72	1.87	0.79	0.91

Table No. 11.9 (Contd): Days to 50% flowering of entries in IVT RSL, *Kharif* 2022

Entry No	IET No.	Zone III		Zone III (11)	Zone IV				Zone IV (2)	Zone V		Zone V (2)	Zone VII		Zone VII (2)	Overall (17)
		UP	UP (2)		AS		AS (1)	TP		CG			AP	KA		
		MSD	mean	mean	TTB	KMJ@	mean	LMB	mean	JDP	RPR	mean	MTU	PNP	mean	Mean
401	31204	121	121	114	118	127	118	88	103	104	103	103	82		82	109
402	31205	118	119	123	144	110	144	98	121	105	123	114	123	119	121	121
403	31206	111	111	124	155	134	155	94	125	110		110	141	110	125	123
404	31207	118	119	124	125	126	125	96	111	109	118	113	114	125	120	121
405	31208	106	107	112	122	110	122	93	107	96	102	99	99	105	102	108
406	31209	104	104	110	113	122	113	84	98	89	94	92	99	120	109	106
407	31210	110	110	114	120	118	120	98	109	100	104	102	103	116	109	111
408	**Swarna *Sub 1* (NC)**	114	114	117	127	116	127	96	111	105	105	105	110	121	115	115
409	31211	104	103	108	122	132	122	95	108	85	95	90	97	99	98	104
410	31212	120	119	122	126	111	126	95	110	112	124	118	124	107	116	119
411	31213	105	104	108	123	125	123	91	107	90	101	95	102	110	106	106
412	31214	104	103	108	112	126	112	90	101	97	100	98	99	123	111	106
413	**CR Dhan 801 (check)**	106	106	113	118	111	118	87	102	101	102	101	102	121	111	110
414	31215	107	107	124	125	122	125	99	112	102	110	106	112	115	113	119
415	31216	108	108	122	150	130	150	111	130	112		112	139	128	133	124
416	31217	111	110	115	117	117	117	95	106	92	104	98	107	105	106	111
417	31218	113	113	122	132	118	132	99	115	109	111	110	113	122	118	119
418	31219	110	109	109	109	130	109	87	98	100	101	101	98	120	109	107
419	**Zonal Check**	126	126	122	131	121	131	99	115	109	123	116	126	121	123	120
420	31220	110	109	116	119	113	119	96	108	105	111	108	111	121	116	114
421	31221	97	95	107	116	112	116	90	103	89	96	92	104	121	112	105
422	31222	108	108	118	121	118	121	97	109	92	104	98	111	105	108	113
423	31223	120	120	126	128	127	128	102	115	108	118	113	119	124	121	123
424	31224	114	114	124	123	126	123	103	113	106	116	111	126	114	120	121
425	31225	116	115	114	126	114	126	94	110	104	104	104	108	120	114	112
426	31226	114	114	108	121	131	121	86	103	109	92	100	97	102	99	105
427	31227	116	115	119	124	113	124	93	108	107	112	109	108	118	113	116
428	31228	109	109	111	122	112	122	89	105	94	101	97	102	105	103	108
429	31229	100	99	107	119	113	119	89	104	77	95	86	102	99	100	103
430	31230	98	97	104	113	106	113	90	101	77	85	81	94	98	96	100
431	31231	115	112	117	121	126	121	96	108	99	107	103	108	118	113	114
432	31232	126	126	127	145	114	145	108	126	92	125	108	126	125	126	124
433	31233	120	120	126	136	118	136	93	115	110	128	119	120	116	118	123
434	31234	101	100	110	119	112	119	85	102	102	105	103	106	123	114	109
435	31235	107	109	116	116	116	116	91	103	103	106	105	102	122	112	112
436	31236	108	114	122	136	119	136	100	118	108	118	113	122	120	121	120
437	31237	108	106	111	123	108	123	92	107	94	102	98	99	117	108	108
438	31238	120	120	124	137	127	137	98	117	108	117	112	117	123	120	121
439	31239	109	109	112	122	115	122	95	109	109	105	107	104	122	113	111
440	31240	110	109	113	117	111	117	90	104	109	103	106	103	121	112	111
441	31241	110	109	116	131	111	131	95	113	104	105	104	103	116	109	114
442	31242	115	115	116	125	111	125	98	111	99	108	103	106	114	110	114
443	31243	124	125	125	132	109	132	101	116	110	120	115	124	123	123	123
444	31244	120	119	117	128	116	128	96	112	104	110	107	106	121	114	115
445	31245	113	113	123	147	127	147	79	113	112	120	116	124	124	124	121
446	31246	112	110	117	115	115	115	98	106	97	105	101	107	106	106	112
447	31247	111	110	115	127	128	127	91	109	102	108	105	105	120	112	113
448	31248	114	114	118	126	117	126	94	110	97	106	101	104	115	110	114
449	31249	122	123	125	134	119	134	103	118	111	131	121	126	120	123	123
450	31250	97	96	115	115	120	115	96	105	102	109	105	113	119	116	113
451	31251	118	118	118	119	118	119	99	109	108	110	109	115	123	119	116
452	31252	107	106	116	119	110	119	88	103	90	100	95	107	107	107	111
453	31253	110	114	123	127	125	127	102	115	99	119	109	120	127	124	120
454	30423 (S)	116	118	123	131	118	131	94	112	112	123	117	124	118	121	121
455	**Local Check**	115	113	116	126	118	126	102	114	99	102	100	125	124	125	115
Exp. Mean		**111**	**111**	**117**	**125**	**119**	**125**	**94**	**110**	**101**	**108**	**105**	**110**	**116**	**113**	**114**
CD		2.48	1.87	0.94	4.42	7.08	4.42	8.59	3.67	0.00	1.84	0.92	2.73	3.72	2.49	0.92
CV%		1.11	0.84	0.40	1.76	2.98	1.76	4.54	1.59	0.00	0.88	0.44	1.23	1.62	1.10	0.40

Table No. 11.10: Plant height (cm) of entries in IVT RSL, *Kharif* 2022

Entry No	IET No.	Zone III													
		OD			OD (3)	WB				WB (3)	BI			B I (3)	UP
		CTK	JYP	BBN	mean	BNK	CHN	MLD@	PNB	mean	SBR	BKG	PSA	mean	GGT
401	31204	98	95	132	108	112	102	139	105	106	127		109	118	
402	31205	101	72	114	96	102	110	113	101	104	120	109	110	113	114
403	31206	110	117	137	121	122	101	146	107	110		112	124	118	
404	31207	97	75	122	98	98	105	123	98	100	117	111	96	108	111
405	31208	94	96	118	103	117	76	123	114	102	132	134	118	128	124
406	31209	91	107	108	102	78	118	91	92	96	98	100	99	99	101
407	31210	99	90	127	105	128	130	110	124	127	145	123	125	131	127
408	**Swarna *Sub 1* (NC)**	100	86	106	97	77	86	100	90	84	115	104	103	107	101
409	31211	111	85	128	108	123	105	124	123	117	134	121	124	126	134
410	31212	115	74	100	96	127	114	121	99	113	112	108	101	107	116
411	31213	110	84	118	104	127	99	131	129	118	130	127	121	126	115
412	31214	105	92	103	100	118	99	132	104	107	122	117	119	119	114
413	**CR Dhan 801 (check)**	105	88	101	98	93	98	110	100	97	112	112	102	109	108
414	31215	107	88	110	102	78	83	107	94	85	115	104	80	100	
415	31216	96	98	90	95	107	102	100	96	102		81	124	103	
416	31217	101	79	102	94	113	103	137	107	108	126	123	106	118	119
417	31218	95	89	130	105	137	105	139	129	124	142	131	115	129	140
418	31219	90	74	104	89	97	102	110	104	101	115	109	107	110	111
419	**Zonal Check**	92	76	121	96	97	103	110	89	96	109	106	89	101	106
420	31220	107	81	107	98	93	114	130	103	103	125	119	107	117	119
421	31221	94	81	97	91	102	85	100	99	95	108	100	100	102	109
422	31222	99	81	124	101	118	111	149	101	110	141	124	119	128	131
423	31223	102	93	131	109	87	104	136	100	97	125	98	101	108	120
424	31224	105	82	134	107	117	121	110	96	111	110	108	83	100	107
425	31225	101	66	97	88	82	87	103	117	95	113	95	92	100	103
426	31226	100	89	108	99	117	120	107	106	114	111	129	117	119	
427	31227	105	98	110	104	122	110	130	118	117	132	120	105	119	126
428	31228	105	70	126	100	112	101	131	114	109	129	140	119	129	106
429	31229	110	88	122	107	122	115	120	109	115	130	121	135	129	117
430	31230	103	106	102	104	97	99	100	100	99	95	109	100	101	100
431	31231	108	75	127	103	118	122	131	114	118	137	112	124	124	120
432	31232	106	75	129	103	113	114	127	114	114	113	105	110	109	129
433	31233	117	84	134	112	162	130	150	121	138	145	98	108	117	
434	31234	115	77	123	105	133	127	110	125	128	145	131	133	136	134
435	31235	97	89	117	101	122	108	105	125	118	136	120	111	122	122
436	31236	101	95	132	109	97	115	130	108	107	117	130	101	116	117
437	31237	105	95	112	104	127	109	120	127	121	128	127	121	125	132
438	31238	100	86	132	106	103	90	110	99	97	104	119	114	112	110
439	31239	113	87	117	106	102	103	105	101	102	123	109	106	113	116
440	31240	102	85	103	97	113	123	105	102	113	125	115	116	119	105
441	31241	125	95	94	105	112	105	130	112	110	121	90	110	107	125
442	31242	103	88	107	99	98	103	135	110	104	125	115	105	115	117
443	31243	113	84	124	107	92	97	126	95	95	126	114	107	116	114
444	31244	126	77	111	105	125	127	128	108	120	133	128	121	127	115
445	31245	97	98	99	98	77	90	95	95	87		130	106	118	
446	31246	123	91	97	104	93	100	102	106	100	124	115	98	112	116
447	31247	118	94	98	103	82	101	105	87	90	104	104	79	96	102
448	31248	117	99	118	111	102	90	118	112	101	120	109	101	110	111
449	31249	114	78	121	104	108	128	132	106	114	121	120	104	115	124
450	31250	98	74	116	96	117	101	124	118	112	135	120	121	125	120
451	31251	96	71	117	95	83	103	105	98	95	121	110	99	110	109
452	31252	123	77	104	101	113	121	105	125	120	129	106	120	118	114
453	31253	114	84	123	107	87	109	124	106	101	131	117	104	117	120
454	30423 (S)	124	98	128	117	123	130	150	131	128	132	140	110	127	126
455	**Local Check**	110	106	120	112	113	116	128	96	108	121	122	81	108	93
Exp. Mean		**106**	**87**	**115**	**102**	**108**	**107**	**120**	**107**	**107**	**123**	**115**	**108**	**115**	**116**

Table No. 11.10 (Contd): Plant height (cm) of entries in IVT RSL, *Kharif* 2022

Entry No	IET No.	Zone III		Zone III (11)	Zone IV				Zone IV (2)	Zone V		Zone V (2)	Zone VII		Zone VII (2)	Overall (17)
		UP	UP (2)		AS		AS (1)	TP		CG			AP	KA		
		MSD	Mean	mean	TTB	KMJ@	mean	LMB	mean	JDP	RPR	mean	MTU	PNP	mean	Mean
401	31204	112	112	110	127	106	127	97	112	91	109	100	108		108	109
402	31205	116	115	106	122	121	122	128	125	92	89	91	124	70	97	105
403	31206	120	120	117	146	132	146	137	141	84	100	92	168	99	133	119
404	31207	115	113	104	123	105	123	99	111	83	112	97	124	70	97	103
405	31208	130	127	114	134	130	134	117	125	95	212	154	122	83	103	119
406	31209	106	104	100	115	240	115	97	106	74	97	85	103	61	82	97
407	31210	130	129	122	136	127	136	124	130	100	116	108	152	97	124	122
408	**Swarna *Sub 1* (NC)**	106	104	98	106	94	106	86	96	57	98	78	115	60	87	94
409	31211	140	137	121	130	138	130	124	127	95	126	110	154	89	121	120
410	31212	120	118	108	117	105	117	112	115	86	107	97	116	79	98	106
411	31213	120	118	116	130	118	130	112	121	84	111	98	116	71	93	112
412	31214	116	115	110	117	126	117	109	113	88	106	97	116	72	94	107
413	**CR Dhan 801 (check)**	110	109	103	113	110	113	91	102	81	99	90	118	66	92	100
414	31215	111	111	97	115	103	115	97	106	75	107	91	119	63	91	96
415	31216	115	115	101	95	96	95	79	87	68	76	72	111	63	87	93
416	31217	121	120	109	128	116	128	112	120	87	125	106	121	74	98	109
417	31218	145	143	123	137	123	137	127	132	99	135	117	154	92	123	124
418	31219	116	114	103	119	98	119	107	113	69	107	88	98	77	88	100
419	**Zonal Check**	107	107	99	127	120	127	107	117	79	86	82	121	72	96	99
420	31220	120	120	109	138	122	138	102	120	83	106	94	126	76	101	107
421	31221	112	111	99	104	104	104	91	98	66	93	80	95	69	82	94
422	31222	140	136	117	140	131	140	112	126	95	127	111	145	92	118	118
423	31223	125	123	108	122	89	122	102	112	85	115	100	135	75	105	107
424	31224	111	109	107	119	117	119	117	118	80	107	94	120	75	98	105
425	31225	105	104	96	120	95	120	97	108	84	99	92	111	63	87	96
426	31226	106	106	110	125	125	125	117	121	78	104	91	118	76	97	108
427	31227	130	128	116	130	121	130	117	123	96	126	111	137	78	107	115
428	31228	110	108	112	114	123	114	109	111	93	126	110	125	65	95	110
429	31229	120	119	117	132	107	132	122	127	91	125	108	129	76	102	115
430	31230	101	101	101	101	129	101	89	95	83	98	91	84	64	74	96
431	31231	123	122	116	133	111	133	127	130	103	127	115	150	92	121	118
432	31232	130	130	113	130	92	130	114	122	87	117	102	150	89	119	113
433	31233	126	126	122	157	128	157	137	147	96	124	110	165	107	136	126
434	31234	136	135	125	140	138	140	132	136	102	138	120	160	82	121	125
435	31235	125	124	116	138	108	138	122	130	88	125	107	131	83	107	115
436	31236	123	120	112	123	120	123	117	120	91	113	102	135	78	107	111
437	31237	136	134	120	127	118	127	122	125	98	126	112	124	90	107	118
438	31238	115	113	106	116	107	116	109	113	80	97	89	120	79	99	104
439	31239	117	117	108	121	98	121	112	116	83	106	95	118	66	92	106
440	31240	110	108	109	121	108	121	109	115	89	120	104	130	76	103	108
441	31241	126	126	110	123	120	123	107	115	90	110	100	122	71	96	108
442	31242	120	119	108	134	111	134	107	120	88	127	107	132	74	103	109
443	31243	116	115	107	134	99	134	112	123	112	115	114	134	66	100	109
444	31244	118	117	117	126	117	126	122	124	98	125	112	130	76	103	116
445	31245	120	120	101	110	84	110	97	103	68	105	87	118	74	96	99
446	31246	118	117	107	125	118	125	99	112	65	116	90	123	68	95	104
447	31247	105	104	98	104	104	104	84	94	71	87	79	105	67	86	94
448	31248	115	113	108	127	116	127	104	116	90	109	100	132	69	100	107
449	31249	126	125	114	133	128	133	122	127	80	117	98	145	84	115	113
450	31250	128	124	113	134	131	134	112	123	88	127	108	149	85	117	114
451	31251	112	111	102	123	117	123	97	110	71	106	89	129	61	95	100
452	31252	116	115	113	130	128	130	119	125	89	117	103	133	71	102	112
453	31253	122	121	111	129	116	129	107	118	82	105	94	149	70	109	109
454	30423 (S)	130	128	125	138	137	138	132	135	103	127	115	148	89	118	124
455	**Local Check**	111	102	108	132	117	132	112	122	64	96	80	114	86	100	105
Exp. Mean		**119**	**118**	**110**	**125**	**117**	**125**	**110**	**118**	**85**	**113**	**99**	**128**	**76**	**102**	**109**

Table No. 11.11: Panicle/m^2 of entries in IVT RSL, *Kharif* 2022

Entry No	IET No.	Zone III													
		OD			OD (3)	WB				WB (3)		BI		B I (3)	UP
		CTK	JYP	BBN	mean	BNK	CHN	MLD@	PNB	mean	SBR	BKG	PSA	mean	GGT
401	31204	190	303	217	237	330	297	322	187	271	275		93	184	74
402	31205	181	310	226	239	274	198	321	194	222	425	341	201	322	
403	31206	209	353	241	267	344	314	323	195	284		317	194	255	174
404	31207	193	283	227	234	420	297	323	209	308	363	370	173	302	
405	31208	167	313	195	225	279	330	320	293	301	268	362	257	295	149
406	31209	182	433	222	279	252	330	320	231	271	226	328	170	241	146
407	31210	171	424	298	298	256	281	322	331	289	376	322	184	294	168
408	**Swarna *Sub 1* (NC)**	189	339	212	247	284	347	323	223	284	408	383	169	320	184
409	31211	160	349	229	246	230	330	327	226	262	260	319	201	260	168
410	31212	170	323	246	246	387	314	323	190	297	301	358	173	277	148
411	31213	194	270	207	224	276	347	328	258	293	287	376	185	282	169
412	31214	183	313	170	222	412	248	324	242	300	288	352	152	264	160
413	**CR Dhan 801 (check)**	161	325	205	230	304	347	322	178	276	289	357	276	307	177
414	31215	178	363	336	292	403	363	325	299	355	344	324	223	297	161
415	31216	200	343	244	262	473	281	323	194	316		375	209	292	
416	31217	196	350	191	245	302	314	323	279	298	278	315	173	255	
417	31218	181	370	271	274	283	297	332	245	275	319	329	219	289	145
418	31219	188	337	222	249	258	297	325	178	244	249	349	197	265	209
419	**Zonal Check**	185	317	370	290	264	264	328	204	244	363	339	232	311	176
420	31220	199	322	258	259	312	231	325	176	240	262	401	206	290	190
421	31221	181	309	325	272	280	380	326	224	295	243	327	143	237	182
422	31222	191	315	259	255	270	363	322	276	303	332	336	191	286	172
423	31223	194	336	189	239	347	314	332	223	294	365	371	210	315	175
424	31224	219	346	191	252	349	314	319	253	305	289	325	223	279	191
425	31225	204	395	241	280	254	413	320	259	308	395	319	207	307	194
426	31226	176	345	304	275	299	330	324	175	268	226	341	188	251	160
427	31227	194	284	363	280	310	248	325	274	277	379	379	184	314	
428	31228	219	356	257	277	307	363	322	215	295	353	315	176	281	178
429	31229	205	330	275	270	348	231	321	196	258	243	370	204	272	159
430	31230	190	332	211	244	247	231	325	281	253	325	375	191	297	142
431	31231	250	299	241	263	273	297	323	194	254	308	347	198	284	155
432	31232	192	336	237	255	273	314	323	139	242	292	378	201	290	192
433	31233	234	303	258	265	287	215	321	244	248	386	375	203	321	142
434	31234	222	386	242	283	353	248	320	260	287	208	338	211	252	
435	31235	193	400	238	277	252	215	321	183	216	179	345	218	247	204
436	31236	201	303	264	256	341	231	327	250	274	383	396	217	332	169
437	31237	184	326	276	262	278	248	323	280	268	270	359	210	280	195
438	31238	192	325	202	239	268	248	320	184	233	319	347	188	284	166
439	31239	208	274	309	263	248	347	322	196	263	298	360	206	288	139
440	31240	191	316	309	272	279	413	322	220	304	239	349	203	263	155
441	31241	208	353	364	308	359	248	322	282	296	383	361	247	330	169
442	31242	202	309	290	267	273	231	327	206	236	308	354	262	308	156
443	31243	213	290	342	282	387	314	324	192	298	349	312	255	305	175
444	31244	252	336	253	280	307	231	322	218	252	210	350	279	279	187
445	31245	190	307	201	232	377	314	321	157	282		350	211	280	134
446	31246	219	350	317	295	331	314	319	297	314	262	324	203	263	
447	31247	195	350	250	265	274	264	321	200	246	366	384	188	312	146
448	31248	201	309	276	262	337	248	322	236	273	402	367	216	328	185
449	31249	199	326	298	274	251	231	325	230	237	343	325	190	286	148
450	31250	210	306	228	248	269	231	327	279	260	357	318	206	294	169
451	31251	189	317	256	254	280	248	320	225	251	369	373	215	319	181
452	31252	226	336	312	291	389	314	318	236	313	313	339	210	287	174
453	31253	227	336	298	287	349	281	319	258	296	384	347	232	321	169
454	30423 (S)	252	310	250	271	381	314	318	204	299	263	380	235	293	181
455	**Local Check**	223	323	203	250	284	264	323	261	269	350	318	227	298	167
Exp. Mean		**198**	**331**	**256**	**262**	**310**	**291**	**323**	**228**	**276**	**313**	**349**	**204**	**287**	**167**
CD		32.0	53.8	35.7	40.5	45.0	61.8	3.5	62.6	43.2	104.2	24.8	41.8	56.9	33.3
CV%		8.1	8.1	7.0	7.7	7.2	10.6	0.5	13.7	8.0	17.6	3.6	10.2	10.5	11.4

Table No. 11.11 (Contd): Panicle/m^2 of entries in IVT RSL, *Kharif* 2022

Entry No	IET No.	Zone III		Zone III (11)	Zone IV				Zone IV (2)	Zone V		Zone V (2)	Zone VII		Zone VII (2)	Overall (17)
		UP	UP (2)		AS		AS (1)	TP		CG			AP	KA		
		MSD	mean	mean	TTB	KMJ@	mean	LMB	mean	JDP	RPR	mean	MTU	PNP	mean	Mean
401	31204	121	97	214	117	126	117	175	146	128	69	98	141	182	161	177
402	31205	128	128	249	129	149	129	138	133	160	77	119	156	240	198	198
403	31206	173	173	255	203	228	203	325	264	329	73	201	346		346	246
404	31207	204	204	274	177	269	177	350	263	269	174	222	317	407	362	268
405	31208	220	184	260	242	289	242	300	271	296		296	311	319	315	263
406	31209	202	174	251	167	265	167	238	202	287	184	236	311	392	351	246
407	31210	219	194	277	179	253	179	238	208	271	77	174	319	392	355	259
408	**Swarna *Sub 1* (NC)**	126	155	262	230	217	230	300	265	285	102	193	307	428	368	256
409	31211	221	195	250	191	264	191	325	258	252	55	153	299	341	320	239
410	31212	237	192	262	251	182	251	338	294	304	154	229	308	436	372	264
411	31213	238	203	259	234	269	234	313	273	273	127	200	297	370	334	252
412	31214	196	178	250	236	283	236	250	243	286	194	240	307	378	342	251
413	**CR Dhan 801 (check)**	265	221	266	229	295	229	263	246	301	180	240	312	407	359	263
414	31215	201	181	290	257	280	257	263	260	285	73	179	315	392	354	278
415	31216	217	217	282	240	255	240	188	214	296	100	198	313	356	334	260
416	31217	209	209	263	231	303	231	288	259	294	172	233	321	399	360	266
417	31218	219	182	265	219	274	219	313	266	299		299	341	378	359	271
418	31219	160	184	246	188	256	188	188	188	303	119	211	301	428	365	238
419	**Zonal Check**	213	194	270	263	266	263	225	244	192	170	181	297	341	319	255
420	31220	219	204	257	226	281	226	300	263	248	137	192	317	407	362	251
421	31221	208	195	258	262	298	262	350	306	240	159	199	307	414	361	264
422	31222	218	195	268	198	306	198	250	224	247	175	211	252	399	326	256
423	31223	239	207	272	256	256	256	263	259	298	95	196	313	436	374	265
424	31224	247	219	270	233	288	233	238	235	304	137	220	319	392	355	265
425	31225	218	206	282	252	240	252	238	245	286	159	222	306	428	367	276
426	31226	225	192	256	258	288	258	250	254	300	202	251	305	370	337	258
427	31227	261	261	289	281	282	281	288	284	280	174	227	294	363	328	278
428	31228	184	181	268	189	258	189	238	213	261	90	175	287	385	336	252
429	31229	215	187	256	266	256	266	313	289	303	128	216	303	392	347	257
430	31230	259	201	257	212	261	212	325	268	246	176	211	288	378	333	251
431	31231	242	198	259	250	282	250	338	294	327	138	233	301	385	343	262
432	31232	239	215	258	259	271	259	400	330	251	100	175	320	399	360	259
433	31233	214	178	263	197	295	197	375	286	254	163	209	304	363	334	258
434	31234	244	244	274	240	278	240	275	258	289	186	237	287	486	387	275
435	31235	221	212	247	191	290	191	188	189	286	132	209	264	370	317	234
436	31236	240	204	275	213	257	213	363	288	243	165	204	267	378	322	262
437	31237	246	220	265	221	289	221	238	229	321	95	208	274	348	311	251
438	31238	222	194	247	268	281	268	313	290	313	149	231	301	385	343	254
439	31239	218	178	258	200	295	200	338	269	298	97	197	291	348	320	250
440	31240	226	190	266	191	280	191	213	202	305	111	208	304	378	341	252
441	31241	239	204	292	220	290	220	325	272	319	181	250	261	334	297	279
442	31242	249	202	262	264	287	264	238	251	291	101	196	285	356	320	252
443	31243	238	206	280	239	267	239	375	307	249	71	160	294	428	361	274
444	31244	247	217	265	241	268	241	413	327	311	180	246	308	363	335	270
445	31245	251	192	254	238	258	238	188	213	303	194	248	287	385	336	249
446	31246	215	215	282	221	275	221	238	229	290	152	221	297	407	352	272
447	31247	216	181	261	194	285	194	288	241	271	108	189	361	370	366	252
448	31248	224	204	275	224	289	224	338	281	258	155	206	284	392	338	267
449	31249	234	191	257	249	268	249	288	268	293	157	225	278	363	320	255
450	31250	247	208	261	269	283	269	325	297	225	119	172	291	378	334	258
451	31251	246	214	267	226	287	226	350	288	274	149	211	300	385	343	263
452	31252	254	214	283	255	297	255	338	296	260	188	224	313	363	338	280
453	31253	218	193	282	196	284	196	325	261	260	123	192	282	385	333	268
454	30423 (S)	231	206	274	220	263	220	263	241	260	74	167	302	443	372	260
455	**Local Check**	232	199	263	250	276	250	338	294	314	206	260	307	436	371	273
Exp. Mean		**220**	**196**	**264**	**224**	**268**	**224**	**286**	**255**	**276**	**136**	**209**	**296**	**381**	**338**	**257**
CD		78.4	55.8	48.3	66.8	76.5	66.8	109.9	81.2	116.2	78.2	97.2	94.0	135.5	114.8	66.6
CV%		17.8	14.6	9.8	14.8	14.3	14.8	19.2	15.7	21.0	29.7	25.4	15.9	18.1	17.0	13.3

ADVANCE VARIETY TRIAL 1- SEMI DEEP WATER (AVT 1-SDW)

Locations : 10 **Test Entries:11**

Checks : CR Dhan 506 (National), CR Dhan 510 (Eastern, North Eastern Zonal), MTU 1172 (Southern zonal), Varshadhan (RP Check) and Local Check **Table:12.1**

The trial was constituted with 11 entries including 07 test entries and four checks viz., CR Dhan 506 (National check), CR Dhan 510/ MTU 1172 (Zonal Checks), Varshadhan (Recurrent parent check) and Local Checks. Out of the eleven test entries, three test entries (IET 29121, IET 29122, IET 28296) were in third year, IET 30414 was in second year and remaining three NIL entries (IET 29031, IET 29026, IET 29032) were in the first year of testing. The trial was sent to 12 locations and data was received from 10 locations except Kumta and Mugad. In Zone III, data from five locations except Ghaghraghat (mean yield < 2000kg/ha), Zone IV data from one location except Titabar and Karimganj (CV< 5%) and Zone VII, data of only one location was considered for evaluating the performance of test entries.

Overall mean yield of entries varied from 4308 kg/ha (IET 29032) to 5021 kg/ha (IET 29121). Mean days to 50% flowering ranged from 115 days (CR Dhan 506) to 174 days (IET 29026); plant height ranged from 119cm (Zonal Check) to 155cm (IET 29026); mean panicles/m2 ranged from 215 (IET 29031) to 231 (IET 29026). The data pertaining to yield, days to 50% flowering, plant height, no. of panicles/m2 and qualities are presented in Tables 12.1 to 12.6. On overall mean yield basis, one entry (IET 29121) showed yield superiority of 6.7 % over the best check.

In Zone III, one entry (IET 28296) outperformed best check (Zonal Check) with yield advantage of 8.30%. On the other hand, among three entries in 3rd year of testing two entries (IET 29121, IET 28296) performed superior in zone III.

Identification of superior genotypes in SDW trial:

IET 29121 (CR 3838-2-2-1-1-2) derived from a cross between Savitri/AC 38562//Varshadhan possess MS grain with 145cm plant height and 122 days to 50% flowering. On Overall yield basis, it ranked 1st (5021kg/ha) with yield advantage of 6.7% over the best check. It also ranked 1st in U.P. in zone III and Andhra Pradesh in zone VII during 2022. The entry recorded low HRR (52.45 %), intermediate ASV (4.5) and AC (25.90%) for grain quality parameters. The entry recorded better seedling survival, submergence tolerance, better elongation ability, desirable phenotypic acceptability and low grain shattering. But it has low HRR (52.45 %).

Based three years of evaluation, the entry was found superior in Odisha and West Bengal during 2020; during the year 2021, it was superior in West Bengal and Bihar states. In the year 2022, the entry performed superior in Uttar Pradesh and Andhra Pradesh. However, the entry was not found consistent in performance over the years.

IET 28296 (CN 1758-2-TTB 7) derived from a cross between CN 1216 / CN 1131-4-1-4 possess LB grain with 124 cm plant height and 123 days to 50% flowering. It ranked 1st (4806kg/ha) with yield advantage of 8.30 % in Zone III over the best check. The entry

recorded acceptable HRR (58.7 %), intermediate ASV (5.5) and AC (23%). The entry recorded better seedling survival, submergence tolerance, better elongation ability, desirable phenotypic acceptability and low grain shattering. It is found promising for the state of Bihar and Odisha under Zone III.

Based three years of evaluation, the entry was found superior in Odisha during 2020; during the year 2021, it was superior in Uttar Pradesh and Bihar states. In the year 2022, the entry performed superior in Bihar and Odisha. However, the entry was not found consistent in performance over the years.

IET 29122 (OR 2752) derived from the cross between Salivahana/Basamanik possess MB grain with 123 cm average plant height and 127 days to 50% flowering. It ranked second (5860 kg/ha) with yield advantage of 13.18% in zone VII over the best check. However, the entry was found superior based on one location and the yield advantage is not to threshold level (15% when considered one location), hence discontinued.

Details of water regime (cm) at different centers in AVT-1- SDW, *Kharif* 2022

Location	Week	June	July	August	September	October	November	December
Bhubaneswar	1st	0	0	5	20	30	45	0
	2nd	0	0	5	25	35	45	0
	3rd	0	0	10	20	40	45	0
	4th	0	5	10	25	40	50	0
Chinsurah	1st	0	0	10	40	90	20	0
	2nd	0	0	15	60	60	15	0
	3rd	0	0	20	80	40	10	0
	4th	0	15	20	90	20	0	0
Gerua, ICAR	1st	0	0	45	40	40	40	0
	2nd	0	0	45	40	40	40	0
	3rd	0	0	45	40	40	40	0
	4th	0	0	45	40	40	40	0
Ghaghraghat	1st	0	0	0	35	70	55	0
	2nd	0	0	18	42	78	30	0
	3rd	0	0	25	50	82	12	0
	4th	0	0	28	62	70	5	0
Karimganj	1st	100	70	60	55	38	18	0
	2nd	98	73	58	53	36	14	0
	3rd	98	65	55	51	30	13	0
	4th	95	60	53	50	28	10	0
Maruteru	1st	0	0	15	35	48	25	0
	2nd	0	0	17	32	55	22	0
	3rd	0	0	18	38	52	28	0
	4th	0	0	20	43	60	25	0
Masodha	1st	0	0	10	7	75	50	0
	2nd	0	0	8	45	70	40	0
	3rd	0	0	12	52	60	35	0
	4th	0	0	10	36	55	20	0
NRRI, Cuttack	1st	0	0	0	40	60	30	0
	2nd	0	0	40	50	55	10	0
	3rd	0	0	40	55	50	5	0
	4th	0	0	45	60	35	0	0
Pusa	1st	8	30	40	60	50	8	0
	2nd	20	30	50	60	35	0	0
	3rd	20	40	50	60	20	0	0
	4th	30	40	60	60	8	0	0
Titabar	1st	0	0	46	52	35	25	0
	2nd	0	0	42	51.3	34	22	0
	3rd	0	30	35	42	36.8	20	0
	4th	0	32	30	61	35	20	0
	5th	0	35	43	45	32	16	0

Adaptability Parameters of entries in AVT-1-SDW, *Kharif* 2022

Entry No.	IET No.	Kneeing Ability Score (1-9)									
		BBN	CHN	GER	GGT	KMJ	MTU	MSD	CTK	PSA	TTB
501	29121	1	3	-	9		1	9	-	1	-
502	CR Dhan 506 (NC)	1		-	9		5	9	-	3	-
503	29122	5	5	-	9		5	9	-	4	-
504	28296 (R)	5	3	-	7		3	7	-	4	-
505	Zonal Check	3	3	-	9		3	9	-	2	-
506	30414	5	5	-	9		5	9	-	2	-
507	29031	3	5	-	8		5	8	-	1	-
508	29026	3	5	-	9		5	9	-	3	-
509	29032	3	3	-	7		5	7	-	3	-
510	Varshadhan (RP)	3	3	-	9		5	9	-	1	-
511	Local Check	5	1		3		7	3		3	

(Contd.) Adaptability Parameters of entries in AVT-1-SDW, *Kharif* 2022

Entry No.	IET No.	Grain Shattering Score (1-9)									
		BBN	CHN	GER	GGT	KMJ	MTU	MSD	CTK	PSA	TTB
501	29121	3	3			3	3	1	5	1	3
502	CR Dhan 506 (NC)	3				5	5	1	5	1	1
503	29122	5	3		3	3	3	3	5	1	3
504	28296 (R)	5	5		1	3	5	1	5	1	3
505	Zonal Check	3	5		1	3	7	1	5	1	1
506	30414	3	3		1	3	3	1	5	1	5
507	29031	5	3		3	3	5	3	5	1	3
508	29026	5	3		3	5	5	3	5	1	5
509	29032	7	3		1	3	3	1	5	1	3
510	Varshadhan (RP)	3	3		1	3	3	1	5	1	3
511	Local Check	3	3		1	3	3	1	5	1	1

(Contd.) Adaptability Parameters of entries in AVT-1-SDW, *Kharif* 2022

Entry No.	IET No.	Phenotypic Acceptability Score(1-9)									
		BBN	CHN	GER	GGT	KMJ	MTU	MSD	CTK	PSA	TTB
501	29121	5	1	-	9	3	3	1	3	3	5
502	CR Dhan 506 (NC)	3	-	-	9	5	7	5	3	5	3
503	29122	3	3	-	5	1	7	5	5	8	3
504	28296 (R)	5	3	-	3	3	7	5	5	7	3
505	Zonal Check	1	5	-	9	3	5	5	3	6	3
506	30414	5	1	-	5	3	5	5	5	6	7
507	29031	5	3	-	7	1	5	5	3	5	3
508	29026	3	1	-	9	5	3	5	3	7	3
509	29032	1	3	-	7	1	3	5	5	5	3
510	Varshadhan (RP)	5	1	-	9	3	7	5	3	7	3
511	Local Check	3	1		3	1	3	3	3	8	3

(Contd.) Adaptability Parameters of entries in AVT-1-SDW, *Kharif* 2022

Entry No.	IET No.	Seedling Survival Score (%)									
		BBN	CHN	GER	GGT	KMJ	MTU	MSD	CTK	PSA	TTB
501	29121	65	100	-	85	75	96.7	87	81	72	-
502	CR Dhan 506 (NC)	65		-	30	70	100	76	77	74	-
503	29122	50	100	-	70	80	98	72	75	84	-
504	28296 (R)	50	70	-	70	75	97.8	85	87	90	-
505	Zonal Check	20	70	-	75	70	98	81	78	70	-
506	30414	20	85	-	70	70	96	80	82	70	-
507	29031	50	100	-	75	80	96.7	75	84	69	-
508	29026	50	100	-	70	70	98.5	78	83	75	-
509	29032	65	100	-	75	80	96.5	77	81	77	-
510	Varshadhan (RP)	65	100	-	75	75	93.4	79	71	71	-
511	Local Check	50	100	-	95	80	93.5	93	79	73	-

(Contd.) Adaptability Parameters of entries in AVT-1-SDW, *Kharif* 2022

Entry No.	IET No.	Elongation Ability Score (1-9)									
		BBN	CHN	GER	GGT	KMJ	MTU	MSD	CTK	PSA	TTB
501	29121	1	1	-	1		3	1	5	3	-
502	CR Dhan 506 (NC)	1		-	3		3	3	5	5	-
503	29122	7	3	-	3		3	3	7	5	-
504	28296 (R)	7	3	-	3		7	3	5	5	-
505	Zonal Check	3	3	-	3		5	3	5	3	-
506	30414	3	1	-	3	-	3	3	5	3	-
507	29031	5	1	-	1	-	5	1	3	5	-
508	29026	1	1	-	1	-	3	1	3	5	-
509	29032	5	1	-	1	-	3	1	3	5	-
510	Varshadhan (RP)	5	1	-	1	-	7	1	5	7	-
511	Local Check	5	3	-	1	-	5	1	5	7	-

Superior genotypes identified in AVT-2-SDW during *Kharif* 2022 in Zones III, IV & VII

Entry No	IET No/ Designation/ Cross	Zone III (5) Mean		Zone IV (1)		Zone VII (1)		Overall (7)		Remarks
		GY(Kg/ha) DFF PH (cm)	% over best check	GY(Kg/ha) DFF PH (cm)	% over best check	GY(Kg/ha) DFF PH (cm)	% over best check	GY(Kg/ha) DFF PH (cm)	% over best check	
501	29121 CR 3838 -2-2-1-1-2 Savitri/AC 38562//Varshadhan	4494 119 151	-	5650 126 130	-	7027 128 178	-	5021 122 145	6.7%	Performed superior on overall basis
504	28296 (R) CN 1758-2-TTB 7 CN 1216 / CN 1131-4-1-4	4806 124 126	8.30 %	5140 121 117	-	4177 122 136.53	-	4764 123 124	-	Performed superior in Zone III
505	CR Dhan 506 (NC)	2983 110 148	-	6446 121 124	-	5010 125 174	-	4395 115 141	-	
509	Zonal Check [CR Dhan 510 (Eastern and North Eastern), MTU 1172 (Southern)]	4438 130 125		6446 125 108		3486 130 128		4589 128 119	-	
510	Varshadhan (RP)	4086 165 144		6745 175 132		3546 183 201		4388 169 144	-	
511	Local Check	4086 167 129		5040 178 121		3696 184 137		4167 172 127	-	

Three years performance of IET 29121 and IET 28296 in SDW trials

IET No	Year	Zone	States	Remarks
IET 29121	2020	Z-III	OD WB	Not consistent
	2021	III & Overall	WB BI	
	2022	Overall	UP AP	
IET 28296	2020	III Overall	OD	Not consistent
	2021	III Overall	UP BI	
	2022	III	BI OD	

<u>Performance of NIL lines</u> <u>(IET 29031, IET 29026 and IET 29032)</u>**:**

The SDW trial included three near isogeneic lines (NIL) of Varshadhan viz., IET 29031, IET 29026 and IET 29032, in 1st year of testing. The yield performance of these lines was compared with that of the recurrent parent, Varshadhan. All these entries viz. IET 29031, IET 29026 and IET 29032 in AVT1 SDW trial were at par in yield performance with the RP, Varshadhan. The submergence tolerance performance of these three entries were tested under Advanced Varietal Trial 1-NIL (Submergence) (AVT-1-NIL-SUB) during kharif 2022. The entry (IET 29031, IET 29026 and IET 29032) were found superior for submergence tolerance over the recurrent parent in terms of survival percentage. Further, the yield performance under submergence condition was also evaluated in AVT-1-NIL-SUB trial during 2022. However, these entries were already tested for submergence tolerance during previous two year in NIL-Sub trial, i.e., 2021 and 2020 and performed superior over recurrent parent, Varshadhan. Considering the above facts, these lines for the submergence tolerance over Varshadhan and yield performance, IET 29031, IET 29026 and IET 29032 are promoted for the 2nd year of testing.

Yield performance of NIL lines in AVT-1-SDW during *kharif* 2022

Entry No	**IET No**	**OD**		**OD(2)**
		CTK	**BBN**	**mean**
507	29031	5191	4849	5020
508	29026	4580	5364	4972
509	29032	4222	5856	5039
510	Varshadhan (RP)	4330	4398	4364
511	Local Check	3995	4740	4368
	Exp. mean	4661.95	4918.43	4790.19
	CD	969.14	1069.42	770.30
	CV%	12.21	12.77	9.44
	D/S	05.07.2022	27.06.22	
	D/P	16.08.2022	28.07.22	
	Local Check Name	CRDHAN 508	Upahar	

Seedling Survival percentage of NIL entries in AVT-1 NIL- SUB over their recurrent parent under submergence stress condition, kharif, 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

Performance of entries and promotion

- **IET 29121-** Superior performance for UP (zone III) and Andhra Pradesh (Zone VII), needs Repeat for HRR.
- **IET 28296-** Superior performance for Bihar and Zone III
- **These two entries (IET 29121, IET 28296) are not consistent over three years**

The following NIL entries are promoted to AVT-2 for 2nd year of testing:

- **IET 29031**, **IET 29026** and **IET 29032**

Table No. 12.1: Composition of entries in Advance Variety Trial 1-Semi Deep Water (AVT 1-SDW), *Kharif* 2022

Entry No.	IET No.	Designation	Cross combination	Grain Type
3rd Year of testing:				
501	29121	CR 3838 -2-2-1-1-2	Savitri/AC 38562//Varshadhan	MS
502	**CR Dhan 506 (NC)**			
503	29122	OR 2752	Salivahan/Basamanik	MB
504	28296 (R)	CN 1758-2-TTB 7	CN 1216 / CN 1131-4-1-4	LB
505	**Zonal Check** [CR Dhan 510 (Eastern and North Eastern), MTU 1172 (Southern)]			
2nd yer of testing				
506	30414	OR 2767	Gayatri / FL496/IR 49830-7	MB
NIL entries (1st year of testing)				
507	29031	CR 2538-42-17-32-3-2	Varshadhan*3 / IR 49830-7	LB
508	29026	CR 2538-42-17-32-3-3	Varshadhan*3 / IR 49830-7	LB
509	29032	CR 2538-20-14-24-2	Varshadhan*3 / IR 49830-7	LB
510	Varshadhan (RP)			
511	Local Check			

Table No. 12.2: Grain Yield (Kg/ha) of entries in AVT-1 SDW *Kharif* 2022 (Zone III)

Entry No	IET No	Zone III																Zone III (5)	
		OD				OD(2)		WB		BI		UP				UP (1)			
		CTK		BBN		mean		CHN		PSA		GGT@		MSD		mean		mean	
501	**29121**	**4960**	**4 13.16%**	**4314**	**10**	**4637**	**7**	**6962**	**4 16%**	**2333**	**7**			**3901**	**1* 8.39 %**	**3901**	**1* 8.39 %**	**4494**	**3**
502	CR Dhan 506 (NC)	4265	9	4695	7	4480	8			2381	6			3573	5	3573	5	2983	
503	29122	4583	5 4.56%	3853		4218		6276	7 4.58%	3476	2* 36.95%	2206	3	3846	2 7.64%	3846	2 7.64%	4407	5
504	**28296 (R)**	**5660**	**1* 29.15%**	**4556**	**8**	**5108**	**2**	**6173**	**8**	**3905**	**1* 53.84%**	**2101**	**4**	**3737**	**4 4.58 %**	**3737**	**4 4.58 %**	**4806**	**1* 8. 3 %**
505	Zonal Check	4383	7	6733	1	5558	1	6001	9	2238	10.5	1629	5	2837	8	2837	8	4438	4
506	30414	5111	3	4743	5	4927	6	6824	6	2238	10.5	2627	1	2973	7	2973	7	4378	6
507	29031	5191	2	4849	4	5020	4	7305	1*	2252	9	1366	8	3764	3	3764	3	4672	2
508	29026	4580	6	5364	3	4972	5	7133	3*	2648	4	1537	7	2073	10	2073	10	4360	7
509	29032	4222	10	5856	2	5039	3	6859	5	2838	3	1615	6	1923		1923		4340	8
510	Varshadhan (RP)	4330	8	4398	9	4364	10	7270	2*	2329	8			2100	9	2100	9	4086	10
511	Local Check	3995		4740	6	4368	9	5693	10	2538	5	2600	2	3464	6	3464	6	4086	9
	Exp. mean	4661.95		4918.43		4790.19		6045		2652		1960		3108.42		3108.4		4277.2	
	CD	969.14		1069.42		770.30		1037.09		301.11		276.30		310.52		310.52		362.16	
	CV%	12.21		12.77		9.44		10.07		6.67		11.38		5.87		5.87		4.97	
	D/S	05.07.2022		27.06.22				28.06.22		10.06.2022		20-06-22		29.07.2022					
	D/P	16.08.2022		28.07.22				29.07.22		03.07.2022				01.08.2022					
	Local Check Name	CRDHAN 508		Upahar				Rajdeep (IET 17713)		Sudha (511)		NDGR-201		NDR 9930111					

Table No. 12.2 (contd.) Grain Yield (Kg/ha) of entries in AVT-1 SDW *Kharif* 2022 (Zone IV and Zone VII)

Entry No	IET No	Zone IV								Zone IV (1)		Zone VII		Overall (7)	
		AS						AS (1)				AP			
		GER		TTB@		KMJ@		mean		mean		MTU		mean	
501	**29121**	**5650**	**6**	**2678**	**10**	**4447**	**5**	**5650**	**6**	**5650**	**6**	**7027**	**1 31.29%**	**5021**	**1* 6.7%**
502	CR Dhan 506 (NC)	6446	3	3724	2	3537		6446	3	6446	3	5010	3	4395	7
503	29122	6048	5	3053	8	5528	1	6048	5	6048	5	5860	2 13.18%	4849	2
504	**28296 (R)**	**5140**	**7**	**3058**	**7**	**4341**	**6**	**5140**	**7**	**5140**	**7**	**4177**	**7**	**4764**	**4**
505	Zonal Check	6446	4	3802	1	4024	9	6446	4	6446	4	3486		4589	5
506	30414	7243	1	2376		4052	8	7243	1	7243	1	4699	4	4833	3
507	29031	3596		3540	3	5377	3	3596		3596		4648	5	4515	6
508	29026	4891	9	3462	5	3934	10	4891	9	4891	9	3758	8	4350	9
509	29032	4082	10	3098	6	5093	4	4082	10	4082	10	4378	6	4308	10
510	Varshadhan (RP)	6745	2	2989	9	4230	7	6745	2	6745	2	3546	10	4388	8
511	Local Check	5040	8	3522	4	5464	2	5040	8	5040	8	3696	9	4167	
	Exp. mean	5575		3209.29		4548		5575		5575		4571		4561.8	
	CD	933.71		167.28		97.00		933.71		933.71		873.05		288.00	
	CV%	9.83		3.06		1.25		9.83		9.83		11.21		3.71	
	D/S	05-07-22		21-07-22		2.07.2022						25.06.2022			
	D/P	05-08-22		18-08-22		10.08.2022						01.08.2022			
	Local Check Name	CR Dhan 506		Dhansiri		Surma dhan						MTU 1172			

Table No. 12.3: Days to 50 % Flowering of entries in AVT-I SDW Kharif 2022

Entry No	IET No	Zone III								Zone III(5)	Zone IV				Zone IV (1)	Zone VII	Overall (7)
		OD		OD(2)	WB	BI	UP		UP(1)		AS			AS (1)		AP	
		CTK	BBN	mean	CHN	PSA	GGT@	MSD	mean	mean	GER	TTB@	KMJ@	mean	mean	MTU	mean
501	**29121**	126	120	123	131	133	87	124	106	119	130	117	130.7	126	126	128	122
502	**CR Dhan 506 (NC)**	126	118	122	88	133	78	119	99	110	124	118	122	121	121	125	115
503	**29122**	126	113	120	134	134	133	129	131	127	130	115	130.3	125	125	126.333	127
504	**28296 (R)**	125	117	121	132	134	124	121	122	124	124	112	126	121	121	122.33	123
505	**Zonal Check**	126	113	120	135	145	137	129	133	130	132	112	130.3	125	125	129.667	128
506	**30414**	128	122	125	136	145	85	127	106	122	130	115	123.3	123	123	129	122
507	**29031**	128	115	122	133	150	127	123	125	128	132	113	128.3	125	125	130	127
508	**29026**	177	176	176	183	197	137	178	158	173	180	166	177.2	175	175	180.162	174
509	**29032**	174	170	172	175	186	171	168	169	173	177	165	171.9	171	171	175.85	173
510	**Varshadhan (RP)**	178	175	177	183	198	93	178	136	165	181	169	175.4	175	175	183.105	169
511	**Local Check**	182	178	180	139	194	132	176	154	167	184	173	175.4	178	178	184.102	172
	Exp. mean	145.05	137.93	141	142.54	159	118.54	142.929	131	140	148	134	144.7	142	142	146.687	141
	CD	73.71	76.19	75	93.81	65.85	139.52	76.94	108	89	71.19	82.10	77.92	77	77	71.64	84
	CV%	29.84	32.43	31	38.64	24.31	69.11	31.61	50	38	28.33	35.93	31.63	32	32	28.67	36

Table No. 12.4: Plant Height of Entries in AVT 1-SDW Kharif 2022

Entry No	IET No	Zone III								Zone III(5)	Zone IV				Zone IV (1)	Zone VII	Overall (7)
		OD		OD(2)	WB	BI	UP		UP(1)		AS			AS (1)		AP	
		CTK	BBN	mean	CHN	PSA	GGT@	MSD	mean	mean	GER	TTB@	KMJ@	mean	mean	MTU	mean
501	**29121**	152	172	162	125	123		160	160	151	155	121	115.8	130	130	177.667	145
502	**CR Dhan 506 (NC)**	145	162	154		126		152	152	148	142	116	114.6	124	124	173.633	141
503	**29122**	115	133	124	103	126	128	130	129	124	141	109	106.4	119	119	145.267	123
504	**28296 (R)**	125	122	124	107	125	132	136	134	126	133	108	111.5	117	117	136.53	124
505	**Zonal Check**	118	144	131	104	116	127	130	129	125	119	101	102.6	108	108	128.267	119
506	**30414**	127	130	129	119	117	131	136	134	128	145	103	91.2	113	113	157.533	125
507	**29031**	157	158	158	140	121	156	160	158	151	130	146	147.8	141	141	191.733	150
508	**29026**	141	180	161	143	129	168	156	162	155	167	148	120.8	145	145	197.867	155
509	**29032**	157	164	161	134	133	159	161	160	154	139	139	135.8	138	138	186.667	151
510	**Varshadhan (RP)**	151	156	154	134	141		136	136	144	148	136	111.2	132	132	201	144
511	**Local Check**	141	109	125	100	174	138	118	128	129	129	120	112.8	121	121	137.4	127
	Exp. mean	139	148	144	121	130	142	143	144	139	141	122	116	126	126	167	137

Table No. 12.5:. Number of Panicles/m2 of entries in AVT-1 SDW *Kharif* 2022

Entry No	IET No	Zone III								Zone III(5)	Zone IV				Zone IV (1)	Zone VII AP	Overall (7)
		OD		OD(2)	WB	BI	UP		UP(1)		AS			AS (1)			
		CTK	BBN	mean	CHN	PSA	GGT@	MSD	mean	mean	GER	TTB@	KMJ@	mean	mean	MTU	mean
501	**29121**	200	233	217	286	195	108	217	163	203	239	221	284.33	248	248	347.733	227
502	**CR Dhan 506 (NC)**	209	241	225	176	205	106	220	163	193	236	222	265.67	241	241	314.6	217
503	**29122**	196	221	209	242	202	163	218	191	205	249	208	280.33	246	246	325.367	227
504	**28296 (R)**	221	231	226	231	206	152	226	189	210	232	217	279	243	243	297	227
505	**Zonal Check**	205	183	194	242	192	155	213	184	196	257	184	271	237	237	340.833	219
506	**30414**	206	197	202	253	196	105	213	159	191	234	203	280.67	239	239	350.2	218
507	**29031**	212	177	195	231	201	166	218	192	199	219	174	282.33	225	225	312.4	215
508	**29026**	210	209	209	279	225	143	236	189	213	254	210	278.5	248	248	310.295	231
509	**29032**	213	206	209	232	218	208	231	219	217	226	210	276.52	237	237	306.317	230
510	**Varshadhan (RP)**	219	222	221	247	215	93	219	156	199	253	217	277.44	249	249	328.705	224
511	**Local Check**	247	217	232	162	222	154	233	194	208	230	231	282.77	248	248	328.535	229
	Exp. mean	213	213	213	235	207	141	222	182	203	239	209	278	242	242	324	224
	CD	46.67	85.99	66	117.21	45.789	147.95	38.52	93	80	69.26	71.94	21.53	54	54	40.24	69
	CV%	12.88	23.75	18	29.32	12.98	61.55	10.17	36	26	17.01	20.23	4.55	14	14	7.30	20

Table No. 12.6: Grain quality characteristics of entries in AVT-1 SDW, Kharif 2022 at ICAR-NRRI, Cuttack

Entry No	IET No.	Hull	Mill	HRR	Chalkiness	KL	KB	L/B	ASV	WU	VER	ER	KLAC	AC
501	29121	76	64	58	A	5.6	1.6	3.50	5	110	3.75	1.61	9	25.87
502	CR Dhan 506 (NC)	78	66	62	A	4.54	1.7	2.67	6	85	4	2.20	10	23.77
503	29122	75	65	56	A	5.67	1.72	3.30	6	195	3.75	1.76	10	25.35
504	28296 (R)	78	65	61	A	5.47	1.34	4.08	4	215	3.75	1.65	9	22.35
505	Zonal Check	78	64	59	VOC	5.48	1.64	3.34	4	165	4	1.82	10	24.37
506	30414	78	65	58	VOC	4.78	1.31	3.65	4	85	3.75	1.88	9	25.87
507	29031	76	62	56	VOC	5.67	1.65	3.44	5	95	4	1.76	10	25.87
508	29026	75	64	58	A	5.76	1.76	3.27	5	75	4	1.74	10	24.52
509	29032	75	62	59	A	5.63	1.67	3.37	5	110	3.75	1.78	10	25.05
510	Varshadhan (RP)	78	68	61	A	5.66	1.82	3.11	4	95	3.75	1.59	9	26.40
511	Local Check	75	63	54	VOC	4.58	2.18	2.10	4	135	3.75	1.97	9	25.27

Table No. 12.6 (Contd): Grain quality characteristics of entries in AVT-1 SDW, Kharif 2022 at ICAR-IIRR, Hyderabad

Entry No.	IET No.	Hull	Mill	HRR	KL	KB	L/B	Grain Type	Grain Chalk	ASV	AC	GC
501	29121	78.9	63.5	46.9	5.53	2.24	2.46	SB	VOC	4.0	25.93	22
502	CR Dhan 506 (NC)	80.2	67.9	54.7	5.57	2.16	2.57	MS	VOC	4.0	24.02	22
503	29122	80.8	71.3	62.1	6.41	2.20	2.91	LB	VOC	7.0	22.32	22
504	28296 (R)	80.3	69.5	56.4	6.09	1.98	3.07	LS	VOC	7.0	23.64	22
505	Zonal Check	81.7	70.4	51.3	5.77	2.42	2.38	SB	VOC	4.0	25.81	66
506	30414	81.5	72.2	63.6	5.54	2.52	2.19	SB	VOC	4.0	22.82	37
507	29031	79.0	67.4	55.8	6.46	2.26	2.85	LB	VOC	4.0	26.28	23
508	29026	79.3	66.6	47.4	6.62	2.24	2.95	LB	A	4.0	26.22	28
509	29032	76.2	67.0	58.8	6.52	2.37	2.75	LB	A	4.0	22.73	22
510	Varshadhan (RP)	81.4	71.1	65.7	6.80	2.36	2.88	LB	A	4.0	24.31	22
511	Local Check	80.8	68.8	50.3	6.27	2.64	2.37	LB	VOC	4.0	22.93	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. 12.6 (Contd): Average Grain quality characteristics of entries in AVT-1 SDW, Kharif 2022

Entry No.	IET No	Hull	Mill	HRR	KL	KB	L/B	ASV	AC	GC
501	29121	77.45	63.75	52.45	5.57	1.92	2.98	4.50	25.90	37.50
502	CR Dhan 506 (NC)	79.10	66.95	58.35	5.06	1.93	2.62	5.00	23.90	39.00
503	29122	77.90	68.15	59.05	6.04	1.96	3.10	6.50	23.84	39.00
504	28296 (R)	79.15	67.25	58.70	5.78	1.66	3.58	5.50	23.00	37.00
505	CR Dhan 510 (ZC)	79.85	67.20	55.15	5.63	2.03	2.86	4.00	25.09	57.50
506	30414	79.75	68.60	60.80	5.16	1.92	2.92	4.00	24.35	41.50
507	29031	77.50	64.70	55.90	6.07	1.96	3.14	4.50	26.08	35.50
508	29026	77.15	65.30	52.70	6.19	2.00	3.11	4.50	25.37	38.50
509	29032	75.60	64.50	58.90	6.08	2.02	3.06	4.50	23.89	37.00
510	Varshadhan (RP)	79.70	69.55	63.35	6.23	2.09	2.99	4.00	25.36	42.00
511	CR Dhan 508	77.90	65.90	52.15	5.43	2.41	2.24	4.00	24.10	37.00

INITIAL VARIETY TRIAL-SEMI DEEP WATER (IVT-SDW)

Locations : 12 **Entries:30**

Checks : CR Dhan 506 –National check; CR Dhan 510 (Eastern & North Eastern) and MTU 1172 (Southern) – Zonal check; CR Dhan 506, CR Dhan 508, Upahar, Rajdeep, Sudha, NDGR201, NDGR 9930111, Dhansiri, Surma Dhan, MTU 1172-Local check **Table:12.7**

The IVT-SDW trial comprised thirty entries including 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 sent to 12 locations viz., Bhubaneswar, Cuttack, Chinsurah, Pusa, Ghaghraghat, Masodha, Kumta, Mugad, Titabar, Karimganj, Gerua and Maruteru. Data received from 10 locations except Kumta and Mugad. However, owing to low CV value (<5%), data of Gerua, Titabar and Karimganj was not included in analysis. All locations maintained requisite average water level **(41-50 cm).**The data pertaining to seedling survival, submergence tolerance, kneeing ability, grain shattering, and phenotypic acceptability were received from six locations, Bhubaneswar, Ghaghraghat, Masodha, Pusa, Maruteru and Chinsurah. The data on yield, days to 50 % flowering, plant height and no. of panicles/$m^2$and adaptability parameters are presented in Tables 12.8 to 12.11. Results of the experiment are discussed below.

In overall basis, the experimental mean grain yield ranged from 2963kg/ha (IET 31266) to 4850.0 Kg/ha (IET 31259) while days to 50 % flowering ranged from 101days (IET 31271) to 133 days (IET 31258) plant height from 110.0 cm (IET 31267, IET31271 and IET 31280) to 150.0 cm (IET 31266). Among the checks, zonal check recorded highest grain yield of 4031.0 kg/ha with 132 days to 50 % flowering and 123 cm plant height. Among the test entries, five entries namely IET 31259, IET 31270, IET 31267, IET 31258 and IET 31269 recorded yield superiority over best check (BVC + C.D.), but only two entries, **IET 31259 and IET 31270 could meet requisite plant height, duration and adaptability parameters, thus, promoted to 2ndyear of testing**.

In Zone III, data from Cuttack, Bhubaneswar, Chinsurah, Pusa, Ghaghraghat and Masodha were considered for analysis. Mean grain yield ranged from 3001 Kg/ha (IET 31266) to 5004 kg/ha (IET 31259), while days to 50% flowering ranged from 100 days (IET 31271) to 133 days (IET 31258) and plant height from 107.0 cm (IET 31267 and IET 31271) to 145.0cm (IET 31266 and IET 31275). Among the checks, local check recorded highest grain yield of 3964kg/ha with 120 days to 50 % flowering and 131.0 cm plant height. Among the test entries, six entries namely, IET31259, IET31270, IET31264, IET 31258, IET31269 and IET 31257 recorded yield superiority (over BVC + C.D.) but **only three entries, IET31259, IET31270 and IET31264 could meet benchmark plant height, duration and adaptability parameters and promoted to 2ndyear of testing.**

In Zone VII, data from Maruteru was received and considered for analysis. Mean grain yield ranged from 2740 Kg/ha (IET 31266) to 5424kg/ha (IET 31258), while days to 50% flowering ranged from 103 days (IET 31271) to 135 days (IET 31267) and plant height from 112.0 cm (IET31280) to 182.0 cm (NC). Among the checks, Zonal Check recorded

highest grain yield of 4525kg/ha with 125 days to 50% flowering and 131.0 cm plant height. Among the test entries, **three entries, IET31258, IET31267 and IET31279 recordedyield superiority over best check (BVC + C.D.) along with benchmark height, duration and adaptability parameters.**

Details of water regime (cm) at different centers in IVT-SDW, *Kharif* 2022

Location	Week	June	July	August	September	October	November	December
Maruteru	1st	0	0	15	35	48	25	0
	2nd	0	0	17	32	55	22	0
	3rd	0	0	18	38	52	28	0
	4th	0	0	20	43	60	25	0
Average					37	53.75	25	
Chinsurah	1st	0	0	10	40	90	20	0
	2nd	0	0	15	60	60	15	0
	3rd	0	0	20	80	40	10	0
	4th	0	15	20	90	20	-	0
Average					67.5	52.5	15.0	
Bhubaneswar	1st	0	0	5	20	30	45	0
	2nd	0	0	5	25	35	45	0
	3rd	0	0	10	20	40	45	0
	4th	0	5	10	25	40	50	0
Average					22.5	36.2	46.2	
Cuttack	1st	0	0	0	40	60	30	0
	2nd	0	0	40	50	55	10	0
	3rd	0	0	40	55	50	5	0
	4th	0	0	45	60	35	-	0
Average					51.25	50.0	15.0	
Masodha	1st	0	0	10	7	75	0	0
	2nd	0	0	8	45	70	40	0
	3rd	0	0	12	52	60	35	0
	4th	0	0	10	36	55	20	0
Average					35	65	36.25	0
Ghaghraghat	1st	0	0	0	35	70	55	0
	2nd	0	0	18	42	78	30	0
	3rd	0	0	25	50	82	12	0
	4th	0	0	28	62	72	5	
Average					47.25	75.5	25.5	
Pusa	1st	8	30	40	60	50	8	0
	2nd	20	30	50	60	35	0	0
	3rd	20	40	50	60	20	0	0
	4th	30	40	60	60	8	0	0
Average					60.0	28.5	2	

Performance of promising entries in IVT-SDW, *Kharif*2022

Sl. No.	Designation/ Cross combination	IET No.	GT	Zone III (6)		Zone VII (1)		Overall (7)		Remarks
				GY (kg/ha)/ FD/PH (cm)	% over BVC	GY(kg/ha)/ FD/PH (cm)	% over BVC	GY(kg/ha)/ FD/PH (cm)	% over BVC	
1	TTB 1272-6	31259	MS	5004 125 122	26.2			4850 126 125	20.3	Promoted
2	TTB 1048-60-6	31270	MS	4592 123 122	15.8			4455 124 125	10.51	Promoted
3	OR 2766-1	31264	MS	4451 126 123	12.2	-		-	-	Promoted
4	MTU 1387 (MTU 2244-39-20-4)	31258	MS	4590 133 **114**	15.7	5424 134 127	19.8	4709 133 **116**	16.8	Promoted
5	MTU 1388 (MTU2527-22-1-1-1)	31279	LS	-		5370 134 136	18.6	-		Promoted
6	IMTU 1389 (MTU2481-14-1-1-1)	31267	MS	-		5204 135 131	15.0	4457 **131** **110**	10.5	Promoted
7	CR 4436-4-3-2-1-1-1	31269	MB	4553 **116** 123	14.8	-		4486 **116** 126	11.2	Shifted to RSL
8	NDR 2022-8	31257	SB	4524 **115** 143	14.1	-		-	-	Shifted to RSL
CR Dhan 506 (NC)				3260 133 134	-	3298 134 182	-	3268 133 144	-	
Zonal Check				3949 122 134	-	4525 125 131	-	4031 132 123	-	
Local check				3964 120 131	-	4227 127 126	-	4002 121 130	-	
CD (0.05)				*480.37*		*594.38*		*423.33*		
BVC+ CD (0.05)				*4444.37*		*5119.38*		*4454.33*		

Performance of best entries under IVT-SDW with yield and quality data

Overall basis:

- **IET31259 (TTB 1272-6)** recorded on overall basis 1st rank (4850kg/ha) with 20.3% yield advantage over BC with medium slender (MS) grains, 126 days to 50% flowering, 125cm plant height, 237 panicle/m2 and moderate kneeing (1-9) and elongation ability (1-7). Based on its superior performance over BC, the entry qualifies to be promoted to next year of testing.

- **IET31270 (TTB 1048-60-6)** on overall basis, recorded grain yield of 4455kg/ha with 10.51% yield advantage over BC with medium slender (MS) grains, 124 days to 50% flowering and 125cm plant height, 243 panicle/m2 and moderate kneeing (1-9) and elongation ability (3-7).

Based on its superior performance over BC, the entry qualifies to be promoted to next year of testing.

Zone-III

- **IET31264 (OR 2766-1)** recorded grain yield of 4451kg/hain Zone-III with 12.2% yield advantage over BC with medium slender (MS) grains, 126 days to 50% flowering and 123cm plant height, 211 panicle/m2 and moderate kneeing (1-7) and elongation ability (1-7). Based on its superior performance over BC, the entry qualifies to be promoted to next year of testing in Zone-III.

Zone-VII

- **IET31258 (MTU 1387 (MTU 2244-39-20-4)** recorded 1st rank (5424kg/ha) in Zone-VII with 19.8% yield advantage over BC with medium slender (MS) grains, 134 days to 50% flowering and 127cm plant height, 312 panicle/m2 and moderate kneeing (3-9) and elongation ability (0-5). Based on its superior performance over BC, the entry qualifies to be promoted to next year of testing in Zone-VII.

- **IET31279 (MTU 1388 (MTU 2527-22-1-1-1)** recorded 2nd rank (5370kg/ha) in Zone-VII with 18.6% yield advantage over BC with long slender (LS) grains, 134 days to 50% flowering and 136cm plant height, 305 panicle/m2 and moderate kneeing (3-9) and elongation ability (3-7). Based on its superior performance over BC, the entry qualifies to be promoted to next year of testing in Zone-VII.

- **IET31267 (MTU 1389 (MTU 2481-14-1-1-1)** recorded 3rd rank (5204kg/ha) in Zone-VII with 15.0% yield advantage over BC with medium slender (MS) grains, 135 days to 50% flowering and 131cm plant height, 312 panicle/m2 and moderate kneeing (2-7) and elongation ability (3-9). Based on its superior performance over BC, the entry qualifies to be promoted to next year of testing in Zone-VII.

In IVT-SDW, out of 30 test entries evaluated, sixentries namely IET 31258, IET31259, IET31264, IET31267, IET31270 and IET31279 have achieved requisite yield superioritybased on 5% CD value over the best check and desirable plant type, hence, promoted to second year of testing.

- *Overall mean basis: IET31259 and IET31270.*
- *Promoted in zone III: IET 31259, IET 31270 and IET 31264.*
- *Promoted in Zone-VII: IET31258, IET31267 and IET31279.*

Entries shifted to RSL: IET31269 (overall zone) and IET31257 (Zone-III).

Adaptability parameters of entries in IVT-SDW, *Kharif*2022

Entry No.	IETNO.	Seedling Survival(%)							Phenotypic Acceptability							Kneeing ability						
		CTC	BBSR	MTU	CHN	PSA	GHGT	MSD	CTC	BBSR	MTU	CHN	PSA	GHGT	MSD	CTC	BBSR	MTU	CHN	PSA	GHGT	MSD
601	31254		50	98.2	100	78	75	83		5	7	1	3	7	1		3	7	3	3	9	5
602	31255		50	96.6	100	74	85	87		5	5	3	5	5	3		3	5	3	3	9	5
603	31256		50	98.5	100	72	85	84		5	5	5	7	5	3		3	5	1	3	9	5
604	31257		50	96.3	100	90	80	82		7	5	3	7	9	5		1	7	1	4	-	1
605	**CR Dhan 506 (NC)**		50	91.2	-	75	75	69		7	7		7	9	9		3	7	-	3	9	9
606	31258		65	96.3	100	78	80	81		3	7	3	7	9	5		3	7	5	3	9	3
607	31259		65	95.5	100	85	90	90		1	5	3	7	5	1		3	5	1	4	9	3
608	31260		65	98.5	100	70	95	82		1	3	3	7	5	5		5	5	3	2	9	5
609	31261		50	94.5	100	86	85	87		7	5	5	5	9	3		1	3	3	4	9	5
610	31262		50	92.5	100	72	95	90		7	5	5	5	5	5		5	5	3	2	9	5
611	31263		65	94.3	100	71	90	91		5	7	3	7	7	5		5	7	3	2	9	5
612	31264		50	96.6	100	74	95	97		3	7	1	5	5	1		5	3	1	3	7	3
613	31265		50	98.5	100	77	95	96		3	5	1	7	3	3		5	5	1	4	7	3
614	31266		20	96.2	100	78	85	89		7	5	3	3	7	3		1	5	3	4	9	5
615	31267		65	90.5	100	69	80	84		1	5	3	7	9	7		5	7	3	2	7	3
616	31268		20	95.3	100	78	85	86		1	3	3	5	7	3		5	7	5	4	7	5
617	31269		50	93.2	100	76	95	94		1	5	3	7	3	3		5	3	3	4	9	5
618	31270		50	96.6	100	75	90	88		1	7	1	5	5	3		5	5	1	3	9	5
619	31271		50	96.5	100	72	90	92		7	7	3	7	5	3		3	7	5	2	9	5
620	**Zonal Check**		65	98.6	100	69	85	87		1	7	3	5	9	5		3	3	3	2	9	3
621	31272		65	98.6	100	82	75	78		3	7	5	7	7	5		3	5	3	4	7	5
622	31273		20	97.3	100	86	90	92		3	5	5	7	5	3		3	5	3	4	7	5
623	31274		20	94.5	100	71	80	82		3	5	5	5	9	7		3	7	3	2	9	5
624	31275		65	98.3	100	74	90	88		3	7	3	7	7	5		5	5	3	3	9	5
625	31276		65	96.6	100	90	95	97		5	5	1	7	5	3		5	7	3	4	9	5
626	31277		65	96.3	100	71	95	92		5	3	3	5	5	3		5	3	1	2	9	5
627	31278		50	98.4	100	85	85	87		5	7	1	7	7	5		5	5	3	4	9	5
628	31279		50	98.5	100	72	85	85		3	5	5	5	7	3		5	5	3	3	9	3
629	31280		65	94.5	100	70	85	86		5	5	5	5	7	7		5	7	3	2	7	7
630	**Local check**		50	98.5	100	69	95	96		3	7	1	7	3	3		3	5	1	4	3	3

(Contd.) Adaptability parameters of entries in IVT-SDW, Kharif2022

Entry No.	IETNO.	Elongation Ability							Submergence Tolerance							Grain Shattering						
		CTC	BBSR	MTU	CHN	PSA	GHGT	MSD	CTC	BBSR	MTU	CHN	PSA	GHGT	MSD	CTC	BBSR	MTU	CHN	PSA	GHGT	MSD
601	31254		5	5	5	7	1	1		79	90.9	80	75	50	65		3	3	3	1	3	3
602	31255		7	5	3	5	3	3		92	88.9	65	72	50	65		3	5	3	1	1	1
603	31256		7	7	3	3	1	1		90	95.5	50	70	50	65		3	3	5	1	5	3
604	31257		5	3	3	7	1	1		91	94.7	65	88	50	65		3	3	3	1	6	5
605	**CR Dhan 506 (NC)**		5	5		3	3	5		93	82.3		72	50	35		3	3	-	1	-	3
606	31258		5	7	5	7	3	3		98	93.9	50	75	50	50		5	3	5	1	3	3
607	31259		5	5	5	7	3	1		97	90.4	65	81	50	65		5	3	5	1	1	1
608	31260		9	7	5	5	3	5		96	94.9	65	66	65	65		5	3	3	1	5	5
609	31261		5	3	1	7	1	1		78	91.4	65	81	50	65		5	5	3	1	5	5
610	31262		5	5	3	5	3	1		79	90.4	65	68	65	65		3	3	3	1		3
611	31263		5	5	5	3	3	5		97	93.9	65	66	50	65		5	3	3	1	1	1
612	31264		5	7	5	7	1	1		79	94.9	65	70	65	80		5	3	3	1	5	1
613	31265		5	7	3	5	1	1		78	96.5	80	73	65	80		3	3	3	1	-	1
614	31266		5	5	1	5	1	1		46	92.9	65	72	50	80		3	5	5	1	-	1
615	31267		9	3	7	5	5	3		98	84.1	50	65	50	65		3	3	5	1	5	5
616	31268		5	7	3	7	3	3		46	90.4	80	74	50	65		5	3	3	1	5	5
617	31269		7	5	3	7	3	5		79	88.9	80	73	50	65		5	3	3	1	-	3
618	31270		5	7	5	7	5	3		86	94.9	65	70	50	65		3	3	3	1	1	1
619	31271		9	3	3	3	3	1		90	92.9	65	67	50	65		3	5	3	1	-	3
620	**Zonal Check**		5	5	3	3	3	5		97	96.5	65	66	50	65		3	3	3	1	-	1
621	31272		5	5	3	7	3	1		96	85.4	65	78	50	65		7	3	3	1	-	3
622	31273		5	7	3	7	1	3		46	78.8	65	83	50	80		7	3	3	1	-	1
623	31274		5	7	3	3	1	3		44	86.4	80	67	50	65		5	3	3	1	5	5
624	31275		5	7	3	7	3	5		96	93.9	65	71	50	50		5	3	3	1	-	5
625	31276		7	5	3	7	3	3		98	84.1	80	87	65	65		7	5	3	1	-	1
626	31277		7	7	3	5	3	1		95	94.9	65	69	-	80		3	3	3	1	-	3
627	31278		7	5	3	5	3	3		85	92.9	65	82	50	50		3	3	3	1	-	3
628	31279		5	5	3	7	5	3		86	94.2	50	67	50	65		3	3	5	1	5	3
629	31280		9	3	3	7	3	5		96	87.4	50	66	50	65		5	5	5	1	3	1
630	**Local check**		9	5	3	7	3	3		87	96.5	65	65	50	50		3	3	3	1	1	3

Table No. 12.7: Composition of entries in Initial Variety Trial–Semi Deep Water (IVT-SDW), Kharif-2022

Entry No.	IET No.	Designation	Cross combination	Grain Type
601	31254	CRL-145-28-1	AsraBiroin x CR 1014	SB
602	31255	NDGR-1550	NDR-8002 x NDR-30030	MB
603	31256	CR 3900-193-9-9-9	Savitri /R. Mahsuri-1// IR71700-247-1-1-2	SB
604	31257	NDR 2022-8	NDR-8002 x NDR-30030	
605	**CR Dhan 506 (NC)**			
606	31258	MTU 1387 (MTU 2244-39-20-4)	MTU 1064/ Swarna Sub-1// MTU1064	MS
607	31259	TTB 1272-6	Ranjit/ Choilahi/ IRGC1797	MS
608	31260	CR 3987-1-5-3-1-2	AC 38562/ Niraj //Pooja	SB
609	31261	RAU 1407-7-1-3-2	Sathi/ Turanta	MS
610	31262	CR 3447-1-M-1-B	TRC229-F-41//SAVITRI/FL496//Swarna/Nonabokra	LS
611	31263	CR 3988-10-5-3-2-2	Pooja/ AC 38687	MS
612	31264	OR 2766-1	Savitri/ CRLC899	MS
613	31265	CR 2889-208-1-18-1	Apo/ CR 143-2-2	MS
614	31266	CR 3993-51-3-7-22	CR 1009/*O. brachiantha*//CR 1009	SB
615	31267	MTU 1389 (MTU 2481-14-1-1-1)	Samba Sub1/MTU 1061//Swarna Sub1	MS
616	31268	CRL 145-27-1	AsraBiroin x CR 1014	SS
617	31269	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
618	31270	TTB 1048-60-6	IRGC 25239/Ranjit	MS
619	31271	CR 3878-245-2-4-1	Gayatri/FL478	SB
620	**CR Dhan 510 (Eastern & North Eastern) and MTU 1172 (Southern) (ZC)**			
621	31272	CR 3984-1-5-3-2-1	CR 3624-2/CR MAS 2232-85	MS
622	31273	CR3988-3-1-1-2-1	Pooja/ AC38687	MS
623	31274	CR 3903-161-2-1-2	Santepheap/IR82810-407//IR 71700-247-1-1-2	SB
624	31275	NDR 2022-10	NDR 40032/Swarna	SB
625	31276	CR 3993-33-1-58-3-7	CR 1009/*O. brachiantha*//CR 1009	SB
626	31277	CR 4121-36-24-14-8-9	CR 3856-44-22-2-1-11*3 / IRBB60 / Swarna Sub1	MS
627	31278	CR 3936-11-1-1-1-1-2	IR 72967-12-2-3/MTU 1001	LB
628	31279	MTU 1388 (MTU 2527-22-1-1-1)	PLA1100/ IR85956-23-1-5	LS
629	31280	CR 3984-14-4-2-1-1	CR 3624-2/CR MAS 2232-85	MS
630	**Local Check**			

Table No. 12.8: Grain Yield (kg/ha) of entries in IVT-SDW, *Kharif* 2022

Entry No	IET No.	Zone III																Zone III(6) mean		Zone IV						Zone VII		Overall (7)	
		OD				OD (2)		WB (1)		BI (1)		UP				UP(2)				AS						AP (1)			
		CTK		BBN		mean		CHN		PSA		GGT		MSD		mean				GER@		TTB@		KMJ@		MTU		mean	
601	31254	3377		5116		4247		6901	3*	3091	9.5	2726		4167	5	3446	6	4230		7356	2*	5032		5833	3	4179	9	4222	
602	31255	3394		5002		4198		5056		2455		2371		3746		3059		3671		5152		5217	10	5510	8	3538		3652	
603	31256	3934		5764		4849		4579		2355		2881	8	4300	4*	3590	4	3969		3839		3453		4332		3198		3859	
604	31257	6644	1*	4495		5569	9	5838		4273	1*	2504		3391		2948		4524	7	3520		4822		5478	9	3301		4349	10
605	CR Dhan 506 (NC)	4599		3853		4226		-		2727		-		1862		1862		3260		5449		6032	6	3840		3298		3268	
606	31258	5845	3	5882		5864	5	6098	9	2909		2948	6	3856		3402	9	4590	3*	5093		2282		4199		5424	1*	4709	2*
607	31259	5153	7	7773	1	6463	2	6055	10	3727	5*	2992	3.5	4322	2.5*	3657	2	5004	1*	6966	4*	2208		4310		3926		4850	1*
608	31260	5866	2	7103	6	6485	1	5924		2145		1995		3324		2660		4393	6	4816		5908	7	5114		4614	4	4425	6
609	31261	3380		4310		3845		4774		3818	3.5*	2615		3945	7	3280		3807		5396		4095		4680		3060		3700	
610	31262	4074		3404		3739		6172	8	2364		1995		3324		2660		3555		6404	7	3996		4360		3309		3520	
611	31263	4964	9	5239		5102		5729		2209		1906		3236		2571		3881		6059		6179	4	5174		3609		3842	
612	31264	4927	10	5996	10	5461	10	5903		2455		3036	2	4388	1*	3712	1	4451	5*	5533		2232		5154		4214	7	4417	7
613	31265	3562		5527		4544		7118	1*	3000		2881	8	3856		3369	10	4324	10	6670	6	5131		4216		3333		4182	
614	31266	2596		2598		2597		4622		3091	9.5	1862		3236		2549		3001		3189		4539		5417	10	2740		2963	
615	31267	5309	6	7213	4	6261	4	5773		2182		2992	3.5	2527		2759		4333	8	3517		4798		4678		5204	3*	4457	4*
616	31268	4528		5733		5130		6554	6	3091	9.5	2327		3763		3045		4333		1994		6426	3*	5767	4	2894		4127	
617	31269	3603		7168	5	5385		7010	2*	3000		2770		3768		3269		4553	4*	6852	5*	6604	1*	4753		4087		4486	3*
618	31270	5780	4	6953	7	6367	3	5621		2818		2748		3635		3191		4592	2*	6042		6097	5	4385		3631		4455	5*
619	31271	2615		2222		2419		5642		2291		2327		3258		2793		3059		2649		6589	2*	4414		3079		3062	
620	Zonal Check	4125		7245	3	5685	7	5056		2127		1906		3236		2571		3949		6250	9	5673	8	6001	1	4525	5	4031	
621	31272	4291		5426		4859		5078		3273	7	2261		3191		2726		3920		5382		5427	9	4236		4048		3938	
622	31273	3631		6257	9	4944		5490		3636	6*	2770		4322	2.5*	3546	5	4351		5838		3848		5671	5	4189	8	4328	9
623	31274	5481	5	5778		5630	8	6293	7	2127		1995		2261		2128		3989		4623		4428		4053		4113	10	4007	
624	31275	3817		6595	8	5206		5773		2636		2194		3524		2859		4090		7003	3*	4859		4734		3296		3976	
625	31276	3573		5398		4485		6576	5	4273	2*	2970	5	3918	9	3444	7	4451	9	4180		5032		5982	2	3153		4266	
626	31277	2806		3648		3227		5773		2364		2881	8	3936	8	3409	8	3568		7487	1*	4810		5172		3308		3531	
627	31278	2696		5608		4152		6771	4*	3818	3.5*	1884		3214		2549		3998		5239		3823		4489		3334		3903	
628	31279	4176		7331	2	5754	6	4427		3091	9.5	2637		4012	6	3324		4279		5684		3194		5588	6	5370	2*	4435	8
629	31280	5093	8	3161		4127		4180		2818		1418		1795		1607		3078		6336	8	3811		4507		3115		3083	
630	Local check	3169		5186		4177		5525		2636		3546	1	3723		3635	3	3964		6230	10	5057		5567	7	4227	6	4002	
Exp. mean		4233.54		5432.85		4833.20		5543.7		2893		2411.3		3501.18		2956.3		4002.7		5358		4720.02		4920		3777		3970.4	
CD		1597.65		868.92		974.55		1141.31		675.79		587.31		532.18		462.60		480.37		427.01		262.31		211.94		594.38		423.33	
CV%		23.09		9.79		12.34		12.60		11.42		14.90		9.30		9.57		7.20		4.88		3.40		2.64		9.63		6.42	
D/S		6.7.22		27.06.22				28.06.22		10.06.22		21-06-22		01.07.22						04-07-22		22-07-22		2.07.22		25.06.22			
D/P		16.08.22		28.07.22				29.07.22		07.07.22				05.08.22						02-08-22		20-08-22		10.08.22		01.08.22			
Local Check Name		CR Dhan 508		Upahar				Rajdeep		Sudha		NDGR-201		NDR 9930111						CR Dhan 506		Dhansiri		Surma Dhan		MTU 1172			

**-Highly Significant; *-significant; ns-not significant

Table No. 12.9: Days to 50% flowering of entries in IVT-SDW, *Kharif* 2022

Entry No	IET No	Zone III								Zone III (6) mean	Zone IV			Zone VII	Overall (7) mean
		OD		OD(2)	WB (1)	BI (1)	UP		UP(2) mean		AS			AP (1)	
		CTK	BBN	mean	CHN	PSA	GGT	MSD			GER@	TTB@	KMJ@	MTU	
601	31254	129	105	117	119	129	111	110	111	117	115	106.3	130	119.3	117
602	31255	114	107	111	117	107	102	104	103	108	108	103.6	125	111.7	109
603	31256	130	115	122	126	134	117	116	117	123	127	116.6	137	123.3	123
604	31257	114	116	115	122	122	108	110	109	115	113	108.3	122	114.0	115
605	CR Dhan 506 (NC)	126	119	123	-	155	-	130	130	133	133	113.3	123	134.3	133
606	31258	130	127	129	131	154	129	128	129	133	133	131.3	134	134.3	133
607	31259	123	119	121	129	146	117	118	117	125	129	126.3	121	127.3	126
608	31260	121	126	124	120	123	116	117	116	121	115	105.0	110	118.6	120
609	31261	113	99	106	114	112	105	106	105	108	108	102.0	114	112.3	109
610	31262	113	103	108	114	111	106	107	106	109	105	101.6	118	111.3	109
611	31263	121	113	117	122	133	119	120	120	121	127	111.3	134	121.0	121
612	31264	130	120	125	127	144	117	118	117	126	131	122.3	137	127.6	126
613	31265	121	104	113	115	117	113	115	114	114	108	98.6	117	106.6	113
614	31266	120	100	110	113	107	105	107	106	109	105	100.6	119	108.3	109
615	31267	130	104	117	130	157	129	130	129	130	133	130.6	129	134.6	131
616	31268	120	115	117	117	132	115	116	116	119	114	114.0	129	119.3	119
617	31269	121	109	115	115	121	113	114	114	116	113	103.0	124	117.0	116
618	31270	130	111	120	128	137	117	117	117	123	119	120.6	121	126.6	124
619	31271	108	93	101	105	101	96	98	97	100	98	98.3	112	102.6	101
620	Zonal Check	125	128	127	125	154	135	131	133	133	133	110.6	133	125.3	132
621	31272	120	116	118	119	118	115	116	116	117	115	113.3	135	114.3	117
622	31273	125	112	119	119	128	116	119	118	120	115	108.3	122	121.0	120
623	31274	121	130	126	124	155	132	132	132	132	127	110.3	132	124.3	131
624	31275	120	110	115	118	122	109	110	110	115	115	108.3	116	112.3	114
625	31276	121	101	111	115	112	104	106	105	110	103	101.6	119	107.3	109
626	31277	119	105	112	117	116	109	110	110	113	115	112.3	124	115.3	113
627	31278	128	115	121	117	129	116	117	116	120	115	115.3	134	115.3	119
628	31279	130	112	121	134	134	122	123	122	126	131	126.3	135	133.6	127
629	31280	131	113	122	130	142	125	126	125	128	127	120.6	138	124.3	127
630	Local check	130	120	125	118	136	107	111	109	120	133	113.3	124	127.0	121
Exp. mean		122.8	112	118	116.6	129	111	116	113	118	118.7	111.8	125.6	119.7	118
CD		1.66	2	2	2.64	8	1.52	2	2	3	4.593	2.501	4.568	1.284	3
CV%		0.83	1	1	1.38	3	0.84	1	1	1	2.36	1.36	2.22	0.65	1

Table No. 12.10: Plant height (cm) of entries in IVT-SDW, *Kharif* 2022

Entry No	IET No	Zone III								Zone III(6)	Zone IV			Zone VII	Overall (7)
		OD		OD(2)	WB (1)	BI (1)	UP		UP(2)		AS			AP (1)	
		CTK	BBN	mean	CHN	PSA	GGT	MSD	mean	mean	GER@	TTB@	KMJ@	MTU	mean
601	31254	124	132	128	126	116	153	155	154	134	158	119	127.0	158	138
602	31255	127	124	126	108	109	136	140	138	124	155	123	115.4	147	127
603	31256	133	115	124	105	150	155	156	156	136	164	129	106.4	140	136
604	31257	141	155	148	117	140	150	154	152	143	170	130	133.8	165	146
605	CR Dhan 506 (NC)	142	132	137	-	123	-	140	140	134	173	134	109.2	182	144
606	31258	105	114	110	97	114	126	130	128	114	142	94	102.6	127	116
607	31259	123	114	119	97	110	144	146	145	122	145	106	95.6	144	125
608	31260	116	110	113	97	111	133	135	134	117	144	107	100.8	138	120
609	31261	140	150	145	117	121	155	158	157	140	169	144	134.8	165	144
610	31262	135	114	125	118	115	136	141	139	127	158	118	122.8	131	127
611	31263	122	117	120	96	110	134	142	138	120	148	112	105.0	142	123
612	31264	113	116	115	100	101	151	156	154	123	152	105	107.2	150	127
613	31265	120	123	122	109	117	148	152	150	128	166	127	111.8	142	130
614	31266	140	150	145	119	152	158	154	156	145	165	152	108.6	176	150
615	31267	103	106	105	84	99	123	126	125	107	134	95	90.6	131	110
616	31268	125	115	120	116	123	145	142	144	128	150	124	111.4	149	131
617	31269	119	115	117	114	106	142	144	143	123	144	115	116.2	139	126
618	31270	114	115	115	93	118	146	148	147	122	158	107	106.0	143	125
619	31271	103	107	105	102	91	118	121	120	107	150	109	99.6	128	110
620	Zonal Check	121	113	117	104	114	138	140	139	122	155	112	113.0	131	123
621	31272	118	122	120	102	112	135	137	136	121	149	112	105.6	135	123
622	31273	138	110	124	97	120	133	135	134	122	153	107	116.8	142	125
623	31274	132	130	131	113	120	151	152	152	133	158	117	92.0	143	134
624	31275	147	152	150	117	141	155	156	156	145	169	135	133.6	157	146
625	31276	111	112	112	108	109	135	141	138	119	157	124	111.6	133	121
626	31277	117	110	114	123	135	137	142	140	127	147	113	123.0	133	128
627	31278	123	110	117	124	124	145	149	147	129	153	125	110.2	137	130
628	31279	110	113	112	100	102	132	131	132	115	134	101	91.6	136	118
629	31280	109	96	103	103	105	120	126	123	110	129	92	84.6	112	110
630	Local check	130	113	122	106	174	139	123	131	131	177	130	111.4	126	130
Exp. mean		123	120	122	107	119	140	142	141	125	154	117	110.0	143	128

Table No. 12.11: No. of panicles/m^{2}of entries in IVT-SDW, *Kharif* 2022

Entry No	IET No	Zone III								Zone III (6) mean	Zone IV			Zone VII	Overall (7) mean
		OD		OD(2)	WB (1	BI (1)	UP		UP (2) mean		AS			AP (1)	
		CTK	BBN	mean	CHN	PSA	GGT	MSD			GER@	TTB@	KMJ@	MTU	
601	31254	174	189	182	341	180	193	212	203	215	273	267	295.0	307	228
602	31255	182	296	239	220	178	143	243	193	210	226	227	292.6	295	222
603	31256	208	225	217	176	202	193	219	206	204	223	275	269.0	292	216
604	31257	166	243	205	242	210	153	242	198	209	208	248	276.3	304	223
605	CR Dhan 506 (NC)	193	248	221	-	172	-	177	177	198	286	218	236.6	306	219
606	31258	194	279	236	275	173	152	196	174	211	255	213	274.6	312	226
607	31259	221	280	251	220	207	198	223	211	225	261	200	264.3	310	237
608	31260	157	330	244	253	176	161	226	194	217	231	167	283.3	306	230
609	31261	172	291	231	198	192	185	239	212	213	239	260	264.3	293	224
610	31262	195	251	223	242	185	182	243	213	216	231	204	263.0	290	227
611	31263	193	229	211	264	191	160	216	188	209	239	239	273.3	303	222
612	31264	231	213	222	220	204	182	214	198	211	203	209	286.0	307	224
613	31265	188	223	206	275	192	160	233	197	212	258	181	258.6	304	225
614	31266	192	241	217	242	209	172	225	198	213	221	190	285.0	262	220
615	31267	192	236	214	308	210	192	214	203	225	242	245	257.6	312	238
616	31268	242	313	277	308	209	183	230	207	248	254	210	291.6	277	252
617	31269	161	269	215	264	210	151	223	187	213	204	224	269.0	308	227
618	31270	198	278	238	308	196	174	242	208	233	280	209	285.6	302	243
619	31271	180	292	236	253	187	190	231	210	222	303	254	265.6	286	231
620	Zonal Check	196	243	220	264	173	153	224	189	209	270	241	300.3	303	222
621	31272	205	327	266	231	198	175	235	205	229	244	250	258.6	296	238
622	31273	176	307	241	264	214	160	232	196	225	245	255	282.3	302	236
623	31274	201	225	213	275	201	180	194	187	213	193	227	250.6	305	226
624	31275	186	221	204	231	190	168	233	200	205	252	260	284.3	293	217
625	31276	173	275	224	308	209	182	225	204	229	269	222	291.6	287	237
626	31277	168	188	178	220	180	142	212	177	185	201	179	286.6	276	198
627	31278	170	217	194	253	204	128	233	181	201	195	179	268.3	288	213
628	31279	173	238	205	231	160	185	231	208	203	207	189	270.3	305	217
629	31280	185	287	236	220	161	166	232	199	209	225	237	265.6	283	219
630	Local check	187	339	263	253	186	188	241	215	232	233	250	292.6	294	241
Exp. mean		189	260	224	245	192	165	225	195	213	239	224	275.0	297	225
CD		28.09	17.71	23	42.22	11.39	16.14	16.37	16	22	4.58	14.18	10.3	20	19
CV%		9.11	4.17	7	10.53	2.91	5.98	4.46	5	6	1.17	3.87	2.3	4	5

INITIAL VARIETY TRIAL – DEEP WATER (IVT-DW)

Locations : 4 **Test Entries:10**

Checks : CR Dhan 500 (National check), CR Dhan 502 (Zonal check) and local check **Table:12.12**

Initial varietal trial for deep water condition (IVT-DW) was constituted with 10 test entries and 3 checks (Trial no. 7). Among the 10 test entries, 7 entries were in first year of testing, 2 were in second year and 1 entry was in third year of testing. The trial was sent to 6 locations for evaluation and the data was received from 4 locations. Among the 4 locations, the recommended water level (>75cm for one month) was maintained only in one location (Ghagraghat) while Pusa maintained 75 cm of water level for around 20 days. The trial was rejected at Cuttack and Chinsurah by the monitoring team as water level was not properly maintained. Hence, the data from two locations only (Ghagraghat and Pusa) was considered. 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, number of panicles/$m^2$and grain quality parameters of test entries in initial varietal trial for deep water conducted during kharif 2022 is provided in Tables 12.13 to 12.17.

On overall basis, the experimental mean yield ranged from2685 kg/ha (IET 31281) to 3873 kg/ha (IET 31285) and days to 50% flowering from106 days (IET 31282) to 136days (NC CR Dhan 500) among test entries. The plant height of test entries ranged from 116 cm (IET 28319 and IET 30436) to 156 cm (IET 26741) and number of panicles/m^2 ranged from 142 (IET 31281) to 176 (IET 31284).

The test IET 26741 (NDGR 706) derived from cross Pankaj / Jalnidhi was in the third year of testing. In this year, it performed significantly better than the best check in UP. But in Zone III, it did not perform significantly better than the best check. The entry was tested repeatedly over the years. The entry performed superior over the best check in Uttar Pradesh during 2019 and 2022. Hence, the entry is found promising for Uttar Pradesh.

Two entries (IET 28319 and IET 28318) were in the 2nd year of testing. None of the entries perform significantly better than the best check. The entries, IET 28320, IET 31281, IET 31282, IET 30436, IET 31283, IET 31284 and IET 31285 were in the first year of testing. Performance of these entries on the overall basis in Zone III was not promising considering the best varietal check (BVC + CD).

Details of water regime(cm) at different centers in IVT DW,*Kharif* 2022

Location	week	June	July	August	September	October	November
Chinsurah	1st	0	0	10	40	100	10
	2nd	0	0	15	65	60	-
	3rd	0	0	20	82	40	-
	4th	0	10	30	90	25	-
Ghagraghat	1st	0	0	10	40	98	73
	2nd	0	0	24	62	107	54
	3rd	0	0	28	72	102	34
	4th	0	0	36	80	93	13
NRRI, CUTTACK	1st	0	0	0	45	60	35
	2nd	0	0	40	55	58	10
	3rd	0	0	40	60	50	5
	4th	0	0	45	65	40	-
PUSA	1st	8	50	60	75	55	8
	2nd	30	50	70	75	35	-
	3rd	30	60	70	70	20	-
	4th	50	60	70	70	10	-

Performance of IET 26741 in 3rd year of testing in IVT-DW, *kharif* 2022

Entry No	IET No. /Designation Cross Combination	Zone III				Zone III (Overall Mean)	
		BI		UP			
		PSA		GGT			
701	26741(R) NDGR 706 Pankaj / Jalnidhi	2284		4433	1*	3358	4
703	CR Dhan 500(NC)	2531	10	4136		3333	5
709	CR Dhan 502 (ZC)	2284		4322		3303	6
713	Local Check	2840	7.5	3081	10	2960	
	Exp. mean	3005.7		3416.7		3274	
	CD	306.35		783.03		683.14	
	CV%	6.05		13.46		12.41	
	Local Check Name	Vaidehi (713)		Jalnidhi			

Performance of IET 26741 over the years for grain yield per (Kg/ha)

Sl. NO.	IET No. Designation Cross Combination	GY (Kg/ha) DFF				
		2019 [UP (1)]	2020 [WB (1)]	2021 [Bihar (1)]	2022	
					[Bihar (1)]	[UP (1)]
01	IET 26741 NDGR 706 Pankaj / Jalnidhi	3567 (78%) 117	4343 114	4404 (114%) --	2284 136	4433 (2.6%) 127
02	CR Dhan 500(NC)	2000	5177 119	2122	2531 155	4136 117
03	CR Dhan 502 (ZC)	--	--	1984	2284 136	4322 122

% over better check is provided in parenthesis

Performance of entries in 2nd year of testing in IVT-DW,*kharif* 2022

Entry No	IET No./Designation/ Cross Combination	Zone III				Zone III (Overall Mean)	
		BI		UP			
		PSA		GGT			
702	28319 (R) NDGR 709 NDR-207 / IR 49906-B-B-B-10-GHT-2	2716	9	3657	3	3186	9
703	CR Dhan 500(NC)	2531	10	4136		3333	5
704	28318 (R) CR 3993-13-58-3 CR 1009/*O. brachyantha*//CR 1009	3765	2*	3187	7	3476	3
709	CR Dhan 502 (ZC)	2284		4322		3303	6
713	Local Check	2840	7.5	3081	10	2960	
	Exp. mean	3005.7		3416.7		3274	
	CD	306.35		783.03		683.14	
	CV%	6.05		13.46		12.41	
	Local Check Name	Vaidehi (713)		Jalnidhi			

Performance of entries in 1st year of testing in IVT-DW,*kharif* 2022

Entry No	IET No./Designation/ Cross Combination	Zone III				Zone III (Overall Mean)	
		BI		**UP**			
		PSA		**GGT**			
703	**CR Dhan 500(NC)**	2531	10	4136		3333	5
705	**28320 (R)** CR 3993-14-13-24 CR 1009/*O. brachyantha*//CR 1009	2840	7.5	3457	5	3148	10
706	**31281** NDGR-712 NDR-40032/Swarna	2222		3147	8	2685	
707	**31282** CR 3993-514-2-15-2 CR 1009/*O.brachyantha*//CR 1009	3580	3.5*	2926		3253	8
708	**30436 (R)** NDR 8024 IR49830-7-1-1-2-3/SABITA//IR 69502-6-SRN-3-UBN-1-3-1-3-2	3148	6*	3103	9	3125	
709	**CR Dhan 502 (ZC)**	2284		4322		3303	6
710	**31283** CR 2906-253-156-13 IR 20/Dandi	3580	3.5*	3546	4	3563	2
711	**31284** NDR 8029 BKP 242/Swarna	3395	5*	3191	6	3293	7
712	**31285** CR 3993-33-1-58-3-1 CR 1009/O.brachyantha//CR 1009	3889	1*	3856	2	3873	1
713	**Local Check**	2840	7.5	3081	10	2960	
	Exp. mean	3005.7		3416.7		3274	
	CD	306.35		783.03		683.14	
	CV%	6.05		13.46		12.41	
	Local Check Name	Vaidehi (713)		Jalnidhi			

Performance and promotion in IVT-DW in *kharif* 2022

Promising in AVT-2

- IET 26741 is promising for Uttar Pradesh

Promoted to AVT-2

- Nil

Promoted to AVT-1

- Nil

Adaptability parameters of entries in IVT DW, *Kharif*-2022

Entry No.	Seedling Survival (%)				Submergence Tolerance (%)				Elongation Ability Score (1-9)			
	CHN	GGT	NRRI	PSA	CHN	GGT	NRRI	PSA	CHN	GGT	NRRI	PSA
701	95	95	63	70	90	65	-	65	5	3	5	3
702	95	85	50	74	92	50	-	70	5	7	-	5
703	96	90	60	72	95	50	-	68	1	5	5	5
704	98	90	47	86	97	50	-	81	5	7	-	7
705	98	85	46	75	96	50	-	72	5	7	-	7
706	98	80	44	70	97	50	-	66	7	7	-	2
707	96	80	51	84	95	50	-	80	3	5	-	7
708	97	75	57	80	96	50	-	75	5	7	-	7
709	98	NS	70	69	97	NS	-	64	3	NS	3	3
710	96	85	37	82	96	50	-	78	3	7	-	7
711	96	85	52	80	95	50	-	75	5	7	-	7
712	98	90	45	90	96	50	-	87	5	5	-	7
713	98	95	64	74	97	65	-	70	3	1	5	7

(Contd): Adaptability parameters of entries in IVT DW, *Kharif*-2022

Entry No.	Kneeing Ability Score (1-5)				Grain Shattering Score (1-9)				Phenotypic Acceptability Score(1-9)			
	CHN	GGT	NRRI	PSA	CHN	GGT	NRRI	PSA	CHN	GGT	NRRI	PSA
701	5	1	3	2	3	1	5	1	7	3	-	3
702	3	3	-	3	3	1	5	1	5	5	-	5
703	3	5	-	2	3	NF	5	1	3	9	-	3
704	3	7	-	4	3	1	5	1	5	7	-	7
705	3	5	3	3	3		5	1	5	5	-	5
706	3	5	3	2	3	1	5	1	5	7	-	5
707	3	5	-	4	3	3	5	1	5	7	-	7
708	3	5	-	3	3	3	5	1	5	7	--	7
709	3	NS	-	2	3	NS	5	1	3	NS	-	3
710	1	7	-	3	1	3	-	1	1	3	-	7
711	3	5	-	4	3	3	-	1	3	7	-	7
712	3	7	3	4	3	1	-	1	5	5	-	7
713	1	1	-	4	3		-	1	3	3	-	7

Table No. 12.12: Composition of entries in Initial Variety Trial-Deep Water (IVT-DW),*Kharif* 2022

Entry No.	IET No.	Designation	Cross combination	Grain Type
3rd year of testing				
701	26741(R)	NDGR 706	Pankaj / Jalnidhi	SB
2nd year of testing				
702	28319 (R)	NDGR 709	NDR-207 / IR 49906-B-B-B-10-GHT-2	LB
703	**CR Dhan 500(NC)**			
704	28318 (R)	CR 3993-13-58-3	CR 1009/*O. brachyantha*//CR 1009	SB
1st year of testing				
705	28320 (R)	CR 3993-14-13-24	CR 1009/*O. brachyantha*//CR 1009	SB
706	31281	NDGR-712	NDR-40032/Swarna	MB
707	31282	CR 3993-514-2-15-2	CR 1009/O.brachyantha//CR 1009	MS
708	30436(R)	NDR 8024 (IR 77769-59-NDR-B-286-28)	IR49830-7-1-1-2-3/SABITA//IR 69502-6-SRN-3-UBN-1-3-1-3-2	MB
709	**CR Dhan 502 (ZC)**			
710	31283	CR 2906-253-156-13	IR 20/Dandi	MS
711	31284	NDR 8029	BKP 242/Swarna	SB
712	31285	CR 3993-33-1-58-3-1	CR 1009/O.brachyantha//CR 1009	SB
713	**Local Check**			

Table No. 12.13.Grain Yield (Kg/ha) of entries in IVT-DW,*Kharif* 2022

Entry No	IET No	Zone III									
		OD		WB		BI		UP		Overall	
		CTK@		CHN@		PSA		GGT		mean	
701	26741(R)	3148	10	4013		2284		4433	1*	3358	4
702	28319 (R)	4254	5	4638	3	2716	9	3657	3	3186	9
703	**CR Dhan 500(NC)**	4725	3	5154	1	2531	10	4136		3333	5
704	28318 (R)	2590		4224	9	3765	2*	3187	7	3476	3
705	28320 (R)	3031		4417	6	2840	7.5	3457	5	3148	10
706	31281	2839		4342	7	2222		3147	8	2685	
707	31282	3254	9	4276	8	3580	3.5*	2926		3253	8
708	30436 (R)	3782	6	4430	5	3148	6*	3103	9	3125	
709	**CR Dhan 502 (ZC)**	6506	1	4177		2284		4322		3303	6
710	31283	3688	7	4978	2	3580	3.5*	3546	4	3563	2
711	31284	5301	2	4561	4	3395	5*	3191	6	3293	7
712	31285	3436	8	4211	10	3889	1*	3856	2	3873	1
713	**Local Check**	4328	4	4167		2840	7.5	3081	10	2960	
	Exp. mean	3913.87		4429.8		3005.7		3416.7		3274	
	CD	1232.72		1207.83		306.35		783.03		683.14	
	CV%	18.69		19.01		6.05		13.46		12.41	
	D/S	16.07.2022		28.07.2023		10-06-2022		17-06-2022			
	D/P	19.08.2022		20.06.2023		07-07-2022					
	Local Check Name	CR DHAN 508		SABITA		Vaidehi (713)		Jalnidhi			

Table No. 12.14: Days to 50% flowering of entries in IVT-DW,*Kharif* 20228

Entry No	IET No	Zone III				
		OD	WB	BI	UP	Overall
		CTK@	CHN@	PSA	GGT	mean
701	26741(R)	124	124	136	127	131
702	28319 (R)	131	128	121	115	118
703	**CR Dhan 500(NC)**	133	136	155	117	136
704	28318 (R)	122	120	113	115	114
705	28320 (R)	124	123	111	117	114
706	31281	121	113	108	119	114
707	31282	128	130	101	112	106
708	30436 (R)	131	135	125	127	126
709	**CR Dhan 502 (ZC)**	135	142	136	122	129
710	31283	131	133	120	124	122
711	31284	130	118	106	113	110
712	31285	122	117	113	113	113
713	**Local Check**	130	127	134	125	130
	Exp. mean	127.79	126.62	121.41	119	120
	CD	1.78	0.75	3.63	1.53	3.56
	CV%	0.83	0.41	1.77	0.91	1.99

Table No. 12.15: Plant height of entries in IVT-DW,*Kharif* 2022

Entry No	IET No	Zone III				
		OD	WB	BI	UP	Overall
		CTK@	CHN@	PSA	GGT	mean
701	26741(R)	143.0	143	155.33	157.3	156
702	28319 (R)	111.0	119	108.67	124.3	116
703	**CR Dhan 500(NC)**	156.0	132	117.00	125.6	121
704	28318 (R)	118.0	115	125.33	122.6	124
705	28320 (R)	113.0	124	117.00	124.0	121
706	31281	98.0	106	124.67	114.0	119
707	31282	138.0	146	128.67	134.3	131
708	30436 (R)	100.0	120	112.00	120.3	116
709	**CR Dhan 502 (ZC)**	169.0	136	155.33	135	145
710	31283	119.0	122	133.67	116.3	125
711	31284	109.0	116	132.33	120.0	126
712	31285	114.0	116	138.67	126.0	132
713	**Local Check**	130.0	144	160.67	174.0	167
	Exp. mean	124.46	126.03	131.49	130.00	131.00

Table No. 12.16: No. of Panicles/m^2 of entries in IVT-DW,*Kharif* 2022

Entry No	IET No	Zone III				
		OD	WB	BI	UP	Overall
		CTK@	CHN@	PSA	GGT	mean
701	26741(R)	201.7	198	171.00	145.0	158
702	28319 (R)	262.0	223	179.00	140.7	160
703	**CR Dhan 500(NC)**	159.7	256	181.33	160.0	171
704	28318 (R)	174.0	190	183.67	123.3	154
705	28320 (R)	178.0	215	180.67	122.0	151
706	31281	214.0	215	171.67	112.3	142
707	31282	198.0	206	199.67	145.3	173
708	30436 (R)	248.7	223	185.00	142.3	164
709	**CR Dhan 502 (ZC)**	319.3	198	171.00	175	173
710	31283	233.7	248	198.00	136.0	167
711	31284	225.7	248	211.00	140.3	176
712	31285	191.7	231	189.67	128.7	159
713	**Local Check**	169.3	206	198.67	131.7	165
	Exp. mean	213.51	219.58	186.18	138.70	162.00
	CD	32.712	44.484	9.1129	14.341	29.133
	CV%	9.0917	14.127	2.9046	7.5381	10.274

Table No. 12.17: Grain Quality characteristics of entries at IIRR in IVT-DW,*Kharif* 2022

Entry No	IET No	Hull	Mill	HRR	KL	KB	L/B	ASV	AC	GC
701	26741(R)	75.05	64.35	50.75	6.01	2.00	3.05	4.50	25.65	45.50
702	28319 (R)	78.05	66.80	58.65	6.02	2.00	3.03	4.50	26.75	50.50
703	CR Dhan 500(NC)	78.15	65.10	55.45	5.93	2.32	2.56	4.00	25.66	32.00
704	28318 (R)	79.80	70.30	63.40	5.08	2.15	2.40	3.50	23.41	33.50
705	28320 (R)	79.45	71.05	60.80	5.01	2.29	2.19	5.00	22.28	35.00
706	31281	76.55	64.10	54.75	5.02	1.70	2.97	3.50	23.65	34.00
707	31282	77.40	66.10	59.35	5.50	1.67	3.36	4.00	23.10	44.50
708	30436 (R)	78.85	69.80	61.75	5.87	2.26	2.62	4.50	24.01	36.50
709	CR Dhan 502 (ZC)	76.75	67.80	61.70	5.95	1.71	3.52	5.50	24.58	34.50
710	31283	77.00	67.85	58.05	5.58	1.88	3.02	4.00	24.10	37.00
711	31284	79.70	69.00	53.50	5.32	2.12	2.55	3.50	23.79	37.50
712	31285	79.05	69.10	61.05	5.05	2.22	2.31	3.50	24.25	34.00
713	Local Check	76.80	66.65	59.90	5.96	2.43	2.47	4.00	24.29	35.00

Table No. 12.17 (Contd): Grain Quality characteristics of entries in IVT-DW, *kharif* 2022 done at NRRI, Cuttack

Entry No	IET No	Hull	Mill	HRR	Chalkiness	KL	KB	L/B	ASV	WU	VER	ER	KLAC	AC	GC
701	26741(R)	73	65	56	A	5.78	1.73	3.34	5	85	3.75	1.56	9	25.72	52
702	28319 (R)	77	65	56	VOC	5.86	1.78	3.29	5	95	3.75	1.54	9	26.85	62
703	CR Dhan 500(NC)	77	64	55	VOC	5.48	2.08	2.63	4	105	3.75	1.64	9	25.42	42
704	28318 (R)	78	66	61	A	4.9	1.85	2.65	3	65	3.75	1.63	8	23.92	45
705	28320 (R)	78	70	62	A	4.72	2.1	2.25	6	58	3.75	1.69	8	21.67	48
706	31281	76	64	58	A	4.78	1.52	3.14	3	55	3.75	1.46	7	23.77	46
707	31282	77	65	59	A	5.51	1.44	3.83	4	95	3.75	1.63	9	22.95	45
708		78	69	61	VOC	5.68	2.05	2.77	5	85	4	1.76	10	23.17	48
709	CR Dhan 502 (ZC)	76	67	59	A	5.58	1.46	3.82	6	95	3.75	1.61	9	24.75	47
710	31283	75	65	57	A	5.43	1.6	3.39	4	95	3.75	1.66	9	24.67	52
711	31284	78	68	58	A	5.28	1.84	2.87	3	55	3.75	1.70	9	24.00	53
712	31285	77	67	61	A	4.88	1.91	2.55	3	100	3.75	1.84	9	23.85	46
713	Local Check	75	64	56	VOC	5.69	2.15	2.65	4	135	3.75	1.58	9	23.62	48

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.

ADVANCE VARIETY TRIAL 1- NIL (SUBMERGENCE) (AVT-1-NIL-SUB)

Locations	**:**	**05**	**Test Entries:14**
Entries	**:**	**NILs: 08; RPs: 04; DP: 01; Sensitive Check: 01**	
Checks/ Recurrent/ Donor Parents	**:**	**Varshadhan, Gayatri,Sarala, ADT 39 (RP); Swarna Sub1 (DP); Swarna (Sensitive Check)**	**Table:13.1**

This trial includes 08 NILs along with their respective recurrent parents (4). The IETs29031, 29026 and 29032were sister lines from the cross Varshadhan * 3 / IR 49830-7 and were in the third year of testing as repeat entries. IET 30409 from the cross Gayatri*3/IR49830-7 and IET 30410 from Sarala * 3 /IR 49830-7were in the second year of testing. Three new entries IETs 30697, 30696 and 30695 from the cross ADT 39*4 / Swarna Sub-1 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 13.2 to 13.5.

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 ten locations. The trial conducted at Chinsura was rejected by the monitoring team. The trial failed at Pusa and Titabar and data from Mugad and Kumta were received very late. Data from Maruteru, Bikramganj and Masodha were**not considered in the analysis due to very high percentage of seedling survival of the sensitive check (Swarna)**. This indicates that submergence stress was not adequate in those three centers. Hence, only data from Cuttack and Karaikal centers were considered for analysis.

Based on mean yield under submergence stress condition, the NILs IET 29031, IET29026 and IET 29032 performed significantly better than their recurrent parentVarshadhan. All the three NILs of ADT 39 (IET 30697, 30696 and 30695) were also found to be significantly superior to their recurrent parent ADT 39with respect to yield under submergence stress condition.NIL derived from Sarala (IET 30410) and NIL derived from Gayatri (IET 30409) performed better though not significantly superior as compared to their respective recurrent parents.

With respect to mean seedling survival percentage under submergence stress, all the tested NILs derived from **Varshadhan, Gayatri, Sarala and ADT 39** performed better than their respective recurrent parents.

Grain yield (Kg/ha) of NIL entries in AVT-1 NIL- SUB along with their recurrent parents under submergence stress condition, *kharif*, 2022

IET NO.	CTK	BKG@	MSD@	MTU@	KRK	Mean
29031 (Varshadhan -NIL)	4049*	5268	3464	5833*	3139*	3594*
29026 (Varshadhan -NIL)	3192	4685	2700	4704	3819*	3506*
29032 (Varshadhan -NIL)	2805	4769	3873	3753	3139*	2972*
Varshadhan (RP)	**2508**	**5193**	**4064**	**4071**	**2403**	**2455**
30409 (Gayatri -NIL)	2252	4326	3628	3677	3264*	2758
Gayatri (RP)	**2892**	**3599**	**4064**	**4571**	**2389**	**2640**
30410 (Sarala-NIL)	3121	5343	2782	7835	2306	2713
Sarala (RP)	**2632**	**6186**	**3710**	**7806**	**2347**	**2489**
30697 (**ADT 39-** NIL)	2402	821	3846*	-	4097*	3249*
30696 (**ADT 39-** NIL)	2460	634	2237	5631	4319*	3390*
30695 (**ADT 39-** NIL)	2438	1083	2782	3859	4264*	3351*
ADT 39 (RP)	**3022**	**3380**	**2932**	**4794**	**2403**	**2713**
Swarna Sub 1 (DP)	2937	629	2932	-	3653	3295
Swarna (Sensitive check)	1156	6802	3655	3338	2361	1758
Exp. Mean	2704.6	3765.7	3333.72	4989	3136	2920.3
CD	754.83	1003.21	400.56	1225.78	504	443.74

*Significantly($p<0.05$)superior over the recurrent parent
@Not considered for analysis due to high seedling survival under submergence stress

Seedling Survival percentage of NIL entries in AVT-1 NIL- SUB over their recurrent parents under submergence stress condition, *kharif*, 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
Gayatri	30409	74	90	87	88.6	91.18	82.59	53	70	89	80	54.28	53.64	53.97
Sarala	30410	72	90	76	89.3	58.54	65.27	58	95	82	85.7	50.61	54.3	20.20
ADT 39	30697	59	85	86	-	94.18	76.59	44	80	82	77.2	51.26	47.63	60.8
	30696	56	90	72	76.8	95.6	75.8	44	80	82	77.2	51.26	47.63	59.14
	30695	61	85	77	77.8	93.8	77.4	44	80	82	77.2	51.26	47.63	62.50
Swarna Sub 1 (DP)		85	85	78	-	92.14	88.57							
Swarna (Sensitive check)		28	95	87	80.2	42.14	35.07							

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					
	CTK		MTU		MEAN		CTK		MTU		MEAN		CTK		KRK		MEAN	
	NIL	RP	NIL	RP	NIL	RP	NIL	RP	NIL	RP	NIL	RP	NIL	RP	NIL	RP	NIL	RP
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
29026 (CR 2538-42-17-32-3-3) Varshadhan*3/ IR49830-7	3259	252	4427	3198	3843*	1725	3827	1137	8023	6807	5925*	3972	3192	2508	3819	2403	3506*	2455
29032 (CR 2538-20-14-24-2) Varshadhan*3/ IR49830-7	3643	252	4788	3198	4216*	1725	4218	1137	5563	6807	4891*	3972	2805	2508	3139	2403	2972*	2455
30409 (CR2531-72-6-19-3) Gayatri*3/ IR49830-7							4233	1229	7000	7737	5617*	4483	2252	2892	3264	2389	2758	2640
30410 (CR 2532-9-21-35-3) Sarala*3/ IR49830-7							3460	1789	6957	7267	5209*	4528	3121	2632	2306	2347	2713	2489
Exp. Mean	**1781.67**		**3462.6**		**2622.13**		**2804.02**		**6369.56**		**4586.79**		**2704.6**		**3136**		**2920.3**	
CD	**429.96**		**481.62**		**322.41**		**1022.33**		**1027.31**		**610.76**		**754.83**		**504**		**443.74**	

*Significantly($p<0.05$) superior over the recurrent parent

Summary of two years performance of entries found promising in AVT-1 NIL-Submergence:

IET 29031 (CR 2538-42-17-32-3-2), IET 29026 (CR 2538-42-17-32-3-3) and IET 29032 (CR 2538-20-14-24-2) derived from the cross Varshadhan*3/IR49830-7 were in the third year of testing as repeat entries in 2022. All the three 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 three years (2020, 2021 and 2022) 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%) and 2022 (54.95%).

IET 29026 performed significantly better than the recurrent parent Varshadhan in all the three years (2020, 2021 and 2022) 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%) and 2022 (54.95%).

IET 29032 performed significantly better than the recurrent parent Varshadhan in all the three years (2020, 2021 and 2022) 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 (57.84%), 2021 (52.75%) and 2022 (52.88%).

IET 30410 derived from Sarala performed significantly better than the recurrent parent in 2021 and performed better in 2022 though not significant with respect to yield under submergence stress. It also performed better than its recurrent parent Sarala regarding seedling survival percentage under submergence condition in both 2021 (10.52%) and 2022 (20.20%).

The NIL derived from Gayatri (IET 30409) performed significantly better than the recurrent parent in 2021 and showed better performance though not significant in 2022 with respect to yield under submergence stress. However, it performed better than its recurrent parent Gayatri with regard to seedling survival percentage under submergence condition in both 2021 (56.16%) and 2022 (53.97%).

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
29031 (CR 2538-42-17-32-3-2) Varshadhan*3/IR49830-7	2022	CTK 55 KRK56 Overall 55.5	CTK 83 KRK 89 Overall 86	CTK 50.9 KRK58.93 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	CTK 1144.4 MTU -52.04 Overall 6.14
29026 (CR 2538-42-17-32-3-3) Varshadhan*3/IR49830-7	2022	CTK 55 KRK 56 Overall55.5	CTK 79 KRK 93 Overall 86	CTK 43.63 KRK 66.07 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	CTK 1100 MTU -53.27 Overall 2.82
29032 (CR 2538-20-14-24-2) Varshadhan*3/IR49830-7	2022	CTK 55 KRK 56 Overall 55.5	CTK 77 KRK 92.7 Overall 84.85	CTK 40.0 KRK 65.53 Overall 52.88
	2021	CTK 30 MTU 87.9 Overall 58.95	CTK 94 MTU 86.1 Overall 90.05	CTK 213.33 MTU -2.04 Overall 52.75
	2020	CTK 5 MTU 97.8 Overall 51.4	CTK 66.67 MTU 95.6 Overall 81.13	CTK 1233.4 MTU -2.24 Overall 57.84
30409 (CR2531-72-6-19-3) Gayatri*3/IR49830-7	2022	CTK 53 KRK 54.28 Overall53.64	CTK 74 KRK 91.18 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
30410 (CR 2532-9-21-35-3) Sarala*3/IR49830-7	2022	CTK 58 KRK 50.61 Overall 54.3	CTK 72 KRK 58.54 Overall 65.27	CTK 24.13 KRK 15.67 Overall 20.20
	2021	CTK 30 MTU 87.8 Overall 58.9	CTK 45 MTU 85.2 Overall 65.1	CTK 50.0 MTU -2.98 Overall 10.52

Table No. 13.1: Composition of entries in Advance Variety Trial 1- Near Isogenic Lines - Submergence (AVT 1-NIL SUB), *kharif* , 2022.

Entry No.	IET No.	Designation	Cross combination	Grain Type
2nd Year of testing:				
6301	29031 (R)	CR 2538-42-17-32-3-2	Varshadhan*3/IR49830-7	LB
6302	29026 (R)	CR 2538-42-17-32-3-3	Varshadhan*3/IR49830-7	LB
6303	**Varshadhan (RP)**			
6304	29032 (R)	CR 2538-20-14-24-2	Varshadhan*3/IR49830-7	LB
6305	**Gayatri (RP)**			
6306	30409	CR2531-72-6-19-3	Gayatri*3/IR49830-7	SB
6307	**Swarna Sub 1 (DP)**			
6308	30410	CR 2532-9-21-35-3	Sarala*3/IR49830-7	MS
6309	**Sarala (RP)**			
1st year of testing				
6310	30697	KR 19011	ADT 39*4/Swarna sub-1	MS
6311	30696	KR 19005	ADT 39*4/Swarna sub-1	MS
6312	**ADT 39 (RP)**			
6313	30695	KR 19015	ADT 39*3/Swarna sub-1	MS
6314	**Swarna (Sensitive check)**			

Table No. 13.2: Grain Yield (Kg/ha) of entries in AVT-1 NIL SUB Kharif 2022

Entry No	IET No	Zone III						Zone III(1)		Zone VII				Zone VII(1)		Overall (2)	
		OD		BI		UP				AP		PUD					
		CTK		BKG@		MSD@		mean		MTU@		KRK		Mean		mean	
6301	29031 (R)	4049	1*	5268	4	3464	7	4049	1*	5833	3	3139	7*	3139	7*	3594	1*
6302	29026 (R)	3192	2	4685	7	2700	10	3192	2	4704	6	3819	4*	3819	4*	3506	2*
6303	**Varshadhan (RP)**	2508	9	5193	5	4064	1	2508	9	4071	8	2403	9.5	2403	9.5	2455	
6304	29032 (R)	2805	7	4769	6	3873	2	2805	7	3753	10	3139	8*	3139	8*	2972	7*
6305	**Gayatri (RP)**	2892	6	3599	9	4064	1	2892	6	4571	7	2389		2389		2640	
6306	30409	2252		4326	8	3628	6	2252		3677	11	3264	6*	3264	6*	2758	8
6307	**Swarna Sub 1 (DP)**	2937	5	629		2932	8	2937	5			3653	5	3653	5	3295	5
6308	30410	3121	3	5343	3	2782	9	3121	3	7835	1	2306		2306		2713	9
6309	**Sarala (RP)**	2632	8	6186	2	3710	4	2632	8	7806	2	2347		2347		2489	
6310	30697	2402		821		3846	3	2402				4097	3*	4097	3*	3249	6*
6311	30696	2460	10	634		2237		2460	10	5631	4	4319	1*	4319	1*	3390	3*
6312	**ADT 39 (RP)**	3022	4	3380	10	2932	8	3022	4	4794	5	2403	9.5	2403	9.5	2713	10
6313	30695	2438		1083		2782	9	2438		3859	9	4264	2*	4264	2*	3351	4*
6314	**Swarna (Sensitive check)**	1156		6802	1	3655	5	1156		3338	12	2361		2361		1758	
	Exp. mean	2704.6		3765.7		3333.72		2704.6		4989		3136		3136		2920.3	
	CD	754.83		1003.21		400.56		754.83		1225.78		504		504		443.74	
	CV%	16.629		15.87		7.16		16.629		14.51		9.58		9.58		9.05	
	D/S	25.06.2022		28-06-2022		03.07.2022				25.06.2022		09-06-2022					
	D/P	09.08.2022		01-08-2022		08.08.2022				04.08.2022		10-01-2022					

Table No. 13.3: Days to 50% flowering of entries in AVT-1 NIL SUB Kharif 2022

Entry No	IET No	Zone III			Zone III(1)	Zone VII		Zone VII (1)	Overall (2)
		OD	BI	UP		AP	PUD		
		CTK	BKG @	MSD @	mean	MTU @	KRK	mean	mean
6301	29031 (R)	134	138	121	134	141	109	109	121
6302	29026 (R)	133	136	123	133	143	105	105	119
6303	**Varshadhan (RP)**	132	137	117	132	141	106	106	119
6304	29032 (R)	130	136	118	130	142	107	107	119
6305	**Gayatri (RP)**	131	136	123	131	136	119	119	125
6306	30409	126	135	116	126	128	119	119	123
6307	**Swarna Sub 1 (DP)**	124	137	118	124		109	109	117
6308	30410	126	133	121	126	135	102	102	114
6309	**Sarala (RP)**	126	137	120	126	134	107	107	117
6310	30697	128	113	118	128		101	101	114
6311	30696	126	134	127	126	129	98	98	112
6312	**ADT 39 (RP)**	129	131	125	129	128	108	108	118
6313	30695	123	141	122	123	128	103	103	113
6314	**Swarna (Sensitive check)**	117	131	123	117	127	117	117	117
	Exp. mean	127.5	133.98	120.83	127.5	135	108	108	117.64
	CD	2.1428	1.26	1.38	2.1428	1.48	3.19	3.19	2.06
	CV%	1.0014	0.56	0.68	1.0014	0.77	1.76	1.76	1.04

Table No. 13.4: Plant height of entries in AVT-1 NIL SUB *Kharif* 2022

Entry No	IET No	Zone III			Zone III(1)	Zone VII		Zone VII (1) Mean	Overall (2)
		OD	BI	UP		AP	PUD		
		CTK	BKG@	MSD@	mean	MTU@	KRK		mean
6301	29031 (R)	136	108	65	136	154.8	132.33	132.33	134.17
6302	29026 (R)	148	148	113	148	148.7	134.33	134.33	141.17
6303	**Varshadhan (RP)**	133	151	102	133	149.1	127.00	127.00	130.00
6304	29032 (R)	135	123	73	135	144.6	128.33	128.33	131.67
6305	**Gayatri (RP)**	95	99	101	95	99.8	75.33	75.33	85.17
6306	30409	90	92	85	90	118.4	78.00	78.00	84.00
6307	**Swarna Sub 1 (DP)**	76	55	106	76		84.00	84.00	80.00
6308	30410	96	94	91	96	107.3	93.00	93.00	94.50
6309	**Sarala (RP)**	91	117	82	91	117.1	105.33	105.33	98.17
6310	30697	85	91	93	85		82.67	82.67	83.83
6311	30696	85	62	76	85	99.6	83.72	83.72	84.36
6312	**ADT 39 (RP)**	78	55	66	78	102.5	78.67	78.67	78.33
6313	30695	76	79	73	76	97.6	81.33	81.33	78.67
6314	**Swarna (Sensitive check)**	77	105	74	77	101.5	86.00	86.00	81.50
	Exp. mean	100.07	98.33	85.714	100.07	120	98	98	99.00

Table No. 13.5: No of Panicle/m2 of entries in AVT-1 NIL SUB *Kharif* 2022

Entry No	IET No	Zone III			Zone III(3)	Zone VII		Overall (2)
		OD	BI	UP		AP	PUD	
		CTK	BKG@	MSD@	mean	MTU@	KRK	mean
6301	29031 (R)	168	258	217	214	273	359	264
6302	29026 (R)	177	253	233	221	286	349	263
6303	**Varshadhan (RP)**	166	216	233	205	281	229	198
6304	29032 (R)	202	293	253	249	275	311	256
6305	**Gayatri (RP)**	191	239	226	219	295	232	211
6306	30409	196	199	212	202	274	384	290
6307	**Swarna Sub 1 (DP)**	177	218	229	208		387	282
6308	30410	160	266	232	219	309	230	195
6309	**Sarala (RP)**	179	184	214	192	301	216	198
6310	30697	193	233	225	217		390	291
6311	30696	204	186	224	205	294	420	312
6312	**ADT 39 (RP)**	197	286	178	220	285	237	217
6313	30695	182	225	213	207	273	385	283
6314	**Swarna (Sensitive check)**	176	289	210	225	268	215	196
	Exp. mean	183.26	239.05	221.31	214.54	284	310	246.75
	CD	32.35	30.52	16.38	14.02	34.65	43.66	25.90
	CV%	10.518	7.61	4.41	3.89	8.47	8.39	6.25

ADVANCE VARIETY TRIAL 1-NEAR ISOGENIC LINES-DROUGHT (AVT1-NIL-DRT)

Locations : 05 **Test Entries:06**

Checks/ Recurrent Parents : Vandana - National; IR 64 - Sensitive; Sahbhagidhan – Tolerant; MTU 1010 – High Yielding; Anjali, Varalu and IR64 (RP) **Table:13.6**

Advance variety trial 1-NIL (drought) was conducted across five locations (three zones: Zone III, V and VII) to evaluate the performance of 06 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, 2022.

Data of four centres were not considered due to hi+gh grain yield of sensitive check IR64or its scoring in tolerant category (Score-3). Data from Cuttack centre was only considered. At Cuttack, the genotypes were grown under direct seeded condition in rain out shelter. Drought stress was imposed from 55 days onward. Appreciable drought stress was observed during reproductive stage (20-67 Kp with a mean of 41Kp in 15the cm depth;15-56Kp with a mean of 32Kp in 30 cm depth during 3rd to 7th week of imposition of stress). The overall experimental mean grain yield was 1056 kg/ha, while the yield of entries varied 576 kg/ha (recurrent parent Varalu) to 1399 kg/ha (IET28835). Sahbhagidhan, the tolerant check in the experiment, showed a mean yield of1366 kg/ha. The sensitive check, IR 64 recorded grain yield of 938 kg/ha. The high yielding check, MTU1010, yielded761 kg/ha.In

all the replications, the genotypes Anjali and Vandana didn't flower or produce grains. At Cuttack, the scoring for drought tolerance, leaf rolling and leaf tip drying showed susceptibility for MTU 1010, Varalu and IR64. Whereas the tolerant check Sahbhagidhan showed score of '3' for drought tolerance and leaf rolling. For leaf tip drying, the score was 5.

Five of the six nominated drought tolerant NILs *viz.*,IET 28834, IET28835, IET31286, IET30632 and IET30634performed better (significantly higher)when compared to their respective recurrent parent (RP)in the AVT1 NIL (Drt) trial of *Kharif*2022. Among those, yield of NILs of Anjali and IR64 were at-par with the best tolerant check (Sahbhagidhan). Whereas yield of the NILs of Varalu were significantly lower than the best tolerant check. One of theNIL of Anjali, IET28835 (repeat) was the most promising among all test entries as evidenced from its performance in all respects. The yield of the genotype was even slightly higher (but not significantly higher) than the best tolerant check Sahbhagidhan. The improvement in both the NILs of Anjali may be considered substantial as the recurrent parent could not flower under the drought stress imposed.

Considering the performance of the genotypes during *Kharif*, 2022; all the NIL test entries may be considered as promising in terms of trait improvement. **Based on two years performance (*Kharif* 2021 and 2022), two NILs of Anjali (IET28834 and IET28835) were found promising under drought stress**.

Stress situation in different centres in AVT1-NIL-DRT

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. (STRESS)**
2	Jeypore, Odisha	Five genotypes didn't germinate (including tolerant check), and yield level of remaining entries were high including susceptible check IR64.	Data not considered for analysis. **(Rejected)**
3	Rewa, MP	The susceptible check showed drought tolerance score of 3. The susceptible recurrent parent Anjali yielded 3.05 t/ha in one replication. Hence stress level was lacking or not uniform.	Data not considered for analysis. **(Rejected)**
4	Coimbatore, Tamilnadu	The yield level of sensitive check, high yielding check and recurrent parent Anjali is at-par with tolerant check. The susceptible check showed score of '3' for all parameters of drought tolerance.	Data not considered for analysis. **(Rejected)**
5	Ranchi, Jharkhand	The mean yield (3546.10 kg/ha) of the trial is high. Yield of different susceptible genotypes also high.	Data not considered for analysis. **(Rejected)**

Drought tolerance score of genotypes at all the test locations

Entry No.	IET No./Genotype	Scores (0-9 scale)															Score (1-5 scale)				
		Drought tolerance score					Leaf rolling score					Leaf tip drying					Recovery after rains during drought				
		CBT	JYP	NRRI	RCI	REW	CBT	JYP	NRRI	RCI	REW	CBT	JYP	NRRI	RCI	REW	CBT	JYP	NRRI	RCI	REW
6401	IET28834	5	NG	3	-	1	3	-	5	-	-	5	NG	3	-	-	-	NG	-	-	-
6402	Vandana (NC)	3	NG	-	-	3	3	-	-	-	-	3	NG	-	-	-	-	NG	-	-	-
6403	IET28835	5	NG	3	-	3	5	-	3	-	-	5	NG	3	-	-	-	NG	-	-	-
6404	Sahbhagidhan (Tolerant Check)	5	NG	3	-	1	3	-	3	-	-	5	NG	5	-	-	-	NG	-	-	-
6405	Anjali (RP)	7	NG	-	-	3	3	-	-	-	-	5	NG	-	-	-	-	NG	-	-	-
6406	IET31286	3	3	3	-	5	5	-	5	-	-	3	3	3	-	-	-	3	-	-	-
6407	IR64 (Sensitive Check)	3	3	5	-	3	3	-	7	-	-	3	3	7	-	-	-	3	-	-	-
6408	IET31287	3	1	5	-	1	5	-	5	-	-	3	1	3	-	-	-	1	-	-	-
6409	IET30634/	3	5	5	-	5	3	-	5	-	-	3	5	5	-	-	-	5	-	-	-
6410	Varalu (RP)	3	5	5	-	5	3	-	5	-	-	3	5	7	-	-	-	5	-	-	-
6411	MTU 1010 (HYV Check)	3	5	7	-	5	3	-	7	-	-	3	5	7	-	-	-	5	-	-	-
6412	IET30632	5	1	3	-	1	5	-	3	-	-	5	1	5			-	1	-	-	-

Details of drought stress imposed at Cuttack in rainout shelter for AVT1-NIL-Drt trial

Performance of the NILs compared to recurrent parent, sensitive check, and tolerant check in AVT 1-NIL-Drt trial,*Kharif* 2022.

Entry No.	IET No./Designation (Cross combination)	Yield (Kg/ha)	Difference with RP	%RP	%BSC	%BTC	Remarks
6401	IET28834 /CRR 809-11-1-9-B (IR 84984-83-15-481-B / 3*Anjali // IR 81896-B-B-195 / 3* Anjali)	1202	1202#	Absolute	28.11		Significant yield superiority over recurrent parent.
6402	Vandana (NC)/	0				-	-
6403	IET28835/ CRR 752-3-1-B (Anjali*3 / IR 81896-B-195)	1399	1399#	Absolute	49.17	2.43	Significant yield superiority over recurrent parent
6404	Sahbhagidhan (Tolerant Check)	1366			45.66	0.02	-
6405	Anjali (RP)	0				-	
6406	IET31286/ CRR744-74-41-B (IR64*3/IR 81896-B-B-195)	1346	408#	43.45	43.46		Significant yield superiority over recurrent parent.
6407	IR 64 (Sensitive Check)	938			0.03	-	
6408	IET31287/ CRR749-109-1-B-B (IR64*4/IR 87728-75-B-B)	1016	78	8.36	8.36	-	
6409	IET30634/ RP 6612-MSM 63-Bio-62-4-15 (Varalu*3/Vandana NIL (Contains *qyld* 12.1)	1000	424#	73.59	6.61	-	Significant yield superiority over recurrent parent.
6410	Varalu (RP)	576			-38.58	-	
6411	MTU 1010 (HYV Check)	761			-18.84	-	
6412	IET30632/ RP 6613-MSM-	951	375#	65.02	1.35	-	Significant yield

Entry No.	IET No./Designation (Cross combination)	Yield (Kg/ha)	Difference with RP	%RP	%BSC	%BTC	Remarks
	65-Bio-36-4-15 (Varalu*3/Vandana NIL (Contains *qyld* 12.1)/SambhaMahsrui NIL (Contains Pi 1+Pi 54)						superiority over recurrent parent.
	Experimental mean (Kg/ha)	1056.00					
	CD value (Kg/ha)	341.43					
	CV (%)	18.86					

Foot note: RP, Recurrent parent; BSC, sensitive check; BTC, tolerant check) (#, Significantly superior from RP based on CD value).

Two years performance of entries of NILs which are in second year of testing in AVT1-NIL-DRT

IET number/Designation (Cross combination)	Yield performance under drought			CD value (Kg/ha)
	Year	RP Yield (kg/ha)	NIL Entry Yield (Kg/ha)	
IET28834 /CRR 809-11-1-9-B (IR 84984-83-15-481-B / 3*Anjali // IR 81896-B-B-195 / 3* Anjali)	**2021**	1547	2157	318.64
	2022	0	1202	341.43
IET28835/ CRR 752-3-1-B (Anjali*3 / IR 81896-B-195)	**2021**	1547	2157	318.64
	2022	0	1399	341.43

Table No. 13.6: Composition of entries in Advance Variety Trial 1- Near Isogenic Lines-Drought (AVT 1-NIL DRT), *Kharif* 2022.

2nd Year of testing:				
6401	28834 (R)	CRR 809-11-1-9-B	IR 84984-83-15-481-B / 3*Anjali // IR 81896-B-B-195 / 3* Anjali	SB
6402	**Vandana (NC)**			
6403	28835 (R)	CRR 752-3-1-B	Anjali*3 / IR 81896-B-195	SB
6404	**Sahbhagi Dhan (Resistant Ch)**			
6405	**Anjali (RP)**			
1st year of testing				
6406	31286	CRR744-74-41-B	IR64*3/IR 81896-B-B-195	LS
6407	**IR 64 (Sensitive Check)**			
6408	31287	CRR749-109-1-B-B	IR64*4/IR 87728-75-B-B	LS
6409	30634	RP 6612-MSM 63-Bio-62-4-15	Varalu*3/Vandana NIL (Contains *qyld* 12.1)	LS
6410	**Varalu (RP)**			
6411	**MTU 1010 (check)**			
6412	30632	RP 6613-MSM-65-Bio-36-4-15	Varalu*3/Vandana NIL (Contains *qyld* 12.1)/SambhaMahsrui NIL(Contains Pi 1+Pi 54)	LS

Table No. 13.7: Grain Yield (Kg/ha) of entries in AVT-1 NIL DRT *Kharif* 2022

Entry No	IET No	Zone III								Zone III		Zone V		Zone VII		Overall (5)	
		OD						JH				MP		TN			
		CTK		JYP		Mean		RCI		Mean		REW		CBT		Mean	
6401	28834 (R)	1202	4	-	-	1202	10	3524	6*	2363	8	1760	3	1307	8	1948	7
6402	**Vandana (NC)**	-		-	-			3611	5	3611	1	1156	8	1401	6	2056	5
6403	28835 (R)	1399	1	-	-	1399	8	3149	9	2274	10	1701	4	1455	5	1926	9
6404	**Sahbhagi Dhan (Resistant Ch)**	1366	2	-	-	1366	9	4998	1	3182	2	2521	1	1679	1	2641	1
6405	**Anjali (RP)**	-		-	-			2542		2542	5	2340	2	1556	3	2387	10
6406	31286	1346	3	2300	7	1823	3	2600		2082		177		1156	9	1516	
6407	IR 64 (Sensitive Check)	938	8	2668	3	1803	4	3264	7	2290	9	1118	9	1517	4	1901	8
6408	31287	1016	5	3172	2*	2094	2*	2947	10	2378	7	1563	5*	1351	7	2010	4
6409	30634	1000	6	2351	6	1676	5	4449	2	2600	4	1517	6	1019	10	2067	2
6410	Varalu (RP)	576	10	2592	4	1584	7	4304	3	2491	6	972	10	985		1886	6
6411	**MTU 1010 (check)**	761	9	2476	5	1619	6	3236	8	2158		1236	7	1644	2	1871	
6412	30632	951	7	3263	1*	2107	1*	3929	4	2714	3	941		941		2005	3
	Exp. Mean	1056		2689		1667		3546.1		2557		1417		1334		2017.8	
	CD	341.43		246.59		287.69		576.92		471.21		457		504		400.88	
	CV%	18.86		5.16		9.98		9.61		8.89		19		23.9		9.58	
	Date of sowing	20.08.2022		20.07.22				16.07.2022				19.7.22		01.07.2022			
	Date of planting			04.08.22								24.8.22		11.07.2022			

Table No. 13.8: Days to 50% Flowering of entries in AVT 1-NIL (Drought) *Kharif* 2022

Entry No	IET No	Zone III				Zone III	Zone V	Zone VII	Overall (5)
		OD			JH		MP	TN	
		CTK	JYP	Mean	RCI	Mean	REW	CBT	Mean
6401	28834	68	-	68	64	66	79	69	70
6402	**Vandana (NC)**	-	-	-	109	109	85	92	95
6403	28835	74	-	74	66	70	84	69	73
6404	**Sahbhagi Dhan (Resistant Ch)**	74	-	74	75	74	90	81	80
6405	**Anjali (RP)**	-	-	-	68	68	91	71	78
6406	31286	68	88	78	74	77	92	78	80
6407	IR 64 (Sensitive Check)	69	89	79	81	80	90	83	82
6408	31287	64	88	76	81	78	95	81	82
6409	30634	64	82	73	107	84	91	82	85
6410	Varalu (RP)	73	85	79	121	93	91	84	91
6411	**MTU 1010 (check)**	68	86	77	84	79	96	82	83
6412	30632	66	85	76	121	91	93	83	90
	Exp. Mean	69.00	86.00	75.00	87.58	80.70	89.69	80.00	82.51
	CD	4.31	1.84	2.52	13.94	4.95	6.58	24.81	3.47
	CV%	3.62	1.76	1.94	7.67	2.96	3.54	15.78	2.03

Table No. 13.9: Plant height of entries in AVT 1-NIL (Drought) *Kharif* 2022

Entry No	IET No	Zone III				Zone III	Zone V	Zone VII	Overall
		OD			JH		MP	TN	
		CTK	JYP	Mean	RCI	Mean	REW	CBT	Mean
6401	28834 (R)	86.8	-	87	120	103	85	121.4	103
6402	**Vandana (NC)**	-	-	-	93	93	58	81.3	77
6403	28835 (R)	85.4	-	85	118	102	75	123.0	100
6404	**Sahbhagi Dhan (Resistant Ch)**	81.0	-	81	113	97	94	124.2	103
6405	**Anjali (RP)**	-	-	-	114	114	85	136.6	112
6406	31286	78.9	80.60	80	93	84	74	82.8	82
6407	IR 64 (Sensitive Check)	80.0	83.40	82	98	87	63	83.3	82
6408	31287	70.6	86.60	79	98	85	64	86.6	81
6409	30634	82.5	94.40	88	113	97	60	100.6	90
6410	Varalu (RP)	87.5	98.60	93	115	100	84	86.8	94
6411	**MTU 1010 (check)**	81.9	96.20	89	107	95	82	100.6	94
6412	30632	89.9	98.20	94	112	100	71	108.0	96
Exp. mean		82.44	91.14	85.78	107.83	96.46	74.47	102.93	92.84

Table No. 13.10: Panicles/m2 of entries in AVT 1-NIL (Drought) Kharif 2022

Entry No	IET No	Zone III				Zone III (3)	Zone V	Zone VII	Overall (5)
		OD			JH		MP	TN	
		CTK	JYP	Mean	RCI	Mean	REW	CBT	Mean
6401	28834 (R)	251		251	135	193	193	321	225
6402	**Vandana (NC)**				133	133	209	327	223
6403	28835 (R)	188		188	174	181	183	289	209
6404	**Sahbhagi Dhan (Resistant Ch)**	253		253	175	214	242	311	245
6405	**Anjali (RP)**				88	88	196	294	193
6406	31286	241	380	311	151	258	211	357	268
6407	IR 64 (Sensitive Check)	199	391	295	173	254	247	323	267
6408	31287	235	330	283	179	248	308	346	280
6409	30634	219	413	316	174	269	272	347	285
6410	Varalu (RP)	239	355	297	206	267	258	349	282
6411	**MTU 1010 (check)**	238	353	296	132	241	203	333	252
6412	30632	222	338	280	190	250	254	339	269
	Exp. Mean	229.00	366.00	277.00	159.19	216.31	231.31	328.00	250.00
	CD	40.22	36.91	33.94	87.82	41.01	91.27	109.18	42.36
	CV%	10.18	8.34	7.09	26.60	9.14	19.03	16.90	8.28

PROGRESS REPORT

KHARIF 2022

VARIETAL IMPROVEMENT

AICRP on Rice

BASMATI TRIALS

ICAR-IARI, NEW DELHI

INITIAL VARIETY TRIAL – BASMATI (IVT- BT)

Locations	**:**	**12**	**Test Entries:29**
Checks and Recurrent Parents	**:**	**Pusa Basmati 1 (YC); Pusa Basmati 1121 (YC&QC); Taraori Basmati (QC); Pusa RH 10 (HC); Pusa Basmati 1692 (LC); Ranbir Basmati (RP); Pusa Basmati 1509 (RP).**	**Table:14.1**

Initial Variety Trial-Basmati (IVT-BT) constituted of 29 entries including sixteen varietal test entries; two hybrid entries; and four Near Isogenic Lines (NILs); two recurrent parents namely, Ranbir Basmati, and Pusa Basmati 1509 nominated for AVT1-NILs trial; five checks namely Pusa Basmati1 (Yield Check), Pusa Basmati 1121 (Yield and Quality Check), Taraori Basmati (Quality Check), Pusa RH10 (Hybrid Check) and Pusa Basmati 1692 (LocalCheck).The entries nominated under IVT-BT and AVT1-NILs were evaluated in a combined trial of IVT-BT including the entries nominated in the AVT1-NILs (Table 18.1). Trial was conducted at 12 locations in the GI region earmarked for Basmati rice cultivation. Out of the 12 test locations, data were collected from 11 of them. Trial data from SVPUAT, Meerut, was not received. However, data from 10 locations including New Delhi, Ludhiana, Rauni, Gurdaspur, Kapurtala, Kaul, Karnal, Modipuram (BEDF), Nagina and Chatha, and Pantnagar were considered for further analysis asthe data from Pant Nagar was not considered due to their low experimental mean and high CV.

Experimental mean of the locations ranged from 4051kg/ha at Naginato 5172 kg/ha at ICAR-IARI, New Delhi while CV ranged from 6.1 % at Nagina to 11 % at Karnal. The mean days to 50% flowering ranged from 87 days (Chatha) to 111 days (Pant Nagar). The mean plant height of the entries ranged from 92 cm (BEDF-Modipuram) to 125 cm (IARI-New Delhi) while mean panicles /m^2 ranged from 256 (Rauni) to 423 (IARI New Delhi). Among the checks, hybrid check Pusa RH 10 registered 5303 kg/ha yield with 6^{th}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 14.2, 14.3, 14.4, 14.5, 14.6 to 14.9 and 14.10 to 14.11 respectively. The details of theperformance of theentries are elaborated below.

Performance of entries in IVT-BT

Out of 16 varietal test entries two entries namely, IET 30533 and IET 30535 , showed superior yield performance over best varietal check and promoted to second year of testing. Though the entry IET 30535 showed 37% yield superiority over the best varietal check Pusa Basmati 1121, it has high AAC (25.8%) coupled with the marginally hard GC (39.8). It also has low panel scores for taste (2.6 and 3.0) and elongation(2.2 and 2.8).However, this entry is promoted for next stage of testing (AVT1-BT) with a benefit of doubt.

Of the two hybrid test entries, none of the entries qualified as their performance was on par with the hybrid check, Pusa RH 10, and these hybrids IET30541 and IET30542 did not show any superiority over the hybrid check.

On overall mean basis, the entry, IET30539 (PAU 7540-13-3 (RYT3990)) derived from the cross Pusa Basmati 1509/IR75482-53-2-3//Pusa Basmati 1509possessed yield advantage of 15% over the best varietal check Pusa Basmati 1121. However, it recorded low HRR (35.29%), low milledrice recovery (64.4%). Based on its unacceptable quality parameters, the entry IET30539 do not qualify for promotion to next year of testing.

The entry IET30540 (CSRBT-227-252) derived from the cross TRY1/PB1possessed yield advantage of 21% over the best varietal check Pusa Basmati 1121 on overall mean basis. However, it recorded low KLAC (10.96 mm), ER (1.65), high AC (26.3%), medium GC (45.5 mm). In addition, it also showed variation for flowering and grain type. Based on its unacceptable quality parameters, the entry IET30540 do not qualify for promotion to next year of testing.

The entry IET 30543 (CSRBT-252-42) derived from the cross Pusa Sugandh 5/CSR10possessed yield advantage of 38% over the best varietal check Pusa Basmati 1121 on overall mean basis. It recorded low KLAC (11.50 mm), Low ER (1.63), and variation for grain type.Therefore, the entry IET 30543does not merit promotion to next year of testing.

The entry IET 30547 (CSRBT-127-252 (YET74)) derived from the cross CSR30/CSR23 recorded 29% yield superiority over the best varietal check Pusa Basmati 1121. However, the entry showed low KLAC (11.88 mm) and low ER (1.54) based on which it has been dropped.

Overall performance of entries promoted from IVT-BT *Kharif* 2022

S. 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 30533(HKR17-422) HKR98-476/CSR30	5310	92	LS	31.7	DE PU HA UP	5951 5177 6155 4740	35.9 55.8 74.6 3.7
2	IET 30535(CSRBT-252-19) Pusa Sugandh 5/CSR10	5547	102	LS	37.6	DE PU HA UP	6081 5038 6453 5091	38.9 51.6 83.1 11.4

Performance of AVT1-NILs entries

Near Isogenic Lines for blast resistance

Two NIL entries in the genetic background of Ranbir Basmatinamely, IET30550 and IET30551derived from the cross Ranbir Basmati*3/PB 1(*Pi9*)// Ranbir Basmati*3/DHMAS164 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) and donor parent (DHMAS164) were also tested under AVT1-NILs (Patho) trial for verification of the target trait, blast resistance.

The entry,IET 30550 exhibited resistance to blast with a disease severity index (SI) of 1 while the SI of the recurrent parent Ranbir Basmati was 9. However, the entry showed significant yield inferiority(-22%) over the recurrent parent at Chatha location of Jammu & Kashmir,which is a notified location for Ranbir Basmati. Further the entry also showed 9 days delay in DFF at this location compared to the recurrent parent (78 days). Hence the entry has been dropped.

The entry, IET 30551 also exhibited resistance to blast with a disease severity index (SI) of 1 while the SI of the recurrent parent Ranbir Basmati was 9. However, the entry showed significant yield inferiority (-19%) over the recurrent parent at Chatha location of Jammu & Kashmir, notified location for Ranbir Basmati. Further the entry also showed 8 days delay in DFF at this location compared to the recurrent parent (78 days). Hence the entry has been dropped.

Near Isogenic Lines for Bakanae resistance

A total of two NIL entries namely, IET 30552 and IET 30553 in the background of Pusa Basmati 1509 were evaluated for yield and grain quality in regular Basmati trial and for testing *bakanae* resistance, a separate trial under NSN was conducted in hot spot regions of the Basmati GI locations.

The entry IET 30552(Pusa 3057-9-69-37-160-9-186-2) derived from the cross Pusa Basmati 1509*4/ Pusa 1342 possessing genes *qBK1.1* and *qBK1.2*for bakanae resistance exhibited on par yield performance with the RP**.** The entry exhibited susceptible reaction with 42% for *bakanae,* as compared to its recurrent parent, Pusa Basmati 1509 which showed susceptible reaction with 60%. Hence, IET 30552 has been dropped.

Performance of blast NILs during *Kharif* 2022

S. No.	IET No	Recurrent Parent (RP) and QTL	Overall			Notified location of RP (Jammu &Kashmir)			Remarks
			RP yield	NIL yield	CD (0.05)	RP yield	NIL yield	CD (0.05)	
1	30550	RPL-1075-2 (*Pi9*)	3140#	3592#	575	5190	4050	938	TRAIT VERIFIED (SI- 1) Performance of the NIL significantly inferior to the recurrent parent: **DROPPED**
2	30551	RPL-1075-1 (*Pi9*)	3140#	3725#	575	5190	4200	938	TRAIT VERIFIED (SI-1) Performance of the NIL significantly inferior to the recurrent parent: **DROPPED**

on par with RP

The entryIET 30553(Pusa 3057-9-69-37-160-9-185-1) derived from the cross Pusa Basmati 1509*4/ Pusa 1342possessing genes *qBK1.1* and *qBK1.2*for *bakanae* resistance,exhibited on par performance with its recurrent parent Pusa Basmati 1509. For *bakanae* disease, it was found resistant with disease reaction of 28.5% while the disease reaction of Pusa Basmati 1509 (RP) was 60%. Quality wise it is similar to its recurrent parent. **Hence, IET 30553has been promoted to the next stage of testing (AVT2-NILs).**

Performance of the *Bakanae*NIL entries during *Kharif* 2022

S. No.	IET No	Recurrent Parent (RP) and QTL	Overall			Trait verification – Resistance to *Bakanae*			Remarks
			RP yield	NIL yield	CD (0.05)	RP (%)	NIL (%)	Trait verified	
1	30552	Pusa 3057-9-69-37-160-9-185-2 (*qBK1.1* and *qBK1.2*)	4378	4594	575	100	42.1	No	**Susceptible to bakanae** and yield performance on-par with RP. Therefore**Dropped**
2	30553	Pusa 3057-9-69-37-160-9-185-1 (*qBK1.1* and *qBK1.2*)	4378	4788	575	100	28.5	Yes	**Resistant to bakanae,** yield performance on-par with RP. (9.4% yield superiority over RP) Therefore. **Promoted**

Entries promoted to AVT1-BT

IET30533, IET30535

Entries promoted to AVT2-NILs

IET30553

Table No. 14.1: Composition of entries in Initial Variety Trial-Basmati including AVT1-NILs,during *Kharif* 2022

S.No.	Entry No.	IET	Designation	Cross combination	Grain
1	1801	30532	PAU 7145-44-1-1-1 (RYT4057)	Pusa Basmati 1509/ Pusa 1568-5-6-4-153	ELS
2	1802	30533	HKR 17-422	HKR98-476/ CSR30	LS
3	1803	30534	UPR4572-3-1-1-1	PSD17/JRB-1 local selection	LS
4	1804	30535	CSRBT-252-19	Pusa Sugandh 5/ CSR10	LS
5	1805	30536	Pusa 1989-15-8-9-2	Pusa 1826/ PB 3	LS
6	1806		Pusa Basmati 1 (Yield check)		LS
7	1807	30537	CSRBT-252-42	Pusa Sugandh 5/ CSR10	LS
8	1808	30538	Indam 101	100/ SN38	LS
9	1809	30539	PAU 7540-13-3 (RYT3990)	Pusa Basmati 1509/IR75482-53-2-3//Pusa Basmati 1509	ELS
10	1810	30540	CSRBT-227-252	TRY1/ PB1	LS
11	1811	30541	Bio701 (Hybrid)	4063A/ SN3071	ELS
12	1812		Pusa RH 10 (Hybrid check)		LS
13	1813	30542	Indam 100-021 (Hybrid)	IAHS 25A/ AR524537R	LS
14	1814	30543	CSRBT-252-35	Pusa Sugandh 5/ CSR10	LS
15	1815	30544	Pusa 3040-64-5-1-5	JGL11609/Pusa 1790// PB 1121	ELS
16	1816		Taraori Basmati (QC)		LS
17	1817	30545	UPR4573-6-1-1-1	PSD17/CN1756-3-3-1	LS
18	1818	30546	Pusa 1986-15-7-8-2	Pusa 1826/ Pusa 1551	LS
19	1819	30547	CSRBT-127-252 (YET74)	CSR30/ CSR23	LS
20	1820	30548	SJR123-2-1	Ranbir Basmati/Pusa 2517-2-51-1/ Pusa 2511	LS
21	1821	30549	HKR 18-414	HB1/Pusa 1601-5-1-4-6-1-1	LS
22	1822		Pusa Basmati 1121 (Yield & Quality Check)		ELS
AVT1-NILs Entries					
23	1823	30550	RPL-1075-2	Ranbir Basmati*3/PB 1(*Pi9*)// Ranbir Basmati*3/ DHMAS164	LS
24	1824	30551	RPL-1075-1	Ranbir Basmati*3/PB 1(*Pi9*)// Ranbir Basmati*3/ DHMAS164	LS
25	1825		Ranbir Basmati	Recurrent Parent	LS
26	1826	30552	Pusa 3057-9-69-37-160-9-186-2	Pusa Basmati 1509*4/ Pusa 1342	ELS
27	1827	30553	Pusa 3057-9-69-37-160-9-185-1	Pusa Basmati 1509*4/ Pusa 1342	ELS
28	1828		Pusa Basmati 1509	Recurrent Parent	ELS
29	1829		Local check (Any Basmati Variety)		

Table No. 14.2: Grain Yield of entries in IVT- BT, Kharif 2022

Entry No.	IET No.	ND		UK		PUN								PUN (4)	
		IARI		@PANT		LDH		RUN		GDP		KPT		Mean	
1801	30532	4783		2691		4264		4432		4045		4313		4264	
1802	30533	5951	7	2361		4861	4	5598	1	4791		5459	3	5177	3
1803	30534	5036	17	2953		4388		4730	11	3936		3820		4218	
1804	30535	6081	5	3582	6	4741	5	5295	4	4664		5453	4	5038	4
1805	30536	5753	9	2309		4457	10	4325		3682		4403		4217	
1806	Pusa Basmati 1 (YC)	3966		2744		3902		3466		4045		3662		3769	
1807	30537	6167	4	3524	8	4059		4498	12	4927		3941		4357	
1808	30538	5363	12	3427	10	3990		4440		3945		4588	9	4241	
1809	30539	5330	13	3822	4	4217		4916	6	4255		4448	10	4459	
1810	30540	5980	6	3440	9	4672	7	3913		4655		4448	11	4422	
1811	30541	5190	15	3964	3	4874	3	5160	5	5555	1	5867	1	5364	2
1812	Pusa RH 10 (HC)	6821	2	3537	7	4527	9	4817	7	5082	3	5327	5	4938	6
1813	30542	6848	1	4299	1	5088	1	5511	2	5545	2	5768	2	5478	1
1814	30543	6312	3	4067	2	4678	6	5337	3	4445		5318	6	4944	5
1815	30544	4766		1987		3403		3125		3832		3466		3457	
1816	Taraori Basmati (QC)	2626		1381		3487		2580		3127		3151		3086	
1817	30545	4383		3084		3876		4096		3945		3905		3956	
1818	30546	4905	18	2129		3693		3940		3673		3232		3634	
1819	30547	5826	8	2744		4192		4735	10	5045	4	4153		4531	
1820	30548	5294	14	2620		3662		3893		3882		3089		3631	
1821	30549	4471		1942		2866		2419		2623		3047		2739	
1822	Pusa Basmati 1121 (YC & QC)	4378		2236		3529		2915		3855		2991		3322	
1823	30550	4596		2358		3561		3541		3618		2867		3397	
1824	30551	4034		1074		3813		3080		3982		3178		3513	
1825	Ranbir Basmati (RP)	3932		1198		2866		2773		2573		3216		2857	
1826	30552	5673	10	2114		4236		4758	8	4818		4991	8	4701	
1827	30553	5457	11	2289		4564	8	4740	9	5036	5	5063	7	4851	7
1828	Pusa Basmati 1509 (RP)	5166	16	2297		3927		3951		4382		4160		4105	
1829	Local Check	4897		3766	5	4905	2	4464		5000	6	4446		4704	8
Exp. Mean		**5172**		**2756**		**4114**		**4188**		**4240**		**4199**		**4185**	
F Value		**8.32****		**2.4***		**4.1****		**9.8****		**14.2****		**11.0****		**18.21****	
CD (0.05)		**937**		**558**		**837**		**833**		**581**		**801**		**489**	
CV (%)		**8.8**		**28.6**		**9.9**		**9.7**		**6.7**		**9.3**		**9.0**	
Sowing Date		**19-Jun**		**07-Jun**		**06-Jun**		**06-Jun**		**22-Jun**		**10-Jun**			
Planting Date		**16-Jul**		**08-Jul**		**13-Jul**		**07-Jul**		**22-Jul**		**11-Jul**			
Local Check		Pusa Basmati 1509		Pant Basmati 1		Punjab Basmati 7		Punjab Basmati 7		Punjab Basmati 7		Punjab Basmati 7			

Table No.14.2(*contd...*): Grain Yield of entries in IVT-BT, *Kharif* 2022

Entry No.	IET No.	HR				HR (2)		UP				UP(2)	
		KAR		KUL		Mean		MDP (BDF)		NGN		Mean	
1801	30532	4850		4000		4425	17	3780		4056	12	3918	15
1802	30533	6660	2	5650	3	6155	3	4932	8	4548	6	4740	7
1803	30534	4383		3800		4092		4047		4288	10	4168	9
1804	30535	6507	3	6400	2	6453	2	5760	3	4421	8	5091	6
1805	30536	4580		4500		4540	16	2834		3151		2993	
1806	Pusa Basmati 1 (YC)	3600		3150		3375		3127		3657		3392	
1807	30537	4540		4600		4570	15	5220	6	2666		3943	14
1808	30538	3580		4750		4165		4803	9	3291		4047	12
1809	30539	4730		4850		4790	11	4299	14	3431		3865	
1810	30540	6763	1	4300		5532	6	4783	10	3517		4150	10
1811	30541	6120	8	7200	1	6660	1	5117	7	5950	3	5534	4
1812	Pusa RH 10 (HC)	4180		5250	5	4715	13	5683	4	4641	5	5162	5
1813	30542	5250		5450	4	5350	8	6351	1	6934	1	6643	1
1814	30543	6483	5	5150	7	5817	5	5518	5	6702	2	6110	2
1815	30544	6110	9	3450		4780	12	2957		4322	9	3639	
1816	Taraori Basmati (QC)	3280		2800		3040		1661		4049	13	2855	
1817	30545	3977		3550		3763		3579		2985		3282	
1818	30546	4700		3950		4325	18	3189		2932		3060	
1819	30547	6490	4	5200	6	5845	4	5791	2	5299	4	5545	3
1820	30548	6280	6	4050		5165	9	4222	15	3357		3790	
1821	30549	5590	11	3700		4645	14	3317		3683	15	3500	
1822	Pusa Basmati 1121 (YC & QC)	3900		3150		3525		4649	11	4494	7	4572	8
1823	30550	3273		3650		3462		3425		3338		3381	
1824	30551	3810		3800		3805		3111		4242	11	3677	
1825	Ranbir Basmati (RP)	3560		3700		3630		561		3025		1793	
1826	30552	4780		3000		3890		4557	12	3477		4017	13
1827	30553	5970	10	4800		5385	7	4479	13	3623		4051	11
1828	Pusa Basmati 1509 (RP)	6200	7	3950		5075	10	3795		3723	14	3759	
1829	Local Check	3490		4950	8	4220	19	4140		3670		3905	
Exp. Mean		**4953**		**4371**		**4662**		**4127**		**4051**		**4089**	
F value		**12.9****		**25.5****		**2.8****		**19.9****		**36.6****		**3.3****	
CD (0.05)		**931**		**589**		**1685**		**829**		**504**		**1633**	
CV (%)		**11.5**		**6.6**		**9.6**		**9.8**		**6.1**		**8.2**	
Sowing Date		**07-Jun**		**06-Jun**				**21-Jun**		**26-Jun**			
Planting Date		**15-Jul**		**06-Jul**				**16-Jul**		**25-Jul**			
Local Check		CSR 30		Haryana Basmati 2				Pusa Basmati 1509		Pusa Basmati 1509			

**P<0.01 *P<0.05

Table No.14.2 (*contd...*): Grain Yield of entries in IVT-BT, *Kharif* 2022

Entry No.	IET No.	JK		Overall (11)	
		CHT		Mean	
1801	30532	5800	5	4432	
1802	30533	4650	17	5310	5*
1803	30534	4630		4305	
1804	30535	6150	3	5547	4*
1805	30536	5750	6	4344	
1806	Pusa Basmati 1 (YC)	4425		3700	
1807	30537	5180	13	4580	12*
1808	30538	4675	16	4343	
1809	30539	5900	4	4638	10*
1810	30540	5645	9	4868	8*
1811	30541	5050	15	5608	2
1812	Pusa RH 10 (HC)	6700	1	**5303**	6
1813	30542	5175	14	5792	1
1814	30543	5750	7	5569	3*
1815	30544	4550		3998	
1816	Taraori Basmati (QC)	4200		3096	
1817	30545	3850		3815	
1818	30546	4375		3859	
1819	30547	5200	11	5193	7*
1820	30548	5600	10	4333	
1821	30549	3450		3517	
1822	Pusa Basmati 1121 (YC & QC)	6450	2	**4031**	
1823	30550	4050		3592	
1824	30551	4200		3725	
1825	Ranbir Basmati (RP)	5190	12	3140	
1826	30552	5650	8	4594	11
1827	30553	4150		4788	9*
1828	Pusa Basmati 1509 (RP)	4525		4378	
1829	Local Check	4650		4461	
Exp. Mean		**5202**		**4443**	
F Value		**6.3****		**13.11****	
CD		**938**		**575**	
CV		**9.1**		**9.0**	
Sowing Date		**02-Jun**			
Planting Date		**16-Jul**			
Local Check		Jammu Basmati 129			

*P<0.05

Table No. 14.3: Days to 50% flowering (DFF) of entries in IVT-BT during *Kharif* 2022

Entry No.	IET No.	ND	UK	PUN				PUN (4)	HR		HR (2)	UP		UP (2)	JK	Overall Mean (11)
		IARI	PANT	LDH	RUN	GDP	KPT	Mean	KAR	KUL	Mean	MDP (BDF)	NGN	Mean	CHT	
1801	30532	98	118	113	108	109	113	**110**	103	104	**104**	97	114	105	95	105
1802	30533	86	106	98	92	94	98	**95**	88	88	**88**	84	109	96	84	92
1803	30534	91	116	104	101	105	107	**104**	101	101	**101**	93	112	102	92	100
1804	30535	96	111	108	104	107	108	**107**	100	100	**100**	93	108	100	92	102
1805	30536	104	121	114	109	112	113	**112**	107	106	**107**	100	114	107	94	107
1806	Pusa Basmati 1 (YC)	99	120	109	109	111	113	**111**	103	104	**104**	97	107	102	95	105
1807	30537	90	110	106	102	103	108	**105**	96	97	**96**	90	105	97	92	99
1808	30538	88	108	101	97	99	103	**100**	94	93	**93**	86	114	100	87	96
1809	30539	88	105	99	94	100	98	**98**	90	88	**89**	88	107	97	81	93
1810	30540	93	116	104	106	104	107	**105**	103	102	**102**	96	120	108	92	103
1811	30541	92	109	104	98	102	103	**102**	96	94	**95**	91	111	101	86	97
1812	Pusa RH 10 (HC)	84	100	93	91	92	96	**93**	90	88	**89**	81	106	94	82	90
1813	30542	91	108	104	101	102	105	**103**	95	95	**95**	92	109	100	87	98
1814	30543	99	115	109	106	107	112	**108**	104	102	**103**	94	112	103	91	103
1815	30544	93	113	112	106	108	109	**109**	101	100	**100**	90	113	101	91	102
1816	Taraori Basmati (QC)	112	116	120	115	117	118	**117**	113	111	**112**	101	108	104	94	111
1817	30545	91	115	105	104	105	105	**105**	98	97	**98**	93	111	102	93	100
1818	30546	104	120	114	108	113	114	**112**	106	106	**106**	100	117	109	95	108
1819	30547	87	108	93	96	97	99	**96**	92	92	**92**	88	104	96	84	93
1820	30548	87	111	95	97	94	98	**96**	90	90	**90**	85	105	95	83	92
1821	30549	103	121	114	112	115	111	**113**	108	107	**108**	97	118	107	95	108
1822	Pusa Basmati 1121 (YC & QC)	97	120	113	109	112	112	**111**	105	103	**104**	95	114	104	93	105
1823	30550	90	111	101	100	105	105	**103**	98	97	**97**	84	105	95	87	97
1824	30551	92	112	104	99	103	105	**103**	97	98	**97**	86	101	93	86	97
1825	Ranbir Basmati (RP)	83	101	94	90	94	95	**93**	91	88	**89**	79	93	86	78	88
1826	30552	80	102	95	91	92	95	**93**	85	84	**84**	79	104	91	79	88
1827	30553	82	101	94	90	92	95	**93**	85	84	**85**	79	103	91	77	88
1828	Pusa Basmati 1509 (RP)	82	100	97	98	94	94	**96**	85	85	**85**	79	99	89	80	89
1829	Local Check	83	122	105	106	103	105	**105**	104	104	**104**	79	97	88	83	97
	Exp. Mean	**92**	**111**	**104**	**101**	**103**	**105**	**103**	**97**	**97**	**97**	**89**	**108**	**99**	**87**	98
	CD	0	4.4	2.90	1.80	0.89	3.30	2.34	2.40	1.12	1.96	2.38	1.00	6.70	1.30	2.46
	CV	0	1.9	1.4	0.90	0.40	1.60	1.20	1.50	0.60	1.10	1.30	0.50	1.00	0.80	1.00

Table No. 14.4: Plant height (cm) of entries in IVT-BT during *Kharif* 2022

Entry No.	IET No.	ND	UK	PUN				PUN (4)	HR		HR (2)	UP		UP (2)	JK	Overall Mean (11)
		IARI	PANT	LDH	RUN	GDP	KPT	Mean	KAR	KUL	Mean	MDP (BDF)	NGN	Mean	CHT	
1801	30532	115	105	112	119	122	108	**115**	108	122	**115**	85	93	89	110	109
1802	30533	114	115	103	115	115	112	**111**	106	111	**108**	90	93	91	109	107
1803	30534	123	114	109	122	122	108	**115**	109	114	**112**	89	100	95	117	111
1804	30535	113	100	108	107	107	109	**108**	107	105	**106**	81	87	84	103	103
1805	30536	126	117	120	126	134	122	**125**	122	121	**122**	86	83	84	123	116
1806	Pusa Basmati 1 (YC)	125	114	109	121	123	103	**114**	115	104	**110**	85	100	92	116	110
1807	30537	105	92	98	102	101	106	**101**	92	102	**97**	72	70	71	94	94
1808	30538	123	116	111	114	119	120	**116**	113	112	**113**	93	92	92	112	111
1809	30539	120	103	117	114	122	110	**116**	115	111	**113**	87	84	86	106	109
1810	30540	124	109	111	109	124	106	**112**	102	112	**107**	89	96	92	112	108
1811	30541	126	107	114	116	129	129	**122**	113	117	**115**	93	101	97	110	115
1812	Pusa RH 10 (HC)	110	101	90	107	108	108	**103**	107	114	**111**	86	97	92	106	103
1813	30542	124	113	110	112	121	114	**114**	110	108	**109**	90	95	92	99	108
1814	30543	120	101	106	110	119	111	**112**	105	114	**110**	84	90	87	102	106
1815	30544	139	128	117	123	135	133	**127**	130	128	**129**	109	104	107	115	123
1816	Taraori Basmati (QC)	167	134	148	144	154	153	**150**	140	157	**149**	127	128	127	161	148
1817	30545	123	115	111	116	118	105	**112**	99	122	**111**	87	95	91	107	108
1818	30546	126	115	112	120	126	112	**117**	112	129	**121**	88	103	95	117	114
1819	30547	124	110	107	117	120	113	**114**	126	123	**125**	93	97	95	111	113
1820	30548	125	121	115	115	116	112	**114**	122	122	**122**	94	104	99	114	114
1821	30549	156	148	129	136	133	128	**131**	128	129	**129**	102	109	105	119	127
1822	Pusa Basmati 1121 (YC & QC)	133	125	116	120	124	112	**118**	107	124	**116**	103	103	103	123	116
1823	30550	140	118	120	126	135	118	**125**	121	121	**121**	102	105	103	116	120
1824	30551	142	117	117	121	137	119	**123**	130	131	**131**	99	105	102	124	123
1825	Ranbir Basmati (RP)	167	135	141	143	159	159	**150**	128	126	**127**	138	118	128	150	143
1826	30552	104	94	92	95	97	96	**95**	98	116	**107**	79	91	85	92	96
1827	30553	99	93	92	98	100	100	**97**	97	115	**106**	79	92	86	102	97
1828	Pusa Basmati 1509 (RP)	102	101	97	103	98	97	**99**	100	111	**106**	85	95	90	91	98
1829	Local Check	110	106	109	107	118	113	**112**	125	117	**121**	82	95	89	111	109
	Exp. Mean	**125**	**112**	**112**	**116**	**122**	**115**	**116**	**113**	**119**	**116**	**92**	**97**	**95**	**113**	**112**

Table No. 14.5: Panicles/m^2 of entries in IVT-BT during *Kharif* 2022

Entry No.	IET No.	ND	UK	PUN				PUN (4)	HR		HR (2)	UP		UP (2)	JK	Overall Mean (13)
		IARI	PANT	LDH	RUN	GDP	KPT	Mean	KAR	KUL	Mean	MDP (BDF)	NGN	Mean	CHT	
1801	30532	413	346	327	244	315	281	**291**	428	334	**381**	307	280.5	294	346	327
1802	30533	333	266	271	253	303	277	**276**	376	326	**351**	236	225.0	230	285	289
1803	30534	419	213	294	265	316	326	**300**	467	306	**387**	276	279.5	278	354	330
1804	30535	363	384	294	255	330	310	**297**	440	386	**413**	261	243.0	252	449	333
1805	30536	370	343	294	222	335	224	**269**	512	347	**429**	257	262.5	260	661	348
1806	Pusa Basmati 1 (YC)	548	243	304	254	345	297	**300**	450	353	**401**	300	231.5	266	490	357
1807	30537	389	316	263	231	310	320	**281**	375	362	**368**	312	242.0	277	422	323
1808	30538	343	308	257	245	270	339	**278**	369	345	**357**	277	211.0	244	325	298
1809	30539	360	354	257	264	315	257	**273**	500	317	**408**	239	240.0	240	361	311
1810	30540	449	330	300	232	285	323	**285**	398	372	**385**	322	214.5	268	409	330
1811	30541	370	294	264	232	288	277	**265**	435	356	**395**	249	296.5	273	275	304
1812	Pusa RH 10 (HC)	340	264	251	267	288	240	**261**	473	360	**417**	248	286.0	267	361	311
1813	30542	350	324	333	251	325	336	**311**	504	321	**413**	271	269.5	270	291	325
1814	30543	340	266	267	231	250	251	**250**	434	299	**366**	238	304.5	271	259	287
1815	30544	442	364	290	249	290	234	**266**	426	321	**374**	277	240.5	259	330	310
1816	Taraori Basmati (QC)	393	366	271	258	368	363	**315**	494	356	**425**	424	278.0	351	508	371
1817	30545	429	273	271	218	320	267	**269**	352	246	**299**	249	279.0	264	340	297
1818	30546	432	412	277	237	308	297	**280**	368	390	**379**	272	277.5	275	329	319
1819	30547	320	256	320	213	308	287	**282**	363	306	**335**	271	271.5	271	370	303
1820	30548	341	186	281	213	298	290	**270**	398	327	**363**	206	270.0	238	371	299
1821	30549	449	244	304	334	310	310	**314**	448	363	**406**	299	223.5	261	379	342
1822	Pusa Basmati 1121 (YC & QC)	548	421	337	278	340	248	**301**	395	330	**363**	323	216.0	270	357	337
1823	30550	614	228	340	325	395	294	**338**	417	314	**365**	361	228.0	295	293	358
1824	30551	769	185	343	321	325	330	**330**	430	317	**373**	368	251.5	310	342	380
1825	Ranbir Basmati (RP)	465	317	307	247	363	257	**293**	375	350	**362**	340	293.0	316	386	338
1826	30552	459	298	290	265	330	307	**298**	444	293	**368**	264	288.5	276	315	326
1827	30553	426	281	307	303	330	372	**328**	368	305	**336**	297	271.0	284	290	327
1828	Pusa Basmati 1509 (RP)	389	404	373	260	303	297	**308**	438	261	**350**	299	274.5	287	344	324
1829	Local Check	409	235	350	269	398	327	**336**	321	332	**326**	249	273.0	261	257	318
	Exp. Mean	**423**	**300**	**298**	**256**	**319**	**294**	**292**	**421**	**331**	**376**	**286**	**259**	**273**	**362**	**325**
	CD	**142**	75.6	58.90	60.10	44.70	76.10	**38.90**	59.11	35.40	**47.26**	2.38	22.20	**12.29**	**43.60**	**3.14**
	CV	**16.4**	12.3	9.7	11.40	6.80	12.60	**10.20**	8.60	5.20	**7.10**	9.30	4.20	**7.50**	**5.90**	**1.00**

Table No. 14.6. Summary of the grain quality characteristics of entries in Initial Varietal Trial - Basmati (IVT BT) conducted at ICAR-IARI, New Delhi and analyzed at ICAR-IARI, New Delhi during Kharif 2022

Entry No	IET No.	Hull %	Mill %	HRR	KL (mm)	KB (mm)	L/B	Grain Type	Grain Chalk	VER	WU (ml)
1801	30532	78.07	73.64	44.24	8.25	1.68	4.91	ELS	P	4.85	380
1802	30533	79.89	74.96	56.19	7.97	1.55	5.16	ELS	OC	5.33	360
1803	30534	77.95	69.51	41.97	7.27	1.53	4.75	LS	P	5.21	440
1804	30535	80.68	74.09	57.82	7.35	1.81	4.06	LS	VOC	5.92	110
1805	30536	78.98	72.66	53.70	8.45	1.63	5.18	ELS	VOC	5.74	335
1806	Pusa Basmati 1 (YC)	76.02	68.80	53.98	7.07	1.66	4.26	LS	P	5.14	393
1807	30537	79.43	73.21	60.10	7.21	1.80	4.02	LS	VOC	4.85	105
1808	30538	77.95	71.20	49.89	7.48	1.52	4.94	LS	OC	5.50	335
1809	30539	78.41	69.13	30.58	8.60	1.53	5.62	ELS	P	5.81	340
1810	30540	80.34	74.98	55.17	6.47	1.76	3.67	LS	A	5.74	338
1811	30541	79.32	72.84	51.95	6.68	1.66	4.02	LS	VOC	5.33	335
1812	Pusa RH 10 (HC)	80.68	72.34	52.04	7.46	1.66	4.49	LS	P	5.64	340
1813	30542	81.82	75.55	50.05	7.70	1.63	4.72	ELS	VOC	4.25	203
1814	30543	79.77	74.32	62.22	6.83	1.73	3.95	LS	VOC	5.26	158
1815	30544	78.98	72.40	53.84	8.28	1.63	5.08	ELS	VOC	5.21	310
1816	Taraori Basmati (QC)	79.89	75.09	67.10	7.28	1.65	4.43	LS	VOC	5.07	195
1817	30545	78.64	69.72	48.23	7.06	1.67	4.24	LS	P	5.26	440
1818	30546	79.55	73.45	57.14	7.45	1.66	4.48	LS	VOC	5.64	345
1819	30547	77.27	69.42	53.45	7.60	1.60	4.75	ELS	P	4.85	383
1820	30548	81.25	76.38	61.21	7.52	1.72	4.38	ELS	OC	5.26	288
1821	30549	81.14	76.00	54.77	7.40	1.63	4.54	LS	VOC	4.82	335
1822	Pusa Basmati 1121 (YC & QC)	76.70	69.29	50.50	8.47	1.58	5.36	ELS	P	5.49	370
1823	30550	77.95	70.42	51.58	6.08	1.52	4.01	MS	OC	5.07	348
1824	30551	79.89	74.96	55.65	6.32	1.63	3.87	MS	VOC	5.49	360
1825	Ranbir Basmati (RP)	79.89	69.90	34.75	6.25	1.63	3.83	MS	P	5.75	360
1826	30552	79.09	73.82	49.43	8.05	1.62	4.98	LS	P	5.14	380
1827	30553	80.00	73.87	47.60	8.50	1.65	5.16	ELS	OC	6.00	348
1828	Pusa Basmati 1509 (RP)	77.72	72.97	47.78	8.32	1.63	5.10	ELS	VOC	5.49	383
1829	Local Check	78.52	72.50	47.38	8.50	1.66	5.12	ELS	P	5.07	378

Table No. 14.6 (*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 ICAR-IARI, New Delhi

Entry No	IET No.	KLAC (mm)	ER	ASV	AC (%)	GC	Aroma
1801	30532	15.93	1.93	7	24.8	28.50	SS
1802	30533	12.98	1.63	7	26.8	21	SS
1803	30534	12.05	1.66	7	23.1	19	SS
1804	30535	12.00	1.63	3	25.7	30.5	SS
1805	30536	16.27	1.93	7	23.3	11.5	SS
1806	Pusa Basmati 1 (YC)	13.62	1.93	7	24.0	17	MS
1807	30537	10.55	1.46	2	25.5	61	NS
1808	30538	13.10	1.75	7	26.4	20.5	SS
1809	30539	15.17	1.76	7	24.2	21.5	SS
1810	30540	11.29	1.75	7	26.3	36	NS
1811	30541	11.70	1.75	7	21.0	33.5	SS
1812	Pusa RH 10 (HC)	12.42	1.66	7	28.2	46	MS
1813	30542	13.17	1.71	3	23.6	59	SS
1814	30543	11.30	1.65	5	24.2	26.5	NS
1815	30544	16.23	1.96	7	20.3	23.5	SS
1816	Taraori Basmati (QC)	12.85	1.77	5	23.8	23.5	SS
1817	30545	12.83	1.82	7	24.2	26.5	MS
1818	30546	16.75	2.25	7	23.2	20.5	SS
1819	30547	12.16	1.60	7	22.1	26	MS
1820	30548	12.20	1.62	7	23.4	19.5	MS
1821	30549	13.07	1.77	7	25.3	29.5	MS
1822	Pusa Basmati 1121 (YC & QC)	16.95	2.00	7	22.1	29.5	SS
1823	30550	11.05	1.82	7	23.1	22.5	NS
1824	30551	11.45	1.81	7	24.7	19.5	NS
1825	Ranbir Basmati (RP)	11.15	1.78	3	22.6	30.5	NS
1826	30552	16.10	2.00	7	25.3	20.5	SS
1827	30553	16.10	1.90	7	27.0	25.5	SS
1828	Pusa Basmati 1509 (RP)	16.10	1.94	7	21.2	37	SS
1829	Local Check	16.85	1.98	7	22.9	24	SS

Table No. 14.7. Summary of the grain quality characteristics of entries in Initial Varietal Trial - Basmati (IVT BT) conducted at ICAR-IARI, New Delhi and analyzed at ICAR-IIRR, Hyderabad *Kharif* 2022

Entry No	IET No.	KL (mm)	KB (mm)	L/B	Grain Type	Grain Chalk	VER	WU (ml)	KLAC (mm)	ER	ASV
1801	30532	8.67	2.01	4.31	ELS	VOC	4.96	380.0	19.40	2.23	7
1802	30533	7.98	1.86	4.29	ELS	VOC	5.3	330.0	14.80	1.85	7
1803	30534	7.42	1.74	4.26	LS	OC	5.4	290.0	12.30	1.65	7
1804	30535	7.59	2.1	3.61	ELS	A	4.7	130.0	15.50	2.04	4
1805	30536	8.33	1.81	4.6	ELS	VOC	5	350.0	20.10	2.41	7
1806	Pusa Basmati 1 (YC)	7.56	1.74	4.34	ELS	OC	5.6	385.0	16.30	2.15	7
1807	30537	7.53	2.1	3.58	ELS	A	4.4	205.0	12.40	1.64	4
1808	30538	7.83	1.79	4.37	ELS	VOC	5.1	365.0	13.30	1.69	7
1809	30539	8.63	1.82	4.74	ELS	VOC	4.4	340.0	17.10	1.98	7
1810	30540	6.98	1.95	3.57	LS	A	5.6	330.0	11.10	1.59	7
1811	30541	8.48	1.79	4.73	ELS	VOC	4.2	335.0	15.40	1.81	7
1812	Pusa RH 10 (HC)	7.41	1.91	3.87	LS	VOC	5.3	330.0	13.30	1.79	7
1813	30542	7.88	1.99	3.95	ELS	A	5.3	255.0	14.90	1.89	3
1814	30543	7.3	2.11	3.45	LS	VOC	4	140.0	11.70	1.6	4
1815	30544	8.33	2.1	3.96	ELS	VOC	4.2	365.0	20.50	2.46	7
1816	Taraori Basmati (QC)	7.51	1.87	4.02	ELS	A	4.7	275.0	16.20	2.15	5
1817	30545	7.2	1.81	3.97	LS	OC	5	390.0	12.40	1.72	7
1818	30546	8.4	1.78	4.71	ELS	VOC	5.4	330.0	18.50	2.2	7
1819	30547	8.03	1.71	4.69	ELS	VOC	4.7	325.0	12.40	1.54	7
1820	30548	7.73	1.86	4.15	ELS	VOC	5.2	330.0	13.50	1.74	7
1821	30549	7.45	1.73	4.3	LS	VOC	5.4	305.0	14.50	1.94	7
1822	Pusa Basmati 1121 (YC & QC)	8.44	1.94	4.35	ELS	OC	5.4	360.0	17.80	2.1	7
1823	30550	6.85	1.79	3.82	LS	VOC	4.8	295.0	13.50	1.97	7
1824	30551	6.93	1.77	3.93	LS	VOC	5.3	320.0	12.60	1.81	7
1825	Ranbir Basmati (RP)	6.90	1.71	4.03	LS	F	5.6	240.0	14.00	2.02	3
1826	30552	8.56	1.94	4.41	ELS	VOC	4.1	325.0	18.90	2.2	7
1827	30553	8.4	1.92	4.37	ELS	VOC	4.2	345.0	19.40	2.3	7
1828	Pusa Basmati 1509 (RP)	8.48	1.87	4.53	ELS	VOC	5.4	355.0	19.80	2.33	7
1829	Local Check	8.38	1.94	4.31	ELS	VOC	4.7	335.0	17.90	2.13	7

Table No. 14.7.(*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 ICAR-IIRR, Hyderabad *Kharif* 2022

Entry No	IET No.	ASV	AC (%)	GC	Aroma
1801	30532	7	-	-	SS
1802	30533	7	-	-	SS
1803	30534	7	-	-	SS
1804	30535	4	-	-	SS
1805	30536	7	-	-	SS
1806	Pusa Basmati 1 (YC)	7	-	-	SS
1807	30537	4	-	-	NS
1808	30538	7	-	-	SS
1809	30539	7	-	-	SS
1810	30540	7	-	-	NS
1811	30541	7	-	-	SS
1812	Pusa RH 10 (HC)	7	-	-	SS
1813	30542	3	-	-	SS
1814	30543	4	-	-	MS
1815	30544	7	-	-	SS
1816	Taraori Basmati (QC)	5	-	-	SS
1817	30545	7	-	-	SS
1818	30546	7	-	-	SS
1819	30547	7	-	-	SS
1820	30548	7	-	-	SS
1821	30549	7	-	-	SS
1822	Pusa Basmati 1121 (YC & QC)	7	-	-	SS
1823	30550	7	-	-	SS
1824	30551	7	-	-	SS
1825	Ranbir Basmati (RP)	3	-	-	MS
1826	30552	7	-	-	SS
1827	30553	7	-	-	SS
1828	Pusa Basmati 1509 (RP)	7	-	-	SS
1829	Local Check	7	-	-	SS

Table No. 14.8: 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 2022.

Entry No.	IET No.	Hull %	Mill %	HRR	KL (mm)	KB (mm)	L/B	Grain Type
1801	30532	73.50	64.500	52.50	8.15	1.35	6.05	ELS
1802	30533	75.00	67.500	56.50	7.12	1.45	4.92	LS
1803	30534	75.00	60.500	49.00	6.65	1.29	5.16	LS
1804	30535	76.50	65.500	53.50	6.41	1.25	5.12	MS
1805	30536	74.50	66.500	60.50	7.73	1.29	6.00	ELS
1806	Pusa Basmati 1 (YC)	71.50	62.500	55.50	6.83	1.16	5.88	LS
1807	30537	76.00	68.000	59.00	6.74	1.215	5.55	LS
1808	30538	74.00	65.000	51.50	7.74	1.14	6.79	ELS
1809	30539	76.50	61.000	48.50	8.36	1.205	6.93	ELS
1810	30540	79.00	69.500	59.00	6.30	1.105	5.70	MS
1811	30541	75.50	63.000	54.50	6.61	1.215	5.44	LS
1812	Pusa RH 10 (HC)	79.00	65.500	57.50	6.76	1.22	5.54	LS
1813	30542	79.50	68.000	53.00	6.79	1.38	4.92	LS
1814	30543	75.50	65.500	57.50	6.65	1.235	5.38	LS
1815	30544	76.50	66.000	49.50	7.24	1.195	6.05	LS
1816	Taraori Basmati (QC)	78.00	68.500	57.50	6.48	1.205	5.38	MS
1817	30545	74.00	62.500	53.00	6.22	1.075	5.78	MS
1818	30546	74.00	64.500	54.00	7.39	1.14	6.48	LS
1819	30547	74.50	65.000	50.50	6.76	1.38	4.90	LS
1820	30548	78.50	67.000	52.00	6.81	1.65	4.13	LS
1821	30549	75.50	65.500	57.50	7.26	1.19	6.10	LS
1822	Pusa Basmati 1121 (YC & QC)	74.00	60.500	53.50	7.37	1.12	6.58	LS
1823	30550	76.50	64.000	50.50	5.50	1.115	4.93	MS
1824	30551	76.50	68.000	56.50	5.95	1.125	5.29	MS
1825	Ranbir Basmati (RP)	77.00	61.500	49.50	5.88	1.135	5.18	MS
1826	30552	77.50	64.500	54.50	7.87	1.135	6.93	ELS
1827	30553	76.50	63.500	50.50	7.72	1.14	6.77	ELS
1828	Pusa Basmati 1509 (RP)	75.50	62.000	54.00	7.88	1.16	6.79	ELS
1829	Local Check	76.50	64.500	57.00	7.87	1.26	6.24	ELS

Table No. 14.8(*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 2022.

Entry No.	IET No.	Grain Chalk	VER	WU (ml)	KLAC (mm)	ER	ASV	GC
1801	30532	absent	4	155	10.00	1.23	5	40.00
1802	30533	absent	4	125	10.00	1.40	5	43
1803	30534	absent	3.75	145	9.50	1.43	6	47
1804	30535	absent	3.75	125	9.50	1.48	4	33.5
1805	30536	absent	4	145	11.00	1.42	6	42
1806	Pusa Basmati 1 (YC)	absent	3.75	115	10.00	1.47	6	44
1807	30537	absent	3.75	110	9.50	1.41	4	41
1808	30538	absent	4	185	10.00	1.29	5	45
1809	30539	absent	4	145	11.00	1.32	5	43.5
1810	30540	absent	3.75	135	9.50	1.51	6	42
1811	30541	absent	3.75	107.5	9.50	1.44	4	40.5
1812	Pusa RH 10 (HC)	absent	3.75	92.5	9.00	1.33	4	47
1813	30542	absent	4	80	10.00	1.47	3	43.5
1814	30543	absent	4	115	10.00	1.50	3	45.5
1815	30544	absent	4	125	11.00	1.52	6	47.5
1816	Taraori Basmati (QC)	absent	4	85	10.00	1.54	4	47
1817	30545	absent	4	180	10.00	1.61	6	45.5
1818	30546	absent	4	145	12.00	1.62	6	41.5
1819	30547	absent	4	140	10.00	1.48	5	45
1820	30548	absent	4	90	10.00	1.47	5	43.5
1821	30549	absent	4	167.5	10.00	1.38	7	45.5
1822	Pusa Basmati 1121 (YC & QC)	absent	4	160	11.00	1.49	6	47
1823	30550	absent	3.75	110	9.00	1.64	7	48
1824	30551	absent	3.75	102.5	9.00	1.51	6	45
1825	Ranbir Basmati (RP)	absent	3.75	137.5	9.00	1.53	4	45.5
1826	30552	absent	4	117.5	11.00	1.40	6	45
1827	30553	absent	4	137.5	11.00	1.42	7	46.5
1828	Pusa Basmati 1509 (RP)	absent	4	127.5	12.00	1.52	6	41.5
1829	Local Check	absent	4	95	11.00	1.40	6	42.5

Table No.14.9: 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* 2022

Entry No.	IET No.	Hull %	Mill %	HRR	KL (mm)	KB (mm)	L/B	Grain Type	Grain Chalk
1801	30532	75.56	67.15	41.70	8.70	1.93	4.51	ELS	VOC
1802	30533	75.67	69.43	51.38	8.10	1.85	4.38	ELS	VOC
1803	30534	75.42	64.08	42.54	7.67	1.77	4.33	ELS	VOC
1804	30535	77.71	73.50	54.47	7.76	2.06	3.77	ELS	VOC
1805	30536	75.88	68.89	48.15	8.64	1.81	4.77	ELS	VOC
1806	Pusa Basmati 1 (YC)	75.08	65.74	46.76	7.59	1.76	4.31	ELS	OC
1807	30537	77.47	72.44	54.67	7.50	2.11	3.55	ELS	VOC
1808	30538	75.87	68.01	47.19	8.68	1.77	4.90	ELS	VOC
1809	30539	75.42	64.93	40.90	8.82	1.83	4.82	ELS	VOC
1810	30540	77.81	74.53	51.78	6.88	1.94	3.55	LS	VOC
1811	30541	75.15	67.93	44.90	7.76	1.80	4.31	ELS	VOC
1812	Pusa RH 10 (HC)	77.43	70.41	46.99	7.81	1.87	4.18	ELS	VOC
1813	30542	77.92	74.50	51.06	8.53	1.93	4.42	ELS	VOC
1814	30543	76.35	70.48	55.91	7.41	2.09	3.55	LS	VOC
1815	30544	75.43	68.18	45.88	8.90	2.06	4.32	ELS	VOC
1816	Taraori Basmati (QC)	75.29	69.38	58.53	7.79	1.82	4.28	ELS	VOC
1817	30545	75.26	66.33	39.99	7.54	1.84	4.10	ELS	VOC
1818	30546	75.39	68.00	51.17	8.82	1.79	4.93	ELS	VOC
1819	30547	74.83	65.59	45.82	8.43	1.77	4.76	ELS	VOC
1820	30548	77.00	72.83	54.66	7.96	1.93	4.12	ELS	VOC
1821	30549	77.54	72.78	50.62	7.42	1.79	4.15	LS	VOC
1822	Pusa Basmati 1121 (YC & QC)	75.19	66.98	46.50	8.75	1.94	4.51	ELS	VOC
1823	30550	75.66	65.85	40.99	6.92	1.76	3.93	LS	VOC
1824	30551	75.43	68.27	47.33	6.98	1.75	3.99	LS	VOC
1825	Ranbir Basmati (RP)	76.00	66.63	37.88	7.05	1.75	4.03	LS	VOC
1826	30552	75.94	67.96	44.77	8.73	1.92	4.55	ELS	VOC
1827	30553	76.75	70.56	45.23	8.74	1.90	4.60	ELS	VOC
1828	Pusa Basmati 1509 (RP)	75.60	66.05	37.28	8.71	1.91	4.56	ELS	OC
1829	Local Check	75.56	67.94	45.32	8.73	1.94	4.50	ELS	VOC

Table No. 14.9. (*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* 2022

Entry No	IET No.	VER	WU (ml)	KLAC (mm)	ER	ASV	AC (%)	GC	Aroma
1801	30532	5.14	422.5	18.10	18.10	7	24.38	47.50	Strong
1802	30533	5.00	342.5	14.80	14.80	6	24.81	55.0	Non
1803	30534	5.00	410.0	15.60	15.60	7	26.67	58.5	Mild
1804	30535	5.15	90.0	13.20	13.20	3	26.55	55.5	Non
1805	30536	4.50	370.0	18.20	18.20	7	24.35	47.5	Strong
1806	Pusa Basmati 1 (YC)	4.68	385.0	15.35	15.35	7	27.64	66.5	Mild
1807	30537	5.29	105.0	12.15	12.15	3	27.95	27.5	Mild
1808	30538	4.70	355.0	14.65	14.65	7	26.55	51.5	Mild
1809	30539	4.86	365.0	16.90	16.90	7	24.03	31.5	Mild
1810	30540	5.43	330.0	11.95	11.95	7	28.57	58.5	Mild
1811	30541	4.70	405.0	12.95	12.95	7	24.23	56.0	Strong
1812	Pusa RH 10 (HC)	5.15	380.0	13.55	13.55	6	23.99	47.5	Mild
1813	30542	5.00	275.0	14.55	14.55	3	22.91	75.0	Strong
1814	30543	5.14	105.0	13.00	13.00	2	28.06	49.0	Mild
1815	30544	4.41	320.0	17.20	17.20	7	27.13	55.5	Strong
1816	Taraori Basmati (QC)	4.38	150.0	13.65	13.65	4	23.95	67.5	Strong
1817	30545	5.14	425.0	12.85	12.85	7	27.91	77.5	Mild
1818	30546	5.00	320.0	18.35	18.35	7	24.56	51.0	Mild
1819	30547	4.25	395.0	12.95	12.95	6	23.47	27.5	Non
1820	30548	4.9	285.0	13.50	13.50	6	23.51	54.0	Mild
1821	30549	4.97	310.0	14.10	14.10	7	24.29	75.5	Mild
1822	Pusa Basmati 1121 (YC & QC)	4.70	335.0	20.30	20.30	7	22.97	53.5	Mild
1823	30550	4.25	300.0	12.45	12.45	6	20.97	56.0	Non
1824	30551	5.00	330.0	13.20	13.20	6	23.71	43.0	Mild
1825	Ranbir Basmati (RP)	4.13	120.0	13.20	13.20	3	22.55	87.5	Non
1826	30552	4.75	305.0	17.30	17.30	7	23.98	58.0	Strong
1827	30553	5.00	325.0	17.45	17.45	7	21.86	32.5	Mild
1828	Pusa Basmati 1509 (RP)	4.86	330.0	17.20	17.20	6	22.67	44.5	Strong
1829	Local Check	4.95	345.0	17.55	17.55	7	24.25	58.5	Strong

Table No.14.10: Panel Test Scores of entries in Initial Varietal Trial - Basmati (IVT BT) conducted at ICAR-IARI, New Delhi during *Kharif* 2022

IET No	Appearance	Cohesiveness	Tenderness on Touching	Tenderness on Chewing	Taste	Aroma	Elongation	Overall Acceptability	Total	Mean	Rank
30532	5.0	3.8	4.6	4.6	3.8	4.0	3.8	3.0	32.6	4.08	9
30533	4.2	3.4	4.0	3.8	3.0	3.0	2.4	2.2	26.0	3.25	21
30534	4.4	3.4	4.0	3.6	3.0	3.0	2.4	1.8	25.6	3.20	23
30535	4.8	4.6	3.2	2.8	2.6	2.0	2.2	1.4	23.6	2.95	26
30536	5.0	4.8	4.8	4.8	3.8	4.0	5.0	5.0	37.2	4.65	1
Pusa Basmati 1 (YC)	5.0	4.6	5.2	4.2	3.4	3.5	4.2	3.8	33.9	4.24	6
30537	5.0	4.0	2.8	2.6	2.2	1.8	1.8	1.2	21.4	2.67	29
30538	4.6	4.0	4.2	4.0	2.8	3.8	3.2	2.6	29.2	3.64	15
30539	3.6	4.0	4.2	4.0	3.4	3.3	3.6	2.8	28.9	3.61	16
30540	5.0	4.8	3.0	2.6	2.2	1.3	1.8	1.0	21.6	2.70	28
30541	4.8	4.2	3.8	4.2	3.0	3.0	2.2	1.6	26.8	3.35	19
Pusa RH 10 (HC)	4.8	4.4	3.6	3.8	2.8	3.0	2.2	1.8	26.4	3.30	20
30542	4.4	4.6	4.4	4.4	3.8	3.0	2.8	2.2	29.6	3.70	14
30543	4.8	4.2	3.4	3.4	2.6	2.0	2.2	1.2	23.8	2.98	25
30544	5.0	4.8	4.6	4.8	4.2	3.5	4.4	4.2	35.5	4.44	2
Taraori Basmati (QC)	4.6	4.8	4.0	4.0	3.8	3.0	3.2	2.6	30.0	3.75	12
30545	5.0	3.5	4.0	4.5	3.2	3.2	2.3	1.8	27.5	3.44	17
30546	4.7	4.8	4.5	4.7	3.8	3.4	4.8	4.0	34.7	4.34	4
30547	4.8	3.8	4.7	4.3	3.2	2.6	1.8	1.7	26.9	3.37	18
30548	4.7	4.2	4.0	3.5	2.7	2.6	2.3	1.8	25.8	3.22	22
30549	4.7	5.0	4.3	4.2	3.8	3.2	3.8	3.2	32.2	4.03	11
Pusa Basmati 1121 (YC & QC)	4.7	4.5	4.8	4.8	4.3	3.4	4.7	4.0	35.2	4.40	3
30550	4.5	5.0	3.2	3.2	2.2	1.8	2.2	1.3	23.3	2.91	27
30551	4.7	4.7	3.5	3.5	2.7	2.6	2.2	1.5	25.3	3.16	24
Ranbir Basmati (RP)	4.7	4.0	4.5	4.7	3.8	3.6	2.5	2.0	29.8	3.72	13
30552	3.7	4.8	4.8	4.7	3.2	3.2	4.7	3.7	32.7	4.09	8
30553	4.3	4.8	5.0	4.8	3.3	3.4	4.3	3.3	33.4	4.18	7
Pusa Basmati 1509 (RP)	4.7	4.7	4.8	5.0	4.0	3.4	4.3	3.5	34.4	4.30	5
Local Check	4.7	4.2	4.7	4.5	3.5	3.4	4.2	3.3	32.4	4.05	10

Table No.14.11: Panel Test Scores of entries in Initial Varietal Trial - Basmati (IVT BT) conducted at BEDF, Modipuram during *Kharif* 2022

IET No	Appearance	Cohesiveness	Tenderness on Touching	Tenderness on Chewing	Taste	Aroma	Elongation	Overall Acceptability	Total	Mean	Rank
30532	5.0	3.8	4.6	4.6	3.8	4.0	3.8	3.0	32.6	4.08	9
30533	4.2	3.4	4.0	3.8	3.0	3.0	2.4	2.2	26.0	3.25	21
30534	4.4	3.4	4.0	3.6	3.0	3.0	2.4	1.8	25.6	3.20	23
30535	4.8	4.6	3.2	2.8	2.6	2.0	2.2	1.4	23.6	2.95	26
30536	5.0	4.8	4.8	4.8	3.8	4.0	5.0	5.0	37.2	4.65	1
Pusa Basmati 1 (YC)	5.0	4.6	5.2	4.2	3.4	3.5	4.2	3.8	33.9	4.24	6
30537	5.0	4.0	2.8	2.6	2.2	1.8	1.8	1.2	21.4	2.67	29
30538	4.6	4.0	4.2	4.0	2.8	3.8	3.2	2.6	29.2	3.64	15
30539	3.6	4.0	4.2	4.0	3.4	3.3	3.6	2.8	28.9	3.61	16
30540	5.0	4.8	3.0	2.6	2.2	1.3	1.8	1.0	21.6	2.70	28
30541	4.8	4.2	3.8	4.2	3.0	3.0	2.2	1.6	26.8	3.35	19
Pusa RH 10 (HC)	4.8	4.4	3.6	3.8	2.8	3.0	2.2	1.8	26.4	3.30	20
30542	4.4	4.6	4.4	4.4	3.8	3.0	2.8	2.2	29.6	3.70	14
30543	4.8	4.2	3.4	3.4	2.6	2.0	2.2	1.2	23.8	2.98	25
30544	5.0	4.8	4.6	4.8	4.2	3.5	4.4	4.2	35.5	4.44	2
Taraori Basmati (QC)	4.6	4.8	4.0	4.0	3.8	3.0	3.2	2.6	30.0	3.75	12
30545	5.0	3.5	4.0	4.5	3.2	3.2	2.3	1.8	27.5	3.44	17
30546	4.7	4.8	4.5	4.7	3.8	3.4	4.8	4.0	34.7	4.34	4
30547	4.8	3.8	4.7	4.3	3.2	2.6	1.8	1.7	26.9	3.37	18
30548	4.7	4.2	4.0	3.5	2.7	2.6	2.3	1.8	25.8	3.22	22
30549	4.7	5.0	4.3	4.2	3.8	3.2	3.8	3.2	32.2	4.03	11
Pusa Basmati 1121 (YC & QC)	4.7	4.5	4.8	4.8	4.3	3.4	4.7	4.0	35.2	4.40	3
30550	4.5	5.0	3.2	3.2	2.2	1.8	2.2	1.3	23.3	2.91	27
30551	4.7	4.7	3.5	3.5	2.7	2.6	2.2	1.5	25.3	3.16	24
Ranbir Basmati (RP)	4.7	4.0	4.5	4.7	3.8	3.6	2.5	2.0	29.8	3.72	13
30552	3.7	4.8	4.8	4.7	3.2	3.2	4.7	3.7	32.7	4.09	8
30553	4.3	4.8	5.0	4.8	3.3	3.4	4.3	3.3	33.4	4.18	7
Pusa Basmati 1509 (RP)	4.7	4.7	4.8	5.0	4.0	3.4	4.3	3.5	34.4	4.30	5
Local Check	4.7	4.2	4.7	4.5	3.5	3.4	4.2	3.3	32.4	4.05	10

MONITORING OF AICRPR TRIALS 2022

The monitoring teams from IIRR visited physically to different AICRIP centres during *kharif* 2022. 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, 2022: Team of Scientists of ICAR-IIRR interacted with cooperators

Zones	Locations	Crop Improvement	Crop Protection	Crop Production
Zone II North Western	IARI, Modipuram, Chatha, Pantnagar	Dr. P. Bhowmick	Dr. V. Prakasam	Dr. Akshay S Sakhare
Zone V Central	Raipur, Jabalpur, Ambikapur, Bilaspur, Jagadalpur	Dr. Divya Balakrishnan Dr. Kalyani B	Dr.Jhansi Rani	Dr. D. Sanjeeva Rao
Zone VI Western-1	Nawagam, Derol, Dabhoi, Vyara, Navsari	Dr. SV Sai Prasad	Dr. Basavaraj Dr. SS Thorat	Dr. P C Latha
Zone VI Western-2	Shirgaon, Panvel, Karjat, Vadagaon, Radhanagari, Goa	Dr. P Senguttuvel	Dr. Chitra Shankar	Dr. M. B. B. Prasad Babu
Zone VII Southern-1	Moncompu, Vytilla, Pattambi, Coimbatore, Mandya	Dr. P Revathi	Dr. AP Padmakumari Dr. G Jesudas Dr. Gobinath	Dr. Vijay Kumar
Zone VII Southern-2	Aduthurai, Puducherry, Kurumbapet Karaikal, Trichy,	Dr. A.S. Hari Prasad	Dr. G S Laha	Dr.P. Muthuraman
Zone VII Southern-3	Sirsi, Brahmavar, Mugad, Ponnampet, Gangavathi	Dr. KB Kemparaju	Dr. V Prakasam	Dr. M. B. B. Prasad Babu Dr. Bandeppa
Zone VII Southern-4	Rajendranagar, Warangal, Jagtial, Kunaram, Rudrur, Kampasagar	Dr. Ch Suvarna Rani	Dr.D. Krishnaveni Dr. Ch Padmavathi	
Zone VII Southern-5	Ragolu, Maruteru	Dr. Jyothi Badri	Dr. M Srinivas Prasad	Dr. Manasa V Dr. D. Subramanyam

Zone II (North Western)

Team members: Dr. Akshay S. Sakhare, Senior Scientist (Plant Physiology), **Dr. Prakasam V.,** Senior Scientist (Plant Pathology), ICAR-IIRR, Hyderabad and **Dr. Prolay Bhowmick,** Senior Scientist (Genetics and Plant Breeding), IARI New Delhi)

Dates: 11.10.2022 to 22.10.2022

Centres visited: IARI, Modipuram, Chatha and Pantnagar

ICAR-IARI: Five trails were monitored and all the trials were excellent and managed well. A All the entries exhibited uniform flowering, plant height and grain type except few. The data recording was going on systematically. In Coloured Rice Trial there were 21 entries. In DDSR (HT NILs), some of the entries were completely killed by herbicide application.

Chatha, SKUAST: Seventeen trials were monitored and all trials were conducted as per the recommendation. The data recording was going on systematically and timely in all the nurseries. Jammu region is a hotspot for Brown spot and Bacterial Leaf Blight disease of rice and therefore it was widespread and visible in all the fields with a general score of 7-9 and 3-5 respectively. In basmati trial IVT-BT, entry 1820 and 1807 were rejected. In the agronomy trial, the raised beds were weathered away due to rains.

BEDF Modipuram: The basmati trials was conducted as per the recommendation. BEDF trials has huge disease pressure of Stem borer and Neck Blast. In basmati trial IVT-BT, entry 1820, 1815, 1813, 1811 and 1810 were rejected due to various reasons. The nucleus and breeder seed plots of PB6 variety was shown which was maintained properly.

SVPUAT Modipuram: Trials conducted at SVPUAT Modipuram were not proper. Stem borer infestation was very high and not managed properly. Entire plot has about 50% or more disease infestation.

Pantnagar: Fourteen trials were conducted as per the recommendation. The entries in IVT-BT are performed well. Seven agronomy trials were monitored and all are in good condition and maintained well. Three physiological trials were monitored and in good condition. Three soil science trials were monitored along with Dr. Pant, and the trials are well managed. The data recording was going on systematically and timely.

Zone-V (Central)

Team members: Dr. B Jhansi Rani, Principal Scientist & Head (Entomology), **Dr. D Sanjeeva Rao,** Senior Scientist (Biochemistry), **Dr. B Divya,** Senior Scientist (Plant Breeding), Dr. MB Kalyani, Scientist (Biotechnoogy), ICAR-IIRR, Hyderabad

Dates: 17.10.2022 to 21.10.2022

Centres visited: Bilaspur, Ambikapur, Raipur, Jagdalpur

Bilaspur: Five breeding trials (AVT 1-E-TP, AVT 2-E-TP, AVT 2-IME, AVT 2-IM and IVT-ASG) out of 10 alloted were carried out by this centre as the seeds were not received for the remaining trials. The trials were conducted as per recommendations with sufficient area (>10m^2) allotted for each trial. All the fields were weed free. Incidence of stem borer and false smut were observed in some of the entries, while incidence of neck blast, gall midge, gundhi bug are the major biotic stress in this region.

Ambikapur: Six breeding trials were conducted (AVT 1- IME, IVT-ASG, IVT-IM, AVT 1- IM, AVT-2- IME, AVT II- IM) out of seven. All the trials were conducted as per recommendations and were weed free. Field facility is available for both upland and low land trials in this centre. Severe incidence of neck blast, brown spot and gall midge were observed in few of the trials/entries, while in a most of the entries stem borer incidence was seen. Five screening trials for various pests, one gall midge biotype monitoring trial and three management trials were conducted by the centre under AICRIP entomology. All entomology trials were conducted as per the protocols given by IIRR and crop stand was also good.

Raipur: A total of 30 breeding trials and four hybrid rice trials were conducted; and all the trials were conducted as per recommendations with excellently laid out plots and were weed free and barcoding labelling was followed for each entry. Severe incidence of stem borer causing >30% of yield reduction in each entry was observed invariably across the trials. Two trials in Physiology and seven trials in Agronomy were conducted. Trials were conducted as per the guidelines, the crop condition is very good, the trials are in flowering stage. Total 13 entomology trails were conducted. Low incidence of brown spot, BPH were observed, while panicle mite is an emerging threat. Total 15 Plant Pathology trials were conducted and artificial inoculation was done both for blast and BLB due to low incidence. Mutation breeding programmes to develop short duration dwarf versions of speciality rices and popular landraces were carried out at this centre.

Jagadalpur : 17 breeding trials out of 19 trials allotted were conducted as per the recommendations. Late receipt of seed material is the major constrain and IVT IM and IVT IME was conducted in upland conditions with poor establishment, high weed pressure and delayed flowering. Weed infestation, blast, brown spot and stem borer are the major biotic stresses observed in upland and aerobic conditions while no significant disease and insect pest infestation was observed in irrigated conditions. In general, all the trials were conducted as per the guidelines. Nine Agronomy trials are conducted. The crop condition is good and the trials are in grain filling stage. Twelve Entomology trials were conducted; and the crop condition was good. High incidence of gall midge, stem borer and leaf folder was observed. Seven Plant Pathology trials were conducted and incidence of blast, neck blast, brown spot were observed.

Zone-VI (Western)

Team members: Dr. SV Sai Prasad, Principal Scientist (Plant Breeding), **Dr. PC Latha,** Principal Scientist (Microbiology), **Dr. K Basavaraj,** Scientist (Plant Pathology), ICAR-IIRR, Hyderabad and **Dr. SS Thorat**, Asst. Research Scientist (Entomology), MRRS, AAU, Nawagam.

Dates: 16.10.2022 to 19.10.2022

Centres visited: Nawagam, Derol, Dabhoi, Vyara and Navsari

Nawagam: Twenty one breeding trials were conducted along with ICAR-BMGF ERA trial and IRRI Trial. All the trials were laid out as per the AICRIP guidelines. Major pest was leaf folder and disease incidence of blast/false smut were observed in AICRIP trials. AICRIP team monitored all the breeder and nucleus seed production plots and it was observed that seed production plots were maintained exceptionally well. Seven crop production trials have been conducted following the technical program guidelines. Twenty pathological trials were allotted including Production Oriented Survey and were conducted as per the technical programme and all the experiments were in good condition. The data recording was going on systematically and timely in all the nurseries. False smut disease was observed in breeding trials.

Derol: Five breeding trials were conducted. All the trials were laid out as per the AICRIP guidelines. **In AVT I (EDS), the plant stand in the trial is very poor and may be rejected.**

Dabhoi: Four breeding trials were conducted. All the trials were laid out as per the AICRIP guidelines. General Crop condition is very good and good crop stand was observed. Slight lodging was observed in some entries of the co-ordinated trials, which is due to continuous rains along with winds. In IHRT-E, 3004, 3001 and 3013 showed lodging, and 3104, 3103,

3105 and 3116 showed good performance. IN IHET-ME, 3118 showed segregation and 3104, 3105, 3116 and 3107 showed good performance. in IHRT-MS, 3310 showed segregation and entries IET 3304 and 3307 showed good performance.

Vyara: Sixteen breeding trials were conducted along with IURON Trial. All the trials were laid out as per the AICRIP guidelines. The trial IURON is not good and the plant stand of the entries are very poor; and **may be rejected for data collection.** Major pest was leaf folder and disease incidence of blast/false smut were observed in some of the entries of AICRIP trials.

Navsari: Crop condition is very good and good crop stand was observed. Nineteen breeding trials were conducted. All the trials were laid out as per the AICRIP guidelines. Major pest was leaf folder and disease incidence of blast/false smut were observed in AICRIP trials. AICRIP team observed the breeder and nucleus seed production plots and it was observed that seed production plots were maintained exceptionally well. Eight crop production trials allotted have been conducted and the crop condition is good. Two trials AVT2- CSTVT and AV2-AL and ISTVT were conducted at Danti farm. 19 pathological allotted trials were conducted as per the technical programme and all the experiments were in good condition. The disease pressure of Bacterial blight was good and still lesion length under progression. A total of 10 entomology trials including pest survey was conducted at Navasari centre. All the trials were conducted as per the technical programme and well maintained.

Zone VI (Western-2)

Team members: Dr. P Senguttuvel, Senior Scientist (Plant Breeding), **Dr. MBB Prasad Babu,** Principal Scientist (Soil Science) and **Dr. Chitra Shank**, Principal Scientist (Entomology), ICAR-IIRR, Hyderabad.

Dates: 10.10.2022 to 16.10.2022

Centres visited: Vadagaon Maval, Lonavala, Karjat, Panvel, Shirgaon, Phondaghat, Radhanagari and CCARI, Goa

Vadagaon Maval: Twelve Breeding trials and two IHRT hybrid rice trials were conducted as per the instruction provided from ICAR-IIRR. Dr TJ Bhor explained the activities of the centre; overall the trial conduct and performance were good, not much incidence of any pest and diseases. However, due to late planting and poor crop stand, the trial IVT E TP may be discarded and not included in final analysis.

Lonavala: ICAR-IIRR team monitored pathology trials. Early stage incidence of blast noticed in Uniform blast nursery; however minimal incidence of pest and disease was noticed.

Karjat: The team monitored thirty breeding/hybrid rice, crop production and crop protection trials. Significant achievements of Karjat centres and seed production of popular varieties especially on hybrid rice development were presented by Dr Waghmode and his team. Overall crop stand was good and well maintained. In addition to the AICRIP trials, team inspected the seed production of Karjat released varieties, rapid generation advancement and speed breeding facilities.

Panvel: Dr Borse explained about the mandate and activities carried out at Panvel centre to the monitoring team. The team monitored two CSTV trials (IVT &AVT1-2) and most of the entries were at flowering stage. Most of the entries performed well, moderate level of salinity was noticed due to frequent rain and leaching out. Overall the crop growth was good and no major incidence of pest and diseases occurrence. Conducted nutrient response trial on selected rice cultures under optimum and low management.

Shirgaon: The team monitored eight breeding and hybrid rice trials. The overall crop stand was good with proper POP. Noticed severe incidence of BPH, sheath blight, false smut and Dr Vijay Dalvi reported, the disease pressure may be due to high humidity and recurrent rain. Seed production trials of Shirgaon released varieties and NBPGR registered CMS lines were seen and inspected.

Phondaghat: The team monitored two late trials and two hybrid rice trials. Overall crop stand was good and no severe incidence of pest and diseases. Excellent performance of hybrid rice trials in comparison with other state and AICRIP varietal trials.

Radhanagari: The team monitored eight AICRIP trials and overall crop stand was good.

CCARI, Goa: The team monitored two CSTV trials. Overall the crop stand was good, moderate level of salinity was noticed. Excellent Performance of DRR Dhan 58 under coastal salinity was noticed.

Zone VII (Southern-1)

Team members: Dr. P Revathi, Senior Scientist (Plant Breeding), **Dr. AP Padma Kumari,** Principal Scientist (Entomology), **Dr. G Jesudas**, Scientist (Plant Pathology), **Dr. R Gobinath**, Scientist (Soil Science) and **Dr. S Vijay Kumar**, Scientist (Agronomy), ICAR-IIRR, Hyd.

Dates : 25.10.2022 to 28.10.2022, 15.11.2022 and 16.11.2022

Centres visited : Coimbatore, Moncompu, Pattambi, Vytilla and Mandya

Coimbatore: A total of 18 breeding trials viz., early, mid-early, medium duration, medium slender and bio-fortification trials and 4 hybrid rice trials were conducted by Coimbatore, Tamil Nadu. All the trials were laid out very well as per the instructions received by IIRR, Hyderabad. They expressed that in aerobic trial, could not drain out water due to continuous rains and this trial is not suitable to be conducted at this location during the Kharif season. In each trial mixtures/off types, early and late entries were noted and reported. The entries and germplasm lines from NRRI and IARI were being screened against brown plant hopper with a modified method. Five crop production trials were allotted; and all the trials are well laid out as per the technical programme and managed in all respects of crop production. 12 trials of Plant Pathology were conducted and moderate level of for sheath blight, bacterial leaf blight and sheath rot diseases was observed in the screening nurseries.

Moncompu: This location is situated below ~3m below MSL of the Kuttanad region. A total of 7 breeding trials viz., AVT-2, AVT-1, IVT trials of Early TP, Mid-early TP and IVT& AVT 1 bio-fortification trials were allotted and all the trials were laid out as per the instructions received from IIRR, Hyderabad. In each trial mixtures/off types, early and late entries were noted and reported. The breeder seed production plots were also monitored by the team. The pest incidence in the research station was very low in entomology trials. Six crop production trials were taken up by this centre; and were laid out and managed as per the technical programme. Out of six trials, trial no 2 field validation of fertilizer recommendation is conducted in nearby farmer field. A total of 8 trials of Pathology were conducted in this center and all trials were conducted as per plan. In case of screening nurseries, moderate level of sheath blight and bacterial leaf blight incidence was observed.

Pattambi: A total of 17 breeding trials viz., early, mid-early, medium duration, medium slender and bio-fortification trials were allotted. The trials were laid out with a gap between entries and the monitoring team asked to correct this mistake next year. Some of the trials were conducted in two different plots and advised them not to repeat this mistake next time. They mentioned about a leech problem in the paddy fields. In each trial, mixtures/off types, early and late entries were noted and reported. Five physiological trials were allotted; and all the trials are well laid out as per the technical programme and managed in all respects of crop production. 17 trials of Plant Pathology were conducted and moderate level of sheath blight and bacterial leaf blight was observed in the screening nurseries.

Vytilla: A total five plant breeding trials viz., AVT2 – AL&ISTVT, AVT 1 – AL&ISTVT, IVT – AL&ISTVT, AVT 2 & 1- CSTVT, IVT - CSTVT and one agronomy trial were allotted to this centre. All the trials were conducted by adopting a unique pokkali organic farming, hence required plot sizes were not followed. The AICRIP cooperators expressed that trial seeds must reach them during the June 1st week itself to follow the timely operations of pokkali cultivation. It was informed that in Kerala high labour wages coupled with a shortage of labours affect pokkali rice cultivation. The stem borer attack was seen in many of the entries and also in breeder seed production plots. No entomology trials were allotted to this

centre. It was observed that all the trials in the station were damaged by stem borer, evident through presence of white ears.

Mandya: A total of 23 breeding trials were conducted. All the trials were laid out very well as per the instructions received by IIRR, Hyderabad. In each trial, mixtures/off types, early and late entries were noted and reported. Most of the screening trials like PHS, PHSS, NSN hills, NHSN were completed and half of IIRR- NSN1 entries. Ten crop production trials were monitored and all the trials are well laid and managed properly. Four soil science trials were monitored and all the trials were managed properly. 20 pathology trials were allotted and all trials conducted as per plan, and iIn some of the trials, moderate level of neck blast incidence was observed.

Gudulur: Four trials were conducted and moderate to high level of blast incidence was observed.

Zone VII (Southern-2)

Team members: Dr. A.S. Hari Prasad, Principal Scientist (Hybrid Rice), **Dr. G.S. Laha,** Principal Scientist (Plant Pathology) and **Dr. P. Muthuraman**, Principal Scientist (Agril Extension), ICAR-IIRR, Hyd.

Dates: 29.11.2022 to 5.12.2022

Centres visited: Kurumbapet (Puducherry), Karaikal, Aduthurai and Trichy

Kurumbapet (Puducherry): The centre was allotted 13 trials on Plant Breeding, 6 trials on Agronomy and 2 Soil science. Thirteen breeding trials were monitored and many entries are in harvesting stage. Three trials are already harvested. Six agronomy trials, two Soil Science trials, two IPM trials (in nearby villages) were monitored, and these trials were conducted as per the given technical programme. Leaf folder incidence was observed in certain trials.

Karaikal: Nineteen breeding trials were monitored; five trials viz., AVT 2-AL&ISTVT, AVT 1- L&ISTVT, IVT– AL&ISTVT, (conducted at two locations viz., Karaikal and Puducherry), AVT 2&1–CSTVT and IVT-CSTVT were already harvested; one trial AVT-1 NIL Sub (coordinated by NRRI) was also monitored. Some of the trials were conducted with reduced plot sizes. Two trials each (in Plant Pathology, Entomology and Plant Physiology), four trials in Soil Science, six trials in Agronomy were monitored and these trials were conducted as per the given technical programme. Among these, few trials were harvested, and leaf folder and false smut incidences were observed in certain trials.

Aduthurai: The centre is hot spot for bacterial blight of rice and sheath blight of rice. Of the 19 plant breeding (17 breeding & 2 hybrid rice) trials, six trials viz., IVT-L, AVT 1-L & AVT 2-L, Bio-fortification AVT 1& IVT, IVT-ASG, Special trial under CRP- Bio-fortification, ERA trials were monitored; three trials viz., AVT 1-ETP, AVT 2-ETP, IHRT E were harvested; eight trials viz., AVT 2-ME, AVT 1-ME, IHRT ME, IVT MS, IVT M, AVT 1-M, AVT1 MS and IVT ME were just planted, however, with reduced plot sizes. Fifteen Plant Pathology trials and 11 Entomology trials were monitored, and these trials were conducted as per the given technical programme. Some of the trials were harvested and the screening trials (for BLB, sheath blight and sheath rot) and monitoring of field virulence were in tillering stage and were not inoculated.

Trichy: Three plant breeding trials were monitored. These trials were conducted as per the given technical programme, however with reduced plot sizes and the experiments were showing normal expression without any perceptible effect of alkalinity on their performance.

Zone VII (Southern-3)

Team members: Dr. MBB Prasad Babu, Principal Scientist (Soil Science), **Dr. KB Kemparaju,** Senior Scientist (Plant Breeding), **Dr. V Prakasam,** Senior Scientist (Plant Pathology) and **Dr. Bandeppa**, Senior Scientist (Soil Science), ICAR-IIRR, Hyderabad.

Dates : 6.11.2022 to 13.11.2022

Centres visited: Ponnampet, Brahmavar, Sirsi, Mugad, Gagavathi

Ponnampet: Eight breeding trials as allotted were conducted as per in the recommended experimental design, and plots well maintained in appropriate size. The trials were infected with diseases, among them, leaf blast, neck blast and brown spot were observed moderate to high incidence. Among pest, leaf folder was noticed. The crop stand was good, which are in flowering stage, free from weed and bunds maintained clean.

Brahm
avar: Breeding trials were conducted properly and crop stand was good but, the fields were full of weeds for which the reason is that centre received heavy rains and frequent floods. Saline trials were conducted at Farmer's field. The crop stand is good. Research work is going on mutants of coloured rice varieties especially red rice varieties through selection. Entomology trials were monitored and incidence of pests are observed.

Sirsi: Breeding trials were conducted as per the guidelines and maintained well. Crop stand was very impressive and crop is in maturity stage. However, incidence of bird damage was observed in almost all trials and moderate incidence of false smut, blast and stem borer in the rice field was observed.

Mugad: Twenty one varietal and hybrid rice trials were conducted as per the program and maintained properly. Plant protection trials were monitored and crop stand was very good, and which are in grain filling stage. No pest and disease was reported in the centre but, false smut was appeared in few entries..

Gangavathi: Nineteen trials were conducted as per the allotment and seen the seed production activities. The varietal trials at this centre were in very good condition and laid as per the guidelines. Breeder seed production plots were uniform. The gall midge is a major problem in this region.

Zone VII (Southern-4)

Team members: Dr. D. Krishna Veni, Principal Scientist (Plant Pathology), **Dr. Ch. Padmavathi,** Principal Scientist (Entomology) and **Dr. Suvarna Rani**, Scientist (Plant Breeding), ICAR-IIRR, Hyd.

Dates: 18.10.2022 to 19.10.2022 and 01.10.2022

Centres visited: Jagtial, Kunaram, Warangal, Rajendranagar and Kampasagar

Jagtial: Five breeding trials were conducted. All the trials were laid out as per the AICRIP guidelines. In AICRIP trials incidence of Gall midge, stem borer and Sheath blight was found to have low to moderate incidence. Few entries in trials were reported to be not-germinated, which was informed in the station report. Overall performance of the trials were good.

Kunaram: Five breeding trials were conducted. All the trials were laid out as per the AICRIP guidelines. General Crop condition is very good and good crop stand was observed. Slight lodging was observed in some entries of the co-ordinated trials, which is due to continuous rains along with winds. In AVT-1-ETP, entries 3505, 3506, 3511, 3513 and 3516 performing well and high incidence of gall midge was observed in AVT-1-ETP. In AVT-2-ETP entry 3406 was found promising and entries 3702, 3709, 3712, 3713, 3714 and 3715 showed good performance. In AVT-2-IM trial entry no. 4008 showed off types, while the entries 4007, 4010, 4012 were better performers and entry 4018 showed delayed flowering. Entry 4809 was lodged and off types were observed in 4805 entry, while 4804 was the promising entry in AVT-2-MS trial.

Warangal: Twenty one breeding trials were conducted along with ICAR-BMGF ERA trial and IRRI INGER Trials. All the trials were laid out as per the AICRIP guidelines. Slight lodging was observed in some entries of the co-ordinated trials, which is due to continuous rains along with winds. Pest incidence of stem borer, BPH and leaf folder was observed and found to be low to moderate. Gall midge incidence was found more in AVT-2-IME, IHRT-ME, AVT-2-MS.

Rajendranagar: Eleven breeding trials were conducted along with BMGF-ERA Trial. All the trials were laid out as per the AICRIP guidelines. Low level of uniformity was observed in most of the entries of bio fortification trial.

Kampasagar: Eleven breeding trials were conducted. All the trials were laid out as per the AICRIP guidelines. Few entries in trials were reported to show low rate of germination, which was informed in the station report. Lodging was observed in some entries of the co-ordinated trials, which is due to continuous rains along with winds. AICRIP team observed the breeder and nucleus seed production plots and it was observed that seed production plots were maintained exceptionally well.

Zone VII (Southern-5)

Team members: Dr. D. Subramanyam, Principal Scientist & Head (Plant Physiology), **Dr. Jyoti Badri,** Senior Scientist (Plant Breeding), **Dr. K Sruthi,** Senior Scientist (Hybrid Rice), and **Dr. Manasa**, Scientist (Soil Science), ICAR-IIRR, Hyderabad.

Dates: 6.11.2022 to 9.11.2022

Centres visited: Ragolu and Maruteru

Ragolu: Six breeding trials including three varietal trials and three hybrid rice trials were conducted. Severe incidence of BPH was observed in all the trials despite taking appropriate plant protection measures. In AVT-1(IM), out of 44 entries, 7 entries were observed with severe infestation of BPH (4117, 4121, 4122, 4126, 4135, 4140 and 4144) and overall trial performance was good. In AVT-2(IM), Out of 19 entries, 9 entries (4002, 4004, 4007, 4009, 4012, 4014, 4015, 4016, were completely damaged because of BPH infestation. In AVT 1&2 (Late), out of 23 entries, 9 entries (4315 to 4323) were observed with severe infestation of BPH. In IHRT-ME, out of 31 hybrid entries, two entries were observed (3120 and 3123) with BPH infestation. The entries 3108 and 3112 were observed with good performance. In IHRT-M, the entries, 3202, 3206, 3212 showed good performance. In IHRT-MS, the entry 3308 was observed with good performance. The team visited farmer's fields, where at Rottavalasa, farmers are cultivating MTU 1062 which has field tolerance to BPH, bacterial blight, bladt, lodging resistance and three weeks dormancy. Another variety cultivated by the farmers in this region is MTU 1282 which is saline tolerant with no abdominal chalkiness, non-shattering and with 140 days to maturity. At Ambavalli village, farmers are cultivating MTU 1318, considered as an alternative to Swarna.

Maruteru: Majority of the trials were harvested. One or two entries were only standing like in IHRT-M the local check MTU1239 was standing. Seen test cross nursery, purification nursery and multi-location testing of CMS lines and Back cross nursery plots. LPT and LNT trials were well conducted at different levels of P and N respectively. Entry No 5823 can be rated as excellent in low P (P0 and P50) in AVT1-LPT trial. Entry No 5822 in P50 is completely burnt with BPH. In IVT-L trial, 4456 and 4423 are highly susceptible to BPH, and 4402 was affected BLB and lodged completely. Four soil science trials were conducted; and general observations include fertilizer application was completed as per treatment schedule, moderate rodent damage was noticed in few treatments. Incidence of Bacterial leaf blight, Brown plant hopper in most of the Soil Science experiments were observed. Four plant physiology trials were conducted; and among these, trials on silicon response and multiple abiotic stress tolerance were harvested and trial on heat tolerance is in progress. Incidence of BPH and sheath blight was observed.

AICRIP Trial Monitoring in Odisha (14-11-2022 to 19-11-2022)

Monitoring team members: Dr.Rameswar Prasad Sah, (Sr. Scientist, ICAR-NRRI, Dr.Manas Bag (Pr. Scientist, ICAR-NRRI), and Dr. RVSR Swamy (Pr. Scientist, ICAR-IIRR)

Centre wise monitoring report is as follows:

ICAR-NRRI: A total of 45 trials breeding trials were conducted(AVT 1- E DS, IVT-E DS, AVT 1- RSL, IVT-RSL, AVT 1-SDW, IVT-SDW, IVT-DW, AVT 1-NIL SUB, AVT 1-NIL DRT, AVT 2-Aerobic, AVT 1 -Aerobic, IVT-Aerobic, AVT 2- E TP, AVT 1- E TP, IVT-E TP, AVT 2- IME, AVT 1- IME, IVT- IME, AVT 2 & AVT 1- CSTVT, IVT- CSTVT, AVT 2- Late & AVT 1- Late, IVT-L, AVT 2-IM, AVT 1-IM, IVT-IM, AVT 2- MS, AVT 1 – MS, IVT-IM, IVT-MS, IVT-ASG, Colour Rice Plot Trial, AVT & IVT – Biofortified, Special Biofortified Trial, AVT 2 – LPT & AVT 1-LPT, IVT-LPT, AVT 1-LNT, IVT-LNT, IHRT-E, IHRT-ME, IHRT-M, IHRT-MS). Four trials (AVT 2 & 1 – Late, AVT-2-IM, AVT-1-IM and IVT-IM) was rejected due to late transplanting. Remaining trials conducted as per experimental design. Crop growth was satisfactory.

OUAT, Bhubaneswar: The following trialsAVT 1 – IM, AVT 1 – RSL, AVT 2 – IM, AVT 1- SDW, AVT 2- MS, AVT 2 & 1 Late, IVT- MS, IVT – SDW, IVT- IM, IVT – RSL, IVT – Late, AVT 1- MS were conducted. Experimental layout, randomization of entries according to the layout was followed.

OUAT, Chiplima: The following trialsIVT – Early, IVT -ASG, AVT- 2 IME, AVT 1- Early, AVT- 2 IM, AVT 1 – MS, AVT 2 – Early, IHRT – ME, AVT- 1 IME, AVT 2 – MS, IVT – IME, IVT – IM, AVT 1 – IM were conducted. Experimental layout, randomization of entries according to the layout was followed. The crop stand was good in trials.

OUAT, Jeypore: The following trialsAVT 1- E DS, IVT- E DS, AVT 1- RSL, IVT – RSL, 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 & 1- Late, IVT-Late, AVT 2-MS, AVT 1-MS, IVT- MS, AVT & IVT Biofortified, IVT- ASG, AVT 1- NIL (Drt), AVT 1- NIL (HT) were conducted. Experimental layout, randomization of entries according to the layout was followed.

Monitoring team at ICAR-NRRI, Cuttack

AICRIP Trial Monitoring in Bihar (02-11-2022 to 05-11-2022)

Monitoring team members:Dr. Annie Poonam(Pr. Scientist, ICAR-NRRI),Dr. JL Katara(Sr. Scientist, ICAR-NRRI) and Dr. G Padmavathi(Pr. Scientist, ICAR-IIRR)

ICAR Research Complex for Eastern Region, Patna: A total of 14 breeding trials were allotted and all the trials was conducted. Overall the performance of the all the AICRIP trials and Breeder seed production programme was very good at this centre.

Botanical Research Unit, Dhangain, Bikramganj, Bihar: A total of thirty-two AICRP-Rice breeding trials were conducted at this centre, which include 20 irrigated trials, six trials, three trials of hybrids. The centre also conducted six Agronomy and seven Pathology. All the trials were conducted as per the technical programme.

Central Agricultural University, Pusa, Samastipur: The centre was assigned 20 breeding trials out of which 18 trials were conducted well. The AVT-NIL-Sub1, was not taken for analysis due to survival of control and *Sub1*introgressed lines. The AVT-NIL drought also showed trait failure. In the case of Agronomy trial out 11, only one trail could be monitored and the rest of the trails were reported to be harvested and threshed. The Soil Science (4), Pathology (4) and Entomology (6) were conducted according to the technical program.

BAU, Sabour: The centre conducted a total of 19 breeding trials, two agronomic trials, and three pathological trails. All the trials were conducted very well as per the guidelines of the AICRIP.

Monitoring team at CAU, Pusa, Samastipur

AICRIP Trial Monitoring in WB (14-11-2022 to 19-11-2022)

Monitoring team members: Dr.MridulChakraborti, (Sr. Scientist, ICAR-NRRI), Dr.Suneetha Kota (Sr. Scientist, ICAR-IIRR), Dr.Ladhalakshmi (Sr. Scientist, ICAR-IIRR) and Dr.KoushikChakraborty (Sr. Scientist, ICAR-NRRI)

Centre wise monitoring report is as follows:

UBKV, Pundibari: The breeding trials,IVT- Late, AVT2 &1 Late, IVT- ASG, AVT1-RSL, IVT-RSL were conducted. All trials conducted as per experimental design. Crop growth was satisfactory.

State Agriculture Farm, Malda: AVT 2-ETP, AVT 1-ETP, IVT-ETP, AVT 2-IME, AVT 1-IME, IVT-IME, AVT 2-IM, AVT 1-IM, IVT-IM, IVT-L, AVT-1- RSL, IVT-RSL and AVT & ISVT Biofortification trials were conducted. Experimental layout, randomization of entries according to the layout was not followed. The entries were transplanted in serial number in most trials.

Rice Research Station, Chinsurah: AVT 2- E TP, AVT 1- E TP, IVT-E TP, AVT 2- IME, AVT 1- IME, IVT-IME, AVT 1- IM, IVT-IM, AVT 2 &1 late, IVT-Late, AVT-2-MS, AVT-1-MS, IVT – MS, IVT-ASG, AVT & IVT Biofort, IHRT-E, IHRT-ME, IHRT-M, IHRT-MS, IVT-RSL, AVT1 RSL, IHRT-E, IHRT-ME and IHRT-M breeding trials were conducted. Experimental layout, randomization of entries according to the layout was not followed and entries were transplanted in serial number in most trials. The crop stand was good in majority of the trials. Stress level was not maintained in AVT1-NIL-Submergence trials.

Salt and Flood Resistant Paddy Research Station, Gosaba, West Bengal: IVT-CSTVT and AVT 1 & 2 CSTVT breeding trials were conducted. Experimental layout, randomization of entries according to the layout was not followed as observed that the entries were transplanted in serial number. Proper stress level was not maintained for the trials.

ICAR-CSSRI, Regional Research Station, Canning Town, WB: IVT-CSTVT and AVT 1 & 2 CSTVT breeding trials were conducted. Trials were conducted according to the guidelines prescribed in terms of experimental design, layout and label. The recording of the stress level was done periodically at different stages of the crop. It was observed that the initial appropriate stress level during transplanting has affected the crop stand establishment as noticed in some entries (5502 and 5506) where the seedlings did not survive indicating the salt sensitivity at seedling stage. However, salt stress was diluted at tillering and flowering stage, and the data may not be suitable for inclusion in the final analysis but can be used to identify the tolerant and sensitive genotypes at vegetative stage.

Monitoring team at Gosaba, WB

AICRIP Trial Monitoring in Ranchi &WB (03-11-2022 to 06-11-2022)

Monitoring team members: Dr. S.K. Dash, (Pr. Scientist, ICAR-NRRI) and Dr. Mathew S. Baite (Scientist, ICAR-NRRI)

Birsa Agricultural University,Ranchi: The centre conducted29 breeding trials. Similarly, Agronomy (6), Pathology(7), Entomology (4) andPhysiology (3) trials were conducted. The trials were conducted as per the guidelines of AICRIP. The experimental layout, randomization of entries was followed as per the trial constitution. The crop was in good stand with proper management.

Rice Research Station, Hathwara: The centre was allotted 10 breeding trails. But only seven trials *viz.*AVT 1 ETP, IVT IME, AVT 1 EDS, AVT 2 ETP, AVT1 IME, AVT 2 IME and IVT ETP was conducted. There was no germination in three trials viz. AVT Biofort, IVT Biofort and IVT ASG. The trials were conducted as per the technical program. Experimental layout, randomization of entries according to the layout was followed. The crop stand was good in all the trials.

Rice Research Station, Bankura: The centre conducted 9 breeding trails (IVT RSL, AVT 1 RSL, IVT IM, IVT ASG, AVT 2 IME, AVT 2 IM, AVT 1 IM, AVT 1 IME, IVT IME).The trials were conducted as per the technical program and the crop stand was good.

Monitoring team at Rice Research Station, Hathwara

AICRIP Trial Monitoring in UP (07-11-2022 to 10-11-2022)

Monitoring team members: Dr. L. K. Bose (Pr. Scientist, ICAR-NRRI), Dr. P.C. Rath (Pr. Scientist, ICAR-NRRI),

Centre wise monitoring report is as follows:

C.S.A.U.T,Kanpur: The centre was assigned 9 breeding trials, 3 agronomy and 4 soil science trials. The trials were conducted as per the technical program and were free from weeds. Most of the trials were in grain filling and maturing stage.

ICAR-CSSRI Regional Research Station,Lucknow: The centre was assigned three breeding trials one agronomy trial Most of the entries were harvested. All the trials were conducted as per the technical program and proper management practices were followed to ensure good crop stand. Incidence of brown spot, BB and false smut was noticed.

Crop Research Station,Ghaghraghat: The centre has conducted 6 breeding trials, 7 agronomy trials, 12 entomology and 6 pathology trials. The trial was conducted as per the technical program and required management practices were followed and crop was in good condition (grain filling and maturing stage).

Crop Research Station,Masodha: The centre conducted a total of 31 breeding trials, 4 soil science, 9 pathology, 6 entomology and 6 agronomy trials. Most of the trials were conducted as per the technical program. Most of the trials were in flowering stage; however, some trials (NIL sub) were in maturing stage. Incidence of stem borer, brown spot, BB and sheath blight was noticed.

B.H.U, Varanasi: The centre conducted 19 breeding trials, 2 pathology, 9 agronomy and soil science trials. Most of the trials were conducted as per the technical program. Most of trials were in maturing stage and crop was in good condition. Proper management practices were followed to ensure good crop stand.

Monitoring team at BHU, Varanasi

AICRIP Trial Monitoring in North East (02-11-2022 to 05-11-2022)

Monitoring team members: Dr.LambodarBehera (Pr. Scientist, ICAR-NRRI), Dr. B.B. Panda (Pr. Scientist, ICAR-NRRI), Dr. Jhansi Lakshmi (Pr. Scientist, ICAR-IIRR), Dr.Sreedevi B (Pr. Scientist, ICAR-IIRR) and Dr.Anantha M.S (Sr. Scientist, ICAR-IIRR),

Centre wise monitoring report is as follows:

ICAR- NRRI RRLRRS Gerua: The AICRP centre at Assam was allotted 4 breeding trials and all four trials were conducted. For IVT trials 7-8 m^2 plot size was maintained and AVTs 12 m^2 was maintained. Over all, the trails were maintained very well with proper weeding and other agronomic practices. The trials were conducted as per the technical program. The crop is in milky to maturity stage.

CAU, Umiam, Barapani: The centre conducted 4 breeding trials. All the trials were conducted as per the recommendation of ICAR IIRR. There was little reduction of plot size due to restriction of field availability and also hilly slope. The problem of iron toxicity was predominant in most of the experimental plots.

ICAR- Research Complex for NEH region,Umiam: The centre conducted 4 plant breeding trials. Even though seeds arrived on time and sowing was done on 26th April, most of the entries are affected by cold and no proper grain filling was noticed. Therefore, Medium Hills trials should not be sent to this location.

Upper Shillong: The centre was allotted 7 trials all 7 trials were conducted. Here also all the entries in all the trials were affected by cold except Local check.

Titabar, AAU, Assam: The centre conducted all allotted 28 breeding trials of AICRIP except Submergence trial. In addition, centre also conducted 9 agronomy, 1 soil science and 5 physiology trials. The plots were well maintained. In most of the trials, plot size was very less. The crop is in grain filling to maturity.

Monitoring team at AAU, Jorhat

AICRIP Monitoring (virtual) for Zone IV IMPHAL, Arundhutinagar, Lembuchhera&Karimganj

CAU, IMPHAL CENTRE: No trials were conducted in *Kharif*, 2022. The centre has developed few high yielding lines and will nominate in AICRIP from next year.

Arundhutinagar, Tripura: IVT-ASG, IVT-MS, IVT-AEROB, IVT-RSL, AVT-2-ETP, AVT-2-MS, AVT-1-MS AVT-1-AEROB, AVT-2-AEROB, AVT-1, IIURON, IIRON, IRLON, IHRT-MS, IHRT- E, IHRT–ME and IHRT-M trials were conducted. The centre faced problem as Data Sheet of IURON, IIRON, IRLON was not made available with the trial material.

ICAR RC-NEH region, Lembuchhera, Tripura: In total 20 AICRIP breeding trials were conducted. Trial condition was very good for all the trials. In general there was not much noticeable mixture in the entries. Around 4430 advance breeding materials were there along with 516 land races of north eastern region. All the indents of DSC for breeder seed were maintained.

Karimganj, Assam: IVT-RSL, IVT-SDW, AVT1-RSL, AVT-1-SDW and AVT 2-SDW trials were conducted. Late transplanting due to flood and drought spell during the crop growth period from the month of mid-October till the date of online monitoring hampered the yield. Disease incidences were also high.

LIST OF BREEDERS

ICAR-Indian Institute of Rice Research, Rajendranagar, Hyderabad-500 030		
Dr.R. M. Sundaram, Director		
Crop Improvement Division		
Plant Breeding		
Dr. L.V. Subba Rao	:	**Principal Scientist & PI, IIRR**
Dr.A.V.S.R.Swamy	:	Principal Scientist
Dr.S.V.Sai Prasad	:	Principal Scientist
Dr. G. Padmavathi	:	Principal Scientist
Dr.J.Aravind Kumar	:	Principal Scientist
Dr.C.Gireesh	:	Senior Scientist
Dr.K.Suneetha	:	Senior Scientist
Dr. Jyothi Badri	:	Senior Scientist
Dr. M.S.Anantha	:	Senior Scientist
Dr. R. Abdul Fiyaz	:	Senior Scientist
Dr. Divya Balakrishnan	:	Senior Scientist
Dr. Ch.Suvarna Rani	:	Scientist
Hybrid rice		
Dr. A.S. Hari Prasad	:	Principal Scientist
Dr. P. Senguttuvel	:	Senior Scientist
Dr. P. Revathi	:	Senior Scientist
Dr.K.B.Kemparaju	:	Senior Scientist
Dr.K.Sruthi	:	Scientist
Biotechnology		
Dr. C.N.N.Neeraja	:	Principal Scientist
Dr. S.K.Mangrauthia	:	Senior Scientist
Dr. Kalyani Kulkarni	:	Scientist
Dr. Santosha Rathod	:	Scientist (Agril. Statistics)

ICAR-National Rice Research Institute, Cuttack-753 006, Odisha		
Dr.A.K.Nayak — Director		
Crop Improvement Division		
Genetics &Plant Breeding		
Dr.(Mrs.) Sanghamitra Samantaray	**:**	**PS & Head, CID, Nodal Officer AICRIP (Rainfed)**
Dr.K.Chattopadhyay	:	Principal Scientist & Co-Nodal Officer AICRIP (Rainfed)
Dr.Sushanta Kumar Dash	:	Principal Scientist & Co-Nodal Officer AICRIP (Rainfed)
Dr. (Mrs.) Meera Kumari Kar	:	Principal Scientist
Dr.Sarat Kumar Pradhan	:	Principal Scientist
Dr. Lotan Kumar Bose	:	Principal Scientist
Dr.MridulChakraborti	:	Senior Scientist
Dr.B.C.Marndi		Scientist (SG)
Dr. J. Meher	:	Scientist (SS)
Dr.Ramlakhan Verma	:	Scientist
Dr. (Mrs.) Sutapa Sarkar	:	Scientist
Dr.Rameswar Prasad Sah	:	Scientist
Dr. (Mrs.) P. Sanghamitra	:	Scientist (Economy Botany)
Dr.Azharudeen T.P.	:	Scientist
Mr. Anil Kumar C	:	Scientist
Mrs. Reshmi Raj K.R.	:	Scientist
Dr.NabaneetaBasak	:	Scientist (Crop Physiology & Biochemistry)
Dr. N.N. Jambhulkar	:	Scientist (Social Science)

ICAR-Indian Agricultural Research Institute, New Delhi - 110 012		
Dr.A.K.Singh — Director		
Division of Genetics		
Dr. Rajbir Yadav	:	Head
Dr.S.Gopal Krishnan	:	Principal Scientist
Dr.K.K.Vinod	:	Principal Scientist
Dr.Akshay Talukdar	:	Principal Scientist
Dr. Prolay K.Bhowmick,	:	Scientist (Sr. Scale)
Dr. Ranjith K.Ellur		Scientist
Dr. Haritha Bollinedi	:	Scientist

List of Technical Personnel

Mr. M.Vijay Kumar		Senior Technical Officer	Mr. Debakanta Nayak		Technical Assistant
Mr. E.Nagarjuna		Technical Officer	Mr. Debabrata Samal		Technical Assistant
Mr. Md. Tahseen		Technical Officer	Mrs. Baneeta Mishra		Technical Assistant
Mr. Sadath Ali		Technical Officer	Mr. Manoj Patra		Technician
Mr. P.Koteswara Rao		Sr.Technical Asst.	Mr Bibekananda Ray		Senior Technician
Mr. R. Sathamaiah		Field Technician	Mr. Manoj Patra		Technician
Mr. Lalan Kumar Singh		Technical Officer	Mr. Devinder Singh		Technical Officer
Mr. Bidyasagar Mandal		Senior Technical Assistant			

Co-operators

S.No.	Location	Funded/ Voluntary	Name & Designation /Organization & Addresses / Tel. No/ Mobile No./ email
1	Aduthurai	Funded	Dr. M. Dhandapani, Asst. Professor, (Plant Breeding & Genetics), TRRI, Aduthurai-612101, Tamil Nadu, 8825865756 (M),dhanda1977@gmail.com
2	Aduthurai	Funded	Dr.R.Pushpa, Assistant Professor (PBG), Tamil Nadu Rice Research Institute, TNAU,Aduthurai - 612 101; pushpa.r@tnau.ac.in9443174970 (M)
3	Almora	Voluntary	Dr. J. P. Aditya, Senior Scientist, ICAR-VPKAS, Mall Road, ALMORA – 263601, Uttarakhand, 05962 241003 (O), 09410795850 (M), jpaditya2021@gmail.com jpaditya4011@rediffmail.com jayaprakashaditya@gmail.com
4	Ambikapur	Voluntary	Ms. Kiran Tigga, Scientist (Genetics & Plant Breeding), R. M. D. College of Agriculture & Research Station, Ajirma, Ambikapur (C.G.) 497001, kiranascoraipur@gmail.com
5	Ambikapur	Voluntary	Dr. Jitendra Kumar Tiwari, Scientist, Department of Genetics and Plant Breeding, RMD, College of Agriculture and Researchstation, IGKV, Ambikapur-497001, Chhattisgarh, 08839556957(M), tiwarijk5@gmail.com
6	Annamalainagar	Voluntary	Dr. K.R. Saravanan, Asst. Professor, Dept. of Genetics and Plant Breeding, Faculty of Agriculture, Annamalainagar University, Annamalainagar- 608 002, CuddaloreDist, Tamilnadu, 09940031431 (M). saravan_rangan@rediffmail.com
7	Arundhutinagar	Funded	Dr. Bansari Das, Joint Director of Agriculture& Station Incharge, Plant Breeding Division, State Agriculture Research Station, Arundhutinagar, Agartala-799003, Tripura, 07005015982 (M), sarstripura@gmail.com
8	Arundhutinagar	Funded	Dr. Rupasri Bhattacharjee, Dy. Director of Agriculture, Plant Breeding Division, State Agriculture Research Station, Arundhutinagar, Agartala-799003, Tripura, 09436450882 (M), sarstripura@gmail.com
9	Bajaura	Voluntary	Dr.Gurudev Singh, Scientist (Agronomy)-cum-P.I. (Linseed), Department of Genetics and Plant Breeding, COA, CSKHPKV, Palampur, Himachal Pradesh-176 062, 09418479856gdevsaandil@rediffmail.com

S.No.	Location	Funded/ Voluntary	Name & Designation /Organization & Addresses / Tel. No/ Mobile No./ email
10	Bajaura	Voluntary	Dr. Neha Sharma, Assistant Professor (Genetics & Plant Breeding) CSK HPKV HAREC Bajaura, Kullu, H.P.- 175125 India, 9736909876 (M). nsh9149@gmail.com
11	Bharuch	Voluntary	Vineeth T V, Scientist (Plant Physiology), Central Soil Salinity Research Institute (ICAR-CSSRI), Bharuch, Gujarat 392012, 9746884857 (M) vinee2705@gmail.com
12	Bankura	Funded	Dr. Chandan Kumar Bhunia, Joint Director of Agriculture (Mycology & Plant Pathology), Rice Research Station, Bankura, Nutanchati, P.O. & District Bankura, PIN 722101, West Bengal, 03242-251306 (O), 6289633761 (M) , rrsbankura@gmail.com
13	Bankura	Funded	Dr. Goutam Kumar Mallick, Economic Botanist V , Rice Research Station, Bankura, Nutanchati, P.O. & District Bankura-722101, West Bengal, 03242-251306 (O) , 9474184953(M) rrsbankura@gmail.com
14	Bankura	Funded	Dr. Vivekananda Mandi, Assistant Botanist, Rice Research Station, Nutanchati P.O., Bankura – 722101, West Bengal, 03242-251306 (O), 9564697908 (M), rrsbankura@gmail.com
15	Bapatla	Voluntary	Dr. B.KrishnaVeni, Senior Scientist (Breeding), Agricultural Research Station, (ANGRAU). Agricultural College farm Campus, Bapatla, Guntur (Dt.)- 522 101; 08643225901 (Telefax), 9441721120 (M)krishnavenirru@gmail.com
16	BEDF, Modipuram	Voluntary	Dr.Ritesh Sharma, Principal Scientist, Basmati Export Development Foundation (BEDF), Modipuram, MEERUT – 250 110, Uttar Pradesh, 09412705048 (M),0121-2888554 (O)riteshbedf5048@gmail.com
17	Bhubaneswar	Voluntary	Dr. Devraj Lenka, Professor, Dept. of Genetics and Plant Breeding, College of Agriculture, OUAT, Bhubaneswar - 751 003,9437232175, 8338014887(M), devraj_lenka@yahoo.com lenkad46@gmail.com
18	Bikramganj (Dhangain)	Funded	Dr. Prakash Singh, Assistant Professor-cum- Rice Breeder, AICRIP, Botanical Research Unit (BRU), DHANGAIN-802 212, P.O.-Bikramganj, Distt.-Rohtas, Bihar, 9452948860 / 7004181244 (M) prakash201288@gmail.com psingh_gene@yahoo.com
19	Bilaspur	Voluntary	Dr. D.J. Sharma, Scientist, Dept. of Genetics & Plant Breeding, C.A.R.S., IGKV, Bilaspur-495 001,Chhattisgarh, (O) 07752-254379, 07752-254380djs@rediffmail.com
20	Brahmavar	Funded	Dr.Shridevi A. Jakkeral , Junior Rice Breeder (AICRIP on Rice), Zonal Agricultural & Horticultural Research Station, Kunjal Road, Brahmavar-576 213, Udupi Dist. Karnataka;0820-2561011 (0), 9611780850(M) gowrishrigpb@gmail.com
21	Canning	Voluntary	Dr. Nitish R. Prakash, Scientist, Genetics & Plant Breeding, ICAR- Central Soil Salinity Research Institute, Regional Research Station, Canning Town - 743329, South 24 Parganas, West Bengal, 03218-255241 (O), 07834810111 (M), nitishranjan240@gmail.com
22	Canning	Voluntary	Dr. S.K. Sarangi, Principal Scientist (Agronomy); ICAR- Central Soil Salinity Research Institute, Regional Research Station, Canning Town - 743329, South 24 Parganas, West Bengal, 03218-255084 (F), 09609930909 / 09434709516 (M), sksarangicanning@gmail.com cssri.canning@ mail.com
23	Chatha	Funded	Dr. Ravinder Singh Sudan, Senior Scientist and Incharge AICRIP (Rice), Division of Plant Breeding &Genetics, SKUAST-Jammu, FoA, Main Campus, Jammu-180009, 9419159975 (M), rssudanudh@gmail.com
24	Chatha(Badarva)	Funded	Dr. Manmohan Sharma, Senior Scientist (Plant Breeding & Genetics), School of Biotechnology, SKUAST-Jammu, Chatha, 9419217211 (M), man_sh2007@yahoo.co.in
25	Chinsurah/ Gosaba	Funded	Dr.Indrani Dana, Joint Director of Agriculture (Rice Dev.),Rice Research Station (Government of West Bengal), Chinsurah (R.S.)-712 102, Hooghly, West Bengal 033-26861149, 033-26862484 (O)jdarice1932@gmail.com
26	Chinsurah	Funded	Dr. Bijan Adhikari, Senior Rice Breeder, Rice Research Station, Govt. of West

S.No.	Location	Funded/ Voluntary	Name & Designation /Organization & Addresses / Tel. No/ Mobile No./ email
			Bengal, Chinsurah, Hooghly-712102, West Bengal, 09433643509(M) adhikaribijan@gmail.com
27	Chinsurah	Funded	Dr. Rajib Das, Asst. Botanist, Rice Research Station, Govt. of West Bengal, Chinsurah, Hooghly-712102, West Bengal. rajibrrs@gmail.com
28	Chinsurah	Funded	Mr. Sumit Murmu, Assistant Botanist, W.B.A.S. (Research) I/C, S & FRPRS, Rice Research Station, Govt. of West Bengal, Chinsurah, Hooghly-712 102, West Bengal, 09007256755 (M)murmu.sumit@gmail.com
29	Chinsurah	Funded	Dr. Mitali Chatterjee, Assistant Botanist, W.B.A.S. (Research), Rice Research Station, Govt. of West Bengal, Chinsurah, Hooghly-712 102, West Bengalmitali.mchatterjee@gmail.com
30	Chinsurah	Funded	Dr. Suman Debnath, Assistant Botanist, W.B.A.S. (Research), Rice Research Station, Govt. of West Bengal, Chinsurah, Hooghly-712 102, West Bengal, 09933739365 (O)sumandebnath.agri@gmail.com
31	Chinsurah	Funded	Dr.Suparna Gupta, Assistant Botanist, W.B.A.S. (Research), Rice Research Station, Govt. of West Bengal, Chinsurah, Hooghly-712 102, West Bengal drsuparnagupta12@gmail.com
32	Chiplima	Funded	Dr. (Mrs.) Rini Pal, Officer-in-charge, AICRP on Rice, RRTTS, Chiplima, Sambalpur-768025, Odisha, 9439895033 (M) oicaicrpricech.ouat@gmail.com
33	Chiplima	Funded	Dr.Pamirelli Ranjith, Assistant Professor/ Rice Breeder. AICRIP, Regional Research and Technology Transfer Station, (OUAT), Chiplima-768025, Sambalpur, Odisha, 09492639312; 08919716454 ranjithpbgouat@gmail.com
34	Coimbatore	Funded	Dr.S.Manonmani, Professor (Plant Breeding) & Head, Department of Rice Centre for Plant Breeding & Genetics, Tamil Nadu Agricultural University Coimbatore - 641 003, Tamil Nadu; 0422 2474 967 (O), 0422 6611 415 (F), 9443376334 (M), rice@tnau.ac.in
35	Coimbatore	Funded	Dr.R. Suresh, Assistant Professor (Plant Breeding & Genetics), Department of Rice, Tamil Nadu Agricultural University, Coimbatore-641 003, Tamil Nadu, 9578305324 (M), sureshpbg@gmail.com
36	Coimbatore	Funded	Dr.R.Pushpam, Associate Professor (PBG),Rice, Department of Rice, Tamil Nadu Agricultural University, Coimbatore-641 003, Tamil Nadu, 9790471067 (M), pushpamtnau@gmail.com
37	Cuttack	Voluntary	Dr. (Mrs.) Sanghamitra Samantaray, Principal Scientist & Head, Crop Improvement Division, ICAR- National Rice Research Institute, Cuttack-753 006, Odisha, 09937171699 (M) aicripnrri@gmail.com smitraray@gmail.com
38	Cuttack	Voluntary	Dr. Meera Kumari Kar, Principal Scientist, Crop Improvement Division, ICAR-National Rice Research Institute (NRRI), Cuttack-753006, Odisha 94380 82075 (M) meera_kar@hotmail.com meerakkar@gmail.com
39	Cuttack	Voluntary	Dr. L.K. Bose, Principal Scientist, Crop Improvement Division, ICAR-National Rice Research Institute (NRRI), Cuttack -753006, Odisha, 09437670122 (M) lotankbose@yahoo.com
40	Cuttack	Voluntary	Dr.KrishnenduChattopadhayay, Principal Scientist, Crop Improvement Division, ICAR-National Rice Research Institute (NRRI), Cuttack -753006 , Odisha 9178248015(M) krishnenducrri@gmail.com
41	Cuttack	Voluntary	Dr.S.K.Dash, Principal Scientist, Crop Improvement Division, ICAR-National Rice Research Institute (NRRI), Cuttack -753006, Odisha, 07978691066/09040384910(M)skdash139@gmail.com
42	Cuttack	Voluntary	Dr. B.C. Marndi, Scientist (SG), Crop Improvement Division, ICAR-National Rice Research Institute (NRRI), Cuttack -753006, 07008186979(M) bcmarndicrri@gmail.com bc_marndi_crri@yahoo.co.in
43	Cuttack	Voluntary	Dr. J. Meher, Senior Scientist SS), Crop Improvement Division, ICAR-National Rice Research Institute (NRRI), Cuttack -753006, Odisha, 9937437459 (M) jmehercrri@gmail.com
44	Cuttack	Voluntary	Dr.MridulChakraborti, Senior Scientist, Crop Improvement Division, ICAR-National Rice Research Institute (NRRI), Cuttack-753006, Odisha; 09932032400 (M)

S.No.	Location	Funded/ Voluntary	Name & Designation /Organization & Addresses / Tel. No/ Mobile No./ email
			Mridul.Chakraborti@icar.gov.in
45	Cuttack	Voluntary	Dr.Ramlakhan Verma, Senior Scientist, Crop Improvement Division, ICAR-National Rice Research Institute (NRRI), Cuttack-753006, Odisha; 8847841041 /8895237769 (M) ramlakhan.verma@icar.gov.in ram.pantvarsity@gmail.com
46	Cuttack	Voluntary	Dr.Sutapa Sarkar, Scientist, ICAR-National Rice Research Institute (NRRI), Cuttack-753 006, Odisha, 09437142920 (M) sutapasarkar1310@gmail.com
47	Dabhoi	Voluntary	Dr. A.G. Pampaniya, Unit Head & Assistant Research Scientist (Rice), Paddy Research Station, AAU Model Farm, (Anand Agril University) Dabhoi – 391110, (Dist - Vadodra) 02663-290 233, 9106425627(M) unitheaddabhoi@aau.in
48	Danti	Voluntary	Dr.Haimil Joshi, Asst. Research Scientist, CSSRS Soil and Water Management Research Institute, (Navsari Agricultural University), DANTI- 396 450, Gujarat.
49	Derol	Voluntary	Dr. M.B. Patel, Unit Head & Assoc. Res. Scientist, Agricultural Research Station (Anand Agricultural University) Derol-389320, Tq. Kalol, Dist. Panchmahal (Godhra), Gujarat, 02676- 235528 (O), 09601534177 (M) arsderol@gmail.com arsderol@aau.in manishgau@aau.in
50	Gangavati	Funded	Dr.Mahantashivayogayya K Hiremath, Senior Breeder (Rice), AICRP-Rice Scheme, Agricultural Research Station, Gangavati -583 227, Dist. Koppal, Karnataka 08533-270143 (O), 09845639892 (M) mahant.shivayogayya2@gmail.com
51	Gangtok	Voluntary	Dr.Ramgopal Devadas, Principal Scientist (Genetics & Plant Breeding), ICAR Research Complex for North East Hill region,Sikkim Centre, Tadong (Post), (DARE, MoA, Government of India), Gangtok 737102, Sikkim, India 0801627 2553 (M), Ramgopal.Devadas@icar.gov.in
52	Gangtok	Voluntary	Dr. E. Lamalakshmi Devi, Scientist (Genetics & Plant Breeding), ICAR Research Complex for NEH Region, Sikkim Centre), Tadong, Gangtok, Sikkim-737 102, 9366608798 (M),elangbamlama@gmail.com elangbam.devi@icar.gov.in
53	Gerua	Voluntary	Dr. Kanchan Saikia, Principal Scientist (Entomology) & In-Charge Head, ICAR-NRRI RRLRRS, Gerua, Hajo, Kamrup -781102, Assam, 09436108770 (M), kanchansaikia@yahoo.com
54	Ghaghraghat	Funded	Dr.Nitendra Prakash, Rice Breeder, Crop Research Station, P.O. Jarwal Road, Bahraich, Ghaghraghat-271901, Uttar Pradesh 05251-225481 (O), 05262-224669 (R), 09415160709 (M) nitendra63@yahoo.co.in
55	Goa	Voluntary	Dr. K.K. Manohara, Senior Scientist (Genetics & Plant Breeding), Crop Sciences Section, ICAR-Central Coastal Agricultural Research Institute, Ela , Old Goa, Goa – 403402, 0832-2284678/79 (O), 0832-2284607 (R), 07507943679 (M), 0832-2285649 (F) manohar.gpb@gmail.com
56	Gorakhpur	Voluntary	Prof. B. N. Singh, Chairman, Center for Research & Development, 605 B, Mohaddipur North, Shiwala Marg, Gorakhpur-273008, Uttar Pradesh, 91- 8953655476, baijsingh65@gmail.com
57	Gudalur	Voluntary	Dr.S.P. ThamaraiselviPh.D.,Asst. Prof. (Horticulture) and Head (i/c),Hybrid Rice Evaluation Centre, Tamil Nadu Agricultural University, 5/42a, Puliyamparai Post, Gudalur-643 212. 04262-264945 (O), 9843338666 (M), thamaraiselvi.sp@tnau.ac.in arsgudalur@tnau.ac.in
58	Gurdaspur	Voluntary	Dr.Arvinder Kaur, Asstt. Plant Breeder, PAU Regional Research Station, Gurdaspur, Punjab, 08146742651 (M) arvindertoor@pau.edu
59	Hathwara	Voluntary	Dr. Uday Sankar Ray , Assistant Botanist, Zonal Drought Resistant Paddy Research Station, Dept. of Agriculture, Govt. of West Bengal, Hathwara, P.O : V. Nagar, Purulia-723 147, West Bengal, 03252-201191 (O),08900606271(M) zdrprs@gmail.com uday_rmp@rediffmail.com
60	Hazaribagh	Voluntary	Dr. N. P. Mandal, Principal. Scientist (Plant Breeding), ICAR-NRRI-CRURRS Post Box- 48, Hazaribag-825 301, Jharkhand 06546-222263 (O),06546-224506 (R) 09430391164(M), 06546-223697 (F) npmandal@hotmail.com nimai.mandal@gmail.com
61	Hazaribagh	Voluntary	Dr. Somnath Roy, Scientist, Plant Breeding), ICAR-NRRI-CRURRS Post Box- 48,

S.No.	Location	Funded/ Voluntary	Name & Designation /Organization & Addresses / Tel. No/ Mobile No./ email
			Hazaribag-825 301, Jharkhand9402196952 (M) sroypbr@gmail.com
62	Imphal, CAU	Voluntary	Dr. (Mrs.) Sonika Yumnam, Scientist (Plant Breeding), AICRIP on Chickpea & I/c AICRIP (Rice), Directorate of Research, Central Agricultural University, Lamphelpat, PIN- 795004, Imphal, Manipur , 8730007376 / 8787674900 (M)sonikayumnam@gmail.com
63	Jabalpur	Voluntary	Dr. Sanjay Kumar Singh, Senior Rice Breeder (Scientist), Department of Plant Breeding & Genetics, J.N.K.V.V., Jabalpur. Madhya Pradesh-482004, 0761-2681020 (O), 9407884019, 7000030929 (M) sanjayiivr@gmail.com
64	Jagdalpur	Funded	Dr. Sonali Kar, Scientist (GPB), SG College of Agricultural and Research Station (IGKV) Kumhrawand, JAGDALPUR – 494 001, Bastar District., Chhattisgarh, 07782-229360 (O), 09424282716(M) sonalikar31@gmail.com
65	Jagdalpur	Funded	Sh. Raja Ram Kanwar, Scientist (PB), SG College of Agricultural and Research Station (IGKV) Kumhrawand, JAGDALPUR – 494 001, Bastar Dist., Chhattisgarh,
66	Jagtial	Voluntary	Dr. B.Srinivas, Scientist (Plant Breeding), Rice Scheme, Regional Agricultural Research Station (PJTSAU), Polasa, Jagtial – 505 529, Telangana State, 09618391562, 09866585767 (M), srinu.bdd@gmail.com
67	Jagtial	Voluntary	Gonya Nayak. Pathulothu, Scientist, PJTSAU,RARS, Polasa, Jagtial, PIN-505 529,Telangana.,9701592326, 9618391562 (M), pgonyanayak@gmail.com
68	Jeypore	Funded	Sri Mihir Ranjan Mohanty,Junior Breeder-cum-Officer-In-Charge, RRTTSS (OUAT), M.G.Road, Jeypore-764001, Koraput, Odisha 06854-240569(O), 09078154995(M) mihirgenetics@gmail.com oicjeypore.ouat@gmail.com oicaicrpricejey.ouat@gmail.com
69	Kampasagar	Voluntary	Dr. N.Lingaiah, Senior Scientist (PB) & Head, Agricultural Research Station, (PJTSAU), Kampasagar, Babu Sai Pet (Post) Nalgonda District. Pin 508 207, 9949301819 (M), headarsmlg@rediffmail.com
70	Kampasagar	Voluntary	Dr. G. Shiva Prasad, Scientist (Plant Breeding), Agricultural Research Station, (PJTSAU), Kampasagar, Babu Sai Pet (Post) Nalgonda District. Pin 508 207 Telangana, 09912534831 (M), headarsmlg@rediffmail.com shiva0843@gmail.com
71	Kanpur	Funded	Dr. P. K. Singh, Professor, Genetics & Plant Breeding, Officer-in Charge, AICRIP, C.S. Azad. University of Agriculture and Technology, Kanpur – 208002, Uttar Pradesh, 9415172323,7355751246 (M), pk_singh65@yahoo.com, pksingh@csauk.ac.in
72	Karaikal	Voluntary	Dr.S.Thirumeni, Professor (PBG), Pandit Jawaharlal Nehru College of Agriculture and Research , Karaikal- 609603, Puducherry (U.T). 09443573371 (M),091-4368-261372 (O),091-4368-261260(F),09443573371 (M), s_thirumeni@rediffmail.com
73	Karaikal	Voluntary	Dr. V. KRISHNAN. Professor (Plant Breeding and Genetics), PAJANCOA & RI, Nedungadu post, KARAIKAL-609603, 9842256581, 9789131180, anurakrish@yahoo.com
74	Karjat	Funded	Dr. B.D. Waghmode, Professor(CAS), Rice Specialist, Regional Agricultural Research Station, Karjat-410 201, Dist. Raigad, Maharashtra. 09404580416 , 09834458682(M), bharat_breed@yahoo.com, ricespecialistkarjat@gmail.com
75	Karjat	Funded	Dr. J.P. Devmore, Junior Rice Breeder, Regional Agricultural Research Station, (Dr. Balasaheb Sawant Konkan Krishi Vidyapeeth), Dist. Raigad. Karjat– 410 201, Maharashtra
76	Karnal / Rohtak / Jind / Panipat / Anjanteli / Kurukshetra	Voluntary	Dr. Krishna Murthy, S. L., Senior Scientist (Plant Breeding), Division of Crop Improvement, ICAR-Central Soil Salinity Research Institute (CSSRI), Kachwa Road, Karnal-132001, Haryana, 0184-2291218, Ext.216 (O), 08053726399 (M), krishnagene@gmail.com
77	Kaul	Funded	Dr. Rakesh Kumar, Assistant Rice Breeder, CCS HAU Rice Research Station, Kaul (Kaithal)-136 021, Haryana. 8059907772 (M), kaku.3122@gmail.com rrskaul@gmail.com dr.rakesh@hau.ac.in

S.No.	Location	Funded/ Voluntary	Name & Designation /Organization & Addresses / Tel. No/ Mobile No./ email
78	Kathalgere	Voluntary	Dr.Manjunatha. B, Assistant Professor (GPB) and Junior Rice Breeder AICRIP on Rice Center(Volunteer), Agriculture and Horticulture Research Station, Kathalagere Village, Channagiri Taluk, Davangere District, Karanataka State - 577219, 0948369547 (M), manjugpb@gmail.com
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
82	Kunaram	Voluntary	Dr. Sreedhar Siddi, Scientist (Plant Breeding) & Head, Agricultural Research Station, (PJTSAU), Kunaram 505174, Kalva Srirampur Mandal, Karimnagar Telangana State, 09849635235 (M), arskunaram@yahoo.com siddu.35@gmail.com
83	Kurumbapet	Funded	Dr. R. Narasimman, Rice Breeder i/c, Perunthalaivar Kamaraj Krishi Vigyan Kendra, Kurumbapet, Puducherry – 605 009, 0413-2271292 (F), 0413-2279758, 09442502107(M), naras65@gmail.com pondicherrykvk@yahoo.co.in pkkvk.py@gov.in
84	Lamphelpat	Voluntary	Dr. Konsam Sarika, Scientist (Genetics and Plant Breeding), ICAR Research Complex for NEH Region, Manipur Centre, Lamphelpat, Imphal-795 004, 0385-2414654 (O), 0385-2414749 (F), 8787401857 (M, konsams@gmail.com
85	Lamphelpat	Voluntary	Dr. Ng. Umakanta, Scientist, Plant Biotechnology, ICAR Research Complex for NEH Region, Manipur Centre, Lamphelpat, Imphal-795004, ukbiotech@gmail.com
86	Lembucherra	Voluntary	Dr. AyamGangarani Devi, Senior Scientist (Plant Physiology), ICAR RC for NEH Region, Tripura Centre, Lembucherra, Tripura- 799210, 8974666483 (M), ganga.ayam@gmail.com
87	Lucknow	Voluntary	Ravi Kiran, KT, Scientist (Genetics & Plant Breeding),ICAR- Central Soil Salinity Research Institute, Regional research station, Lucknow – 226002, Uttar Pradesh, 9991847144 (M), rkravikirankt@gmail.com
88	Ludhiana	Funded	Dr. G. S. Mangat, ADR (Crop Improvement), Dept. of Plant Breeding & Genetics, Rice Section, Punjab Agricultural University, Ludhiana-141 004, Punjab 09814516464 (M), mangatgs2005@yahoo.co.in gsmangat-pbg@pau.edu
89	Ludhiana	Funded	Dr. R.S.Gill, Principal Rice Breeder, Rice Section, Dept. of Plant Breeding & Genetics, PAU, Ludhiana -141 004, Punjab, 09888310070 (M), ranvirgillz@gmail.com
90	Ludhiana	Funded	Dr. Rupinder Kaur, Principal Rice Breeder, Rice Section, Dept. of Plant Breeding & Genetics, PAU, Ludhiana-141 004, Punjab, 08146560105 (M), kaurrupinder-pbg@pau.edu, rupinder.kaur@rediffmail.com
91	Ludhiana	Funded	Dr. Renu Khanna, Rice Breeder, Rice Section, Dept. of Plant Breeding & Genetics, PAU, Ludhiana -141 004, Punjab, 9855552034 (M), renukhanna-pbg@pau.edu
92	Ludhiana	Funded	Dr. Navjot Sidhu, Rice Breeder, Rice Section, Dept. of Plant Breeding & Genetics, PAU, Ludhiana-141 004, Punjab, 09914714690 (M), navjotsidhu-pbg@pau.edu
93	Machilipatnam	Voluntary	Dr. M. Girija Rani, Senior Scientist (Pl.Br) & Head; Agricultural Research Station, Pedana Road, Near Pantakaluva, Machilipatnam-521002, Krishna District, Andhra Pradesh 08672-223266 (O), 9490195904 (M), ars.machilipatnam@angrau.ac.in girija_aprri@yahoo.co.in girijaaprri@gmail.com

S.No.	Location	Funded/ Voluntary	Name & Designation /Organization & Addresses / Tel. No/ Mobile No./ email
94	Malagi	Voluntary	Dr.Chitti Bharatkumar, Assistant Professor, Genetics and Plant Breeding, University of Agricultural Sciences, Agriculture Research Station, Malagi-581346, North Canara Dist. Karnataka. 09497165713 (M), chittibharat@gmail.com
95	Malan/ Bhertin / Dhaulakaun	Funded	Dr. D.P. Pandey, Principal Scientist (Plant Breeding), Rice & Wheat Research Centre, CSKHPKV, Malan (Kangra) -176 047, HP 01892-252306 (O), 09418149787 (M), pandeydp04@yahoo.co.in
96	Malan	Funded	Dr. Neelam Bhardwaj, Scientist, Rice & Wheat Research Centre, CSKHPKV, Malan (Kangra) -176 047, HP, 9816743729 (M), neenabhardwaj@gmail.com
97	Malda	Voluntary	Dr. Nabin Pradhan, Incharge of EconomicBotanist-1,West Bengal State Agricultural (Research)Farm, Malda, West Bengal.9453989971 (M), 03512-252352 (O), eb1.malda@gmail.com
98	Mandya	Funded	Dr. C.A. Deepak, Jr. Rice Breeder, AICRP (Rice), Zonal Agril. Research Station, V.C.Farm, Mandya-575405, Karnataka, 08232-277923 (O), 08232-277945 (F), 09945757507(M), deepuca@gmail.com
99	Mandya	Funded	Dr. N.Shiv Kumar, Assoc. Professor, (Hybrid Rice), ZARS, VC Farm,Mandya-571405, Karnataka, 09448528481(M), shivu2356@gmail.com
100	Maruteru	Funded	Dr. T.Srinivas, Principal Scientist (PB), AICRIP on Rice & PS (Rice), RARS, Maruteru-534122, West Godavari Dist, Andhra Pradesh, 9396848380 (M), ps.rice@angrau.ac.in adr.rarsmtu@angrau.ac.in
101	Maruteru	Funded	Dr. B.N.V.S.R. Ravi Kumar, Senior Scientist (PB), AICRIP on Hybrid Rice, RARS, Maruteru-534122, West Godavari District, A.P., 9866649495(M) bnvsr.ravikumar@angrau.ac.in
102	Maruteru	Funded	Dr. P. Venkata Ramana Rao, Senior Scientist (PB), AICRIP on Rice, RARS, Maruteru - 534 122, West Godavari District, A.P, 09440441922 (M), pv.ramanarao@angrau.ac.in
103	Maruteru	Funded	Dr. M.Charumathi, Principal Scientist (PB), RARS, Maruteru-534122, West Godavari Dist. Andhra Pradesh, 8331070288 (M), m.charumathi@angrau.ac.in
104	Maruteru	Funded	Dr. Y.Satish, Senior Scientist (PB), RARS, Maruteru-534122, West Godavari Dist. Andhra Pradesh, 8331934548 (M), y.satish@angrau.ac.in
105	Maruteru	Funded	Dr. Y.Suneetha, Senior Scientist (PB), RARS, Maruteru-534122, West Godavari Dist. Andhra Pradesh, 7013166054 (M), y.suneetha@angrau.ac.in
106	Masodha	Funded	Dr. D.K.Dwivedi, Office Incharge/ Professor (Genetics & Plant Breeding), Crop Research Station, Masodha (NDUA &T), Dabhasemar, Ayodhya- 224 133, U.P, 09415720287(M), aicripmasodhafzd@gmail.com dwivedi2000@gmail.com
107	Masodha	Funded	Dr. Saurab Dixit, Senior Rice Breeder, Crop Research Station, NDUA&T, Masodha , P.O. Dabhasemar, Ayodhya- 224 133, UP, 05278-254153 (O), 07992075842 / 09450763002 (M) saurabhnduat@gmail.com
108	Masodha	Funded	Dr. S.P.Giri, Rice Breeder, Crop Research Station, NDUA&T, Masodha , P.O. Dabhasemar, Ayodhya- 224 133, UP, 08400097861 (M), spgirinduat@gmail.com
109	Mediziphema	Voluntary	Dr. Harendra Verma, Scientist, Dept. of Plant Breeding & Genetics, ICAR Research Complex for NEH Region, Nagaland Centre, Medziphema-797106, Dimapur dist. Nagaland, 8787348162, 918876739227 (M), harendraicar@gmail.com
110	Meerut	Voluntary	Dr. L.K. Gangwar, Professor & Head, Dept. of Genetics & Plant Breeding, College of Agriculture, SVPUAT, Meerut-250110, Uttar Pradesh, 0121-2888518(O), 0121-2888505 (F), 9411957307 (M) , gangwarlk@gmail.com hod.gpb.svbp@gmail.com
111	Mohanpur	Voluntary	Dr. Arpita Das, Assistant Professor, Dept. of Genetics & Plant Breeding, Bidhan Chandra Krishi Viswavidyalaya, P.O.KrishiViswavidyalaya, Mohanpur, Dist. Nadia, West Bengal- 741 252, 08902186237 (M), arpitacoh@gmail.com das.arpita@bckv.edu.in
112	Moncompu	Funded	Smt.Ambily A.K, Assistant Professor (Plant Breeding & Genetics), Rice Research Station, Moncompu-688503, Thekkekkara, Alappuzha District-688503, Kerala, 0477-2702245 (O), 9495424961(M), ambily.ak@kau.in

S.No.	Location	Funded/ Voluntary	Name & Designation /Organization & Addresses / Tel. No/ Mobile No./ email
113	Mugad	Funded	Dr. R.G.Satish, Assistant Professor, AICRIP on Rice, Agricultural Research Station, Mugad- 580 007, Karnataka, 90366 85330(M), aicrpricemugad@uasd.in satishrg@uasd.in
114	Nagaland	Voluntary	Dr. H. P. Chaturvedi, Asst. Professor, Dept. Of Genetics and Plant Breeding, Nagaland University, SASRD, Medziphema-797106, 9436263524 / 9862889964 (M), hpchaturvedi68@gmail.com
115	Nagina	Funded	Dr. Rajendra Singh, OIC & Rice Breeder (AICRIP), SVPUA&T Rice Research Station, Nagina, Bijnor, Uttar Pradesh-246762, (O) 01343-250271, 01343-250271 (F), 07017089688(M), malik_zrsnagina@rediffmail.com maliknagn@gmail.com
116	Navsari	Funded	Dr. P.B Patel, Associate Research Scientist & PI of AICRIP on Rice, Main Rice Research Centre, Navsari Agricultural University, Aru Cross Road, Vijalpore, Navsari – 396450, Gujarat 02637-282772-75 Ex-113 (O), 02637-283794 (F), 09725023750, 9106678851(M) pbp_swm@nau.in pathik_pbg@yahoo.com
117	Navsari	Funded	Dr. K.S. Mungra, Assistant Research Scientist, Main Rice Research Centre, Navsari Agricultural University, Aru Cross Road, Vijalpore, Navsari-396450, Gujarat.
118	Nawagam	Funded	Dr. M. B. Parmar, I/c. Research Scientist (Rice) & Unit Head, Main Rice Research Station, Anand Agricultural University, Nawagam-387540, (District Kheda), Gujarat, 02694-284278 (O), 07573013548, 08160688494 (M)rsrice_mrrs@yahoo.com maheshparmar07@gmail.com maheshparmar@aau.in
119	Nawagam	Funded	Dr. D. B. Prajapati, Associate Research Scientist, Main Rice Research Station, Anand Agricultural University, Nawagam-387540, (Dist-Kheda), Gujarat, 09429384207(M), dbprajapati207@gmail.com
120	Nawagam	Funded	Dr. S.G. Patel, Assistant Research Scientist, Main Rice Research Station, Anand Agricultural University, Nawagam-387540, (Dist-Kheda), Gujarat, 09879140413 (M), sgpatel1965@gmail.com
121	Nellore	Voluntary	Dr. Ch. Sreelakshmi, Senior Scientist (Plant Breeding), Agricultural Research Station (ANGRAU), NCF post, Muthukur Road, Nellore – 524004, Andhra Pradesh, 09885527227 (M), sreelakshmi.angrau@gmail.com ars.nellore@angrau.ac.in ps.rice@angrau.ac.in
122	Nellore	Voluntary	Dr. Shaik Sameera, Scientist, Agricultural Research Station (ANGRAU), NCF post, Muthukur Road, Nellore – 524004, Andhra Pradesh, 08099807936 (M).
123	New Delhi	Voluntary	Dr. Gopala Krishnan, Principal Scientist (Rice Breeding) Division of Genetics, ICAR-Indian Agricultural Research Institute (IARI), Pusa Campus, New Delhi-110012, 011-25843550 (R),09873545505 (M)gopal_icar@yahoo.co.in krish.icar@gmail.com
124	New Delhi	Voluntary	Dr. Prolay K.Bhowmick, Scientist (Rice), Division of Genetics, ICAR-IARI, Pusa Campus, New Delhi- 110 012. 0968024408prolaybhowmick@gmail.com
125	New Delhi	Voluntary	Dr. Haritha Bollinedi, Scientist, Division of Genetics, ICAR-IARI, Pusa Campus, New Delhi- 110 012, 09555616076 (M)haritha.agrico@gmail.com
126	New Delhi	Voluntary	Dr. Ranjith K.Ellur, Scientist, Division of Genetics, ICAR-IARI, Pusa Campus, New Delhi- 110 012, 08010303649ranjithellur@gmail.com
127	New Delhi	Voluntary	M. Nagarajan, PS and In-Charge, IARI Regional Station, Aduthurai, Tamil Nadu, 09952805363 (M)iariadt@gmail.com
128	Palampur	Voluntary	Dr. Daisy Basandrai, Principal Scientist (Plant Breeding) CSKHPKV, Palampur-176 062, Himachal Pradesh, 09816179192/ 09418467275(M) bunchy@rediffmail.com ashwanispp@gmail.com
129	Palghar	Voluntary	Officer - Incharge, Agricultural Research Station (Dr BS KKV), Palghar- 401 404, District Palghar, Maharashtra, 02525 241048 (O)nandishala@gmail.com
130	Pantnagar	Funded	Dr. Indra Deo Pandey, Professor/ Principal Rice Breeder , Department of Genetics and Plant Breeding, College of Agriculture, GBPUA&T, Pantnagar-263 145, Distt.- U.S. Nagar, Uttarakhand 05944-233210 (O), 05944-233473 (F),

S.No.	Location	Funded/ Voluntary	Name & Designation /Organization & Addresses / Tel. No/ Mobile No./ email
			08755790584, 07467032941 (M)idpandey2005@rediffmail.com
131	Pantnagar	Funded	Dr. D.C. Baskheti. Junior Scientist (Rice Breeding), Department of Genetics and Plant Breeding, College of Agriculture, GBPUA&T, Pantnagar-263 145, Dist.- U.S. Nagar, Uttarakhand.
132	Panvel	Voluntary	Dr. K.P. Vaidya, Khar Land Scientist, Khar Land Research Station, Bandar Road, Opp: B.P. Marine Academy, Old Panvel – 410 206, Tahsil- Panvel, Raigad Dist. Maharashtra, 8087213854 / 9422431877 klrs59@rediffmail.com kvkvaidya73@gmail.com
133	Parbhani	Voluntary	Dr. S.B.Borgaonkar, Assistant Rice Breeder, Upland Paddy Research Scheme, Behind Vegetable Research Scheme, V.N.M.K.V. Parbhani-431402, Maharashtra. 02452-220121 (O), 07588082166 (M) borgaonkars@rediffmail.com uprsmkv@rediffmail.com
134	Parbhani	Voluntary	Dr. Abhay B. Jadhav, Rice Breeder, Upland Paddy Research Scheme, VNMKV, Parbhani-431402, Maharashtra. 8275009885(M) uprsmkv@rediffmail.com
135	Patna (ICAR)	Voluntary	Dr. Santosh Kumar, Senior Scientist (Plant Breeding), Drought & Aerobic Rice, Division of Crop Research, ICAR Research Complex for Eastern Region, ICAR Parisar, PO. Bihar Veterinary College, Patna – 800014, Bihar, 0612-2223962, Extn. 117 (O), 0612-2223956 (F), 09973113026 (M)santosh9239@gmail.com
136	Patna (ICAR)	Voluntary	Dr. Narayan Bhakta, Principal Scientist (Plant Breeding), ICAR Research Complex for Eastern Region, ICAR Parisar, PO. Bihar Veterinary College, Patna – 800014, Bihar, 09471004797 (M)nbhakta65@rediffmail.com
137	Pattambi	Funded	Dr.K.R. Biji, Assistant Professor, Dept. of Plant Breeding & Genetics, Regional Agricultural Research Station (KAU), Mele Pattambi – 679 306, Palakkad District, Kerala, 9946912674(M)biji.kr@kau.in
138	Pattambi	Funded	Dr.Vidhu Francis, Assistant Professor, Dept. of Plant Breeding & Genetics, Regional Agricultural Research Station (KAU), Mele Pattambi – 679 306, Palakkad District, Kerala, 9847236616(M)vidhu.francis@kau.in
139	Phondaghat	Voluntary	Prof. V.N. Shetye, Agronomist; (Dr.Balasaheb Sawant Konkan Krishi Vidhyapeeth, Dapoli) Agricultural Research Station, Phondaghat-416601, Dist. Sindhudurg, Maharashtra 02367 – 245236 (O) , 02367-245105(F),09421343562(M), arsphondaghat@rediffmail.com arsphondaghat@gmail.com
140	Ponnampet	Funded	Dr G.N. Hosagoudar, Junior Rice Pathologist, Agricultural & Horticulture Research Station, Ponnampet- 571216, Kodagu (Dist), Karnataka-571216, 08274249156 (O), 9480838987 (M), gnhosagoudar@rediffmail.com
141	Port Blair	Voluntary	Dr. P.K. Singh, Principal Scientist (Plant Breeding), Division of Field Crops Improvement and Protection, ICAR- Central Island Agricultural Research Institute, Port Blair-7441051, Andaman and Nicobar Islands 03192-250238, 250239, Extn. 162(O), 09474273099 (M), pksingh1975@gmail.com pksing99@rediffmail.com
142	Pundibari	Voluntary	Dr. Bidhan Roy, Professor & Head, Dept. of Seed Science and Technology, Uttar Banga Krishi Viswavidyalaya, Pundibari, Cooch Behar-736 165, West Bengal, 08637072242, 9434117057 (M) bcroy10@yahoo.com
143	Pusa	Funded	Dr. Nilanjaya, Asst. Professor-cum-Jr. Scientist & PI, AICRP on Rice & Forage Crops, Dept. of Plant Breeding & Genetics, Dr. Rajendra Prasad Central Agril.University, Pusa-848125, Samastipur, Bihar nilanjayapbg@gmail.com nilanjaya@rpcau.ac.in
144	Pusa	Funded	Dr. M.K.Singh, Assistant Professor, Dept. of Plant Breeding & Genetics, Co-PI, AICRIP, Dr. Rajendra Prasad Central Agricultural University, Pusa, Samastipur-848125, Bihar, 8986590206, 7983312594 (M). mithileshgpb@gmail.com
145	Radhanagari	Voluntary	Dr. S.D.Kumbhar, Officer-In-Charge, Agricultural Research Station, (MPKV) Radhanagari, Dist. Kolhapur, Maharashtra– 416 212, 02321 – 234041 (O), arsradha@yahoo.com, ars_radhanagari@rediffmail.com

S.No.	Location	Funded/ Voluntary	Name & Designation /Organization & Addresses / Tel. No/ Mobile No./ email
146	Ragolu	Voluntary	Dr. P.V. Satyanarayana, Principal Scientist (Breeding) & Head, Agricultural Research Station,(ANGRAU), Ragolu-532484, Srikakulam district 08819-246848 (R), 9490545888 (M), ars. ragolu@angrau.ac.in satya_rice@yahoo.com
147	Ragolu	Voluntary	Dr. K. Madhu Kumar, Scientist (Plant Breeding), Agricultural Research Station,(ANGRAU), Ragolu-532484, Srikakulam district, 08942-279836 (O), 9618186286, 9440149488 (M), madhuagrico1998@gmail.com
148	Raipur	Funded	Dr. P.K.Tiwari, PI (AICRIP) and Principal Scientist (Plant Pathology), IGKV Raipur-492012; 9425520237/ 6260707420 (M), pradeep.tiwari95@gmail.com
149	Raipur	Funded	Dr. Deepak Sharma, Professor & Head, Dept. of Genetics and Plant Breeding, College of Agriculture, Indira Gandhi Krishi Vishwavidyalaya, Krishak Nagar, Raipur- 492 012, 9826647509 (M), deepakigkv@gmail.com
150	Raipur	Funded	Dr. S.K.Nair, Senior Scientist & Biodiversity, Dept. of Genetics and Plant Breeding, College of Agriculture, Indira Gandhi Krishi Vishwavidyalaya, Krishak Nagar, Raipur– 492012 Chhattisgarh, 9826192630 (M), sunil_ryp@yahoo.com sunil.aadya@gmail.com
151	Raipur	Funded	Dr. Abhinav Sao, Scientist (GPB), Dept. of Genetics & Plant Breeding, College of Agriculture, Indira Gandhi Krishi Vishwavidyalaya, Krishak Nagar, Raipur-492012, Chhattisgarh, 08839199972 (M), saoabhi27@yahoo.co.in saoabhi9@gmail.com
152	Raipur	Funded	Dr. Deepak Gauraha, Scientist (GPB), AICRIP on Rice, Department of Genetics & Plant Breeding, College of Agriculture, Indira Gandhi Krishi Vishwavidyalaya, Krishak Nagar, Raipur- 492 012, Chhattisgarh, 0771 2442352 (O), 09424217252 (M) dgauraha@yahoo.co.in
153	Raipur	Funded	Dr. Ajit Kumar Mannade, Assistant Professor, Dept. of Plant Molecular Biology and Biotechnology, College of Ariculture, IGKV, Raipur-492012; 9131617227(M), ajitbiotechnology@gmail.com
154	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
155	Rajendranagar	Funded	Dr. L. Krishna, Principal Scientist (Plant Breeding), Rice Research Centre, ARI, PJTSAU, Rajendranagar, Hyderabad-500 030, Telangana, 040-24015817 (O), 9866091711 / 9908577040 (M), lavuri.krishna@gmail.com
156	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
157	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
158	Ranchi	Funded	Dr. Krishna Prasad, Rice Breeder, Dept. of Plant Breeding & Genetics, Birsa Agricultural University, Kanke, Ranchi, Jharkhand- 834006, 06151-2450625 (O), 09934199128 (M), krishna_dumka@yahoo.co.in
159	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
160	Ranital	Voluntary	Dr. Chinmaya Kumar Das, Scientist (Plant Breeding & Genetics), Regional Research & Technology Transfer Station (OUAT), Ranital-756 111, Bhadrak District, Odisha, 7809280549 (M), iitk.chinmaya@gmail.com adrrttsranital@gmail.com
161	Rewa	Funded	Dr. P. Perraju, Senior Rice Breeder, College of Agriculture (JNKVV), Rewa-486004, Madhya Pradesh, 07662-220732(O), 07662-221014(R), 09827681203 / 7974592405 (M), perraju.p@rediffmail.com

S.No.	Location	Funded/ Voluntary	Name & Designation /Organization & Addresses / Tel. No/ Mobile No./ email
162	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
163	Sabour	Voluntary	Dr. Suresh Prasad Singh, Rice Breeder, Dept. of Plant Breeding and Genetics, Bihar Agricultural College, Bihar Agricultural University, Sabour, Bhagalpur-813 210, Bihar, 0641-2451254 (O), 7903213610 / 9472060575 (M) sps2007bau2011@gmail.com
164	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
165	Sabour	Voluntary	Dr. Satyendra, Asst. Professor-cum-Jr. Scientist, Dept. of Genetics and Plant Breeding, BAU, Sabour, Bhagalpur, Bihar, 9801828800 (M), drsatyendratomar@gmail.com
166	Sabour	Voluntary	Dr.Mankesh Kumar, Asst. Professor-cum-Jr. Scientist, Dept. of Genetics and Plant Breeding, BAU, Sabour, Bhagalpur, Bihar, 9771602414 (M), mankesh2008@gmail.com
167	Sakoli	Funded	Dr. M.P. Meshram, Senior Rice Breeder, AICRIP, Agriculture Research Station (Dr. PDKV), Sakoli –441802, Bhandara District, Maharashtra, 09422819327 (M), srb_skl@rediffmail.com mpmeshram358@gmail.com
168	Shirgaon	Voluntary	Dr. V.V. Dalvi, Professor (CAS) GPB & Officer Incharge, Agricultural Research Station, Shirgaon-415 629, District Ratnagiri, Maharashtra, 08262830227 (O), 09422544085 (M),arsshirgaon@dbskkv.ac.in arsshirgaon@rediffmail.com
169	Shillongoni	Voluntary	P.C. Sarmah, Principal Scientist &I/C Chief Scientist, Regional Agricultural Research Station, Shillongani, Dist: Nagaon, Assam- 782002, 03672-225023(O), 9435360376 (M), rarsnagaon@gmail.com pcsarmah.2016@aau.ac.in
170	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
171	Sirsi	Voluntary	Dr. P. Surendra, Principal Scientist (GPB), Agricultural Research Station (Paddy), Banavasi Road, Sirsi- 581 401, Uttara Kannada, Karnataka, 092422 81402 (M), psurendra63@gmail.com
172	Sundernagar	Voluntary	Dr. Pankaj Sood, Programme Coordinator, KVK Mandi at Sundernagar-175 019, Himachal Pradesh, 01907 262547 (O) 9418222532 (M), pankajplp@rediffmail.com
173	Tirur	Voluntary	Dr. S. Banumathy, Professor& Head (PBG), Rice Research Station, Tirurkuppam, Tirur (Post), Thiruvallur District, Tamil Nadu-602 025, 044-27620233(O), 044-27620383 (F), 09443566162(M), banumathysiva2004@gmail.com
174	Titabar	Funded	Dr. Sanjay Kumar Chetia, Principal Scientist/ Nodal Officer and Chief Scientist, Regional Agricultural Research Station, (Assam Agricultural University) Titabar, Assam – 785630, 03771-248453(O), 09435096506 (M), sanjaykumarchetia@gmail.com
175	Titabar	Funded	Mr. Janardan Das, Jr. Scientist, PBG (AICRIP), Regional Agricultural Research Station (AAU), Titabar, Assam-785630, 9577373867, 6002748186 (M), janardan.das@aau.ac.in janardand03@gmail.com
176	Trichy	Voluntary	Dr. P. Jeyaprakash, Professor & Head, Dept. of Plant Breeding & Genetics, AnbilDharmalingam Agricultural College & Research Institute, (TNAU), Trichy-620027, Tamil Nadu, 9443013048(M), agri_jp@yahoo.com
177	Trichy	Voluntary	Dr. M.S. Shanmuganathan, Asst. Professor (PBG), Dept. of Plant Breeding & Genetics, AnbilDharmalingam Agricultural College & Research Institute (TNAU)y, Trichy-620027, Tamil Nadu, 9443758903 (M), shanagri@gmail.com
178	Umiam – CAU	Voluntary	Dr. Mayank Rai, Rice Breeder, School of Crop Improvement, College of Post Graduate Studies, Central Agricultural University, Umiam (Barapani) Meghalaya-793 104, 9436336008 (M), mrai.cau@gmail.com

S.No.	Location	Funded/ Voluntary	Name & Designation /Organization & Addresses / Tel. No/ Mobile No./ email
179	Umiam-ICAR	Voluntary	Dr. Amit Kumar, Scientist (Plant Breeding) ICAR Research Complex for NEH Region, Umiam (Barapani)– 793103, Meghalaya, 8974630789 (M), amit4118@gmail.com
180	Upper Shillong	Funded	Dr. DaaipakaDiengdoh, Assistant Director of Agriculture, Department of Agriculture, Govt. of Meghalaya, Uppershillong- 793 006, East Khasi Hills District, Meghalaya, 8837082029 (M), aicrip.uppshg@gmail.com
181	Upper Shillong	Funded	Dr. Ibadakhamkor War, Assistant Director of Agriculture, Department of Agriculture, Govt. of Meghalaya, Uppershillong- 793 006, East Khasi Hills District, Meghalaya, 9862248198 (M), aicrip.uppshg@gmail.com
182	Upper Shillong	Funded	Dr. Baphiralin Kharshiing, Scientific Officer, Department of Agriculture, Govt. of Meghalaya, Uppershillong- 793 006, East Khasi Hills District, Meghalaya, 9863748820 (M), aicrip.uppshg@gmail.com
183	Vadgaon	Voluntary	Dr. T.J. Bhor, Asst. Professor of Agricultural Botany, Agricultural Research Station, Vadgaon-412106, Maval, District Pune, Maharashtra, 02114-299329 (O), 09422560142 (M), ars_vadgaonmaval@rediffmail.com
184	Varanasi	Funded	Dr. S.K.Singh, Professor, Dept. of Genetics and Plant Breeding, Institute of Agricultural Sciences, Banaras Hindu University, Varanasi- 221005, Uttar Pradesh , 09415445604/ 06387416477 (M), shravanbhu1964@gmail.com
185	Varanasi	Funded	Dr. S.Jayasudha, Assistant Professor cum Rice Breeder, AiCRIP, Dept. of Genetics and Plant Breeding, Institute of Agricultural Sciences, Banaras Hindu University, Varanasi-221005, Uttar Pradesh 09880034400 (M), jkomalaster@gmail.com jayasudha@bhu.ac.in
186	Vyara	Voluntary	Dr. Vipul P. Patel, Associate Research Scientist (PB), Regional Rice Research Station, Navsari Agricultural University, Vyara-394650, District Tapi, Gujarat, 02626-220212 (O) , 02637-651344 (R), 8460413912 / 08469417374 (M), 02626220212 (F), vppatel13@gmail.com rrrsvyara@yahoo.in vppatel13@nau.in
187	Vyttila	Voluntary	Dr. Veena Vighneswaran, Asst. Professor (PBG), 09447961586 (M), Dept .of Plant Breeding & Genetics , Rice Research Station (KAU), Vyttila, Cochin-682 019, Kerala, 09447961586 (M), veenarars@gmail.com
188	Wangbal	Funded	Dr. N.Kumar Singh, Rice Breeder, Rice Research Station, Govt. of Manipur, Wangbal-795138, Thoubal, Manipur 8974026929 (M), nkumarsingh2020@gmail.com
189	Warangal	Funded	Dr. B.Satish Chandra, Scientist (Plant Breeding), Regional Agricultural Research Station (PJTSAU), Mulugu Road, Warangal – 506 007, Telangana State, 09948990788 (M), 0870-2975223, (O) chandragene@gmail.com adrrars_wgl@yahoo.co.in ricerarswarangal@gmail.com
190	Warangal	Funded	Dr. K. Rajendra Prasad, Scientist (Plant Breeding), Regional Agricultural Research Station (PJTSAU), Mulugu Road, Warangal – 506 007, Telangana State, 09010192629 (M), krprasad456@gmail.com
191	Waraseoni	Voluntary	Dr. UttamBisen, Scientist (PB), Regional Agricultural Research Station, JNKVV, Waraseoni-481331, Balaghat, Madhya Pradesh, 09424999321/ 7999321276(M) uk_bisen@rediffmail.com

Private Companies - Hybrid Rice

Company	Name & Address
Ankur Seeds Pvt. Ltd	**Dr V.P. Khedkar,** Mobile: 09850329757, E-mail: vpkhedikar@ankurseeds.com
Bayer Bio-Science Pvt Ltd	**Dr. Yogaraj Sharma,** Mobile : +91 98499 89753, E-Mail : yog.raj@bayer.com
	Dr Veeresh Gowda, Email: veeresh.rpgowda@bayer.com
	Dr Amaresh Chandel, Mobile: 75662 72272, Email: amaresh.chandel@bayer.com
Basant Agro Tech (I) Limited	**Dr R Viajaya Kumar,** Mobile: 9849742785; Email: vkrajoli@gmail.com
Bharati Seeds	**Dr Jagadeesha Gouda, Email:** jagadeesha.gouda@bharatiseeds.com; Mobile: 98499 48443
Bioseed Research India	**Dr. Paresh Varma,** Director Research, Bioseed Research India, 234, B-Block, Kavuri Hills, Phase II, Hyderabad - 500 033. Ph # 040-67066666, Fax # 040-67066606, E-mail: paresh.verma@bioseed.com
	Dr. N G Ramachandra, Principal Breeder (Rice), E-mail : ramachandra.ng@bioseed.com
	Dr Bahskara Reddy, Email: bhaskara.reddy@bioseed.com
Charoen Pokphand Seeds (India) Pvt Ltd	**Dr. Wirat Rerksiri,** Hybrid Rice-Specialist, R&D-Department Manager, Charoen Pokphand Seeds (India) Pvt Ltd, 4th Floor, 12/1 Srinidhi Landmark, Opp. New Thippasandra Post Office, H.A.L III Stage, Bangalore- 560075, Karnataka. Email: wirat.r@cpseeds.in, Tel: (91-80) 25210808, 818, 828, 838; Fax: 25210848
	Dr. Prasad Garapati, Department Manager-Admin, Mobile: 83744 44455, Email: gpc.cps@gmail.com, prasad.g@cpseeds.in
Corteva Agriscience	**Dr Gangashetty M** Email: mahantesh.g@corteva.com
	Dr S. Chandrasekhar, EZ Lead, Dupont Pioneer, 3rd & 4th Floor, Babukhans Millennium Centre, 6-3-1099/1100, Raj Bhavan Road, Somajiguda, Hyderabad – 500082. Email: Chandrashekhar.Somanagoudra@corteva.com; Mobile: 90007 11659
	Dr. Ajay Tomar , Email: ajay.tomar@corteva.com
DCMShriram Ltd Raipur	**Dr NP Singh** **Email:** npsingh@dcmshriram.com
Delta AgrigeneticsPvt.Ltd	**Dr. R.N. Rao,** Research Head, Delta Agrigenetics Pvt. Ltd., Plot Nos: 99&100, Greenpark Avenue, NH-7 Road, Jeedimetla Village, Behind Surabhi Hotel, Hyderabad-500055, Telangana. Mob: 0766002927 (O) ; 09492547300 (P), Email: rn@deltaseeds.in, rnrao14@yahoo.com
Ganga Kaveri Seeds Pvt. Ltd	**Dr. Sai Murali,** Ganga Kaveri Seeds Pvt. Ltd, # 1406, Babukhan Estate, Basheerbagh, Hyderabad -500 001. Mobile: 7732062224, Email: sai.murali@gangakaveri.in
Indo-American Hybrid Seeds (I) Pvt. Ltd	**Dr. S.N. Ratho,** Indo-American Hybrid Seeds (I) Pvt. Ltd., Villa # 29, Pavani Petals, Hydershakote, Hyderabad - 500 091, Telangana. Ph # 08413-200086 (O); 94400 20855 (M); E-mail : snratho@indamseeds.com
	Dr Vikram Yadav, Email: vikramyadav@indamseeds.com
JK Agri Genetics Ltd	**Dr. Sunil Kumar Bhatt,** Head Research & Development (Field crops & Cotton), JK Agri Genetics Ltd., 1-10-177, 4th Floor, Varun Towers, Begumpet, Hyderabad - 500 016, Telangana. Tel: +91 (040) 66316858, Fax: +91 (040) 27764943, Mobile: +91 6302750755, Email: sunilbhatt@jkagri.com
	Dr. Manender Singh, Mobile: +91-9100119466, Email: manendersingh@jkagri.com
Kaveri Seed Company Ltd	**Dr. P. Santosh,** Manager Rice Breeding, Kaveri Seed Company Ltd, 513-B, V Floor, Minerva Complex, S.D. Road, Secunderabad – 500 003, Telangana. Mobile: 9866076378, Email: santosh.p@kaveriseeds.in, paikarao_santosh@yahoo.co.in
	Dr B.P. Ravi Kumar, General Manager (Rice), Email: ravikumar.bp@kaveriseeds.in
Kurnool Seeds Pvt Ltd	**Dr Ramashray Singh,** Head, Rice Breeding, Kurnool Seeds Pvt Ltd, Hyderabad Email: ramashray.kurnoolseeds@gmail.com; Mobile: 94904 13293
Limagrain India Pvt Ltd	**Dr Richa Pandey**- Sr. Breeder (Rice) Mobile: 94907 05073 **Email**: richa.pandey@limagrain.in & richa_up16@yahoo.co.in
	Dr Mahesh Gole- R&D Head**,** mahesh.gole@limagrain.com
Longping India Seeds Pvt Ltd.,	**Mr. Zhang Xiao,** #102, 1st floor, Varuna towers, Sri Vensai, Komaplly, Hyderabad-500014, Telangana. Email: Maoxueqvan@lpht.com.cn, Zhangx@lpht.co.cn, kiranlal.sunrays@gmail.com
Mahindra Agri	**Dr. PonnusamyUmashankar,** Head: R&D, Mahindra Agri Solutions Ltd,

Company	Name & Address
Solutions Ltd	Mahindra Agri Solutions Limited, GMR Complex, 5-225/1/A, First Floor.Gundlapochampally, Manika Reddy Colony, Kompally, Hyderabad, Telangana-500100 Email: Ponnusamy.umashankar@mahindra.com, Mobile: +91-9701611152
	Dr. Sharat Sonnad, Principal Breeder (Rice), Email: sonnad.sharatbabu@mahindra.com; Mobile: 99081 74156
Mahyco	**Dr. Sanal Kumar P.,** Senior Breeder – Rice. Email: sanalkumar.p@mahyco.com kumar2000@gmail.com
	Dr. Raman, Email: cjv.raman@mahyco.com, rams4janaki@gmail.com
Mali Agri Tech Pvt Ltd	**Dr. Rajarshi Kundu,** Managing Director, Mali Agri Tech Pvt Ltd, 80/1 Subhash Avenue, Ranaghat 741201, Email: maliseeds@yahoo.co.in; Mobile: 9332182940
Namdhari Seeds Pvt. Ltd	**Dr. N. Anand,** Director-Research, Namdhari Seeds Pvt. Ltd., Sri Sai Arcade, No. 8, 12th Cross, 1st Phase, Ideal Homes Township, Rajarajeshwari Nagar, Bangalore - 560 098, Karnataka. Ph # 080-28602167/69, Fax # 080-28602168, Mobile: 9845310057.
	Dr. V.K. Jayaramaiah, Senior Breeder, Email: jayaramaiah@namdhariseeds.com, Tel: 09845471271/72, Mobile: 9845641651
Nath Bio-Genes (I) Ltd	**Dr.Ish Kumar,** Email: ish.kumar@nathseeds.com, Mobile: 90002 77764
Nirmal Seeds Pvt. Ltd	**Dr. I.S. Halakude,** Research Manager, Nirmal Seeds Pvt. Ltd., Bhadgaon Road, Pachora - 424 201, Dist. Jalgaon, Maharashtra. Tel # 02596-244366/244396, Fax # 02596-244045, Email:ishalakude@nirmalseedsindia.com
Nu Genes Pvt Ltd	Dr. K. Raghupathi Reddy, Director - Research, Nu Genes Pvt Ltd., Plot No. 18, 1st Floor, NCL Enclave, Jeedimetla, NH-7, Medchal Road, Secunderabad-500055, Telangana. Ph # 040-27165569, Mobile # 9989623122, Email : nityaseeds@yahoo.com raghukotla15@gmail.com Rajendrakrishna@nugenes.net
Nuziveedu Seeds Limited	**Dr. G.S. Varaprasad,** Consultant (R&D), Survey No. 69, Kandlakoya, GundlaPochampally Village, Medchal Mandal, Ranga Reddy -501 401, Telangana. Mobile: +91 8886061385, Email: varaprasad.g@nuziveeduseeds.com
	Dr. S. Rama Krishna, Sr. Rice Breeder, Email: suraramakrishna@gmail.com, ramakrishna.dr@nuziveeduseeds.com, Mobile: 9581412503
Pallishree Limited	**Dr. Pritam Das,** Rice Breeder, Pallishree Limited, Merline Infinite, DN 51, Salt Lake, Sector V, Kolkata 700 091,West Bengal. Mobile: +91 92315 65383, Email: pritam.das@pallishree.com
PAN Seeds Private Limited	**Mr. Debraj Kanrar,** Sr.Rice Breeder, Email: debraj@panseeds.in, Mobile: 9474863116
	Mr Giriraj Kumawat, Rice Breeder, Email: Giriraj.kumawat@panseeds.in: Mobile: 99705 58060
PrabhatAgri Biotech Ltd	**Dr. P. Sankar Rao,** Prabhat Agri Biotech Ltd, #8-2-227/45, 1st Floor, UBI Colony, Road No. 3, Banjara Hills, Hyderabad - 500 034. Mobile: 9581412481, Ph:040-23606616
Pravardhan Seeds Pvt. Ltd	**Dr. V.N. Deshpande,** Pravardhan Seeds Pvt Ltd, #8-2-227/45, Ground Floor, UBI Colony, Road No. 3, Banjara Hills, Hyderabad-500034. Mobile: 9581412481, Ph: 040-23541503
Rallis India Ltd,	**Mr. Sunil B Naik,** Crop Lead-Rice, Rallis India Ltd, C/o Zamzam Agri Tech, Survey no.25/1, Gundlapochampally village, Telangana-501401 Mob: 9100991095; E-mail:sunil.naik@rallis.com
	Dr Pradip Kumar, Email: pradip.kumar@rallis.com
	Dr Upendrs Kumar, Email: upendra.kumar@rallis.com
Ramnagar Seed Farms Pvt Ltd, West Bengal	**Dr Nadiram Saha,** Email: nadiram.saha@sonaliphasal.co.in; Mobile: 99899 90587
Rasi Seeds (P) Ltd	**Dr. Jaya Prakash,** Rasi Seeds (P) Ltd, **Hyderabad Office:**_Sri Sai Silica, Plot No. 1-98/K#19, Krithica Layout, Near Nisum Technologies, Arunodaya Colony, Madhapur, Hyderabad - 500081, Telangana. Ph# 04282-241007, 242007, 40024725, Mobile: 8008101038; Fax # 04282-242558, Email: jayaprakash.t@rasiseeds.com Dr Yadavendra Kumar, Email: yadavendrakumar@rasiseeds.com Mobile 80080 33554

Company	Name & Address
Savannah Seeds Pvt Ltd	**Dr. Venkatesh Hubli,** Director (Research), Savannah Seeds Pvt Ltd, PH-1A, 10th Fllor. Tower-A, Digital Greens, Golf Course Extn. Road, Sector-61, Gurgaon-122 102. Mobile: 9703918282, Email: vhubli@savannahseeds.com
Seed Works India Private Limited	**Dr. Rajinder Singh Mahala,** President- Field Crops in Seed Works **Email: R.Mahala@seedworks.com**
	Dr Vinod Sharma, Email: vinod.sharma@seedworks.com; Mobile: 77027 00655
Shakthi Seeds Pvt. Ltd	**Dr. S. Rajeeva Reddy,** Director, Shakthi Seeds Pvt. Ltd., 3-6-439/A, Himayathnagar, Hyderabad - 500 029. Ph # 040-27632373/27634390; 27562020(O), Email: shakthiseeds@gmail.com, vidyanath@hotmail.com
	Dr. Fiaj Mohammad, Breeder - Rice, Ph # 040-55504646; Fax # 040-27634390, Mobile# 09848920554, Email: faij_km@rediffmail.com
Signet Crop Sciences India Pvt Ltd	**Dr. Kuldeep Tyagi,** Plot No. 1/P & 2, Rainforest, Bhel Vista(Near Dandamundi Enclave Main Gate), Petbasheerabad, Quthbullapur, Ranga Reddy Dist., Hyderabad, Telangana. Mobile:+91 9133300749, Email: kuldeeptyagik@gmail.com
Siri Seeds (India) Pvt Ltd	**Mr. K. Rakesh Reddy,** Director Marketing, Siri Seeds (India) Pvt Ltd, # 505, 5th Floor, 6-3-1099/1100, Babukhan'sMillenium Centre, Raj Bhavan Road, Somajiguda, Hyderabad - 500 082. Te: 040 66630762; Fax: 040 23412670, Mobile: 7702966681, E-mail: koripally.rakesh@gmail.com
	Dr. Surendra Kumar, Director Research, Email: suren.kumar@siriseeds.com, eskay365@rediffmail.com, Mob: 9989451004
Srikar Biotech. (P) Ltd. Hyderabad (Eldarado)	Dr Rajesh Mishra, Email: rajeshmishra@srikarseeds.com; Mobile: 99485 15108 Dr Subhas Chandra Yadav, Email: scyadav2002@gmail.com; Mobile: 96038 55251
Star agro tech pvt Ltd	**Mr. O. Krishna,** Mobile: 096181 33544, Email: oggu.krishna@gprgroupco.in; oggu23@gmail.com
Syngenta India Limited	**Dr Thippeswamy,** Email: Thippeswamy.Sanka@syngenta.com
Tierra Seed Science Pvt Ltd	**Dr. C.H.M. Vijayakumar,** Director (Rice Research), Tierra Seed Science Pvt Ltd, Malaxmi Courtyard, Khajaguda, Golconda Post, Hyderabad-500 008. Email: vijayakumar@tierraagrotech.com, Mobile: 90009 88903; 96522 55366 Work: 040 4850 6656
TriMurti Plant Sciences Pvt Ltd	**Dr. S.K. Ghosh,** Vice President & Head (R&D), TriMurti Plant Sciences Pvt Ltd, # 101, MGR Estates, Dwarakapuri Colony, Panjagutta, Hyderabad - 500 082. Tel: 040 30611989; Fax: 040 2335567, Mobile: 83746333388, Email: ghosh@trimurti.in
	Dr. Amit Shukla, Sr. Rice Breeder, Email: ashukla@trimurti.in, Mob: 8374933388
UACI Seeds and Biotech Pvt. Ltd	**Surajit Chanda,** Sr. Manager- Research, 20 Park Side Road, Rajeswari Niwas 3rd Floor, Kolkata, West Bengal-700026. Phone: 76022 94556 Email ID: surajit.chanda@universalagri.in
UPL Limited	**Dr. V. Satya Dev,** Crop Research Lead - Hybrid Rice, Advanta Limited, Krishnama House, # 8-2-418, 3rd Floor, Road No -7, Banjara Hills, Hyderabad- 500 034. Ph # 040-66284000, Fax # 27890137, E-mail: satyadev@advantaseeds.com
	Dr. Prabhu Gouda Patil, Email: prabhugouda.patil@advantaseeds.com
Vikky'sAgrisciences Pvt. Ltd	**Dr. Y. Yogeswara Rao,** Executive Director, Vikky'sAgrisciences Pvt. Ltd, Plot No. 5, Sagar Society, Road No. 2, Banjara Hills, Hyderabad - 500 034. Ph # 040-23550251/52; Fax # 040-23550253, Mobile # 9642311120, Email: yogeswararao.vikkys@gmail.com
VNR Seeds Pvt. Ltd	**Dr. K.C. Upadhaya,** Head R&D, VNR Seeds Pvt. Ltd., First floor, Ratnagiri, Opp: RajKumar college, G.E. Road, **Raipur - 492 001**, **(C.G)** Mobile:08008261509, E-mail: kc_upadhyay@yahoo.com.au, kc@vnrseeds.com

WEATHER DATA – KHARIF 2022

ALMORA							
Latitude :	29⁰.36'N		Longitude:	79⁰ 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	7	13	10	9	6	53
Total Rainfall (mm)	66.0	55.5	138.2	86.5	104.5	180.5	631.2
Avg. Max. Temp. (⁰C)	30.1	33.1	30.4	31.3	29.3	25.9	25.9-33.1
Avg. Mini. Temp. (⁰C)	17.3	17.8	21.0	19.9	18.2	11.1	11.1-21.0
Avg. Sunshine hours	5.84	7.52	5.27	6.42	4.88	6.85	6.13

	ANNAMALAINAGAR						
Latitude :	14° 26'		Longitude:	74° 50' E		Elevation(m) :	619 MSL
Soil type:	Laterite		Soil pH :	5.5		Soil texture	
	July	**Aug.**	**Sep.**	**Oct.**	**Nov.**	**Dec**	**Total / Range**
No. of Rainy days	8	6	6	10	17	12	59
Total Rainfall (mm)	103.3	99.8	77.4	106.8	654.8	167.7	1209.8
Avg. Max. Temp. (⁰C)	35.4	34.4	34.3	32.1	30.0	29.4	29.4-35.4
Avg. Mini. Temp. (⁰C)	24.4	24.2	23.6	22.3	22.8	21.2	21.2-24.4
* Avg. Sunshine hours	5.5	5.4	5.4	3.4	4.3	4.7	4.783
*Avg. wind velocity	5.0	4.1	4.0	2.4	3.2	3.7	5.92

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
	MONTH1	**MONTH2**	**MONTH3**	**MONTH4**	**MONTH5**	**MONTH6**		**Total / Range**
No. of rainy days	12	18	15	6	0	0	-	51
Total rainfall (mm)	44.9	98.7	135.5	54	0	0	-	333.1
Avg. Max Temp. (°C)	32.15	33.23	34.32	32.06	30.16	29.18	-	29.18-34.3
Avg. Min.Temp. (°C)	28.27	27.19	27.77	25.35	19.32	14.27	-	14.27-28.3
* Avg. Sunshine hours	13h & 25 min	12h &55 min	12 h &17 min	11 h & 37 min	11 h &2 min	10 h & 44 min	-	-
* Avg. wind velocity	1.4	1.3	0.9	0.8	0.8	0.6	-	0.97

BRAHMAVAR								
Latitude :	13⁰ 25' N		Longitude:	75⁰ 45' E:		Elevation (m):		10
Soil type:	Laterite		Soil pH :	6.36		Soil texture		Light Textured
	JUNE	**JULY**	**AUG**	**SEP**	**Oct**	**Nov**	**Dec**	**Total / Range**
No. of rainy days	22	28	25	19	5	5	3	107
Total rainfall (mm)	778	138.8	619.6	442.6	59.4	65.8	25	2129.2
Avg. Max Temp. (°C)	30.5	28.9	29.2	30.0	31.7	32.8	33.0	28.9-33.0
Avg. Min.Temp. (°C)	23.0	22.6	22.5	22.4	21.6	20.9	19.3	21.0-23.4
* Avg. Sunshine hours	2.5	1.8	2.4	4.4	6.3	6.5	7.3	4.45
* Avg. wind velocity	4.0	4.0	4.3	3.2	2.3	2.3	2.6	3.24

BAPATLA							
Latitude :			Longitude:			Elevation(m) :	
Soil type:			Soil pH :			Soil texture :	
	JUNE	**July**	**Aug**	**Sep**	**Oct.**	**Nov**	**Total / Range**
No. of Rainy days	10	8	10	6	4	-	38
Total Rainfall (mm)	185.1	63.4	282.6	49.5	57.1	-	637.7
Avg. Max. Temp. (⁰C)	34.0	33.4	31.4	30.1	30.1	-	30.1-34.0
Avg. Mini. Temp. (⁰C)	24.8	24.6	23.0	20.5	19.9	-	19.9-24.8

BAGESHWAR							
Latitude :	29⁰.36'N		Longitude:	79⁰ 40' E		Elevation(m) :	1320
Soil type:	Clay loam		Soil pH :	6.5		Soil texture :	Sandy clay
	May	**June**	**July**	**Aug.**	**Sep.**	**Oct.**	**Total / Range**
No. of Rainy days	16	6	21	9	12	6	70
Total Rainfall (mm)	50.0	56.25	194.00	206.5	137.0	144.25	788

BHERTIN								
Latitude:	31º32´17´´ N		Longitude:	76º53´48´´E		Elevation (m):		870 m
Soil type:	Clay		Soil pH :	7.8		Soil texture		Clayey loam,
	JUNE	**JULY**	**AUG**	**SEP**	**Oct**	**Nov**	**-**	**Total / Range**
No. of rainy days	8	22	13	6	4	1		54
Total rainfall (mm)	149.7	409.6	365.9	74.5	56.7	3.2		1059.6
Avg. Max Temp. (°C)	34.7	31.4	31.3	30.6	28.8	24.9		24.9-34.7
Avg. Min.Temp. (°C)	18.6	21.7	21.5	19.8	12.2	5.8		5.8-21.7
* Avg. Sunshine hours	2	3	6	7	8	8		5.66
* Avg. wind velocity	0.4	0.6	0.4	0.8	0.5	0.1		0.466

BHARUCH								
Latitude:	22.47		Longitude:	72.54		Elevation (m):		39 m
Soil type:	saline		Soil pH :	~8.0, 5.5 dSm-1		Soil texture		Clayey loam, Vertisol
	JUNE	**JULY**	**AUG**	**SEP**	**Oct**	**Nov**	**-**	**Total / Range**
No. of rainy days	3	21	14	5	2	0		45
Total rainfall (mm)	90	483	161	89	87	0		910
Avg. Max Temp. (°C)	37.5	31.7	31.7	33.4	34	32.6		31.7-37.5
Avg. Min.Temp. (°C)	27.7	25.9	25.8	25.7	21.9	16.2		16.2-27.7
* Avg. Sunshine hours	8.0	2.8	3.7	5.9	8.8	9.4		6.43
* Avg. wind velocity	7.1	5.9	5.2	4.5	3.3	2.2		4.7

BILASPUR								
Latitude:			Longitude:			Elevation (m):		
Soil type:			Soil pH :			Soil texture		
	JUNE	**JULY**	**AUG**	**SEP**	**Oct**	**Nov**	**-**	**Total / Range**
No. of rainy days	11	24	22	19	9	00		85
Total rainfall (mm)	139.1	55.7	537.9	194.6	47.8	00		975.1
Avg. Max Temp. (°C)	37.9	31.9	31.4	31.8	31.0	29.7		29.7-37.9
Avg. Min.Temp. (°C)	24.1	21.8	21.0	25.8	17.3	13.3		13.3-25.8
* Avg. Sunshine hours	48	3.5	3.9	4.3	7.1	8.3		12.5
* Avg. wind velocity	1.2	1.0	1.6	1.5	0.8	0.3		1.07

BEDF MODIPURAM								
Latitude	29.088		Longitude:	77.702		Elevation (m):		231 Meter
Soil type:	Black		Soil pH :	8.0		Soil texture		Clay loam
	JUNE	**JULY**	**AUG**	**SEP**	**Oct**	**Nov**	**-**	**Total / Range**
No. of rainy days	5	16	7	12	7	-		47
Total rainfall (mm)	85.8	306.7	45.2	259.0	103.4	0.2		800.3
Avg. Max Temp. (°C)	40.44	33.95	33.64	34.00	31.42	28.90		28.90-40.44
Avg. Min.Temp. (°C)	25.55	23.68	25.27	24.59	19.16	17.05		17.05-25.55
* Avg. Sunshine hours	8.33	4.02	6.01	5.44	5.06	4.02		5.48
* Avg. wind velocity	14.88	13.16	11.07	10.90	7.23	6.73		10.66

CHINSURAH							
Latitude:	22⁰ 52' N		Longitude:	88⁰ 24' E		Elevation (m) :	8.62
Soil type:	Clay Loam		Soil pH :	7.3		Soil texture :	Gangetic Alluvial
	June	**July**	**Aug**	**Sep**	**Oct**	**Nov**	**Total / Range**
No. of Rainy days	17	22	18	11	6	-	74
Total Rainfall (mm)	194.00	200.10	255.80	235.90	67.10	-	952.9
Avg. Max. Temp. (⁰C)	35.10	34.71	33.92	33.78	32.30	29.52	29.52-35.10
Avg. Mini. Temp. (⁰C)	24.58	24.48	24.15	23.6	21.22	13.70	13.70-24.58

CHIPLIMA							
Latitude :	20º21'N		Longitude	80⁰ 55'E		Elevation :	178.8
Soil type:	Mixed Red, Black &Lateritic		Soil pH :			Soil texture :	
	June	**July**	**Aug**	**Sep**	**Oct**	**Nov**	**Total/Range**
No. of Rainy days	6	15	17	8	6	-	52
Total Rainfall (mm)	56.6	444.4	347.4	257.6	68.4	-	1174.4
Avg. Max. Temp. ('0C)	31.8	32.0	32.1	32.2	31.8	31.1	31.1-32.2
Avg. Mini. Temp. ('0C)	25.8	25.2	24.8	24.6	21.1	14.8	14.8-25.8

CANNING							
Latitude :	27.2046 N		Longitude:	77.4977 E		Elevation (m) :	6
Soil type:	Salitu Clay		Soil pH :	6.5-7.0		Soil texture	Heavy texture
	June	**July**	**Aug.**	**Sep.**	**Oct.**	**Nov**	**Total / Range**
No. of Rainy days	10	16	18	13	8	0	65
Total Rainfall (mm)	112.8	159.4	491.8	362.4	113.6	0	1240
Avg. Max. Temp. (^{0}C)	34.2	33.4	32.8	32.9	32	29.8	29.8-34.2
Avg. Mini. Temp. (^{0}C)	26.7	26.7	26.7	26.9	24.3	18.7	18.7-26.9
Avg. Sunshine hours	2.8	5.4	4.3	5.5	6.7	8.1	5.47
Avg. wind velocity	9.7	7.7	7.1	5.8	3.7	2.2	6.033

CHATHA							
Latitude	**32^0 40'N**	Longitude	**74^0 48'E**			Elevation (m)	293
Soil type		Soil pH	7.0			Soil texture	Clay loam
	June	**July**	**Aug.**	**Sep.**	**Oct.**	**Nov.**	**Total / Range**
No. of Rainy days	4.0	15	8	9	2	3	41
Total Rainfall (mm)	91.8	460.4	339	137.6	48.2	24.8	1101.8
Avg. Max. Temp. (^{0}C)	38.9	33.5	34.1	33.4	31.2	25.8	25.8-38.9
Avg. Mini. Temp. (^{0}C)	24.3	24.3	26	23.6	17.3	10	9.0-34.2
Avg. Sunshine hours	6.7	3.2	6.5	6.1	7.4	5.7	5.43

NRRI – CUTTACK							
Latitude :	20.5^0 N		Longitude:	86.0^0 N		Elevation(m) :	23.48
Soil type:	Clay loam		Soil pH :	-		Soil Texture:	
	June	**July**	**Aug**	**Sep**	**Oct**	**Nov**	**Total / Range**
No. of Rainy days	07	21	20	10	7	0	65
Total Rainfall (mm)	105mm	415.7mm	297.5mm	175.8mm	177.1mm	0.0mm	1171.1
Avg. Max. Temp. (^{0}C)	35.5°C	31.7°C	32.0°C	32.2°C	31.0°C	30.4°C	30.4-35.5
Avg. Mini. Temp. (^{0}C)	27.6°C	26.5°C	26.4°C	26.5°C	24.6°C	19.9	19.9-27.6
Avg. Sunshine hours	3.4	2.8	3.8	3.9	5.6	7.0	4.416
Avg. wind velocity							

DEROL							
Latitude:		22^0 36'		Longitude:	73^0 27'	Elevation (m):	83.14
Soil type:		Sandy Loam		Soil pH:	7.3	Soil texture:	
	Jun	**July**	**Aug**	**Sep**	**Oct**	**Nov**	**Total / Range**
No. of Rainy days	5	18	15	6	3	0	47
Total Rainfall (mm)	31	331	166	245	108		881
Avg. Max. Temp. (^{0}C)	37.82	30.33	30.23	32.32	32.88	31.71	30.23-37.82
Avg. Mini. Temp. (^{0}C)	26.94	25.30	25.64	25.19	20.45	15.08	15.08-26.94
Avg. Sunshine hours	7.26	2.59	2.77	4.67	7.14	7.51	5.323

GANGAVATI							
Latitude :	15^0 15' N			Longitude:		76^0 31' E	Elevation (m) : 419
Soil type:	Medium Black			Soil pH/EC	6.5-7.5		Soil texture : Fine
	July	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Total / Range**
No. of Rainy days	10	11	10	8	1	3	43
Total Rainfall (mm)	84.5	146.0	122.0	109.5	5.5	40.0	507.0
Avg. Max. Temp. (^{0}C)	30.93	30.75	30.77	31.09	30.31	30.43	30.31-31.09
Avg. Mini. Temp. (^{0}C)	23.69	23.45	22.86	21.22	18.27	18.21	18.21-23.45

GANGTOK							
Latitude :	88036'9.793"E		Longitude:	27019'11.339"N		Elevation(m) :	1348m AMSL
Soil type:	Alluvium		Soil pH :	5.6		Soil texture	Sandy loam
	June	**July**	**Aug.**	**Sep.**	**Oct.**	**Nov.**	**Total / Range**
No. of Rainy days	29	18	27	21	7	1	103
Total Rainfall (mm)	783.1	334.1	517.4	462.9	175.3	4.4	2277.2
Avg. Max. Temp. (^{0}C)	25.1	27.9	27.4	25.5	24.8	21.7	21.7-27.9
Avg. Mini. Temp. (^{0}C)	19.0	20.2	19.8	18.8	15.2	11.0	11-20.2
Avg. Sunshine hours	1.7	1.2	1.1	3.6	3.7	3.7	2.5

HATHWARA							
Latitude :	23⁰ 20' N	Longitude:		86⁰ 25' E	Elevation (m) :	255	
Soil type:	Light	Soil pH :		5.8	Soil texture :	Sandy Loamy	**Total / Range**
	July	**Aug**	**Sep**	**Oct.**	**Nov**	**Dec**	
No. of Rainy days	19	15	14	10	0	0	58
Total Rainfall (mm)	288.2	450.4	127.5	139.2	0	0	1005.3
Avg. Max. Temp. ('0C)	32	31	32	31	29	27.3	27.3-32.0
Avg. Mini. Temp. ('0C)	24	24	24	19.6	12	9.3	9.3-24.0
Avg. Sunshine hours	6	5	5	6.6	7.4	6.8	6.133
Avg. wind velocity (Km/h)	2	1	1	0.4	0.20	0.4	0.833

JAGDALPUR							
Latitude :	19.05⁰N		Longitude:	82.02⁰		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	7	25	20	14	7	0	73
Total Rainfall (mm)	144.8	582.4	679.9	452.4	88.8	0	1948.3
Avg. Max. Temp. (⁰C)	33.5	28.1	29.3	29.9	28.6	28.9	28.1-33.5
Avg. Mini. Temp. (⁰C)	23.2	22.0	21.8	21.7	18.7	12.9	12.9-23.2
Avg. Sunshine hours	3.1	1.7	3.2	4.5	6.5	7.7	4.45
Avg. wind velocity (km/h)	3.8	2.7	3.0	2.8	1.9	1.5	2.616

JEYPORE								
Latitude:	18.60⁰ N	Longitude:	82.44⁰ E		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	9	27	25	20	13	0	0	94
Total Rainfall (mm)	120.80	606.80	758.00	456.00	64.40	0	0	2006
Avg. Max. Temp. (⁰C)	42	33	34	33	32	32	33	32-42
Avg. Mini. Temp. (⁰C)	22	21	21	20	14	11	10	10-22

KARJAT							
Latitude :	18⁰ 55' N		Longitude:	73⁰ 18' E		Elevation (m) :	51
Soil type:	Medium black		Soil pH :	6.2		Soil texture :	Clay loam
	June	**July**	**Aug**	**Sep**	**Oct**	**Nov**	**Total / Range**
No. of Rainy days	13	28	24	23	10	0.0	98
Total Rainfall (mm)	191.4	2023.6	713.4	660.2	165.6	0.0	3754.2
Avg. Max. Temp (⁰C)	33.83	29.04	30.15	30.47	31.81	34.28	29.04-34.28
Avg. Mini Temp (⁰C)	23.88	22.34	22.84	22.33	20.72	17.02	17.02-23.88
Avg. Sunshine hours	1.87	1.40	2.49	3.23	6.88	6.05	3.653
Avg. wind velocity	3.31	3.80	2.11	2.78	1.02	1.00	2.33

KAUL							
Latitude :	29⁰ 51' N		Longitude	76⁰ 39' E		Elevation (m) :	230.7
Soil type:	Clay loam		Soil pH :	7.8		Soil texture :	Clay
	June	**July**	**Aug.**	**Sep.**	**Oct.**	**Nov.**	**Total / Range**
No. of Rainy days	3	8	1	6	2	0	20
Total Rainfall (mm)	27.9	287.8	31.7	243.1	8.9	0	599.4
Avg. Max. Temp. (⁰C)	39.3	33.3	33.4	32.5	31.3	27.5	27.5-39.3
Avg. Mini .Temp. (⁰C)	24.9	26.5	25.9	24.0	17.3	10.8	10.8-26.5
Avg. Sunshine hours	-	-	-	-	-	-	-
Avg. wind velocity (Km/h)	20.9	4.4	3.5	2.6	2.1	2.0	5.916

KURUMBAPET								
Latitude :		11⁰ 45' N		Longitude:		79⁰ 35' E	Elevation (m) :	26
Soil type:		Clay loam		Soil pH :		6.6	Soil texture :	Clay loam
	July	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Jan**	**Total / Range**
No. of Rainy days	8	7	4	14	12	11	0	56
Total rainfall (mm)	54	42.5	48	135.5	232	129.5	0	641.5
Avg. Max. Temp. (⁰C)	35.9	35.6	35	33.2	30.7	30.2	30.4	30.2-35.9
Avg. Mini Temp. (⁰C)	25.3	25.1	25.1	24.2	23.1	23	20.7	20.7-25.3
Relative Humidity (%)	73.1	74.9	76.3	78.4	82	80	73.4	76.87
* Avg. Sunshine hours	09:34	05:38	06:43	05:22	05:03	05:37	07:45	6.31
* Avg. wind velocity	8	7	7	5	7	8	9	7.28

KHUDWANI								
Latitude :	34 ⁰ N		Longitude:	73 ⁰ E		Elevation(m) :		1560
Soil type:	Clay loam		Soil pH :	Neutral		Soil texture		Silty Clay loam
	April	**May**	**June**	**July**	**Aug**	**Sep**	**Oct**	**Total / Range**
No. of Rainy days	3	7	2	8	4	3	2	29
Total Rainfall (mm)	37.8	65.8	117.6	177.8	82	20	40	541
Avg. Max. Temp. ('0C)	23.7	25.6	27.3	28.8	29.0	28.7	22.6	22.6-29.0
Avg. Mini. Temp. ('0C)	7.32	10.5	13.3	18.8	17.4	13.2	5.2	5.2-18.8
* Avg. Sunshine hours	-	-	-	-	-	-	-	-
* Avg. wind velocity	1.95	3.63	3.51	1.61	2.06	2.06	2.37	2.117

LUCKNOW							
Latitude :	27.47		Longitude:	80.21		Elevation (m):	126
Soil type: -Typic Natrustalfs	Alkali		Soil pH :	9.6±0.18, 0.96 dSm^{-1}		Soil texture :	Loam (sandy to clayey)
	June	**July**	**Aug**	**sep**	**Oct**	**Nov**	**Total / Range**
No. of Rainy days	2	8	12	8	5	0	35
Total Rainfall (mm)	33.2	253	152.8	367.2	192.2	0	998.4
Avg. Max. Temp. (⁰C)	41	36	34	34	32	29	29-41
Avg. Mini .Temp. (⁰C)	28	28	27	26	20	13	13-28
* Avg. Sunshine hours	7.7	6.6	6.2	5.8	6.7	7.0	6.666
* Avg. wind velocity	4.8	2.6	3.3	2.9	1.6	1.7	2.816

LUDHIANA									
Latitude :	30⁰54' N		Longitude:	75⁰ 48' E		Elevation(m) :			247
Soil type:	Loamy Sand		Soil pH :	7.7		Soil texture			
	May	**June**	**July**	**Aug**	**Sep**	**Oct.**	**Nov.**	**Dec**	**Total / Range**
No. of Rainy Days	2	4	12	5	4	2	-	-	29
Total rainfall (mm)	25.60	70.60	323.80	59.20	190.10	5.40	-	-	674.7
Avg. Max. Temp. (⁰C)	39.29	38.79	33.55	33.95	33.03	31.35	-	-	31.35-39.29
Avg. Mini Temp. (⁰C)	26.11	27.01	27.34	27.35	25.17	18.84	-	-	18.84-25.17
Avg. Sunshine hours	7.47	7.96	4.79	7.42	6.83	7.69	-	-	7.02
* Avg. wind velocity	5.74	5.12	4.61	3.37	2.21	2.15			3.866

LAMPHELPAT							
Latitude :	24⁰ 45' N		Longitude:	**93⁰ 54' E**		Elevation (m) :	774
Soil type:	Inceptisols		Soil pH:	5.5-6.0		Soil texture :	Clay loam
	JUNE	**July**	**Aug**	**Sep**	**Oct**	**Nov**	**Total / Range**
No. of rainy days	13	10	11	8	8	1	51
Total rainfall (mm)	286.2	148.8	94.8	98.6	146.3	5.4	780.1
Avg. Max Temperature (°C)	28.7	31	30	30.5	28.9	27.2	27.2-31
Avg. Min.Temperature (°C)	22	22.9	22.4	23.9	18.6	11.9	11.9-23.9
* Avg. Sunshine hours	2.9	4.7	4.9	5.8	6.8	9.2	5.71
* Avg. wind velocity (Km/h)	3.7	5.4	2.7	3.9	3	2.7	3.566

MACHILIPATNAM							
Latitude :	8.15⁰ E		Longitude:	16.17⁰N		Elevation (m) :	14
Soil type: Sandy Loams	Sandy clay loam		Soil pH :	**7.6 , EC 6.48 ds/m**		Soil texture :	Sandy loam
	July	**Aug**	**Sep**	**Oct**	**Nov**	**DEC**	**Total / Range**
No. of Rainy days	17	3	11	12	4	2	49
Total Rainfall (mm)	281.9	19.5	179.7	221.6	27.5	35.7	765.9
Avg. Max. Temp. (⁰C)	32.10	33.75	32.90	32.17	30.10	29.73	29.73-33.75
Avg. Mini .Temp. (⁰C)	25.80	26.6	26.21	24.16	23.02	24.09	23.02-26.6

MALAN							
Latitude :	32⁰ 1' N		Longitude:	76⁰ 20' E		Elevation (m) :	950
Soil type:	Alfisol		Soil pH :	5.6- 5.8		Soil texture :	Silty clay loam
	June	**July**	**Aug**	**Sep**	**Oct**	**Nov**	**Total / Range**
No. of Rainy days	6	12	9	14	1	0	42
Total Rainfall (mm)	230.8	486.1	260.6	179.6	8.4	0	1165.5
Avg. Max. Temp. ('0C)	32.44	28.6	30.44	27.4	25.21	26.6	25.21-32.44
Avg. Mini .Temp. ('0C)	18.03	21.4	21.36	20.67	14.9	13.87	13.87-21.4

MANDYA							
Latitude	12.45⁰- 13.57⁰ N		Longitude	76.48⁰- 78.24⁰ E		Elevation (m):	695
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	10	13	6	12	4	3	48
Total Rainfall (mm)	149	447.1	102.4	371.4	23	30.4	1123.3
Avg. Max. Temp. (⁰C)	28.50	29.00	29.90	29.70	28.00	29.20	28.00-29.90
Avg. Mini. Temp.(⁰C)	18.20	19.60	19.70	19.40	18.70	16.80	16.80-19.70
Avg. Sunshine hours	2.3	4.3	5.8	5.5	5.6	6.3	4.96
Avg. wind velocity (Km/h)	1.9	2.9	3.5	2.0	1.8	2.3	2.4

MARUTERU							
Latitude	16.38⁰ N		Longitude:	81.44⁰ E		Elevation (m)	13
Soil type	Black alluvial clay		Soil pH:	6.5- 7.5		Soil Texture:	Delta alluvial
	June	**July**	**Aug.**	**Sep.**	**Oct.**	**Nov.**	**Total / Range**
No. of Rainy days	10	14	11	14	12	4	65
Total Rainfall (mm)	163.5	226.6	158.8	205.4	224.2	34.6	1013.1
Avg. Max. Temp. (⁰C)	34.95	30.40	31.65	31.40	31.26	29.83	29.83-34.95
Avg. Mini. Temp. (⁰C)	27.65	26.90	27.02	26.57	26.29	22.93	22.93-27.65
Avg. wind velocity (Km/h)	-	-	-	-	-	-	-

MONCOMPU							
Latitude :	90-25'N		Longitude:	76027'E		Elevation (m) :	1-2.5
Soil type:	Alluvial clay		Soil pH :	4.5 to 6.5		Soil texture :	Silty Clay Loam
	Jun	**July**	**Aug.**	**Sep.**	**Oct.**	**Nov.**	**Total / Range**
No. of Rainy days	17	18	17	16	19	11	98
Total Rainfall (mm)	430.2	237.5	510.8	137.6	210.3	275.6	1802
Avg. Max. Temp. (⁰C)	31.88	30.39	30.19	31.35	31.99	32.06	30.19-32.06
Avg. Mini. Temp. (⁰C)	24.44	24.23	23.99	24.81	23.56	24.18	23.56-24.81

MALDA							
Latitude :	24.97763 N		Longitude:	88.14285 E		Elevation(m) :	24 m MSL
Soil type:	Clay Loam		Soil pH :	7.1		Soil texture	Alluvium
	June	**July**	**Aug**	**sep**	**Oct**	**Nov**	**Total / Range**
No. of Rainy days	15	13	15	10	5	0	58
Total Rainfall (mm)	220.2	239.3	247.4	53.0	70.1	0	830
Avg. Max. Temp. (⁰C)	335.	33.5	33.0	33.7	33.0	29.1	29.1-33.7
Avg. Mini. Temp. (⁰C)	26.3	26.9	26.4	25.9	23.8	17.1	17.1-26.9
* Avg. Sunshine hours	4.7	5.0	3.4	6.1	7.2	7.0	5.56
*Avg. wind velocity	84.32	78.70	73.21	63.57	55.3	63.33	69.73

NAGINA							
Latitude :	290 28'N		Longitude:	780 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	06	09	05	10	04	00	34
Total Rainfall (mm)	116.2	127.0	79.0	284.8	294.2	0.0	901.2
Avg. Max. Temp. (⁰C)	36.0	33.1	32.5	31.9	29.9	26.4	26.4-36.0
Avg. Mini. Temp. (⁰C)	24.5	25.6	25.6	23.7	17.0	9.7	9.7-25.6
* Avg. Sunshine hours	6.7	4.6	4.9	3.9	7.1	5.6	5.466
* Avg. wind velocity	4.4	4.2	5.4	3.0	23	1.7	6.95

NAVASARI								
Latitude :	20⁰ 29'		Longitude:	73⁰ 29'		Elevation (m) :		105
Soil type:	Clayey		Soil pH :	7.5		Soil texture :		Loamy
	June	**July**	**Aug.**	**Sep.**	**Oct.**	**Nov.**	**Dec**	**Total / Range**
No. of Rainy days	11	20	16	15	3	0	0	65
Total Rainfall (mm)	164.00	995.00	527.00	660.00	74.00	0.00	0.00	2420
Avg. Max. Temp. (⁰C)	33.25	29.39	30.75	31.42	33.62	33.72	29.25	29.25-33.62
Avg. Mini .Temp . (⁰C)	25.54	24.34	24.05	23.72	21.35	16.86	15.59	15.59-25.54
Avg. Sunshine hours	6.38	1.73	3.49	3.88	7.70	8.94	6.27	5.484
Avg. wind velocity (Km/h)	6.18	5.31	5.47	2.16	2.34	2.37	2.22	3.721

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	26	12	03	02	45
Total Rainfall (mm)	-	48.0	677.6	207.0	65.4	35.7	1033.7
Avg. Max. Temp. (^{0}C)	42.1	39.5	32.2	31.8	33.3	34.0	31.8-42.1
Avg. Mini .Temp . (^{0}C)	25.8	26.5	25.7	25.0	25.0	20.8	20.8-26.5
Avg. Sunshine hours	10.1	8.7	5.1	10.1	10.1	9.3	8.9
Avg. wind velocity (Km/h)	7.5	7.0	4.4	1.4	1.4	1.3	3.833

PATNA -ICAR							
Latitude :	25.30^0 N		Longitude:	85.15° E		Elevation(m) :	52
Soil type:	Recent alluvial		Soil pH :	7.5		Soil texture :	Clay loam
	June	**July**	**Aug.**	**Sep.**	**Oct.**	**Nov.**	**Total / Range**
No. of Rainy days	5	12	8	15	4	0	44
Total Rainfall (mm)	191.6	151.9	235.7	135.6	70.9	0	785.7
Avg. Max. Temp. (^{0}C)	37.3	35.12	33.89	32.87	32.29	29.15	29.15-37.3
Avg. Mini. Temp. (^{0}C)	27.51	27.36	26.85	26.14	22.21	15.01	15.01-27.51
Avg. Sunshine hours/day	2.78	5.95	4.53	3.03	6.49	4.21	4.498
Avg. wind velocity	8.90	8.95	7.98	5.15	2.88	1.71	5.928

PATTAMBI							
Latitude :	10.770388	Longitude:	76.37706		Elevation (m) :		63
Soil type:	Clay loam	Soil pH :	5.8		Soil texture :		fine
	July	**August**	**Sep**	**Oct**	**Nov**	**Dec**	**Total / Range**
No. of Rainy days	4	21	17	20	15	3	80
Total Rainfall (mm)	515.1	410.2	324.2	726.2	261.3	21.5	2258.5
Avg. Max. Temp. (^{0}C)	32.5	30.7	31.1	30.1	30.6	31.7	30.1-32.5
Avg. Mini. Temp. (^{0}C)	23.2	23.1	23.4	23.5	23	21.5	21.5-23.5
Avg. Sunshine hours/day	2.5	3.1	3.5	3.8	3.0	10.7	4.433
Avg. Wind velocity	4.1	3.3	2.1	2.4	2.7	10.7	4.216

PALAMPUR								
Latitude :	32.1109			Longitude:	76.5363		Elevation (m) :	1267.79
Soil type:	Podzolic			Soil pH :	5.5		Soil texture :	Silty Clay loam
	May	**June**	**July**	**Aug.**	**Sep.**	**Oct.**	**Nov**	**Total / Range**
Total Rainfall (mm)	22.0	174.4	587.4	853.8	254.2	38.6	17.2	1947.6
Avg. Max. Temp. (^{0}C)	19.6	30.5	27.4	27.1	26.3	25.0	21.4	19.6-30.5
Avg. Mini. Temp. (^{0}C)	17.5	19.4	19.8	19.3	17.0	12.5	8.3	8.3-19.8

PHONDAGHAT							
Latitude	16-22'35"	Longitude	73-47'18"			Elevation (m)	75.7
Soil type	Sandy clay	Soil pH	5.6-6.5			Soil texture	Clay loam
	May	**June**	**July**	**Aug.**	**Sep.**	**Oct.**	**Total / Range**
No. of Rainy days	2	22	29	24	19	12	108
Total Rainfall (mm)	24	638.5	1523.1	1020.5	514.5	252.5	3973.1

Panvel							
Latitude :	18^0 59'		Longitude:	73^0 16'		Elevation(m) :	858
Soil type:	Coastal saline soil		Soil pH :	7.8		Soil texture	Clay loam
	Month 1	**Month 2**	**Month 3**	**Month 4**	**Month 5**	**Month 6**	**Total / Range**
No. of Rainy days	12	25	27	18	8	0	90
Total Rainfall (mm)	147	1576.4	557.2	673.8	325.4	0	3279.8
Avg. Max. Temp. (^{0}C)	33.21	28.07	30.37	30.25	33.20	36.11	28.07-36.11

Radhnagari							
Latitude:	18013'		Longitude:	740E		Elevation (m):	
Soil type:	Lateritic		Soil pH :	6.00 to 6.50		Soil texture:	
	June	July	Aug.	Sep.	Oct.	Nov.	**Total / Range**
No. of Rainy days	14	28	23	19	13	0	97
Total Rainfall (mm)	158.1	983.1	1111.5	422.4	191.7	0	2866.8

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	19	9	12	10	0	0	50
Total Rainfall (mm)	368.8	92.4	228.0	171.8	0.0	3.6	864.6
Avg. Max. Temp. (°C)	28.7	30.0	30.0	29.6	29.4	29.2	28.7-30.0
Avg. Mini. Temp. (°C)	22.5	22.9	22.5	19.8	15.9	15.9	15.9-22.5
* Avg. Sunshine hours	2.9	4.9	4.8	6.6	7.1	6.4	5.45
* Avg. wind velocity	9.5	7.8	5.7	3.1	2.8	2.7	5.266

RAGOLU							
Latitude :	18.24° N		Longitude:	83.84°E		Elevation (m) :	27
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	8	10	12	11	0	2	43
Total Rainfall (mm)	120.5	53.5	287.2	213	0	13.5	687.7
Avg. Max. Temp. (°C)	33.12	32.40	32.36	31.54	30.78	30.38	30.38-33.12
Avg. Mini. Temp. (°C)	26.48	26.80	26.35	24.54	21.26	19.01	19.01-26.80
Avg. Sunshine hours	4.73	6.37	4.81	6.04	6.17	5.70	5.636

RAIPUR							
Latitude :	21.2514° N		Longitude:	81.6296° E		Elevation (m):	298
Soil type:	Red-yellow soil		Soil pH :	7.2-7.4		Soil texture :	Loamy clay
	June	**July**	**Aug.**	**Sep.**	**Oct.**	**Nov.**	**Total / Range**
No. of Rainy days	06	18	15	11	06	00	66
Total Rainfall (mm)	68.8	349.0	432.6	173.6	59.2	0.00	1083.2
Avg. Max. Temp. (°C)	39.3	31.6	31.4	31.5	31.2	29.9	29.9-39.3
Avg. Mini. Temp. (°C)	26.8	25.3	25.0	24.7	21.5	13.8	13.8-26.8
Avg. Sunshine hours	5.6	2.7	4.1	4.1	7.2	7.5	5.2
Avg. wind velocity	3.0	2.1	3.3	3.4	1.4	0.8	2.33

Ranchi							
Latitude :	27017' N		Longitude:	850 19' E		Elevation (m):	625
Soil type:	SANDY LOAM		Soil pH :			Soil texture :	
	June	**July**	**Aug.**	**Sep.**	**Oct.**	**Nov.**	**Total / Range**
No. of Rainy days	6.0	16.0	19..0	17.0	4.0	0.0	43
Total Rainfall (mm)	99.0	280.8	790.8	528.8	83.0	0.0	1782.4
Avg. Max. Temp. (°C)	36.7	33.0	32.7	33.3	30.6	26.9	26.9-36.7
Avg. Mini. Temp. (°C)	25.9	24.0	24.1	24.7	20.9	9.2	9.2-25.9
Avg. Sunshine hours	228.5	127.5	128.4	165.7	201.5	260.9	185
Avg. wind velocity	2.4	2.1	2.5	2.3	2.4	2.4	2.35

Rewa							
Latitude :			Longitude:			Elevation(m) :	
Soil type:			Soil pH :			Soil texture	
	June	**July**	**Aug**	**sep**	**Oct**	**Nov**	**Total / Range**
No. of Rainy days	8	14	18	9	4	0.00	53
Total Rainfall (mm)	69.4	216.6	339.8	86.8	122.40	0.00	835
Avg. Max. Temp. (°C)	39.42	34.56	32.20	32.47	31.83	29.50	29.50-39.42
Avg. Mini. Temp. (°C)	26.61	25.65	24.87	24.33	18.88	12.62	12.62-26.61

SAKOLI							
Latitude:	20° 04'01 N		Longitude:	79° 59'17 E		Elevation (m):	243
Soil type:	Lateritic		Soil pH :	6.57 - 7.02		Soil texture:	Clay loam
	June	**July**	**Aug.**	**Sep.**	**Oct.**	**Nov.**	**Total / Range**
No. of Rainy days	8	23	15	14	6	0	66
Total Rainfall (mm)	135.0	661.10	454.80	308.1	58.70	0	1617.7

SHIRGAON							
Latitude :	17⁰ 50' N		Longitude	73⁰ E		Elevation(m):	10
Soil type:	Laterite		Soil pH :	6.7		Soil Texture:	Porous
	June	**July**	**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	17.0-25.3
Avg. Sunshine hours	4.7	2.0	1.7	4.4	5.7	8.1	4.433
Avg. wind velocity	3.1	4.6	4.6	2.8	1.8	2.0	3.15

SIRSI								
Latitude :	14 26'			Longitude:	74⁰' E		Elevation (m) :	619
Soil type:	Laterite			Soil pH :	5.5		Soil texture :	
	June	**July**	**Aug.**	**Sep.**	**Oct.**	**Nov**	**Dec**	**Total / Range**
No. of Rainy days	15	23	23	11	12	0	1	85
Total Rainfall (mm)	205	1058.7	679.8	270.6	95	1	4.4	2315.5
Avg. Max. Temp. (⁰C)	29.3	26.28	27.62	28.53	29.24	29.40	29.78	26.28-29.78
Avg. Mini. Temp. (⁰C)	20.7	20.08	20.05	20.28	19.15	15.50	14.63	14.63-20.28
* Solar radiation (CAL/CM²)	5.00	6.53	7.63	5.40	4.06	2.23	2.23	4.725
Avg. wind velocity	5.50	8.08	7.68	5.43	3.91	5.24	5.56	5.914

Sundernagar							
Latitude :	31⁰32'08"N		Longitude:	76⁰53'39"		Elevation(m) :	858
Soil type:	Clay		Soil pH :	7.0		Soil texture	Clay loam
	Month 1	**Month 2**	**Month 3**	**Month 4**	**Month 5**	**Month 6**	**Total / Range**
No. of Rainy days	8	22	13	6	4	1	54
Total Rainfall (mm)	149.7	409.6	365.9	74.5	56.7	3.2	1059.6
Avg. Max. Temp. (⁰C)	34.7	31.4	31.3	30.6	28.8	24.9	24.9-34.7
Avg. Mini. Temp. (⁰C)	18.6	21.7	21.5	19.8	12.2	5.8	5.8-21.7
Avg. Sunshine hours	2	3	6	7	8	8	5.666
* Avg. wind velocity	0.4	0.6	0.4	0.8	0.5	0.1	0.4666

TITABAR							
Latitude :			Longitude:			Elevation :	
Soil type:			Soil pH :			Soil texture :	
	June	**July**	**Aug.**	**Sep.**	**Oct.**	**Nov**	**Total / Range**
No. of Rainy days	19	16	11	10	12	0.0	68
Total Rainfall (mm)	235.8	334.4	207.2	142.4	217.2	0.0	1137
Avg. Max. Temp. (⁰C)	28.37	34.21	34.01	33.27	31.18	29.1	28.37-34.21
Avg. Mini. Temp. (⁰C)	24.82	23.63	23.85	22.58	19.56	12.15	12.15-24.82

	Tirur							
Latitude :	78056'N		Longitude:		1307'E		Elevation(m) :	39.47
Soil type:	Enceptisol		Soil pH :		7-8.5		Soil texture	Sandy clay loam
	July	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Total / Range**	
No. of Rainy days	11	9	7	10	9	7	53	
Total Rainfall (mm)	176.6	168.9	84.2	119.1	200.9	208.0	957.7	
Avg. Max. Temp. (⁰C)	35.0	34.7	35.4	33.3	29.6	29.8	29.6-35.4	
Avg. Mini. Temp. (⁰C)	25.2	25.2	25.3	25.2	23.2	22.5	22.5-25.3	

Trichy							
Latitude :	10°45'N		Longitude:	78°36'E		Elevation(m) :	85.0m
Soil type:	Clayey loam		Soil pH :			Soil texture	
	Sep	**Oct**	**Nov**	**Dec**	**Jan**	**Total / Range**	
No. of Rainy days	6	7	7	6	-	26	
Total Rainfall (mm)	159.6	87.2	68.6	100.8	4.8	421	
Avg. Max. Temp. (⁰C)	37.5	36.0	34.0	32.0	33.0	32-37.5	
Avg. Mini. Temp. (⁰C)	22.0	23.0	20.0	20.0	16.0	16-23	
Relative humidity (Morning)	79.1	91.8	91.5	88.5	91.5	442.4	
Relative humidity (Evening)	60.7	55.0	62.5	72	62	312.2	
Avg. Wind velocity	5.3	3.1	2.8	2.28	2.25	2.62	
Avg. Sun shine hours	6.92	4.43	5.4	5.4	8.1	5.04	
Avg. Evaporation	5.82	3.8	4.2	3.2	3.5	3.42	

VARANASI							
Latitude	25⁰ 20' N		Longitude	23⁰ 03'E		Elevation (m)	75.7
Soil type	Medium		Soil pH	7.2		Soil texture	Sandy loam
	Jun	**July**	**Aug.**	**Sep.**	**Oct.**	**Nov.**	**Total / Range**
No. of Rainy days	6	11	17	15	7	0	56
Total Rainfall (mm)	201.8	212.6	239.8	223.2	27.4	0	904.8
Avg. Max. Temp. (⁰C)	39.7	34.5	34.1	32.9	32.1	28.8	28.8-39.7
Avg. Mini. Temp. (⁰C)	25.3	24.3	22.8	22.2	17.8	11.1	11.1-25.3
RH (%)	58.6	72.4	81.0	85.6	73.9	69.7	73.5
Avg. Sunshine hours	6.7	7.3	5.1	4.7	6.5	7.4	3.47
* Avg. wind velocity	4.7	5.9	4.8	3.2	1.8	1.3	5.27

VYARA								
Latitude :	20⁰ -10'			Longitude:	73⁰ 20'		Elevation (m) :	69
Soil type:	Medium Black			Soil pH :	7.5		Soil texture :	Clayey
	JUNE	**July**	**Aug.**	**Sep.**	**Oct.**	**Nov**	**Dec.**	**Total / Range**
No. of Rainy days	6	26	17	15	4	0	-	68
Total Rainfall (mm)	75	959	658	404	32	0	-	2128
Avg. Max. Temp. (⁰C)	36.2	29.7	30.7	32.5	33.5	32.5	-	29.7-36.2
Avg. Mini. Temp. (⁰C)	21.9	18.6	17.9	16.4	14.7	10.6	-	10.6-21.9
Avg. Sunshine hours	6.1	1.6	4.6	3.8	7.8	7.7		5.266

VADAGAON									
Latitude :	187-45		Longitude:	73 – 41 East		Elevation(m) :			677.9 m
Soil type:	Medium		Soil pH :	6.5-7.5		Soil texture			Clay loam
	May	**June**	**July**	**Aug**	**Sep**	**Oct.**	**Nov.**	**Dec**	**Total / Range**
No. of Rainy Days	1	5	26	22	11	5	0	0	70
Total rainfall (mm)	7.8	63.4	840.2	325.4	284.4	90.8	0.0	0.0	1612
Avg. Max. Temp. (⁰C)	--	34.1	29.7	29.7	29.4	30.1	30.7	32.1	28.4-34.1
Avg. Mini Temp. (⁰C)	--	21.0	21.4	22.0	21.3	14.9	15.9	13.1	13.1-22.0

WARASEONI							
Latitude :	21º45´N		Longitude:	80º50´E		Elevation (m) :	301.5
Soil type:	Sandy loam		Soil pH :	7.5		Soil texture :	
	June	**July**	**Aug.**	**Sep.**	**Oct.**	**Nov**	**Total / Range.**
No. of rainy days	11	25	21	17	06	0	80
Total rainfall (mm)	119.5	476.9	605	330.5	90.0	0	6121.9

WANGBAL							
Latitude :	24.8⁰ 'N		Longitude:	94⁰ E		Elevation(m) :	781
Soil type:	Clay Loam		Soil pH :	5.5		Soil texture	fine
	June	**July**	**Aug.**	**Sep.**	**Oct.**	**Nov.**	**Total / Range**
No. of Rainy days	18	13	8	9	8	5	61
Total Rainfall (mm)	286.2	148.4	94.8	98.6	81	27.4	736.4
Avg. Max. Temp. (⁰C)	35	35	33	31	30	26	26-35
Avg. Mini. Temp. (⁰C)	26	29	25	21	17	14	14-29

Centre wise Breeder Seed Production during kharif 2022

(Quantity in quintals)

S. No	Name of the Producing centre	Name of variety	Actual allocation as per BSP-I	Actual Production	Surplus(+) Deficit (-)
		Andhra Pradesh			
1	ANGRAU, Guntur	Amara (MTU-1064)	5.30	27.50 56.00*	78.20
		Bapatla Mahsuri (BPT 2295)	0.70	40.00	39.30
		Bhavathi (BPT 2782)	0.10	70.00	69.90
		Bheema (MTU 1140)	3.35	1.10 17.00*	14.75
		BPT 5204	40.40	700.00	659.60
		BPT 2411 (Sasya)	0.50	15.00	14.50
		BPT 2595 (Teja)	0.40	40.00	39.60
		Chandra (IET 23409) (MTU 1153)	70.55	61.60 130.00*	121.05
		CottondoraSannalu (MTU1010)	176.80	400.00	223.20
		Maruteru Sannalu (MTU 1006) (IET 14348)	0.50	0.66 2.50*	2.66
		MTU 1061	7.00	65.00*	58.00
		MTU (1075)(IET 18482)	9.00	55.00	46.00
		MTU 1155	5.70	2.50 7.50*	4.30
		MTU 1156	72.10	104.93 150.00*	182.83
		MTU 1172	3.00	3.25 18.00*	18.25
		MTU 1210	13.70	9.61 18.00*	13.91
		MTU 1223	17.20	12.00 22.00*	16.80
		MTU 1224	9.60	34.98 70.00*	95.38
		MTU 1239	16.20	7.75 36.00*	27.55
		MTU 1262	7.80	46.75 63.00*	101.95
		MTU 1281	0.30	1.00 7.50*	8.20
		MTU 7025#	2.60	0.00	-2.60
		MTU 7029	232.6	550.00	317.40
		Nellore Dhyanyarassi (NLR 3354)	0.90	6.00*	5.10
		Nellore Mahsuri (NLR 34449)	10.60	140.00*	129.40
		Nellore Sugandha(NLR40054)	0.10	1.00*	0.90
		NLR 4001	0.40	5.00*	4.60
		NDLR 7	2.75	25.00 25.00*	47.25
		PanduRanga (MCM 100)	0.30	6.00	5.70
		Pardhhiva (NLR 33892)	0.60	10.00	9.40
		RGL 2537	6.10	83.60	77.50
		Sona Mahsuri (BPT 3291)	4.80	45.00	40.20
		Vijetha (MTU 1001)	56.50	125.00	68.50
		Varam (MTU 1190)	2.40	2.25 7.50*	7.35
		Sri Dhruthi (MTU 1121)	14.70	162.00	147.30
		Total:	**795.55**	**3489.48***	**2693.93**

S. No	Name of the Producing centre	Name of variety	Actual allocation as per BSP-I	Actual Production	Surplus(+) Deficit (-)
		Assam			
2	AAU, Titabar	Bahadur	1.10	49.45	48.35
		Bahadur Sub-1	8.62	43.40	34.78
		Disang [Dehangi) (IC-574471)]	0.50	0.50	-
		Gitesh	0.50	23.60	23.10
		Inglongkheri	0.50	0.13	-0.37
		Jalashri (TTB 202-3)	0.50	0.00	-0.50
		Jalkuwari	0.50	0.00	-0.50
		Ketakijoha	3.00	23.70	20.70
		Numali	5.00	72.50	67.50
		RANJIT SUB -1	83.45	209.45	126.00
		RANJEET (IET - 12554)	1.60	99.00	97.40
		Total:	**105.27**	**521.73**	**416.46**
		Bihar			
3	RAU, Pusa	RajendraBhagvati	2.00	2.00	-
		RajendraSawaswati (IET 23423)	10.30	9.00	-1.30
		Rajendra Mahsuri-1	7.50	15.00	7.50
		RAJENDRA SWETA	0.50	4.00	3.50
		R Neelam	10.00	15.08	5.08
		Sita	0.25	0.00	-0.25
		Total:	**30.55**	**45.08**	**14.53**
4	ICAR RC for Eastern Region, Patna	Swarna Shakti Dhan (IET 25640)***	14.20	29.60	15.40
		SwarnaShreya	17.50	45.90	28.40
		SwarnaSmriddhi Dhan (IET 24306)	15.00	51.80	36.80
		Total:	**46.70**	**127.30**	**80.60**
5	BAU, Sabour	SABOURSHREE(RAU724-48-33)(IET18878)	60.05	169.00	108.95
		SabourHarshit Dhan (IET 25342)	20.00	43.00	23.00
		SabourSampanna Dhan	60.00	83.00	23.00
		SabourSurbhit	20.00	21.00	1.00
		SabourArdhjal (BRR 0007)	15.00	24.50	9.50
		Total:	**175.05**	**340.50**	**165.45**
		Chhattisgarh			
6	IGKV, Raipur	CG Madhuraj Dhan-55	13.00	21.90	8.90
		Chhattisgarh Devbhog	18.00	45.00	27.00
		Chhattisgarh Zinc Rice -1	12.00	15.60	3.60
		Chhattisgarh Zinc Rice-2	15.40	15.40	-
		Dubraj Selection-1	18.00	20.00	2.00
		IGKVR-1 (IET 19569)	66.00	66.00	-
		IGKVR-2 (IET 19795)	10.00	10.00	-
		Indira Aerobic-1(R1570-2649-1-1546-1)(IET21686)	26.00	33.60	7.60
		IR-64	35.00	55.50	20.50
		IR-20**	2.20	0.00	-2.20
		Mahamaya (IET-10749)	95.00	121.80	26.80
		Maheswari (IGRKVR-1244) (IET 19796)	14.00	14.00	-
		TarunBhog Selection-1	22.10	23.10	1.00
		Bhadshabhhog Selection-1	22.50	23.10	0.60
		Vikram TCR	21.30	39.60	18.30
		CG Barani Dhan -2 (IET 24690)	4.30	8.40	4.10
		Protezin (IET 25470) (R-RHZ-R-56)	10.00	18.90	8.90
		TrombeyChattisgarhDubraj Mutent-1	15.00	27.00	12.00

S. No	Name of the Producing centre	Name of variety	Actual allocation as per BSP-I	Actual Production	Surplus(+) Deficit (-)
		Vishnubhog Selection-1	22.30	29.70	7.40
		ZINCO RICE MS	15.30	21.90	6.60
		Total:	**457.40**	**610.50**	**153.10**
7	IGKV, Jagdalpur	Baster Dhan 1	3.00	30.00	27.00
		Gujarat			
8	AAU, Nawagam	GUJ ANAND RICE-14	0.10	0.25	0.15
		Gujarat Anand Rice-3 (GAR-3)	0.65	0.75	0.10
		GS-1#	1.00	0.00	-1.00
		GAR-21	0.10	2.00	1.90
		GAR-22	0.05	1.00	0.95
		GNR-3#	0.40	1.00	0.60
		GNR-5#	0.30	0.50	0.20
		GNR-8 (Aarti)#	0.10	0.50	0.40
		Total:	**2.70**	**6.00**	**3.30**
9	NAU, Navsari	GR 16 (Tapi) (NVSR-2233)	0.30	0.00	-0.30
		GR 17 (Sardar)	0.55	0.00	-0.55
		GR 18 (DevliKolam)	0.10	0.00	-0.10
		GR 19 (Auranga)	0.10	0.00	-0.10
		Total:	**1.05**	**0.00**	**-1.05**
		Haryana			
10	CSSRI, Karnal	CSR 76	2.10	3.50	1.40
		CSR-30	0.08	2.50	2.42
		CSR-43	1.50	7.50	6.00
		Total:	**3.68**	**13.50**	**9.82**
11	IARI Regional Station,Karnal	Pusa Basmati-1609^	0.60	0.60	-
		Pusa Basmati 1728	10.60	12.00	1.40
		Imp. Pusa Basmati-1(IET - 18990)(PUSA 1460-01-32)	0.60	0.60	-
		Pusa Basmati-1718 (IET 24565)	49.60	10.54	-39.06
		Pusa Basmati 1692 (IET 26995)%	32.92	15.0	-17.92
		Pusa Basmati-1509(IET 21960)(PUSA 1509-03-3-9-5)%	62.06	12.0	-50.06
		Pusa-1121 (Pusa Sugandh-4)%	30.69	17.0	-13.69
		Pusa Basmati-6 (Pusa 1401)(IET 18005)%	9.32	12.0	2.68
		Pusa Basmati 1637 (IET 24570)%	4.00	4.00	-
		Total:	**200.39**	**83.74**	**-116.65**
12	RRS, Kaul	BasmatI-370	12.00	15.00	3.00
		HKR-127 (HKR-95-222)	0.80	5.00	4.20
		HKR-47	0.43	5.00	4.57
		HKR-147$	0.80	0.00	-0.80
		Total:	**14.03**	**25.00**	**10.97**
		Himachal Pradesh			
13	CSKHPKVV, MALAN	HPR 2143	10.00	6.43	-3.57
		HPR-2656	15.00	14.85	-0.15
		HPR-2880	10.00	9.20	-0.80
		HPR-2795 (HIM PALAM DHAN-1)	10.00	3.53	-6.47
		Total:	**45.00**	**34.01**	**-10.99**
		Jharkhand			
14	BAU, Ranchi	BirsaVikas Dhan-111(IET 19848)(PY-84)	1.65	1.70	0.05
		BirsaMati	0.50	1.00	0.50
		BirsaVikas Dhan - 203	2.10	5.00	2.90
		BirsaVikas Dhan- 109	0.50	0.60	0.10

S. No	Name of the Producing centre	Name of variety	Actual allocation as per BSP-I	Actual Production	Surplus(+) Deficit (-)
		BirsaVikas Dhan -110	0.50	0.60	0.10
		BirsaVikasSugandha - 1 (IET 18941)	2.10	11.00	8.90
		Total:	**7.35**	**19.90**	**12.55**
15	CRURRS, Hazaribagh	Sahbhagi (Sahbhagi Dhan IET-19576)	30.55	30.90	0.35
		Jammu and Kashmir			
16	SKUAST, Khudwani	K 39	3.00	2.50	-0.50
		K-448	3.00	4.20	1.20
		Shalimar Rice-3	0.10	1.20	1.10
		Shalimar Rice-4	0.10	20.00	19.90
		Shalimar Rice-2	0.10	7.50	7.40
		Total:	**6.30**	**35.40**	**29.10**
17	SKUAST, Chatha	GIZA-14	6.00	7.00	1.00
		Karnataka			
18	UAS, Bangalore	BR-2655	1.05	3.50	2.45
19	ZARS, Mandya	THANU	1.85	3.17	1.32
		TUNGA (IET-13901)	4.87	10.00	5.13
		Total:	**6.72**	**13.17**	**6.45**
20	ARS, Mugad	Intan	0.75	3.00	2.25
		Abhilash (KMD-2)	0.75	3.00	2.25
		Total:	**1.50**	**6.00**	**4.50**
21	SDRARS, Gangavati	GangavatiSona (GGV-05-01)	0.30	0.50	0.20
22	UAHS, Shimoga	KKP-5 (IET 24250)	0.40	10.00	9.60
		SAHYADRI MEGHA	0.05	3.00 5.00*	7.95
		Total:	**0.45**	**18.00**	**17.55**
		Kerala			
23	KAU, Pattambi	Athira (PBT-51)	0.15	0.00	-0.15
		Jyothi	5.30	18.75 15.00*	28.45
		Total:	**5.45**	**33.75**	**28.30**
24	RRS, Moncompu	Bhadra (MO-4)*@	3.25	0.00*	-3.25
		MO 21 (Pratiksha)	0.25	2.23	1.98
		UMA (MO-16)	12.9	3.04*	-9.86
		Total:	**16.40**	**5.27***	**-11.13**
		Madhya Pradesh			
25	J.N.K.V.V, Jabalpur	Improved Chinnor	2.40	9.00	6.60
		Improved Jeera Shankar	3.70	10.00	6.30
		JR 767	16.50	16.55	0.05
		JR-81	28.00	110.00	82.00
		JR-206	58.40	150.00	91.60
		JRB-1	20.00	6.75	-13.25
		JRH-19@	3.20	3.40	0.20
		KRANTI (R-2022)	2.05	10.00	7.95
		Total:	**134.25**	**315.70**	**181.45**
		Maharashtra			
26	RARS, Karjat	Karjat-2	0.40	16.80	16.40
		Karjat-3	4.60	30.00	25.40
		Karjat-5	1.00	6.80	5.80
		Karjat-7	1.50	12.90	11.40
		Karjat-8	0.52	3.00	2.48
		Karjat-9	0.80	9.30	8.50
		TrombeyKarjatKolam (BARCKKV 13)	0.20	5.70	5.50
		Total:	**9.02**	**84.50**	**75.48**

S. No	Name of the Producing centre	Name of variety	Actual allocation as per BSP-I	Actual Production	Surplus(+) Deficit (-)
27	MPKV,Radhanagari	Bhogavati	1.00	5.70	4.70
28	ARS, Sakoli	SAKOLI-9	0.20	0.50	0.30
29	ARS, Shirgaon	Ratnagiri-1	0.40	10.00 7.50*	17.10
		Ratnagiri-5	0.60	6.00	5.40
		Ratnagiri-6	0.20	6.00 9.00*	14.80
		Ratnagiri-7	0.40	7.00 4.20*	10.80
		Ratnagiri-8	0.30	20.00 7.20*	26.90
		Total:	**1.90**	**76.90**	**75.00**
30	ARS, Vadagon	INDRAYANI (IET - 12897)	22.60	70.00	47.40
		PhuleSamruddhi (VDN -99-29)	0.60	4.00	3.40
		Total:	**23.20**	**74.00**	**50.80**
31	PDKV, Sindewahi	PDKV TILAK (SYE-503-78-34-2)	4.30	15.00	10.70
		PKV KISAN DKL -22-39-31-25*3134	0.20	2.00	1.80
		PKV HMT	34.50	52.00	17.50
		Total:	**39.00**	**69.00**	**30.00**
		New Delhi			
32	IARI, New Delhi	Pusa 1592	0.20	0.40	0.20
		Pusa 1612	1.00	1.50	0.50
		Pusa Basmati 1847 %	7.48	7.00	-0.48
		Pusa Basmati 1985%	6.50	3.00	-3.50
		Pusa Basmati 1885%	2.56	5.00	2.44
		Pusa Basmati 1886%	2.00	5.00	3.00
		Pusa Basmati 1979%	0.08	1.00	0.92
		Total:	**19.82**	**22.90**	**3.08**
33	BEDF, Meerut	Pusa Basmati-1(IET 10364)	0.08	1.00	0.92
		PUSA-1121 (Pusa Sugandh-4)	30.00	25.00	-5.00
		Pusa Basmati 1637 (IET 24570)	4.00	0.00	-4.00
		Pusa Basmati-6 (PUSA 1401) (IET 18005)	10.00	8.00	-2.00
		Total:	**44.08**	**34.00**	**-10.08**
		Odisha			
34	NRRI, Cuttack	Ankit	5.30	14.00	8.70
		Annada	2.00	2.00*	-
		CR DHAN 201 (IET 21924)	1.00	1.00*	-
		CR DHAN 202 (IET 21917	0.30	1.50*	1.20
		CR DHAN 300 (CR2301-5) (IET 19816)	0.70	2.00*	1.30
		CR DHAN 304 (IET 22117)#@	0.50	0.00	-0.50
		CR DHAN 305 (IET 21287)	0.20	1.00*	0.80
		CR DHAN 306	0.60	1.00*	0.40
		CR DHAN 315	3.05	10.00*	6.95
		CR DHAN 316	1.00	1.50*	0.50
		CR DHAN 318	0.30	0.00	-0.30
		CR DHAN 317 (Roshan)	1.00	3.00*	2.00
		CR DHAN 311 (MUKUL)	14.50	22.00	7.50
		CR DHAN 401(REETA) (IET 19969)#@	0.50	0.00	-0.50
		CR DHAN 505 (IET 21719)	0.10	0.00	-0.10
		CR DHAN 507	0.30	1.70	1.40
		CR DHAN 511#@	0.50	0.00	-0.50
		CR DHAN 601(IET 18558)	0.50	5.00	4.50

S. No	Name of the Producing centre	Name of variety	Actual allocation as per BSP-I	Actual Production	Surplus(+) Deficit (-)
		ÇR DHAN 800 (SWARNA-MAS)#@	25.25	6.50 6.00*	-12.75
		CR DHAN 801 (IET-25667)	1.90	6.00*	4.10
		CR Dhan 802 (Subhar)*#	8.20	6.00*	-2.20
		CR DHAN 803 (Trilochan)*#	5.00	0.00	-5.00
		CR DHAN 1017	0.40	1.00	0.60
		CR DHAN 1018	0.20	1.50	1.30
		CR DHAN 1030	0.10	0.00	-0.10
		CR DHAN-203	12.45	13.00 8.00*	8.55
		CR DHAN-207	0.30	0.00	-0.30
		CR DHAN-209	0.30	1.00*	0.70
		CR DHAN-307	1.70	6.00	4.30
		CR DHAN-309	1.00	2.50*	1.50
		CR DHAN-310	26.90	27.00 12.00*	12.10
		CR DHAN-311	0.20	0.00	-0.20
		CR DHAN 407	0.20	0.00	-0.20
		CR DHAN 408	0.20	0.00	-0.20
		CR DHAN 409	0.60	15.00	14.40
		CR DHAN 410	0.37	0.00	-0.37
		CR Dhan 411 (Swaranjali)	1.00	0.00	-1.00
		CR Dhan 412#@	1.00	0.00	-1.00
		CR Dhan 413	1.00	0.50	-0.50
		CR Dhan 506	0.20	0.00	-0.20
		CR Dhan 508	2.10	3.50	1.40
		CR Dhan 512	1.00	0.00	-1.00
		CR Dhan 702	1.00	0.00	-1.00
		CR Dhan 703	1.00	0.00	-1.00
		CR 1009	2.40	1.50	-0.90
		CR 1009 *sub1*	42.15	45.00	2.85
		CR Dhan 102 (IET 26121)	3.60	11.00	7.40
		CR Dhan 210 (IET 23449)	1.50	2.50*	1.00
		CR Dhan 308 (IET 25523)	1.50	4.00*	2.50
		CR Dhan 312 CR 3808-13 (IET 25997)	1.50	15.00*	13.50
		Geetanjali (CRM-2007-1) (IET 17276)	0.50	2.00*	1.50
		Luna Sampad (IET 19470)	0.50	0.00	-0.50
		Luna Suvarna (IET 18697)	0.50	0.00	-0.50
		Naveen (CR-749-20-2) (IET 14461)	3.20	6.00*	2.80
		Samba *sub1* (IET 21248)*#	17.55	0.00	-17.55
		CR Sugandh Dhan 908 (IET 23189)*#	1.12	0.00	-1.12
		Swarna*sub1* (CR 2539-1) IET 20266	78.10	85.00	6.90
		Varshadhan (CRLC-899) (IET 16481)	1.50	1.00	-0.50
		CR Dhan 602 (IET 26692)	1.50	3.00*	1.50
		CR Sugandh Dhan 910(IET22649)(CR 2713-180)	1.30	0.00	-1.30
		Total:	**284.34**	**357.20***	**72.86**
35	O.U.A.T, Bhubaneswar	Ashuthosh	1.50	1.80	0.30
		Hasanta	1.80	5.00	3.20
		Improved Lalat	12.00	15.00*	3.00
		Kalachampa	46.60	54.00	7.40
		Lalat (IET 9947)	5.00	10.00	5.00
		Mandakini (IET 17847)	6.00	4.00 2.00*	-
		Mrunalini (OR 1898-18-) (IET 18649)	3.00	5.00	2.00

S. No	Name of the Producing centre	Name of variety	Actual allocation as per BSP-I	Actual Production	Surplus(+) Deficit (-)
		Praijat (IET 2684)	1.00	1.40 1.00*	1.40
		Pradeep (IET 20923)	0.30	0.30	-
		Pratikshya (ORS 201-5) (IET 15191)	16.00	24.00	8.00
		Rani Dhan (IET 19148)	2.00	2.00	-
		Sebati (IET 11786)*#	2.00	0.00	-2.00
		Gobinda (OR 2324-8)	1.50	1.50	-
		Kalinga Dhan 1204	1.00	0.80 1.00*	0.80
		Kalinga Dhan 1205	1.00	1.00	-
		Kalinga Dhan 1401*#	1.00	0.40	-0.60
		Kalinga Dhan 1501	1.00	1.40	0.40
		Kalinga Dhan 1502	1.00	1.40	0.40
		Total:	**103.70**	**133.00**	**29.30**
		Punjab			
36	PAU, Ludhiana	PR 121	26.29	30.00	3.71
		PR 122	5.74	15.00	9.26
		PR 127	3.50	10.00	6.50
		PR-113	0.43	10.00	9.57
		PR-114	0.48	10.00	9.52
		PR-124	3.03	10.00	6.97
		PR-126	37.66	40.00	2.34
		PR-128	12.10	16.00	3.90
		PR-129	9.00	19.00	10.00
		PR-130	1.98	10.00	8.02
		PR-131#	1.48	0.00	-1.48
		Punjab Basmati 7	6.94	10.00	3.06
		Total:	**108.63**	**180.00**	**71.37**
		Tamil Nadu			
37	TNAU, Coimbatore	CO 51	12.79	13.00	0.21
		Improved White Ponni	16.60	17.50*	0.90
		Total:	**29.39**	**30.50***	**1.11**
38	TRRI, Aduthurai	ASD-16	0.2	1.00	0.80
		ADT-37	0.4	1.00	0.60
		ADT-39	0.4	1.00*	0.60
		ADT-45	0.2	1.00	0.80
		ADT (R)-46	0.2	0.50*	0.30
		Total:	**1.40**	**4.50***	**3.10**
		Telangana			
39	IIRR, Hyderabad	Kasturi (IET-8580)	5.00	5.00	-
		Mahsuri	0.70	0.70	-
		BRRI Dhan 69	0.30	0.30	-
		BRRI Dhan-75 (HUA 565)	0.40	0.40	-
		Ciherang Sub-1**@	6.15	6.15*	-
		IET 5656	0.50	0.50	-
		BINA DHAN-11**@	23.60	23.60*	-
		BINA DHAN-17**@	10.60	10.60*	-
		DRR DHAN 50 (IET 25671) **@	39.80	39.80*	-
		DRR DHAN-45 (IET 23832)	7.85	4.00*	-3.85
		DRR DHAN-53	30.50	34.50	4.00
		DRR DHAN-39	10.00	5.00	-5.00
		DRR DHAN-42	59.12	60.00	0.88
		DRR DHAN-43	10.50	35.00	24.50
		DRR DHAN-44	14.45	20.00	5.55
		DRR DHAN-46**@	3.90	3.90*	-

S. No	Name of the Producing centre	Name of variety	Actual allocation as per BSP-I	Actual Production	Surplus(+) Deficit (-)
		DRR DHAN -47**@	0.30	0.30*	-
		DRR DHAN-48	0.20	80.00	79.80
		DRR DHAN-49	0.20	5.00	4.80
		DRR DHAN-51**@	11.00	11.00*	-
		DRR DHAN -52**@	0.90	0.90*	-
		DRR DHAN -54	20.20	1.00	-19.20
		DRR DHAN -55	20.00	76.70	56.70
		Improved Samba Mahsuri	0.10	5.00	4.90
		JAYA	11.80	12.00	0.20
		DRR Dhan -58	0.50	87.00	86.50
		DRR Dhan -62	0.30	45.00	44.70
		Total:	**288.87**	**573.35**	**284.48**
40	PJTSAU, Hyderabad	ErraMallelu (WGL-20471)	1.00	2.00*	1.00
		JGL-1798	2.92	2.92	-
		JGL-18047 (Bathukamma)	7.02	7.02	-
		JGL-24423	20.85	50.00	29.15
		JGL-17004	0.30	0.30	-
		JGL 11118 (Anjana)	0.40	0.40	-
		KunaramSannalu	101.55	101.55	-
		Kunaram Rice 1 (KNM 733)	0.40	0.40	-
		RNR-15048 (Telangana Sona)	47.15	50.00*	2.85
		Krishna (RNR-2458)	0.30	0.30	-
		Siddhi (WGL 44)	1.50	4.25	2.75
		Shobhini (RNR-2354) (IET- 21260)	0.80	1.00*	0.20
		Somnath (WGL-347)	1.30	1.50*	0.20
		Tellahamsa	0.75	0.00	-0.75
		Telangana Vari-1 (IET 25330) (WGL-739)	1.00	5.00*	4.00
		Telangana Vari-3 (JGL 21078)	0.10	0.10	-
		WGL-697 (IET 26027)	0.10	0.50*	0.40
		WGL-915	1.40	1.40	-
		Total:	**188.84**	**228.64**	**39.80**
		Uttarakhand			
41	VPKAS, Almora	VL DHAN 157 (VL 31611) (IET 22292)@	2.50	0.00	-2.50
		VL DHAN 68 (VL 31611) (IET 22283)@	2.00	0.00	-2.00
		VL 88@	3.60	0.00	-3.60
		Total:	**8.10**	**0.00**	**-8.10**
42	GBPUAT, Pantnagar	PANT DHAN-18 (IET 17920) (UPRI 99-1)	1.00	9.00	8.00
		Pant Basmati-1	1.00	17.50	16.50
		PD-18	0.20	9.00	8.80
		PANT DHAN-24	7.30	20.00	12.70
		PANT DHAN-26	3.30	9.00	5.70
		Total:	**12.80**	**64.50**	**51.70**
		Uttar Pradesh			
43	BHU, Varanasi	HUR-917	3.00	20.00	17.00
44	NDUAT, Faizabad	NDR 9930111	5.00	6.20	1.20
		NDR-359	1.00	1.50	0.50
		Narendra Dhan 97	0.10	0.50	0.40
		Sarjoo 52	1.00	122.00	121.00
		Total:	**7.10**	**130.20**	**123.10**
45	PRDF, GORAKHPUR	Bauna Kalanamak-102***	0.90	5.00	4.10
		Bauna Kalanamak-101	0.90	2.00	1.10

S. No	Name of the Producing centre	Name of variety	Actual allocation as per BSP-I	Actual Production	Surplus(+) Deficit (-)
		KN3 (Kalanamak)	0.10	2.00	1.90
		KalanamakKiran (PRDF-2-14-10)	1.50	11.50	10.00
		Total:	**3.40**	**20.50**	**17.10**
47	SHUATS, Prayagraj	SHIATS DHAN 5	3.00	2.00	-1.00
		SHIATS DHAN-4	6.00	3.00	-3.00
		Total:	**9.00**	**5.00**	**-4.00**
		West Bengal			
48	RRS, Chinsurah	Ajit	8.10	8.50	0.40
		Bhupesh (CN 1752-18-1-9-MLD-19)	0.20	0.50	0.30
		Chinsurah Nona -2 (GOSABA-6)(IET-21943)	0.70	1.00	0.30
		Chinsurah Rice (IET 19140)(CNI 383-5-11)	0.50	0.50	-
		CN1272-55-105 (IET-19886)	0.50	1.50	1.00
		Khitish (IET-4094)	4.00	5.00	1.00
		Manisha (IET 23770)	0.30	0.80	0.50
		Rajdeep (CN 1039-9)	0.30	2.00	1.70
		Sabita (IET 8970)	0.20	1.00	0.80
		Sukumar (IET 21261)	15.40	5.00	-10.40
		Muktashree (IET 21845)	1.30	2.00	0.70
		Shatabdi (IET 4786)	15.00	24.50	9.50
		Total:	**46.50**	**52.30**	**5.80**
46	BCKV, Nadia	Gontra Bidhan-1 (IET 17430)	9.25	10.00	0.75
		Gontra Bidhan-3 (IET 22752)	19.85	22.00	2.15
		Gontra Bidhan-4#	0.50	0.00	-0.50
		BidhanSurchi (IET 25701)	10.55	12.50	1.95
		Total:	**40.15**	**44.50**	**4.35**
49	RRS, Bankura	Dhruba (IET-20761)	1.00	1.00	-
		Pushpa (IET 17509)	1.30	0.00	-1.30
		BNKR-1 (DHIREN) (IET 20760)	4.60	4.30	-0.30
		Total:	**6.90**	**5.30**	**-1.60**
50	ICAR-RC for NEH Region, Lembuchera	Gomati Dhan TRC-2005-1 (TRC-05-8-4-42-8-3-7) IET 21512	0.10	0.80	0.70
		Khowai TRC-2005-3 (TRC 05-2-6-4-39-3-6) IET 21564	0.05	0.72	0.67
		Tripura Chikandhan	0.10	0.49	0.39
		Tripura Aush	0.10	0.35	0.25
		Tripura Nirog	0.10	0.46	0.36
		Tripura Jala (IET 22167)	0.05	0.36	0.31
		Tripura Khara 1	0.05	0.24	0.19
		Tripura Sarat	0.10	2.90	2.80
		Total:	**0.65**	**6.32**	**5.67**
51	UBKV, Pundibari	Uttar Lakshmi (UBKVR-15) (IET 24173)	1.00	6.10	5.10
		UTTAR SONA (UBKVR-1) (IET-24171)	3.30	5.40	2.10
		Total:	**4.30**	**11.50**	**7.20**
52	RRS, Wangbal	RC Maniphou-13	0.30	3.00	2.70
		Total:	**98.80**	**122.92**	**24.12**
		Grand Total:	**3382.28**	**8053.74**	**4671.46**

*: indicates expected yield to be produced during Rabi 2022-23; @contingent plan taken in Rabi, 2022 (Jabalpur);@: Very poor yield and seed quality due to heavy incidence of Southern Rice Black-Streaked Dwarf Virus (SRBSDV); #: No variety by MTU 7025, it may be MTU 7029, Gontra Bidhan-4 variety not yet notified , PR-131 Variety not notified yet, GS-1, GNR-3, GNR-5, GNR-8 (Aarti)Not a variety developed by AAU, Anand ; &: BS plot rejected due to lodging; ^ : Paddy seed crop across the varieties affected high attack of stem borer, SRBSD Virus and high rains during 19-24 Sept., 2022; % : Licensed variety; $: This is not CCS HAU variety, it may be availability of Nucleus Seed or Availability of less quantity of Nucleus Seed or nucleus seed deficit or problem in nucleus; #@ : Production loss due to water stagnation and lodging; ***: As per BSP II or As per BSP III; **@ : Standing in the Crop

Parental lines of Hybrids:

S. No	Name of the Producing centre	Name of variety	Actual allocation as per BSP-I	Actual Production	Surplus(+) Deficit (-)
1	IIRR, Hyderabad	DRRH-2 (A Line)	0.10	0.00	-0.10
		DRRH-2 (A Line)	0.10	0.00	-0.10
		DRRH-2 (A Line)	0.10	0.00	-0.10
		Total:	**0.30**	**0.00**	**-0.30**
2	UAS, Bangalore	KRH 2 (A Line)	0.10	1.00*	0.90
		KRH 2 (B Line)	0.10	1.00*	0.90
		KRH 2 (R Line)	0.10	0.10	-
			0.30	2.10	1.80
		Total:	**3382.88**	**8055.84**	**4672.96**

Trials Sent and Data Receipt

Funded Locations – 2022

Region	State	Location	Trials Sent	Data receipt	Failed/
Zone 1-Hills	Himachal Pradesh	Malan	9	9	
	Jammu Kashmir	Khudwani	7	7	
	Meghalaya	Upper Shillong	7	7	
	Manipur	Wangbal	7	6	
	Nagaland	Kohima	3	0	
Zone II-Northern	Uttarakhand	Pantnagar	11	9	
	Punjab	Ludhiana	20	14	
	Haryana	Kaul	18	12	
	Uttar Pradesh	Nagina	12	9	
		Kanpur	13	9	
	Jammu & Kashmir	Chatha	9	8	
	Rajasthan	Kota	9	8	
Zone III-Eastern	Odisha	Jeypore	18	16	
		Chiplima	15	14	
	Bihar	Bikramganj (Patna)	20	20	
		Pusa	13	10	
	Jharkhand	Ranchi	22	22	
	West Bengal	Chinsurah	20	16	
		Bankura	9	8	
	Uttar Pradesh	Masodha	22	22	
		Varanasi	25	17	
Zone IV-North Eastern	Assam	Titabar	21	10	
	Tripura	Arundhutinagar	15	9	3
Zone V- Central	Madhya Pradesh	Rewa	9	8	
	Chhattisgarh	Raipur	25	19	
		Jagadalpur	15	14	
	Maharashtra	Sakoli	15	15	
Zone VI- Western	Maharashtra	Karjat	20	20	
	Gujarat	Nawagam	17	17	
		Navsari	18	18	
Zone VII-Southern	Andhra Pradesh	Maruteru	19	19	
	Telangana	Rajendranagar	11	11	
		Warangal	15	15	
	Tamil Nadu	Aduthurai	17	16	
		Coimbatore	18	16	
	Kerala	Moncompu	9	7	
		Pattambi	15	15	
	Karnataka	Mandya	23	23	
		Mugad	21	18	
		Brahmavar	15	13	
		Ponnampet	5	5	
		Gangavati	19	19	
	Puducherry	Kurumbapet	14	12	
		Total	**645**	**562**	**3**

Voluntary Locations-2022

Region	State	Location	Trials Sent	Data receipt	Failed
Zone 1-Hills	Jammu & Kashmir	Rajouri	6	5	
		Pombay (Khudwani)	6	3	
		Wadura (Khudwani)	6	6	
		Bandipore	3	0	
		Larnoo	3	3	
		Badarwah	6	0	
	Himachal Pradesh	Palampur	3	3	
		Sundernagar	7	3	
		Bajaura	6	2	
		Dhaulakaun	7	7	
		Bhertin	1	1	
	Uttarakhand	Almora-ICAR	8	7	
		Bageswar (Almora)	1	1	
	Meghalaya	Umiam-ICAR	4	4	
		Umiam-CAU	4	4	
	Manipur	Lamphelpat-ICAR	5	3	
		ImphaL-CAU	4	0	
	Sikkim	Gangtok-ICAR	3	3	
	Nagaland	Mediziphema -ICAR	3	3	
		Nagaland University, Mediziphema	2	1	
Zone II-North Western	Haryana	Karnal (CSSRI)	11	9	
		Kurukshetra (CSSRI)	3	3	
		Panipat (CSSRI)	3	3	
		Anjanteli	3	3	
		Rohtak	3	0	
	New Delhi	ICAR-IARI	1	1	
Zone III-Eastern	Odisha	Bhubaneswar	11	8	
		ICAR-NRRI (Cuttack)	29	22	6
		Ranital	2	0	
	Bihar	Patna-ICAR	14	14	
		Sabour	13	13	
	Jharkhand	Hazaribagh-ICAR	6	0	
	West Bengal	Pundibari	6	5	
		Canning-ICAR	2	2	
		Hathwara	8	6	
		Malda	13	13	
		Chakdaha (Mohanpur)	2	0	
		Gosaba	2	2	
	Uttar Pradesh	Lucknow-ICAR	3	3	
		Gautam Budha Nagar	3	0	
		Gorakhpur	4	4	
Zone IV- North Eastern	Assam	Shillongani	2	0	
		Gerua-ICAR	15	4	
		Karimganj	2	0	
	Tripura	Lembucherra-ICAR	20	16	
Zone V- Central	Madhya Pradesh	Waraseoni	10	6	

Region	State	Location	Trials Sent	Data receipt	Failed
		Jabalpur	11	0	
	Chhattisgarh	Bilaspur	10	5	
		Ambikapur	7	6	
	Maharashtra	Sindewahi	13	13	
Zone VI- Western	Maharashtra	Panvel	2	2	
		Shirgaon	13	10	
		Vadagaon	12	8	
		Phondaghat	2	2	
		Parbhani	3	3	
		Radhanagari	9	6	
	Gujarat	Danti	5	5	
		Derol	3	3	
		Dabhoi	6	0	
		Vyara	12	12	
		Baruch (CSSRI)	2	2	
	Goa	Goa-ICAR	2	2	
Zone VII-Southern	Andaman & Nicobar	Port Blair-ICAR	2	0	
	Andhra Pradesh	Machilipatnam	2	2	
		Ragolu	5	3	
		Bapatla	6	4	
		Nellore	2	1	
	Telangana	Kunaram	12	5	
		IIRR	4	4	
		Jagital	17	5	
		Rudrur	7	4	
		Kampasagar	10	9	
	Tamil Nadu	Trichy	3	3	
		Annamalainagar	3	3	
		Tirur	6	6	
		Gudaluru	6	2	
	Kerala	Vytilla	5	5	
	Karnataka	Sirsi	10	10	
		Kumta	2	0	
		Malagi	5	0	
	Puducherry	Karaikal	17	17	
		Total	**515**	**358**	**6**

Details of the Hybrid Rice (IHRT) Kharif-2022 Trials Sent and Data Received – Public Sector

Zone	State	Location	No. of Trials allotted	No. of Trials conducted as per Data received	Reasons for the failure of the experiment
Funded Centers					
Zone I Hilly Areas	Himachal Pradesh	Malan	1	1	
Zone II Northern	Punjab	Ludhiana	3	3	
	Uttarakhand	Pantnagar	3	1	2-Labour strike
	Haryana	Kaul	3	3	
	Uttar Pradesh	Nagina	3	3	
Zone III Eastern	Uttar Pradesh	Masodha	4	4	
		Varanasi	1	1	
	West Bengal	Chinsuarah	4	4	
	Jharkhand	Ranchi	4	4	
	Bihar	Bikramgunj/Dhangain	3	3	
	Odisha	Chiplima	1	1	
Zone IV North Eastern	Assam	Titabar	4	4	
	Tripura	Arundhatinagar	4	4	
Zone V Central	Chhattisgarh	Raipur	4	4	
	Maharashtra	Sakoli	2	2	
Zone VI Western	Maharashtra	Karjat	4	4	
	Gujarat	Nawagam	4	4	
		Navsari	4	4	
Zone VII Southern	Andhra Pradesh	Maruteru	4	4	
	Telangana	Warangal	4	4	
	Karnataka	Mandya	4	4	
	Tamilnadu	Coimbatiotre	4	4	
		Aduthurai	2	1	1-Late conduct of trial
Voluntary Centers					
Zone II Northern	New Delhi	ICAR-IARI	2	2	
Zone III Eastern	Odisha	ICAR-NRRI	4	4	
	Jharkhand	Hazaribagh	1	0	1-Trial not conducted
Zone V Central	Madhya Pradesh	Jabalpur	4	4	
		Waraseoni	4	4	
Zone VI Western	Maharashtra	Sindewahi	4	4	
		Radhanagari	2	2	
		Shirgaon	2	2	
		Phondaghat	2	2	
		Vadgaon Maval	1	1	
	Gujarat	Dabhoi	4	4	
Zone VII Southern	Andhra Pradesh	Ragolu	3	3	
		Bapatla	1	1	
	Telangana	ICAR-IIRR	4	4	
	Karnataka	Malagi	1	0	1-No information
		Mugad	2	0	2-No information

Details of the Hybrid Rice (IHRT) Kharif-2022 Trials Sent and Data Received – Private Sector

Zone	State	Location	Name of the seed Company	No. of Trials allotted	No. of Trials conducted as per Data received	Reasons for the failure of the experiment
Zone III Eastern	Uttar Pradesh	Bareilly	Trimurthi Plant Sciences	1	1	0
		Faizabad	Rasi Seeds	3	3	0
	Jharkhand	Ranchi	Trimurthi Plant Sciences	1	1	0
		Ranchi	Limagarain Seed Company	2	2	0
	Bihar	Bihar Sharif	Syngenta	3	3	0
Zone V Central	Chhattisgarh	Durg	VNR seeds	4	4	0
		Raipur	Rasi Seeds	3	3	0
	Maharashtra	Nagpur	Ankur Seeds	4	4	0
Zone VII Southern	Andhra Pradesh	Rajahmundry	Bayer Biosciences	4	4	0
	Telangana	Hyderabad	Tierra Agrotech	2	2	0

Insect pest and disease reaction of entries in National Screening Nursery-1 (NSN1), Kharif 2022

Trial Name and IET No.	Pests and Diseases reaction
AVT 2-E TP	
29142	MR-NB, BS
29140	MR-LB, GD
29177	MR-LB, ShR, GD
29197	MR-LB, NB, GD, RTD
28954	MR-LB, NB, BS, GD
28964	MR-LB, NB, BS, GD
28950	MR-LB, NB, BS, ShR, GD
28960	MR-LB, NB, BS, GD
28959	MR-LB, R-NB, ShR, GD, RTD
AVT 1-E TP	
29943	MR-NB, ShR, GD, RTD
29947	MR-RTD
29958	MR-NB, ShR
29940	MR-LB, NB, BS
29975	MR-LB, NB, ShR, GD
29946	MR-LB, GD, RTD
29939	MR-LB, NB
29957	MR-LB, NB
29951	MR-LB, NB
29992	MR-LB, BS, ShR, GD, RTD
29983	MR-LB, NB, BS, GD
29964	MR-NB, GD
29694	MR-NB, ShR, GD
29689	MR-LB, NB, BS, GD
28965	MR-LB, NB, BS, GD, RTD
29692	MR-NB, GD
29691	MR-BLB, NB
29700	MR-NB
29690	MR-LB, NB, ShR, GD
29696	MR-LB, NB, ShR, GD, RTD
30632	MR-LB, NB, BS, GD
30633	MR-LB, GD
30634	MR-LB, GD
AVT 2-IME	
29233	MR-NB, ShR
28506	MR-LB, NB, BS, GD
29235	MR-BS
28353	MR-LB, NB, BS, ShR, GD
29217	MR-NB
29238	MR-LB, ShR, GD
29246	MR-NB, BS, ShR, GD
29236	MR-NB, ShR, RTD
29214	MR-LB, BLB, NB, BS, ShR, GD
28128	MR-LB, NB, BS, ShR, GD
28982	MR-LB, NB, GD
28979	MR-LB, BLB, NB, ShR
29212	MR-ShR, GD
AVT 1-IME	
29822	MR-NB, ShR, GD
29188	MR-ShR

Trial Name and IET No.	Pests and Diseases reaction
29808	MR-LB, BS, GD
29807	MR-BLB, NB, BS, ShR, GD, RTD
29770	MR-ShR, GD, RTD
29304	MR-GD
29820	MR-NB, ShR
29714	MR-BLB, ShR, GD
29726	MR-BLB, NB, ShR, GD
29735	MR-LB, NB, GD
29717	MR-LB, NB, GD
29738	MR-NB, ShR, GD
29718	MR-LB, NB, BS, ShR
29734	MR-LB, NB, ShR
29729	MR-LB, NB, GD, RTD
29715	MR-NB, GD
29708	MR-NB, ShR, GD
30695	MR-NB, BS, ShR, GD
30696	MR-LB, BS
30697	MR-BS, GD
30698	MR-LB, NB, ShR, RTD
30699	MR-LB, NB, GD
30700	MR-BS, GD
30701	MR-BS, GD
30702	MR-LB, ShR, GD
30703	MR-LB, NB, BS, ShR, GD
30282	MR-LB, ShR, GD
29203	MR-LB, BS
30284	MR-LB, BS, GD, RTD
30281	MR-LB, NB, RTD
AVT 2-IM	
29256	MR-LB, NB, ShR, GD, RTD
29290	MR-GD
29301	MR-LB, NB, GD
29257	MR-LB, GD, RTD
28489	MR-ShR
29268	MR-LB, ShR, RTD
29284	MR-NB, ShR, GD
29001	MR-LB, NB, ShR, GD, RTD
29014	MR-GD, RTD
27908	MR-LB, BLB, NB, RTD
29009	MR-LB, NB, ShR, GD, RTD
29004	MR-LB, NB, BS, GD
28997	MR-LB, BLB, NB, RTD, BS, GD
29002	MR-LB, NB, BS, ShR, GD
29000	MR-LB, BLB, NB, ShR, GD, RTD
AVT1-IM	
29826	MR-LB, R-NB, BS, GD
29833	MR-LB, BLB, NB, BS, ShR
29843	MR-LB, NB, GD
29855	MR-LB, NB, ShR, GD
29865	MR-BLB, ShR
29861	MR-BLB, NB, GD

Trial Name and IET No.	Pests and Diseases reaction
29860	MR-ShR, RTD
29850	MR-ShR
29873	MR-BLB, NB, GD
29869	MR-LB
29859	MR-NB, ShR
28523	MR-ShR
29825	MR-LB, R-NB, GD
29845	MR-NB, GD
29287	MR-LB, NB, GD
29879	MR-NB, ShR
29857	MR-GD
29742	MR-LB, NB, GD
29749	MR-LB, NB, ShR, GD
29752	MR-LB, NB, BS
28442 (R)	MR-LB, NB, BS, GD
29744	MR-NB, GD, RTD
29868	MR-LB, NB, ShR, GD
29743	MR-LB, R-NB
29877	MR-ShR, GD
29837	MR-LB, NB, ShR, GD, RTD
29741	MR-LB, BLB, NB, ShR, GD, RTD
29834	MR-ShR, GD
29748	MR-LB, BLB, NB, ShR, GD
29878	MR-LB, BLB, NB, ShR
30304	MR-LB, RTD
30757	MR-BLB, NB, ShR, GD
30758	MR-ShR
30759	MR-ShR, RTD
30760	MR-LB, NB, BS, GD, RTD
AVT 2 & 1-L	
29351	MR-LB, NB, ShB, ShR
29349	MR-ShR, GD
28544 (R)	MR-LB, BS, GD
29935	MR-BLB, NB, ShB, ShR
28524	MR-BLB, NB, ShR
29891	MR-BLB, R-NB, ShB, ShR
30821	MR-NB
30822	MR-BLB, GD
30823	MR-BLB, NB, BS, GD
30824	MR-LB, NB, BS, GD
30825	MR-BLB, NB, GD
30826	MR-NB, BS
29558	MR-BS, GD
30827	MR-LB, BLB, NB, BS, ShR
30828	MR-LB, BLB, NB, BS, RTD
30830	MR-BLB, NB, BS, GD
29546	MR-NB, ShR, GD
AVT 2-AEROB	
29411	MR-LB, NB, BS, ShR, GD, RTD
29405	MR-LB, NB, BS, ShR, GD, RTD
29396	MR-LB, NB, BS
29394	MR-LB, NB

Trial Name and IET No.	Pests and Diseases reaction
29409	MR-LB, NB, BS, ShR, GD
29421	MR-LB, NB, ShR, GD
29412	MR-LB, BS
29422	MR-LB, NB, BS
29410	MR-LB, NB, RTD
29430	MR-LB, R-NB, BS, ShR, GD, RTD
29415	MR-LB, BS, ShR
29446	MR-LB, NB
29423	MR-LB, NB, BS, GD
29436	MR-LB, ShR, RTD
29424	MR-ShR, GD, RTD
28636	MR-NB
AVT 1-AEROB	
30003	MR-LB, NB, ShR, GD
30013	MR-LB, NB, ShR
30004	MR-LB, NB, BS, ShR
30008	MR-LB, NB, ShR, GD
30023	MR-LB, NB, BS, ShR, GD
30028	MR-LB, NB, ShR, GD
30041	MR-LB, BS, GD
30020	MR-LB, ShR, GD, RTD
30022	MR-LB, NB, ShR
30000	MR-LB, NB, BS, ShR, GD
30006	MR-LB, NB, ShR
30034	MR-LB, NB, ShR, GD
30045	MR-LB, NB, ShR, GD
30035	MR-LB, ShR, GD, RTD
30052	MR-GD
30027	MR-LB, NB, ShR, GD
30021	MR-LB, NB
30005	MR-LB, NB, GD
30001	MR-LB, NB, GD, RTD
30032	MR-LB, BS, ShR, GD
30051	MR-LB,NB
30037	MR-LB, BLB, R-NB, ShR, GD
29425	MR-LB, NB, ShR, GD
30029	MR-LB, ShR
29447	MR-LB, NB, ShR, GD
30038	MR-LB, RTD
30024	MR-GD
AVT 2-MS	
29536	MR-LB, NB, ShR
29523	MR-LB, NB, ShR, GD
29539	MR-LB, BLB, NB, BS
29492	MR-LB, BS, GD
29017	MR-LB, NB, GD, RTD
AVT 1-MS	
30072	MR-NB, GD
30083	MR-LB, NB, GD
30088	MR-NB, BS, ShR
30071	MR-BS, ShR
30101	MR-NB, GD, RTD
30106	MR-LB, BLB, NB, ShB, BS, ShR, RTD
30108	MR-GD

Trial Name and IET No.	Pests and Diseases reaction
30084	MR-GD
30093	MR-ShB, BS, GD, RTD
30097	MR-BS, GD
30066	MR-BS, RTD
30075	MR-NB, BS, GD
30116	MR-LB, BLB, NB, BS, ShR, GD
30078	MR-LB, BLB, NB, ShB, GD
30085	MR-NB, BS, GD
29763	MR-LB, NB, GD
30109	MR-BS, ShR
30107	MR-GD
AVT 2 –AL & ISTVT	
29358	MR-LB, NB, ShR, GD
29360	MR-LB, NB, ShR, GD
29353	MR-LB, ShR, GD, RTD
29365	MR-LB, NB, ShR
27807 (R)	**MR-NB, ShR**
29361	MR-LB, R-NB
29354	MR-RTD
AVT 1 –AL & ISTVT	
30164	MR-GD
30174	MR-GD
30180	MR-NB
30178	MR-LB
30176	MR-LB, NB, BS, ShR
30165	MR-LB, NB, BS
30162	MR-ShR, GD
30830	MR-BLB, NB, BS, GD
AVT 2 & 1-CSTVT	
27847 (R)	MR-LB, NB, ShR, GD
30207	R-NB, ShR
30200	MR-LB, R-NB, BS, ShR
30201	MR-NB, BS, ShR, GD, RTD
AVT 2 & 1-LPT	
28821	MR-BS, GD
30233	MR-LB, NB, BS, ShR, GD
30230	MR-LB, NB, BS, ShR, GD
30241	MR-LB, BLB, NB
29549	MR-LB, BLB, ShB, BS, ShR, GD
30240	MR-LB, BLB, NB
30245	MR-LB,NB
30252	MR-LB, NB, ShR
30247	MR-LB,NB, ShR, GD
30242	MR-LB, ShR
30235	MR-LB,NB, GD
29558	MR-BS, GD
AVT 1-LNT	
29564	MR-LB, ShR
29584	MR-ShR, GD
29578	MR-BS, ShR
29574	MR-BLB, BS, GD, RTD
29576	MR-LB, BLB, R-NB, BS, RTD

Trial Name and IET No.	Pests and Diseases reaction
29577	MR-NB, BS
30270	MR-ShR, GD
30269	MR-LB, ShR
30261	MR-NB, BS
29573	MR-ShR, GD
29581	MR-ShR, GD
30273	MR-ShR, GD

Insect pest and disease reaction of entries in National Screening Nursery-HILLS (NSNH), Kharif 2022

Trial Name and IET No.	Pests and Diseases reaction
AVT 2-E (H)	
28884	MR-NB; R-GD, ShR
28206 (R)	MR-BLB, NB, GD
28883	MR-NB, RTD, GD
28890	MR-LB, NB; R-GD
28895	MR-LB, NB; R-GD
28882	MR-LB, NB, RTD; R-GD, ShR
28196 (R)	R-NB, ShB; R-GD
AVT 1-E (H)	
28897	MR-RTD; R-GD
29636	MR-LB, NB; R-GD
28880	MR-NB, RTD; R-GD, ShR
29635	MR-LB, NB; R-GD, R-ShR
29633	MR-NB; R-GD, ShR
29638	MR-NB, RTD, GD, R- ShR
28896	MR-BLB, ShB, RTD; R-GD, ShR
28893	R-GD
29640	MR-NB, RTD; R-GD, ShR
29641	MR-GD
29639	MR-NB; R-GD, ShR
28887	MR-NB, BS, ShB, RTD; R-GD, ShR
AVT 2-M (H)	
28907	MR-BLB, NB; R-GD
28217	MR-NB, RTD; R-GD
28222	MR-LB, NB; R-GD
28224	MR-RTD; R-GD
AVT 1-M (H)	
29656	MR-NB, RTD; R-GD
28915	MR-LB, NB, RTD, GD
29654	MR-LB, NB, ShB; R-GD
28906	R-GD
29643	R-GD
28914	MR-NB, RTD; R-GD
30503	MR-LB; R-GD
30504	MR-ShB; R-GD, ShR

Insect pest and disease reaction of entries in National Screening Nursery-2 (NSN2), Kharif 2022

Trial Name and IET No.	Pests and Diseases reaction
IVT-E TP	
29775	MR-NB, GD
30635	MR-NB
30636	R-NB,RTD
30637	MR-NB,BS, GS, RTD
30638	MR-LB, NB, ShR, RTD
30639	MR-NB
30640	MR-LB, NB, RTD
30641	MR-LB, NB, RTD
30642	MR-LB, NB, ShR, RTD
30643	MR-LB, NB
30644	MR-LB, NB, GD, RTD
30645	MR-NB, GD
30646	MR-NB, GD
30647	MR-RTD
30648	MR-NB
30649	MR-NB, RTD
30650	MR-LB, RTD; R-NB
30651	MR-LB, NB, BS, ShR
30653	MR-LB, NB, GD
30654	MR-NB, GD, RTD
30655	MR-LB, GD; R-NB
30656	MR-LB, NB, RTD
30657	MR-GD
30658	MR-LB, NB, ShR, GD
30659	MR-LB, NB, RTD
30660	MR-LB;R-NB
30661	MR-LB, ShR, RTD;R-NB
30662	MR-LB, NB
30663	MR-NB
30664	R-NB;MR-ShR
30665	MR-LB, NB, ShR, RTD
30666	R-NB; MR-LB, ShR, GD, RTD
30667	MR-LB; R-NB
30668	MR-GD
30669	R-NB; MR-LB, ShR
30670	MR-NB, GD
30671	MR-ShR, RTD
30672	R-NB; MR-RTD
30673	R-NB

Trial Name and IET No.	Pests and Diseases reaction
30674	R-NB; MR-ShR, GD
30675	R-NB; MR-LB, RTD
30676	R-NB; MR-LB, ShR, GD
30677	MR-LB, NB, GD, RTD
30678	MR-NB, ShR, RTD
30679	MR-NB, RTD
30680	MR-NB
30682	MR-LB, NB
30683	R-NB; MR-LBM GD, RTD
30684	R-NB; MR-LB
30685	R-RTD; MR-NB, GD
30686	MR-NB, ShR, RTD
30687	MR-GD, RTD
30688	MR-LB, NB
30690	MR-LB
30691	MR-LB, NB, GD, RTD
30692	R-NB; MR-LB, GD, RTD
30693	MR-LB, NB, ShR
30694	MR-NB, GD
IVT-IME	
30704	R-NB; MR-LB, RTD
30213	MR-LB, NB
30705	MR-GD
30706	MR-NB
29952	MR-LB, NB, ShR
30707	R-NB; MR-LB, RTD
30708	R-RTD; MR-NB
30709	MR-NB, RTD
30710	MR-LB, NB, ShR, RTD
30711	MR-LB, NB, ShR
30712	MR-NB, Shr
30713	MR-NB
30714	MR-NB
30715	MR-LB, NB, ShR
30717	R-NB; MR-LB
30718	R-NB; MR-ShR
29950	MR-RTD
30719	R-NB; MR-LB,ShR
30720	MR-LB, NB, GD

Trial Name and IET No.	Pests and Diseases reaction
30721	MR-LB, MNB, RTD
30722	MR-RTD
30723	MR-LB, NB, ShR
30724	MR-GD
29960	MR-RTD
30725	R-RTD;MR-LB
29948	MR-ShR, RTD
30726	MR-NB, ShR, GD, RTD
30727	MR-NB, ShR, GD
30062	R-NB, ShR, RTD
30728	MR-GD
30729	MR-NB, GD
30730	R-NB;MR-ShR
29976	MR-NB, RTD
30732	MR-NB
30733	MR-LB, NB, ShR
30735	MR-NB, RTD
30736	MR-LB, MNB, GD
29990	MR-LB, NB, RTD
30737	R-NB; MR-LB, ShR, GD, RTD
30738	MR-ShR
30739	MR-NB, GD
30740	R-NB; MR-LB, BLB, RTD
30741	MR-LB, NB,ShR
30742	MR-RTD
30743	R-NB;MR-LB, GD
30744	MR-NB,ShR, GD
30745	MR-NB,ShR, RTD
30746	MR-LB, NB, GD, RTD
30747	MR-LB, NB,ShR
30748	R-NB; MR-LB, BLB, BS, ShR, RTD
30749	R-NB; MR-LB,ShR
30750	R-NB; MR-LB, GD, RTD
30751	MR-NB,ShR, GD, RTD
30752	R-NB; MR-LB, BS,
30753	R-NB; MR-BLB, BS
30754	MR-NB, ShR, GD
30755	MR-BLB, RTD
30756	R-RTD; MR-BLB
IVT-IM	
30761	MR-BLB, NB, GD

Trial Name and IET No.	Pests and Diseases reaction
30762	MR-LB, NB, RTD
30763	R-NB; MR-LB,ShR
30764	R-NB, MR-LB,ShR
30765	MR-RTD
30767	MR-BS, ShR
30768	R-NB; MR-LB,ShR
30769	MR-NB, RTD
30770	R-NB; MR-LB,ShR
30771	MR-LB, NB, GD
30772	R-NB;MR-BLB, BS, ShR, GD
30773	MR-LB, NB, BS
30774	MR-BS
30775	MR-NB, ShR, GD
30776	MR-NB
30777	MR-NB, ShR, RTD
30778	MR-LB, NB
30779	MR-NB
30780	MR-NB
30781	MR-NB, GD, RTD
30782	MR-ShR, RTD
30783	MR-ShB, GD, RTD
30784	MR-LB, NB
30785	MR-NB
30786	MR-LB, BLB ShR,R-NB
30787	MR-NB, ShR, GD
30788	MR-NB, RTD
30789	MR-BLB, NB
30790	MR-LB, GD
30791	MR-LB, NB, ShR, GD
30792	MR-NB, ShR
30793	MR-GD, RTD
30794	MR-BLB, NB, ShR,
30795	MR-LB, NB, BS, ShR, RTD
30796	R-NB, ShR
30797	MR-RTD
30798	MR-BLB, NB, ShR, GD
30799	R-NB, MR-BS, ShR, RTD
30800	R-RTD; MR-ShR
30801	MR-BS, GD, RTD
30803	MR-NB
30804	R-NB
30805	R-NB; MR-BLB, ShB, ShR

Trial Name and IET No.	Pests and Diseases reaction
30806	MR-LB, NB, ShR, RTD
30807	R-RTD; MR-GD
30808	MR-NB, ShR
30809	MR-ShR
30810	R-NB; MR-LB, ShR, RTD
30811	MR-LB,ShR
30812	MR-NB,ShR, GD
30813	MR-NB, GD
30814	MR-NB, GD, RTD
30815	MR-NB, RTD
30816	MR-NB, GD
30817	MR-BLB, NB
30818	MR-BLB, NB, BS
30819	MR-BLB
29805	MR-ShB, BS, RTD
30820	MR-NB,ShR
IVT-L	
30831	R-NB; MR-LB, ShR, BLB, BS
30832	MR-NB,ShR
30833	R-NB; MR-LB,ShR
30834	MR-NB
30835	MR-LB, BLB, NB, ShR
30836	MR-ShR, RTD
30837	MR-ShR, RTD
30838	MR-LB, NB, ShR
30839	MR-NB,ShR
30840	MR-NB, BS, ShR
30841	MR-LB, NB
30843	MR-ShR, GD, RTD
30844	R-NB;MR-ShB, ShR, RTD
30845	R-NB; MR-LB, ShR, RTD
30846	MR-NB
30847	MR-NB
30848	MR-NB, BS
30849	MR-GD, RTD
30850	R-RTD
30851	R-RTD; MR-NB
30852	MR-NB, BS, ShR
30853	MR-LB, NB, GD
30854	MR-NB
30856	R-NB; MR-LB, BLB, BS, ShR
30857	R-GD;MR-RTD

Trial Name and IET No.	Pests and Diseases reaction
30858	MR-GD
30859	R-NB
30860	MR-ShR,RTD
30861	R-NB; MR-LB, ShR
30862	MR-NB, ShR, GD, RTD
30863	MR-GD, RTD
30864	MR-NB,ShR
30865	MR-NB, ShR
30866	R-RTD; MR-LB, NB, ShR
30867	MR-NB, ShB, ShR
30868	MR-LB, GD
30869	MR-LB, NB, ShR, RTD
30870	MR-NB, RTD
30871	MR-BLB, NB, ShR, RTD
30872	R-NB;MR-ShR, RTD
30873	MR-BLB, NB, ShR
30874	MR-BLB, RTD
30875	MR-BLB, NB, ShR, RTD
30876	MR-NB
30877	MR-LB, NB
30878	MR-BLB, RTD
30879	MR-NB, ShR, RTD
30880	R-NB;MR-LB, BLB, ShR
30881	R-NB; MR-BLB, ShB, ShR
30882	R-NB;MR-BS, RTD
30883	MR-ShR, RTD
30884	MR-GD
30885	MR-LB, BLB, NB, BS
30886	MR-BLB, NB, ShR
30887	MR-NB, ShR
30888	MR-LB, NB, ShR
30889	R-NB; MR-BLB,ShR, RTD
IVT-AEROB	
30890	MR-NB,ShR, GD
30891	R-NB, MR-ShB, BS, ShR, GD
30892	MR-NB, RTD
30048 (R)	MR-NB, GD, RTD
30893	R-NB; MR-LB, BS, GD, RTD
30895	MR-LB, NB, ShR, GD
30896	MR-LB, NB
30897	MR-LB, NB, GD

Trial Name and IET No.	Pests and Diseases reaction
30898	MR-LB, NB, BS, ShR
30899	MR-NB
30900	MR-LB, NB, GD, RTD
30901	MR-NB, RTD
30902	R-RTD; MR-LB, NB
30903	MR-NB
30904	MR-LB, NB, ShR, GD, RTD
30905	MR-LB, NB
30906	R-NB; MR-LB, BS, RTD
30907	R-NB; MR-LB, RTD
30908	MR-NB, RTD
30031 (R)	MR-NB, GD
30909	MR-NB
30910	MR-LB, NB
30911	MR-NB, GD
30912	MR-NB, RTD
30913	MR-NB
30914	MR-NB
30915	MR-ShR, GD
30917	MR-NB, GD, RTD
30918	R-NB, MR-GD
30919	MR-LB, NB, RTD
30920	R-GD; MR-LB, NB
30921	MR-NB
30922	R-RTD; MR-LB, NB, ShR, GD
30923	MR-LB, NB
30924	MR-LB, NB, ShR, RTD
30925	MR-NB
30926	MR-NB, GD
30927	MR-NB
30928	MR-NB
30930	MR-LB, RTD
30931	MR-LB, RTD
30932	MR-NB, RTD
30933	MR-BS, RTD
30934	MR-NB, GD, RTD
30935	MR-NB, BS, RTD
30936	MR-NB
30937	MR-NB
30938	MR-NB
30940	MR-LB, NB
30941	MR-NB, GD

Trial Name and IET No.	Pests and Diseases reaction
30942	MR-LB, NB, GD,
30943	R-NB; MR-LB, GD
30944	MR-LB, NB
IVT-MS	
30945	MR-BLB, NB, ShB, ShR
30948	MR-NB, GD
30949	MR-RTD
30951	MR-BLB, NB, ShR
30952	MR-NB
30953	MR-RTD
30954	MR-NB, ShR
30955	MR-NB, GD
30956	MR-NB
30957	MR-GD
30958	MR-NB, GD
30960	MR-NB
30961	MR-LB, BLB, NB, RTD
30962	MR-GD
30963	MR-ShR
30964	R-NB; MR-ShR
30965	MR-LB, BLB, NB, ShR
30966	MR-ShR
30967	MR-BLB, GD
30968	MR-BLB
30969	MR-NB
30970	MR-LB, NB, ShR, RTD
30971	MR-BLB, NB, ShR
30972	MR-NB, ShR
30973	MR-BLB, NB, ShB, ShR, RTD
30974	R-NB; MR- ShR, GD
30975	R-NB; MR-BLB,BS, ShR
30976	R-NB; MR-LB, ShB
30977	MR-ShB
30978	MR-NB, ShR, GD
30979	MR-LB, NB, ShR, RTD
30982	MR-GD, RTD
30983	MR-BLB, NB
30984	MR-BLB, NB, ShR
30985	MR-ShR
30986	MR-NB, ShR
30987	MR-NB, GD, RTD
30988	MR-GD

Trial Name and IET No.	Pests and Diseases reaction
30989	MR-RTD
30990	MR-NB, ShR
30991	MR-NB, ShR, RTD
30992	MR-NB, GD, RTD
30993	MR-GD
30994	MR-NB, RTD
30995	MR-NB, ShR, RTD
30996	MR-NB, ShR
30997	MR-RTD
30998	MR-GD
30999	R-RTD; MR-LB
31000	MR-ShR, RTD
31001	MR-ShR
31002	MR-BLB, NB
AVT & IVT-BIOFORT	
28694	MR-RTD
31003	MR-LB, NB, RTD
31004	MR-LB, NB, ShR, RTD
29484 (R)	R-RTD; MR-LB, NB, ShR
31005	MR-LB, NB, GD, RTD
31006	MR-ShR, RTD
31007	MR-LB, NB, RTD
31008	MR-NB, RTD
31009	MR-NB
31011	MR-LB, NB, GD, RTD
31012	MR-RTD
29482 (R)	MR-ShR
31014	MR-NB, BS, ShR
31015	MR-NB, BS, GD
31016	MR-RTD
31017	R-RTD
31018	MR-RTD
31019	MR-LB, NB, ShR, RTD
31020	MR-LB, NB, BS, ShR
31021	MR-LB, NB, BS
31022	MR-NB
31023	MR-NB, BS, ShR, RTD
31024	MR-GD
31025	MR-LB, NB, RTD
31026	MR-RTD

Trial Name and IET No.	Pests and Diseases reaction
31027	MR-NB, GD, RTD
31028	MR-NB, ShR, GD, RTD
31029	MR-NB, ShR, GD, RTD
31030	MR-NB, ShR, GD, RTD
31031	R-GD; MR-LB, NB, ShR, RTD
31032	R-ShR; MR-RTD
31033	MR-ShR, GD, RTD
31034	MR-NB, ShR, GD
31035	R-NB;MR-ShR
31036	MR-GD, RTD
31037	MR-LB, NB, ShR
31038	MR-NB, ShR, RTD
31039	MR-ShR, GD, RTD
IVT-AL & ISTVT	
31040	MR-NB, GD
31041	R-NB; MR-LB, RTD
31042	MR-LB, NB, ShR, GD, RTD
31043	MR-NB, GD, RTD
31044	R-NB; MR-LB, BS, GD
31045	MR-LB, NB, GD
31046	MR-LB, NB, ShR, GD
31047	R-NB; MR-LB, ShR, GD
31048	MR-LB, NB
31049	MR-NB, ShR, RTD
31050	R-NB; MR-LB, BS, GD
31051	R-NB; MR-LB
31052	MR-LB, NB, ShR, GD, RTD
31053	MR-LB, NB, ShR, GD
31054	R-NB; MR-LB
31055	MR-NB, ShR, RTD
31056	MR-NB, BS, ShR
31057	MR-NB, GD
IVT-CSTVT	
31058	MR-NB, ShR, GD
31059	MR-LB, NB, BS, RTD
31060	MR-NB, ShR, GD
31061	MR-ShR, GD
31062	MR-NB
31063	MR-LB, NB, GD, RTD
31064	MR-BLB, NB

Trial Name and IET No.	Pests and Diseases reaction
31065	MR-LB, NB, RTD
31066	MR-ShR, RTD
31067	R-GD; MR-NB, ShR,
31068	MR-LB, NB, BS
31069	MR-NB, ShR, GD
31070	MR-NB, ShR
31071	MR-NB, GD
31072	MR-LB, NB, BS, ShR
31073	MR-NB
31074	MR-LB, NB, RTD
31075	MR-LB, NB, BS, GD, RTD
31076	R-GD; MR-LB, NB, BS, ShR, RTD
31077	R-NB; MR-LB, BS, GD
31078	MR-LB, NB, RTD
31079	R-NB; MR-LB, BS
31080	MR-LB, NB, ShR, RTD
31081	MR-NB, ShR, GD, RTD
31082	R-RTD; MR-NB
IVT-ASG	
31084	MR-LB, NB
31085	MR-ShR
31087	MR-NB, ShB, ShR
31089	MR-GD
31090	MR-NB, ShR, RTD
31091	MR-NB
31092	MR-NB
31093	MR-LB, NB
31094	MR-ShR, RTD
31095	MR-NB
IVT-LPT	
31096	MR-NB, BS, RTD
31097	MR-NB, RTD
31099	MR-NB
31100	MR-GD
31102	MR-NB, ShR
31103	MR-RTD
31104	MR-ShR
31105	MR-BLB, NB
31106	MR-LB, NB, ShR
31107	MR-NB
31109	MR-NB, GD, RTD

Trial Name and IET No.	Pests and Diseases reaction
31110	R-GD; MR-BLB, NB,ShR
31111	MR-RTD
31112	MR-NB, RTD
31113	MR-NB, BS
31114	MR-LB, NB, ShB, ShR
31115	MR-NB, ShR
31116	MR-GD
IVT-LNT	
31117	MR-NB, ShR
31118	MR-NB, ShR, GD
31119	MR-NB, ShR, RTD
31120	MR-BLB, NB, ShR
31121	MR-ShR, RTD
31123	MR-GD
31125	MR-RTD
31126	MR-ShR
31127	MR-LB
31128	R-RTD
31129	MR-RTD
31130	MR-NB, Shr
31132	MR-NB, ShR, GD, RTD
31134	MR-GD
COLOURED RICE	
31136	MR-RTD
31137	MR-BS
31138	MR-NB, ShR
31139	MR-LB, NB, ShR, GD, RTD
31140	MR-LB, BLB, NB
31141	R-NB; MR-LB, GD
31142	R-NB
31143	R-NB; MR-LB, RTD
31145	MR-LB, NB, RTD
31147	MR-NB, ShR
31148	MR-NB, ShR
31149	MR-GD, RTD
31150	MR-LB, NB, GD, RTD
31151	MR-LB, NB, GD
31152	R-NB; MR-LB, ShR,
31153	MR-NB, BS, ShR, GD

Insect pest and disease reaction of entries in National Screening Nursery-HILLS (NSNH), Kharif 2022

Trial Name and IET No.	Pests and Diseases reaction
IVT-E (H)	
30482	MR-NB; R-GD
30483	MR-LB, NB; R-GD
30484	MR-LB, NB, RTD, GD
30485	MR-LB; R- NB, GD, ShR
30486	MR-LB, GD
30487	MR-NB; R-GD
30488	R-NB, GD
30489	MR-NB, GD
30490	MR-NB, GD
30491	MR-NB, GD
30492	MR-NB, RTD; R-GD, ShR
30493	R-NB; MR-RTD, GD
30494	MR-NB, GD
30495	MR-NB; R-GD
30496	MR-NB; R-GD
30497	MR-NB, RTD; R-GD
30498	R-RTD; R-GD
30499	MR-ShB; R-RTD, GD
30500	MR-RTD; R-GD
30501	MR-NB; R-GD
30502	MR-BLB, NB, GD
IVT-M (H)	
30505	MR-NB, GD
30506	MR-RTD, GD
30507	MR-LB, RTD, R- NB, GD
30508	MR-NB, RTD;GD, R-ShR
30509	MR-NB; R-GD
30510	R-RTD; R-GD
30511	R-NB, RTD; R-GD, ShR
30512	R-NB; R-GD, ShR
30513	MR-BS, RTD, GD
30514	MR-LB, NB, ShB; R-GD
30515	R-NB, MR-BS, RTD; R-GD, ShR
30516	MR-RTD,GD
30517	MR-NB, RTD, GD, R-ShR
30518	MR-NB, ShB; R-GD

Trial Name and IET No.	Pests and Diseases reaction
30519	MR-BLB, NB, RTD; R-GD
IVT-U (H)	
30520	MR-NB; R-GD, ShR
30521	MR-NB; R-GD
30522	MR-NB, RTD, GD
30523	MR-NB; R-GD
30524	MR-NB, GD, R-ShR
30525	R-NB; MR-RTD, GD
30526	MR-NB, ShB, RTD, GD
30527	MR-NB, BS, GD
30528	MR-NB, RTD; R-GD
30529	R-NB; RTD, GD
30530	R-NB, GD; MR-BS
30531	MR-LB, NB, ShB; R-RTD, GD

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		

Acknowledgements

The All India Coordinated Rice Improvement Project (AICRIP) has made significant contributions since its inception to rice research. This is 58th year of successful conduct of AICRIP. At the outset, we are indebted to all the scientists working at the various funded and voluntary centers across India for successfully conducting the AICRIP trials, participating in the monitoring tours and timely submission of the trial data. Special compliments to the scientists of the Crop Improvement Section in general and Plant Breeding department at ICAR-Indian Institute of Rice Research (IIRR), ICAR-National Rice Research Institute (NRRI) and ICAR- Indian Agricultural Research Institute (IARI) in particular for their hard work and perseverance without which it would not have been possible to complete the AICRIP report and publish it in time.

The help and services provided by the technical staff, senior research fellows, research associates, project staff, students and skilled assistants of plant breeding and hybrid rice departments in completing different works associated with coordination is greatly appreciated. Many thanks to the help and support extended by Mr. M. Vijay Kumar, Mr. Md. Tahseen, Mr. Sadath Ali, Mr. P. Koteshwar Rao, Mr. R. Sathamaiah, Mr. Lalan Kumar Singh, Mr. Bidyasagar Mandal, Mr. Debakanta Nayak, Mr. Debabrata Samal, Mrs. Bibekananda Ray, Mr. Manoj Patra, Mrs. Soumya Tanaya Sahoo, Mr. Devinder Singh, Mr. K. Sundeep Raj, Mr. G. Goverdhan Raj, Mr. E. Bhasker, Mrs. S. Siva Jyothi, Mr. Syed Feroz, Mr. M.Suresh, Ms. K. Chaitanya, Mrs.Ch. Swathi, Ms. M. Pooja, Ms. P. N. Lakshmi, Mr. Sashi Kumar, Mr P. Srikanth, Mr. P. Nagaraju, Mrs. Ms. Beulah and Mrs. Ranjan Kumar Bhoi for their commitment in packing of seed materials, conduct of trials, data recording, data entry and verification and other activities related to AICRIP. The services of Mr. G. Krishna Reddy, Mr. P. Narsing Rao and other staff of quality lab deserve special appreciation for their help in quality analysis. Also, the contribution of Mr. Mohd. Tahseen in packing of trials and their timely dispatch to the cooperators deserves a special mention.

Special acknowledgements are to Mr. E. Nagarjuna for his extensive contribution to the coordination work in the preparation of trial constitution, seed dispatch, data analysis; report typing, tables and appendices, providing other key inputs including typesetting and layout of AICRIP report. We also thank the skilled and unskilled assistants of Plant Breeding and Hybrid Rice and other staff of ICAR-IIRR for their contribution and support.